PALMYRA REGION STRATEGIC ACTION PLAN

ECOTOURISM AND NATURE TOURISM IN PALMYRA REPORT

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May and June 2008

MUNICIPALITY ADMINISTRATION MODERNIZATION PROJECT MED/2004/6264: EUROPE AID/119822/SV/SY

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Glossary:

PA: Protected Area

DNEC: Desert Culture and Nature Education Center

- MAAR: Ministry of Agriculture and Agrarian Reform
- DGCS: Direzione Generale per la Cooperazione allo Sviluppo (Ministry of Foreign Affairs' Italian Development Cooperation)
- IUCN: International Union for Conservation of Nature (also known as The World Conservation Union)



1. Natural Heritage of Palmyra desert

The Desert Culture and Nature Education Center (DNEC), at the entrance of Al Talila PA (see chapter 3.1), is the best place to start for getting acquainted with the natural and cultural heritage of the Palmyra desert: this recently established education facility, unique in its king regionally, present the local cultural and natural assets through a wealth of locally-taken high-quality photos and scientifically-based texts.

1.1 Landscape and ecosystems

The Syrian desert, known as Al Badia, is actually a desertic or arid steppe, experiencing a quite severe desertification process. It comprises more than half of the country's total surface. Palmyra, locally known as Tadmor, centrally located in Al Badia, is placed in a quite scenic setting at the border between a craggy and barren mountain range and plateau to the north, and the endless desertic plains to the south. The latter is the northern edge of the Arabian plateau extending into Jordan, Saudi Arabia and Iraq, also known as Al Hamad desert. This landscape is characterized by a rocky barren emptiness, a lunar landscape with a huge horizon bordering it and the sheep and camel herds and flat tents of Bedouin nomadic pastoralists all scattered around. Four are the ecosystems recognizable within the Palmyra desert.

Flat and undulating scrubland. In all directions except for the north, the Palmyra surroundings are represented by this ecosystem, ranging 250-500 m a.s.l., and appearing as floodplains and



nomads from immemorial times.

rocky pavements, drainages (wadis), sand hummocks and dunes and undulating terrain and low hills. The vegetation cover is made up of dwarf perennial shrubs seasonally intermixed with annual plants; Tamarix spp. dominates along wadis. Al Talila PA (see chapter 3.1) is probably the most pristine portion of this ecosystem of the entire AI Badia. Al Talila PA topographically stands out from the surrounding landscape, as it sits on an ancient eroded ridge, which is clearly distinguishable from the distance. Because it supports rangelands particularly suitable for camels, it has been known by Bedouin

Slow-rolling mountains, plateau and cliffs. There are five main ranges of mountains to the north of Palmyra: Jebel Abiad, Abu Rigimin, Sha'ar, Mraie, Jebel Bilas. They are made up of

sedimentary rocks (limestone, marl, sandstones) calcareous formina outcrops and plateau, with plenty of gravels and loam along valleys. It is part of the so-called Tadmor mountain range, crossing the northern half of Al Badia, with orientation from south-west to north-east (approximately running from Damascus to Deir-ez-Zoir). These mountains, ranging from 400 to 1300 m a.s.l., are characterized by slow rolling peaks alternated to sheer limestone cliffs, and by a complex system of wadis (the larger one is called Wadi al Abiad). Vegetation is represented by sparse



dwarf perennial shrubs and scattered trees *Pistacia atlantica*, intermixed with annual plants depending on altitudes. One of the largest sheer limestone cliff is visible about 15 km north from Al Talila PA, locally known as Douara, at the base of which a spring occurs giving drinkable water for the whole Palmyrean population. A Palaeolithic fabric of flints was discovered in the 1990s in a cave close to Douara cliff, also visible from the distance while on the road to or from Al Talila.

Seasonal wetlands. These are alluvial depressions of variable shape and size, filled with water according to rainfall. They can be shallow salt-lake (sabkhat), shallow freshwater lake (khabbra), pond (barka) or dammed (sed) artificial freshwater reservoir This eco-system support many waterbirds during winter and migration time.

Oases. These man-made ecosystems are scattered all around Al Badia and are made up of palm trees, olive trees, pomegranate trees, bushes, agricultural fields cultivated by means



of pumped underground water. The specific location of the oasis of Tadmor and the hydrologically linked seasonal salt lake Sabkhat Al Moh (within the southern vicinity of the town) is evidently



related to the presence of the adjacent mountain range with their higher annual average rainfall. The oasis and sabkhat are at the lowest point of Al Badia, draining water from everywhere around, even from the distance – e.g., the fossil water coming from the anti-Lebanon mountain range.

1.2 Climate

The Palmyra desert is affected by extremes of climate. In winter temperatures often fall below freezing at night, strong winds blow and most of the annual rainfall of around 120 mm, in average, is received. Inter-annual variability of rainfall is common, as also extended periods of drought (cycles of 5-7 years). The mountains around Palmyra are sometimes covered with snow and very occasionally light snow may fall everywhere. The summers are dry and very hot, with temperatures during the day often exceeding 40 °C, and sometimes approaching 50 °C.

Wind is common at night and in the early morning cool breezes may give relief from the heat. A quite strong western wind blows especially during spring and summer. Rainfall in the steppe is erratic: it could be dense and localized. Short storm of rainfall of more than 20 mm somewhere in AI Badia could result streaming the floodplains, while other areas remain dry. This is due to the lack of vegetation. Conditions for plant growth are adversely affected by the combination of short days and low temperatures when effective rainfall is occurring, and high temperatures and no effective rainfall at other times.

1.3 Flora¹

The last flora inventory for Al Talila PA, carried out in 2003, shows that at least 90 plant species occur inside the PA, and that they are distributed in 24 plant families. Compositae, Gramineae and Cruciferae are the dominant families, representing about 45 % of the total number of plants in the PA. Boraginaceae, Chenopodiaceae and Papilionaceae constitutes 30 % over the total plants.

¹ Extract from H. Khaddour (in prepar.)

Four plants are dominant in al Talila PA: *Anabasis syriaca*, *Artemisia herba alba*, *Haloxylon salicornicum*, and *Achillea fragrantissima*. In addition to its nutritional value as feed for wild and domestic animals, the vegetation of the PA has another importance value: several species are used in the traditional medicine by the indigenous people (e.g., *Achillea* spp., *Artemisia herba alba*, *Chenopodium* spp., *Arnebia* spp., *Ziziphora tenuior*). Because of its significant habitat variation, Al Talila holds the highest diversity of perennial plants in the Palmyra desert, with dwarf scrubs being dominant.

Passing from the outside to the inside of the PA, it is quite remarkable to notice the difference in the vegetation coverage, a concrete result of several years of sound management (the pastures of al talila are protected since early 1990s). The vegetation cover is graduated from short annual grass to perennial scrubs. The diversity of annual flora (grasses, legumes and forbs) is also significant, an important seasonal feed supply for both wild and domestic herbivores. As a result of



a 12-year protection regime, the plant cover in Al Talila is significantly richer than in the surrounding unprotected rangelands.

Three macro-habitats are relevant for describing the flora of Al Talila: undulating plains, sand dunes and drainages or wadis. Undulating plains stand as the maior topographic component of A Talila PA. A surprisingly high variety of annual plants makes a lively coloured carpet during the springtime. Three major groups of annuals can be found: grasses,

forbs, legumes.

Since 1996 preparation of a reference herbarium was started with the purpose of documenting plants occurring in the project area and in the Palmyrean Al Badia. Up to present 249 plant species (43 families) were prepared and included in the project herbarium. At the beginning of 2002, a small botanical garden was established in front of the recently established DCNEC of the PA, with the aim of raising public environmental awareness, facilitating interpretation about Al Badia plants, and becoming a precious genetic and documentation resource.

The Abu Mingel PA (see chapter 3.2) environment, within the northern mountain range, is made up of stony and sparsely vegetated steppe. A large drainage (Wadi Abiad) dominated the area, composed of a complex systems of micro- and macro-wadis separated by low flat and slow-rolling micro-ridges. The soil, almost lacking organic matter (< 1 %), is composed by a mix of loam, gypsiferous and calcareous rock widely covered by gravel and stones. Sparse perennial dwarf shrubs, not exceeding 20-25 cm in height, are the only vegetation occurring, dominated by *Salsola vermiculata*. The dwarf scrub *Salsola volkensi* dominates the annual vegetation component. Annual grasses scantly occur along larger wadi beds whose dominant vegetation is *Tamarix* spp. The upper portion of these flat and slow-rolling micro-ridges (at an average altitude of 700-800 m a.s.l.) is the key feeding habitat of N. Bald Ibis.

1.4 Fauna

The Palmyrean Al Badia supports an interesting wildlife community belonging to the so-called Turo-Iranian zoogeographic region, Africa and Western Palearctic. A total of 306 species of

vertebrates, and 31 taxa of invertebrates were detected and identified through a 3-year intensive surveying done by the DGCS/FAO Palmyra project during 2000-03.

Within the undulating desert plains a substantial populations of hare and rodents (1 species of jird and 2 species of jerboas) occur, supporting a guild of 5 mid-sized and 3 large-sized carnivore species, and at least 6 snake species in addition to the conspicuous Monitor Lizard Varanus griseus. The steppe scrubland is also important for three family of Passeriformes birds (larks, shrikes and wheatears) typical of open habitats, and for several species of migrating birds of prey (harriers, eagles. vultures buzzards. and



falcons); 80-100 common cranes spend the winter in AI Talila PA and adjacent salt-lake every year.

The rocky cliffs to the north of Palmyra are the breeding habitat for several large sized raptors like the Eagle Owl, Golden Eagle, Griffon Vulture, Egyptian Vulture, and the swifts. In the past it was also the breeding habitat for large falcons whose populations were unfortunately completely swept out by falcon hunters. Only small falcons such as the Kestrel and scattered Lesser Kestrels still nest in this habitat nowadays. Greater Sand Plover breeds along the slopes of mountains. This environment was once the breeding habitat of the Northern Bald Ibis, whose large colonies nesting on sheer cliffs were common until 20-30 years ago (Serra et al. 2003). This habitat also provide the only safe diurnal refuge from man persecution for the Striped hyena and the wolf.

Seasonal water bodies host wintering bird species (e.g., cranes, flamingos, ducks, dunlins and avocets) and passage migrant birds (storks, stints, sandpipers, plovers and lapwings), for a total of



about 80 species. Migrant waterbirds, mostly passing during spring, use these wetlands as en-route stopovers to feed and rest. Kentish Plover is the only bird constantly breeding yearly on the shores of sabkhat.

Oases are a very important refuge for diurnal migrating birds, like several raptors and the Bee-eater, as trees are used to overnight safely from predators. As this ecosystem is very rich in invertebrates, especially during spring, it is important for all kind of insectivore song birds: it is the

wintering habitat for Chiffchaff, Chaffinch, Whinchat and Stonechat, and the breeding habitat for Eastern Olivaceous Warbler and Menetries's Warbler. A toad species occurs in the oasis, which is also the diurnal refuge of the Asiatic Jackal.

1.5 Culture, traditions and socio-economics of Bedouin nomads²

The area of Al Talila is historically an important one for nomadic Bedouins raising camels. It is very close to the archeologically renown town of Palmyra where Bedouins can trade their livestock and relative products and where they can find all kind of supplies they need. Al Talila vegetation is dominated by a dwarf scrub known as Al Remth which is a favourite feed by camels. Al Remth is not an important feed for sheep, and in fact sheep raisers consider this scrub as a problem that causes illness for sheep. Al Talila is traditionally regarded by Bedouins as an ideal place for the wintering, due to the availability of firewood, as well as for spending summer time due to availability of several water sources. Several Roman wells occur inside the 22,000 ha of the PA, while others occur within the buffer zone.

Al Talila is also known by locals (either nomadic Bedouins and Palmyrean dwellers) as an important place for truffle collection, a significant income generating resource appearing in spring only in the years of good winter rainfall. Al Talila was also known for being a preferred habitat by gazelles, because of occurrence of a pasture known as Eddesi, and also because it is a good shelter to hide from hunters. Because of the quality of resource available, Al Talila has always been a strategic place of Al Badia, in the past stage of conflicts among different tribes of Bedouins.

At an early period of French mandate, Rowala tribe "conquested" Al Talila from Sba'a tribe, pushing them to Kdaim, 100 km north of Palmyra. Rowala originated from a very large tribe known as Aniza, that in turn originated from the grandfather Wa'eil (i.e., all the descendents are known as Abu Wa'eil). Rowala, and few elements of Beni Khaled tribe, remained the traditional users of Al Talila until the mid 1970s. At that time Rowala moved to Saudi Arabia.

Al Talila was then re-occupied by Sba'a tribe, which is still using the place at present days. Bedouins used to stay in Al Talila for about six to seven months a year (November to May), then they used to leave to higher places. During summer time Al Talila becomes hot, dusty and supposedly dangerous because of scorpions and snakes occurrence. Bedouin tribes economy largely depended on camel raising - the average herd size per family did not exceed



150 heads of camels. The main diet of these people consisted of dates, camel milk and bread. During spring they used to add to their diet truffle, mushroom and different type of annual plants such as Malva spp. and Zub Hlail.

Most Bedouin families who used to live in Al Talila, like other Bedouin families within Al Badia, were extended families with average size of 12-13 individuals. The average size of the nuclear family was 3-4 individuals. Bedouins used to gather at one place within Al Talila, and when they moved, they did so all together, i.e., whole tribes of about 200 tents. Tents were made of goat hair as at present.

Kharboush is a tent with only one pole in the middle, holding the whole structure, and it is usually used by poor individuals and widows. Larger tents can have up to a max of nine central poles, and are inhabited by rich Bedouins and Sheikhs. Tents interior used to be parted by sacks and

² Extract from T. Razzouk (in prepar.)

mattress into three divisions: Rab'a used by men to receive hosts, a bed room, and Mahram used mainly by women for cooking, having bath, cleaning, etc. The main cleaning materials used were soil and Jelo [(prepared by burning a shrub known as Shnan (Anabasis syriaca)]. Nowadays Bedouins use Zerb, a kind of coloured curtain or separe, to part the tent interior.

Bedouins occurring within AI Talila, like everywhere else within AI Badia, are very hospitable. Traditionally they used to receive anybody approaching their tents, without asking information about the itinerary and the purpose of the travel, but quickly providing him with water, bitter Arabic



coffee and food. The traditional custom is to ask the host information about the itinerary and the purpose of the travel only after three days.

This was a point of honor. The most hospitable man, as it goes, is "the one who never put the fire off". Serving bitter Arabic coffee was and still is considered a real indicator of hospitability, а prestigious drink traditionally offered by Sheikh and influent people. Several poets mentioned bitter coffee in their poems. Bedouins poets often mentioned AI

Talila in their poems. Traditional Bedouin dress used to be very simple. Men wear a long dress known as "Jillabieh", with a short dress as underwear called "Gasier", and a scuff on the head (Asmah) tied with a rope made of camel hair.

Women usually wear long dresses as well, combined with a long underwear, and a scuff on the head called "Hibrieh". Bedouins used to treat illness by medicinal plants and also by burning in the Kai way. They also treated their livestock in the same way. Women make-up was milk itself, Ghee and Kuhel, while their perfumes was made from some herbs such as Mahlab and Kurunful".

Due to the camel grazing plan agreed in the framework of the FAO/DGCS Palmyra project in 1998, Al Talila has been used until 2005 from six to seven months per year, from November to May, by 29 Bedouin families who raise about 1500 camels (i.e., ca. 20% of the total number of camels in Syria). The number of camel heads owned by each household ranges from 30 to 350 (average = 50-60 heads). Most of them belong to the Sba'a tribe.

The majority of camel raisers are nomadic (73 %), the rest are semi-settled (17 %) or settled (10 %) - in the latter cases, the camel owner can live either in Palmyra or in Baggali, 60 km to the north of Palmyra, hiring somebody to look after his herd. Only 10 % of camel families were ranked as poor, while 52 % are ranked as rich - the rest is in between. Camel herders raise camels mainly for meat production. Camel hair and milk in particular are rarely utilized, as they believe that selling milk and / or processing it is against their tradition and contradict with religion. Camel milk is used by elderly people, while nowadays young generations prefer sheep milk if available. They sometimes use camel hair to make parts or repair their tents.

Three villages where settled Bedouin live, are found around AI Talila PA: Arak, Munbateh and Abbasieh – which are also 3 Bedouin Cooperatives. Arak village is located about 30 km north-west of AI Talila. It is an historical village located beside an oasis very well known for the quality of its water. It is the largest settlement found in the buffer zone of PA. The date of its foundation being unknown, Arak is known for having been destroyed several times during its history. It has several springs that flow through fine Roman-made canals.

The total area belonging to Arak cooperative is 38,000 ha, most of which is state owned – only a very small area around the village is owned by the inhabitants. The total number of families living in Arak is 55, while the total number of families belonging to the cooperative is 149, divided in settled, semi-settled and nomadic. Some people from Arak cooperative make their living from sheep raising and cultivation of orchards of the oasis, while some trade in second-hand vehicles, some are vehicle mechanics and some are truck drivers.

Arak families ranked as poor are 11% over the total, while 25% are ranked as rich - the rest are ranked in between. Arak cooperative is composed of three tribes in addition to the settled one in the village, which is 44 % over the total. Hadidien tribe is 42 % of Arak cooperative. Munbateh village is located about 25 km east of Al Talila. It was founded approximately during the mid 20th

century beside the so-called "T-3" oil pump station – this is one of the pumps of the oil pipeline coming from Iraq. Beside the village there is a small oasis. The total area belonging to the Munbateh cooperative is 58,000 ha, most of which is state owned. The total number of families living in the village is 40, most of which are not cooperative members but just employees by the company managing T-3 pump station.

The total number of households belonging to the Munbateh cooperative is 214, divided in settled



semi-settled and nomadic, and mainly living on sheep raising. Only 2 % of the households belonging to the cooperative are settled, while 36 % and 62 % are semi-settled and nomadic respectively. About 6 % of the families are ranked as poor, while 22 % as rich - the rest are ranked in between. Abbassyia village is situated about 5 km south of Al Talila. The date of foundation is unknown. Its inhabitants left the village for moving to Palmyra during the 1970s.

The village is presently a ruin. The total area belonging to the Abbasyia cooperative is 15,000 ha, most of which is state owned. The total number of families belonging to the cooperative is 41, all of them from the Bani Khalid tribe. About 24 % of the families are settled, while 64 % and 12 % are semi-settled and nomadic, respectively. The percentage of families ranked as poor is 14 % over the total, while 32 % are ranked as rich - the rest were ranked in between.

The indigenous inhabitants of Abu Mingel PA are the pastoralists from the Amur tribe, making a living out of raising sheep through a traditional mobile lifestyle. Despite their livelihood had been entirely based on the sustainable and wise use of Abu Mingel PA pastures during immemorial time, the current Al Badia ecological degradation is greatly impoverishing them. Therefore a great proportion of Amur have abandoned their mobile lifestyle and have settled in the outskirt of Palmyra. Amur were not studied in any detail by FAO/DGCS project, the same way used for the other tribes occurring within Al Talila PA and its buffer zone. Because the highlands and plateau are more productive than the flatland these people are short-range nomadic. They appear to be quite poor. Their traditional pastures are also used by another tribe known as Beni Haez.

2. Threats and conservation status

The desert ecosystems around Palmyra and the associated desert culture are at the brink of extinction. In fact, AI Badia means (arid) steppe in Arabic: but AI Badia is increasingly looking like a real rocky desert. The typical topography of AI Badia - mainly flat or undulating plains intersected by slow rolling highlands - allows easy access of people almost everywhere. For this reason AI

Badia looks exploited almost entirely on its total surface area for 12 month a year. The biodiversity of Al Badia has experienced an unprecedented process of destruction during the past 20 years.

While at least 7 large-sized game species have already vanished during this recent period (among these the Arabian Oryx, different species of gazelles, Leopard, Cheetah, Ostrich etc.), at least other 13 species, once common within Al Badia, are presently on the verge of local, regional and global extinction. An emblematic and symbolic case is that of the iconic N. Bald Ibis, not so long time ago still a common awe-inspiring sight of Al Badia landscape (see 3.2). The economy of the people living within Al Badia is strictly related to natural resources, primarily rangelands, the underground water and to a lesser extent also wildlife - mainly the capture and trading of falcons during the autumn passage and the guiding of foreign poachers.

The causes for the degradation of the desert ecosystems can be summarized in a problem tree (Annex 1), showing the complexity and intricacy of connections between causes of different order, direct and underlying. The proxy and direct causes are the most simple to be identified: uncontrolled sheep grazing, firewood collection and hunting.

One of the root or underlying most severe cause for the ecological degradation is certainly the exponential population growth. The pressure on the Al Badia resources has enormously increased during the past 40-50 years due to a high rate of population growth. The Syrian population was 3.4 million in 1950, while it reached 17.8 million by the year 2000, i.e., the population has increased more than 5 times within 50 years (Mirreh et al., 2001). There is a direct link between the population size of a country and the demands for meat and thus the pressure on the rangelands. For instance, during the same period, also the total number of sheep raised within Al Badia increased 5 folds (from 3.0 million in 1950 to 15.4 million in 1998) (Mirreh et al., 2001).

The ecosystems of Al Badia are threatened of collapsing, even in the short term, from an ecological point of view, and of becoming unproductive. During the past decade, the pastoralists have been increasingly forced to buy the feed for their sheep from outside of Al Badia, as the pastures have turned unproductive for several months a year. The mountains and the scrubby plains are over-grazed and dramatically impoverished in shrubs and trees coverage, while the very existence of the oases and the natural wetlands is threatened due to over-exploitation of water.

Hunting practice within Palmyrean Al Badia is either unselective (i.e., all kind of species are shot down regardless of their edible / commercial value) and unsustainable (i.e., the quantity of individuals shot down per species is unlimited). Hunting is operated either by national and foreign



hunters accompanied by locals. Because hunting is banned in Syria since at least 10 years ago, through a moratorium, the hunting in question should be actually called poaching.

But this ban is certainly not sufficiently enforced. The use of poisoned carcasses is a very common practice of controlling wolves by Bedouin herders within Al Badia. This

practice is very harmful for the survival of wildlife populations because it is completely unselective: it does not only kill wolves but all kind of carnivores (e.g., foxes, wild cats, vultures, eagles, ravens etc.). It is also harmful for the ecosystems and thus for the people: the poison enters the food chain of the ecosystems and can reach, through the livestock grazing, the people themselves.

A mass nature tourism scheme developed in an uncontrolled way could deliver the final blow to the natural and cultural heritage of Palmyra desert. In fact, a mass and solely business-driven nature tourism would have the following negative impacts at local level:

- attractiveness and fascination of the site is degraded and / or lost
- resentment of local community against conservation and protected areas (especially in the case they perceive that benefits leak outside the local level)
- increasing erosion of the heritage of local culture and tradition; decreased self-esteem and cultural identity
- soil erosion provoked by intense 4x4 vehicle traffic
- increased noise, pollution and littering
- degradation of the calm and quiet atmosphere
- disturbance to surviving threatened fauna, which can provoke as a side effect an increased vulnerability to uncontrolled hunting
- degradation or destruction of landscape through uncontrolled infrastructure development.

3. Conservation areas

3.1 Al Talila and Sabkhat al Moh Protected Areas

The aim of Italy (DGCS)-funded and UN-FAO-implemented project GCP/SYR/009/ITA started in



1996 in assistance to Directorate of Steppe, Rangeland and Sheep of the Ministry of Agriculture and Agrarian Reform (MAAR), was the prompting of conservation biodiversity within the country, through the development of Al Talila PA and the rehabilitation of the rangelands surrounding it. Al Talila PA, established by the MAAR in the early 1990s, is located on the south-eastern vicinity of Palmyra, in the middle of the Syrian semi-arid steppe. For а naturalistic description of Al Talila see chapter 1. A Desert Culture and Nature Education Center (DNEC) was established at the entrance of Al Talila.

Palmyra project has been a pioneering initiative prompting nature conservation most likely for the first time in the country.

Among several key achievements, DGCS/FAO Palmyra project, through the in-service training of

national staff, conservation education programmes and the involvement of the local community has prompted an process important of awareness raising about the ecological crisis of Al Badia. The establishment of Sabkhat Moh protected area al was recommended to Syrian authorities in 2002 (Serra 2002a): this seasonal salt lake, located south of the oasis of Palmyra, was in fact already included in the Important Bird Areas list for the Middle East (BirdLife International, Evans 1994) and it had been declared a Ramsar site (i.e. a wetland of



biodiversity international importance). It was given official protection status in 2004.

3.2 Abu Mingel and Abu Rigimin Protected Areas

N. Bald Ibis, one of the rarest bird globally, listed as "Critically Endangered" by the IUCN's Red List (IUCN 2006), until 2002 it was known as surviving in the wild only in a few scattered colonies in Morocco - for a total of 92 breeding pairs. That same year a relict colony of 7 individuals of this bird species - belonging to a sub-population separated from the western one centuries ago - was unexpectedly discovered in Syria, by the DGCS/FAO Palmyra project (Serra 2003), from where it was believed it had become extinct more than 70 years before.

The news attracted the attention of international media and of the conservation community: N. Bald

Ibis suddenly "reappeared" in the Middle East where it had been declared extinct in 1989. N. Bald Ibis suddenly became the rarest and most threatened vertebrate of the Middle East. The discovery was especially significant from a conservation point of view, as it revived the hopes to save this iconic species in its native habitats of the Middle East.

The relict N. Bald Ibis colony was found over a large extension of a mountainous area, through decoding the traditional naturalistic knowledge of the Bedouin indigenous



pastoralists (Serra et al. 2003a): data collected showed that this bird was most likely a common sight of Al Badia landscapes until only 20 years ago. In facts these fascinating birds have always co-existed with the herds of the Bedouin nomads since time immemorial: these people, not only use a specific name for the bird in their idiom ("Nug") - only elder pastoralists still recall it - but they still use this name to identify several desert sites.

The bird has always had a symbolic value attached in the whole region: it was in facts known by ancient Egyptians as shown by its unmistakable graphic representation in 4500-year-old hieroglyphs and even cited in the Old Testament as the legendary messenger of fertility released by Noah from the ark. Its migration used to be known by Turkish Muslims for guiding the pilgrims bound to the holy Mekkha (in Saudi Arabia). Interestingly, an elder Bedouin of Al Badia reported to DGCS/FAO Palmyra project that - similarly to old pharaohs - they used to held the N. Bald Ibis as a



symbol of wisdom.

N. Bald Ibis can be regarded as a keystone species of the Syrian Al Badia not only culturally but also ecologically. In the past this bird species certainly used to play an important ecological role within the Syrian steppe land: being an insectivore, it was probably controlling the insect kev in populations, and in so doing maintaining the ecological health and productivity of the pastures on which the nomads rely on for their livelihoods

- interestingly, MAAR recognized the beneficial role of the ibises for agriculture in a decree of the 1970s.

A community-based protection program against hunting and disturbance was implemented successfully by DGCS/FAO Palmyra project during period 2002-2004. The N. Bald Ibis protection program involved the traditional indigenous people (i.e. Bedouins pastoralists from amur tribe and

Palmyra hunters), receiving international acknowledgements at the 2004 Bangkok IUCN World Conservation Congress

The awareness on the importance to protect these birds was raised nationally during those years. A 400-Km² Abu Mingel (Ibis) Protected Area (PA) was established by MAAR in spring 2004, following the Palmyra project recommendation (Serra 2002b) and a photo-exhibition, organized by MAAR and BirdLife International, was held in the old city of Damascus on this issue (February 2006). Differently



from the Moroccan ibises, which are living in resident colonies, the Syrian ibis survivors are migratory: a behavior that makes them genetically unique globally, but also very vulnerable from a conservation point of view.

The successful protection program established at the breeding grounds by the Syrian Ministry of Agriculture, soon after the discovery, appeared to be not sufficient: the fact is that the creature should be protected also in the rest of its unknown range. The only way to discover the rest of the distribution range of this species was to trap and tag with a satellite transmitter one or more birds.

Following a determined advocacy campaign in Syria during the winter 2005-06, which even prompted the direct interest and support from the H.E. Syrian First Lady, a field mission was implemented in 2006 which succeeded in trapping and tagging three adult ibises: the migratory route and the wintering site of the N. Bald Ibis colony was therefore unveiled. With the inauguration by the Syrian First Lady of a photo-exhibition in Damascus focusing on the biodiversity of Al Badia, in October 2006, the N. Bald Ibis advocacy campaign reached the top in Syria, and the issue became a national one.

An outstanding feature of Abu Mingel PA is its dramatic "lunar" scenery, with its wadis, sheer cliffs and plateau, and the contrasts of colours (from the white of the clay to the pink-red of the



limestone, the same stones used for building ancient Palmyra).

The Abu Mingel PA, in addition of hosting such "pearl" of biodiversity as the relict colony of N. Bald Ibis, is also home to one of the last herds of wild Reem gazelle found in Syria, made up of few surviving individuals. This wild herd is certainly unique nationally (there are probably some surviving gazelles in the Jebel Sys area as well) and important regionally, and the mountainous environment would be very suitable to protect them and reinforce this herd with the captive gazelles from AI Talila. Abu Mingel PA would be also ideal for reintroducing other charismatic fauna, vanished from the area only few decades ago, such the Nubian Ibex and the Arabian Leopard.

Abu Rigimin, adjacent to Abu Mingel PA, was established by MAAR in the early 2000s as a mountain natural preserve, aimed at rehabilitating the vanished *Pistacha atlantica* woodlands. It was established without involving the Bedouin pastoralists, traditional users of the area, which triggered severe conflicts. A tourist village is under construction in the higher portion of the PA.

4. Ecotourism and nature tourism

4.1 Definitions

Tourism is currently regarded as the world's largest industry and it has been clearly identified by Syrian authorities as an economic target for the Palmyra region. During a high level workshop organized by the British Syria Society on the tourism development in Palmyra, in mid April 2008, the Prime Minister and several other ministers showed to be highly aware about the importance and potential role of the recently established protected areas in diversifying the tourism product and therefore in helping turning the town to become a premiere quality tourist destination.

Ecotourism is a relatively new and different form of nature and adventure travel, pursuing the preservation of local natural and cultural heritage through improving the welfare of the local community. In the context of global tourism market, ecotourism accounts for 2-4 % of the entire tourism sector - but it is one of the fastest-growing segment of the industry according to the World Tourism Organization. The market for ecotourism seems to be growing in western Europe (see a recent article from The Guardian in Annex 2). The new travel ethic on which ecotourism is rooted derives from an increasing global appreciation of the intrinsic value of un-spoilt nature and realization that the planet's biodiversity is being lost at unprecedented rates.

It is clear that a terminology confusion exists between "ecotourism" and "nature tourism". Since the 1992 Earth Summit in Rio ecotourism has become a quite fashionable term and concept increasingly proposed by bilateral donors and cooperation agencies as a means for promoting nature conservation in developing countries while improving the welfare of local people. It is an approach also favoured by international lending agencies such as the World Bank and the International Monetary Fund (IMF).

On one hand, nature tourism is a type of tourism focusing on showing natural assets with no major concern about conservation of biodiversity and associated local communities. The same as mainstream tourism, nature tourism is mainly controlled by market forces. In fact, at present most of the so labeled "ecotourism" operations around the world better qualify as nature tourism.

On the other hand, ecotourism is defined by the IUCN (The World Conservation Union) and the Nature Conservancy: "environmentally responsible travel to natural areas, in order to enjoy and appreciate nature (and accompanying cultural features, both past and present) that promote conservation, have a low visitor impact and provide for beneficially active socio-economic involvement of local peoples".

Ecotourism is small scale but ensure that most revenues go to the local community, while revenues from nature tourism usually and easily remains outside the local level. Ecotourism should provide local economic benefits, conserve the environment, allow local participation in planning and management and be developed in a socially and culturally sensitive manner.

There are a number of myths surrounding ecotourism. Experience world-wide during the past decade has shown that ecotourism is a double-edged weapon. The idea in principle is seductive: ecotourism is intended to bring money to local people as a form of compensation for the restrictions imposed by conservation strategies and policies (e.g. establishing a protected area on

traditionally owned or used land). But experience has shown that ecotourism creates a mixture of positive and negative impacts on host societies and on local natural heritage.

One of the challenges facing ecotourism is how to develop it without diminishing or destroying, ironically, the natural attractions that drew visitors in first place. It is becoming evident that increased tourism to sensitive natural areas in the absence of appropriate planning and management can become a threat to the integrity of both ecosystems and local cultures, as stated by The Nature Conservancy.

In other words, ecotourism should not be interpreted as a conventional business driven by the logic of maximizing short-term profits, as long-term environmental interests are at stake. Conservation and business must be carefully blended and balanced.

An interesting case study is the one describing the development of desert tourism in Wadi Rum in Jordan during the past decade (Chatelard 2005). Due spectacular to the desert Wadi Rum scenery, had foreigners attracted since centuries ago, who had been escorted by always local Bedouin tribes. In the past decades, the local Bedouin organized themselves, under



the pressure of a growing demand, to offer a quality desert tour product. According to Chatelard (2005) desert tourism guiding is a perfect complementary economic activity for a nomadic pastoralist, completely compatible to their tradition of multi-resource economy and mobile culture.

It is actually a traditional activity of Bedouins that of escorting foreigners while crossing desert environments. Until a World Bank project started in 1996, this desert tourism activity was benefiting a good number of nomadic families and tribes in the Wadi Rum area, attracting mainly foreign desert lovers who would be willing to stay from few to several days in the desert. The new project catalyzed instead a transformation toward mass tourism, targeting the 1-day tourists (or better "consumers").

The majority of Bedouin pastoralists of Wadi Rum in 2001 turned full-time eco-guides, through the complete abandonment of their traditional lifestyle and livelihoods: at times, the impression is that they daily "perform" the play of the "Bedouin" on a (fake) folkloric stage, just for the quick enjoyment of the leisure tourism. While the once extraordinary and mystical scenery that made this desert setting famous seems highly diminished if not ruined by the multitude of four wheelers noisily cruising in all the directions – heavily disturbing the remaining fauna and triggering the soil erosion. This is an example, from the region, of an ecotourism scheme that had been turned into a nature tourism scheme.

4.2 Constraints of ecotourism development

It is already several decades that this conservation and development practice, ecotourism, was started, therefore there is plenty of literature and available lessons learned. Most of them concluding that developing ecotourism in such a way to benefit at the same time local people and biodiversity is a complex and extremely difficult exercise. Actually, most ecotourism projects have failed in pursuing their initial goal – despite few are ready to admit this. The key common constraints experienced by ecotourism development projects worldwide are the following:

- Runaway ecotourism losing sight of its ethical dimension. It is more than clear that the size of the flow of foreign visitors to a destination is a critical variable that can negatively affect both the local cultural and the natural heritage. In order to be successful, an ecotourism scheme should be able to carefully control such flow.
- The quality of the visitor experience. The amount of visitors at a given time will also affect the overall quality of the visiting experience itself: a crowded wilderness loses most of its fascination and attractiveness. In fact most of the enjoyment comes from contemplation of quiet, un-spoilt and wild nature – the presence of cars, noise and herds of other tourists subtract or destroy most of this enjoyment. A careful compromise should be achieved between creating sufficient revenues (in order to keep the business viable) and the need for visitors to gain a rewarding and enriching experience. Consistently, a market study on ecotourism commissioned by the Australian Office of National Tourism showed that one of the main thing ecotourists are seeking in a nature holiday, beside the attractions themselves, is to stay away from crowds.
- Welfare of the local community. Ensuring that a fair amount of benefits brought by visitors goes effectively in the hands of the local community is the most challenging objective to be achieved. Urban elites and investors are usually much quicker and capable to take the lead over the ecotourism operations, as soon as the business potential becomes clear.
- Equity in distribution of revenues. Even in the uncommon instances when the local community manages to take and maintain the lead in ecotourism development, it is still challenging to ensure that benefits are equally and fairly shared within the target beneficiaries, without creating dangerous resentments and destructive conflicts.

A scarce awareness of authorities relatively to what ecotourism really is and what should achieve is common. As it is common that decision makers undervalue the benefit to local nature and economy brought by a small-scale tourism initiative versus pharaonic development plans that will benefit mainly urban investors and elites.

In fact lessons learned around the world indicate that local nature and economy can benefit relatively more from a well designed small-scale scheme than from huge development plans. A legal framework regulating the whole sector nationally, in combination with conservation of natural assets and protected areas management, is obviously a precondition to any attempt of proper ecotourism development.

4.3 Controlling a viable ecotourism business

In ecotourism, indeed in any sustainable attempt of land and resource use, people must learn to



recognize when enough is enough: the key challenge for any ecotourism scheme is to keep the business viable and controlled at the same time. Independent control mechanisms should be the responsibility of international conservation NGOs, authoritative international accreditation associations and the visitors themselves (by means of their visit feedbacks).

Due to the changing lifestyles, economic conditions and demographic structure of travelers, the market is shifting from manipulated, uncritical "old-style tourists"

to mature, critical and emancipated "new tourists", who are usually well educated, ecologically and

cost conscious travelers. Because of the increasing demand for ecological accountability and travel ethics (Addley 2006 in Annex 2), the tour operators and the ecotourism local initiatives/products will increasingly seek accreditation and certification from the above mentioned independent subjects. This sort of virtuous circle and coordination should ensure that an ecotourism activity remains under control and does not lose sight of its ethical dimension.

The true ecotourist feels the responsibility of his/her choices as a customer triggering a complicated mechanism of global economy – heavily affecting the life of people and non human creatures on the other side of the world. Therefore travelling is increasingly becoming a thoughtful and responsible act, entailing a thorough "investigation" and planning work aimed at detecting the most rewarding ecotourism offer, in terms of aesthetics, learning and ethics (see Addley 2006 in Annex 2). The purchasing becomes a sort of responsibility act and the traveller feels proud of acting as a sort of conservation agent: in fact, people feel empowered by demanding ecological accountability of tour operators, and that the ecotourist services offered by them concretely support the local cultural and natural heritage, through benefiting the local community.

And the demand triggers and shapes the offer, as usual: according to a consumer research firm, by 2010 the outgoing "ethical" holiday market from the UK will have swollen to 2.5m trips a year (Addley 2006 in Annex 2). This shows that we can expect that tourists will increasingly demand accountability of ecotourism products, while tour operators will have to demonstrate an adherence to an appropriate vision and mission. For instance, the most advanced ecotourism operators request a feedback of the visitor after the trip's completion about its perceived environmental, cultural and economic impact at the local level.

But a responsible choice is not easy these days as anything seems (auto-referentially) labeled as ecotourism, including mass and irresponsible nature tourism projects. In these regards ecotourism has gained a poor image in the past years, meaning very different things to different people. An independent certification system is nowadays the single most important action needed to give ecotourism a new credibility and leverage, making choices easier for responsible eco-travellers.

A kind of certification and standardization is already offered by the private sector itself in the UK, where some companies (such as ResponsibleTravel.com and others) claim to be "committed to changing the tourism industry": their scope is in fact to screen and select tour operators and ecotourism products world-wide, according to a set of ethical standards, in the benefit of the responsible traveller.

International conservation NGOs have already started taking the lead in certifying and controlling the ecotourism business: for instance Conservation International (<u>www.ecotour.org/xp/ecotour/</u>), The Nature Conservancy (<u>www.nature.org/aboutus/travel/ecotourism/</u>), Sustainable Travel International (<u>www.sustainabletravelinternational.org</u>) and Rainforest Alliance (<u>www.rainforest-alliance.org</u>) seem among the most active in the field. The <u>Sustainable Tourism Certification</u>

<u>Network of the Americas</u> is a direct product of this new commitment and action of NGOs.

4.4 First recent steps in developing ecotourism in Syria

The contribution of locals from Palmyra (Government staff, Bedouin pastoralists and hunters) in the N. Bald Ibis discovery was key. This team of locals, trained in the framework of DGCS/FAO Palmyra project (see chapter 3.1), became heavily involved in the successful



protection program of the N. Bald Ibis colony during three subsequent breeding seasons (2002-04) – the program focused on halting foreign poachers, raising the awareness of the nomad Bedouins, and collecting basic ecological data on the birds. They were in-service trained for 3 year in fauna field identification and eco-guiding (English included) and received certificates as eco-guides from the UN-FAO. This "Wildlife Team" participated in the whole fauna surveying programme of DGCS/FAO Palmyra project (2002-03) aimed at preparing a comprehensive database and high-quality photographic archive of the Palmyrean desert - material which was extensively used to build the DNEC at Al Talila.

The team became highly self-motivated, ecologically committed, skilled in bird field identification and fluent in English. During years 2002-05 they have experienced in the field what guiding foreign visitors means, as they were put in contact by the author with several European birdwatchers and ecotourists. In February-March 2004, 4 members of the Wildlife Team participated in a major ornithological expedition in Syria promoted and supported by the Ornithological Society for the Middle East (OSME), Wetlands International and BirdLife International (birdwatchers of 6 different nationalities were involved) - they received certificates from OSME acknowledging their participation in the expedition and their successful learning. During this expedition they got to know the most faunally interesting areas in Syria – so their wildlife knowledge and experience extended



throughout the whole country.

European participants of the expedition then committed to promote birdwatching in Syria through publishing articles in specialized magazines [e.g., Birding World (Murdoch 2003) and Dutch Birding (Hofland and Saveyn, 2005)], and through setting up a dedicated web site

(<u>http://www.andrewsi.freeserve.co.uk/bir</u> <u>ding-in-syria.htm</u>). These Palmyra ecoguides are nowadays also mentioned in the web site www.guidedbirdwatching.com/syria.htm

as also in the new web site about ecotourism in Syria (www.ecotourismsyria.com).

The most tangible and outstanding result of the involvement of these locals in the project's conservation activities was the raising of their ecological awareness. One of them, only three years before well renowned in the village for his hunting skills and passion, wholeheartedly engaged in halting hunting not only locally but also nationally. Their awareness also grew in a broader sense: they became aware that they are kind of 'conservation pioneers' and key human resources

nationally. More importantly, a sense of a mission finally dawned inside them: they are aware that the country's natural heritage needs their engagement and commitment to survive.

This work experience with local community was defined "an example of good practice in conservation" by the World Alliance of Mobile Indigenous Peoples (WAMIP) (see: <u>http://www.danadeclaration.org/text</u> %20website/announcements.html).

The discovery of the N. Bald Ibis in Palmyra and all the articles and



publications that followed fueled and maintained a high interest of European birdwatchers for Syria, especially in the northern Europe. A presentation by OSME about N. Bald Ibis conservation work and birdwatching in Syria at Rutland's Water Bird Fair took place in summer 2006 (Murdoch, pers. comm.). Despite not being marketed nor advertised much, a flow of ecotourists and birdwatchers increased steadily from the year of the N. Bald Ibis discovery, as evidenced by the number of trip reports currently available on-line (<u>http://www.ecotourismsyria.com/reports.php</u>).

A first birdwatching tour organized by a UK tour operator (Birdwatching Breaks) took place in Feb 2006, using as a co-leader one of the above mentioned locals (see trip report: <u>www.birdwatchingbreaks.com/Syria TripReport06.htm</u>). In 2008 a Dutch birdwatching tour was organized by BirdingBreaks, employing as co-leader another of the trained locals. Another naturalistic tour operator (Naturetrek, claiming to be the largest in the UK) is also interested in developing a tour in Syria.

Until now, one of the main constraint in developing ecotourism has been the tense international political situation. In 2003 DGCS/FAO Palmyra project hired a specialized consultant to prepare an ecotourism strategy for AI Talila PA (Anderson 2003). Main conclusions of this study were that a number of pre-conditions had to be satisfied in order for ecotourism to be developed in a responsible fashion in the area. The emphasis was placed especially on the need to establish a legal framework regulating protected areas and ecotourism in Syria. The need to outsourcing services to the local community was indicated by Anderson (2003) as a key step to enable the community to gain revenues from ecotourism.

An ecotourism feasibility plan was prepared by BirdLife International in 2007 (Serra 2007: <u>http://www.ecotourismsyria.com/pdf/feasibility%20ecotourism%20palmyra%20BLI%20-</u>

<u>%20light%20version.pdf</u>) with the proposed aim of attempting to convert the present illegal poacher guiding operations into eco- and birdwatching guiding.

4.5 Economic, socio-cultural and environmental viability

Ecotourism can be accommodated by the local community much more readily than mass tourism: control of tourists flow (i.e. numbers and use patterns) will be in the local community best interests, socially and ecologically. Small-scale is a suitable form of ecotourism for Palmyra desert also due to the fact that the site does not have the spectacular wildlife and landscape assets of African or Jordan protected areas - that could trigger the interest of masses of tourists and therefore attract big investors. All these qualities make the Palmyra desert more suitable for well informed, passionate and cost-conscious visitors.

Negative impacts of uncontrolled mass business-driven nature tourism - not properly planned nor managed - are well documented in the specific literature, e.g. disruption of local culture and traditions, a blow to the self-identity of the local community and to local biodiversity. The means through which the ecotourism scheme in Palmyra desert could avoid these threats is through a participatory planning process in which the local community takes an active part, in so doing ensuring that the idea is not imposed on them. The planning process should envisage the following points:

- the local community is thoroughly informed about the risks associated with business-driven mass nature tourism
- a discussion on whether the ecotourism idea is an economically, environmentally and culturally viable idea in the specific context of the Palmyra desert
- informed and aware stakeholders discuss and agree a vision, a goal and a measure of success

- informed and aware stakeholders discuss and agree Limits of Acceptable Changes (sensu Anderson 2003) relatively to development of ecotourism in the Palmyra desert and a specific and independent monitoring program
- a clear and fair revenue distribution system is agreed among the target beneficiaries
- local community and NGOs discuss and agree patterns in which visitors and locals can meet in circumstances of mutual respect (discussing and agreeing a Visitor Code of Conduct, see 10.9 and Annex 5).

A monitoring program regularly assessing whether the ecotourism scheme is developing according to the

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agreed Limits of Acceptable Changes could be in fact designed and agreed: the program will be run during the first 10-15 years after the ecotourism scheme's inception. It will assess whether the local and national stakeholders are committed and capable at keeping the eco-tourism small scale and responsible. Some key fauna parameters, that could be used in the monitoring program, had been already developed by DGCS/FAO Palmyra project - other key parameters will have to be identified and agreed by the stakeholders, especially those related to the local culture and society.

The NGOs ideally should serve as a trade-union between a high quality and ethical ecotourism product on one hand and the specialized international market on the other hand (independent visitors and naturalistic tour operators). NGOs could have the responsibility for identifying and targeting with promotion the most responsible and qualified tour operators available on the international market.

The coordination and information sharing with other conservation NGOs committed in the ecotourism will enhance the efficiency of this virtuous circle. It is in fact the conservation NGOs' own interest to support and publicly credit ecotourism schemes and tour operators that contribute to conservation in a tangible way. For instance Conservation International and The Nature Conservation International has developed an Ecotravel Center designed to provide independent information on responsible ecotourism destinations and tour operators an other information (www.ecotour.org/xp/ecotour).

5. Thematic interests for ecotourism and nature tourism in the Palmyra desert

The originality of Palmyra's interests, compared to other internationally famous archaeological sites, is the intersection of different "landscapes" and therefore potential thematic interests, such as the following.

• Archaeology and Heritage (AH): the occurrence of Palmyra world renowned ruins gives it considerable potential as an amenity for both national and international tourists. The ancient ruins of Palmyra are unique due to the fine and exotic colour of the stone used (pink), the remarkable extension of the site and, least but not last, the outstanding setting: the ruins are located beside an oasis and are surrounded by hundreds of km of desert in all directions.

• **Desert Landscapes and Aesthetics (DLA)**: the wide horizons of the steppe plains (e.g. Hamad desert) scattered with the tents of nomads, the compelling silence and quiet, the large herds of camels, the sheer limestone white cliffs and the seasonal wetlands (e.g. Sabkhat Al Moh with wintering flamingos and cranes), not to mention the Palmyra millenary oasis, give this territory its own charm and mystics.

• **Desert Culture and Traditions (DCT)**: the Syrian desert is still primarily inhabited by Bedouin pastoralists, nomads and semi-nomads, still retaining their genuine fascinating culture and traditions.

• **Biodiversity and Nature (BN) and Birdwatching (BW)**: Palmyra desert is interesting from a zoo-geographical point of view because it is a transitional area and a cross road between Eurasia, Arabia and Africa. It still holds globally threatened fauna species - two of which (N. Bald Ibis and Sociable Plover) are Critically Endangered – and it lies on an internationally important migratory



flyway of birds. Most of its European attractiveness for birdwatchers is the fact that it lies at the verv south-eastern border of the socalled "Western Palearctic" region. European birdwatchers can therefore enjoy watching in Syria some little known and otherwise almost unreachable species, such as Iraq Babbler. White-cheeked Bulbul. Chinese Shrike and the last remnant of the eastern sub-population of N. Bald Ibis, the most threatened bird of the Western Palearctic, one of the rarest in the world. Al Talila reserve is one of the few corners left in Al Badia still holding

a healthy native vegetation coverage, the only site where locally extinct large-sized fauna such as Reem gazelles and Oryx can still be seen, a site where rare and declining fauna such as largesized mammals and reptiles find refuge.

• **Conservation Education (CE)**: the Desert Culture and Nature Education Center (DNEC) is an opportunity to learn about Palmyra desert nature and culture heritages, and to raise the awareness about their threats. It is a unique and pioneering effort made towards conservation education and awareness raising both at a national and at a regional scale. It holds a very valuable gallery of high-quality images of desert cultural daily life, of fauna and flora (including an interesting section on medicinal plants): all images were taken in the surrounding environment. Images are matched with scientifically-sound legends in both English and Arabic. The centre is designed in order to be enjoyed at different levels: children, school students, university students and tourists.

• **Recreation and Sport (RS)**: unique opportunity for developing a number of outdoor activities in the future: picnicking, thermal bathing, hiking, trekking, climbing, mountain biking, horse and camel riding, balloon flying - or just relaxing in the dry open air, under the shadow of a palm tree or from the inside of a Bedouin flat tent, enjoying the exotic and mystical landscapes.

6. Potential clients

It is important to attract or market to the right clientele. Ecotourism and nature tourism in Palmyra desert should target specific segments of visitors. Based on the past experience and above all considering the specific thematic interests of Palmyra desert (see above), it is expected that the types and profiles of visitors most likely interested in visiting Palmyra desert are the following:

- **heritage travelers** (independent or on an organized tour): focus on major cultural and archeological heritage sites of the world (in first place those listed by UNESCO)
- **desert and nature appreciators** (independent or on an organized tour): in addition to desert landscape and natural history, they are likely to be interested also in cultural, historical and archeological issues. These people have broad interests and above all, a special appreciation for being in the open air and in an exotic country
- **birdwatchers** (independent or on an organized tour): mainly focused on birds, they might take a look also at other naturalistic issues (e.g., other animals, visiting Al Talila etc.) and, possibly also at cultural and archeological issues
- expatriates working in Syria: there are thousands of foreigners working and living in Syria (especially in Damascus and in Aleppo) who are often longing for an interesting and original "week-end off"; these visitors can be either desert or heritage lovers – sometimes birdwatchers
- visitors from the Gulf are not expected to be interested in spending significant time in Palmyra, unless they are aiming at hunting. It is acknowledged that hunting and similar activities are considered a recreational activity by many from this market, however as there is currently a moratorium on hunting in Syria any contravention is considered illegal. Other activities focused on the Gulf market could be developed in Palmyra in addition to their appreciation for Syrian environments that cannot find at their home, for instance well serviced coast and sea side, forested coastal mountains and lively cities (e.g. Damascus and Latakia).

Independent visitors – with the exception perhaps of the expatriates, who will typically spend the 2 days of the week-end - will likely spend at least 2-3 days in Palmyra versus the current quick visit (1-2 days) of the mainstream tourism segment of the market.

The means of transportation will be crucial in defining which kind of tourists will be able to visit what: 4x4 wheel drive vehicle, van or minibus.

7. Potential competitors and competitive advantages

The potential competing destinations in the region relatively to natural, historical and cultural heritage could be the following:

- Petra, Wadi Rum and Dana PAs (Jordan)
- Cappadocia (Turkey)
- Yemen
- Gulf states (Oman, Kuwait, UAE)

Potential competing destinations outside the region:

- Morocco
- Lybia
- Tunisia
- Algeria
- Mali
- Egypt

Palmyra and its surrounding desert have the following competitive advantages, making it a unique site in the world:

- Palmyra is a unique world-class heritage destination of the Middle East - listed by UNESCO as World Heritage site since 1980. Moreover, there are other less known interesting and fascinating archeological sites within the Syrian desert (Dura Europos, Mari, Kasr al Kher al Sharqi, Resafe etc.). Palmyra offers the unique opportunity for combining well-established heritage tourism with ecotourism.

- Adjacent to the archeological site, the visitor will have the opportunity to visit a project aimed at saving one of the rarest bird on earth (N. Bald Ibis), surely the most threatened bird of the Western Palearctic region. The interest is high, not only from the birdwatching tour operators: for instance since 2006 also Naturetrek offers a 5-day Bald Ibis Break to Souss Massa National Park in Morocco.
- A potential add-on advantage of Palmyra ecotourism scheme over other competing destinations could be a certification/accreditation directly from international conservation NGOs about the high quality in terms of:
 - genuine cultural and folkloric experience (desert hospitality etc.) versus for instance the fake Bedouins of Wadi Rum
 - $_{\odot}$ a true responsible ecotourism experience: the visitor will perceive and be reassured of really helping the local community and the conservation efforts to save the last N. Bald Ibiss
 - slow-paced and relaxed holiday (small groups / no crowds) and intimate interaction with local people and nature.
- The visit of Palmyra can be easily combined, through an overland drive, with a visit to its twin world renown archeological site in the Middle East: Petra, in Jordan (about 3 hours drive from Damascus). Also Wadi Rum, with its extraordinary rocky desert landscapes, could be included in the tour. There are a number of other Middle Eastern sites interesting from an historical, scenic and naturalistic point of view, located at a reasonable distance, that could be combined with a visit to Palmyra. Moreover, Palmyra desert could be also combined with another naturalistic site of international importance (especially for birdwatching), Sabkhat al Jabbul, in the vicinity of Aleppo, which is most likely the most important surviving wetland in the Middle East.

8. Nature tourism: organized excursions from Palmyra

Nature tourism visitors are expected to travel mainly on organized tours of different sizes. The following are the proposed excursions that could be suitably marketed for this specific segment of visitors.

Half day excursions

Brief Title: DISCOVERING THE PALMYRA OASIS

Thematic interest: AH, DCT, DLA, BN, BW

Destination: a loop inside the oasis

Distance from Palmyra: few Km

Road/Road + OR/OR: OR

Means of transportation: by foot

Facilities en route: WC at the tourist information center beside the Baal Temple, garden owners' hospitality, bar terrace at Zenobia hotel

Attraction description: learning about traditional orchard cultivations and the millenary irrigation system, in a timeless atmosphere, walking along the mud-brick sided alleys, with amazing and unexpected views on the ruins and the castle, framed by palm, pomegranate and olive trees. Enjoying a stop-over in a local "garden" (orchard) accepting the hospitable offer of tea by a local owner (a very recommended one is the one owned by Mr Kakhtan, named "Paradise Garden",

including also a tower that can be used for getting an unusual overview of the Palmary and for birdwatching – see Annex 4). This excursion can be easily combined with a visit to the archeological site. It does not need any transportation from the town. See Annex 4 for three medium-effort recommended trails across the Palmyra oasis (Trails 1-3).

Time Reqd: from one to few hours / half day

En route attractions : archeological site of Palmyra

Brief Title: THE NATURAL HERITAGE OF THE STEPPE: AL TALILA PROTECTED AREA

Thematic interest: DCT, DLA, BN, BW, CE

Destination: Al Talila protected area (see Annex 3 for geographic coordinates)

Distance from Palmyra: 20-30 minutes drive

Road/Road + OR/OR: Road + OR

Means of transportation: car, van, minibus

Facilities en route: WC at DNEC

Attraction description: see chapter 3.1 for a description of this protected area. The highlights of a visit to Al Talila are: the Desert Culture and Nature Education Center (DNEC), the antelopes enclosure, appreciation of landscape and of pristine steppe vegetation cover, short hikes, sulphurous thermal bath.

Time Reqd: 3 hours / half day

En route attractions: ancient quarry of Palmyra

Brief Title: THERMAL BATH IN ABBASIEH

Thematic interest: RS, DLA

Destination: Abbasieh (see Annex 3 for geographic coordinates)

Distance from Palmyra: half an hour drive

Road/Road + OR/OR: Road

Means of transportation: car, van, minibus, coach

Facilities en route: none

Attraction description: sulphurous baths are available at the location of Abbasieh about half an hour drive from Palmyra, in a quite enjoyable and relaxing setting, surrounded by desert flat landscape.

Time Reqd: 2-3 hours / half day

En route attractions: interesting off-the-beaten-track ruins of caravanserai and tombs such as Khan al Trab, Al Halabat, Al Sakari, Al Bakhari etc.

Brief Title: A BALLOON FLIGHT OVER THE DESERT (potential for the future)

Thematic interest: RS, DLA

Destination: sky over Palmyra

Distance from Palmyra: few Km

Road/Road + OR/OR: /

Means of transportation: /

Facilities en route: /

Attraction description: the view from a balloon flying over Palmyra ruins or the oasis would be arguably overwhelming. This activity has been successfully developed in Cappadocia (Turkey) and Egypt. Clear controls, regulations and licensing should be established for the purpose by the Government, well in advance.

Time Reqd: 2-3 hours / half day

En route attractions : /

Whole day excursion

Brief Title: MOUNTAIN PROTECTED AREAS TOUR: ABU MINGEL, ABU RIGIMIN AND JEBEL BILAS

Thematic interest: DLA, DCT, BN, BW

Destination: Abu Mingel, Abu Rigimin and Jebel Bilas protected areas (see Annex 3 for geographic coordinates)

Distance from Palmyra: a loop of about 200 Km

Road/Road + OR/OR: Road

Means of transportation: car, van, minibus, coach

Facilities en route: none

Attraction description: this is an excursions that can be traveled on a paved road in one day, crossing the 3 mentioned protected areas. The rocky mountainous landscapes are outstanding. Scattered surviving *Pistacha atlantica* trees evidence that these mountain ranges were until recently covered with an oak woodland. During spring time (March-April) of wet years mountain slopes are blossoming with gorgeous wild flowers. Short hikes can be carry out here and there from the vehicle parked at a suitable site with a scenic view. A good local eco-guide would surely enhance the enjoyment.

Time Reqd: 4-5 hours / whole day

En route attractions : the lake of Sed Wadi Abiad, lunar sceneries and landscapes. A place to stop over for lunch or coffee break would need to be identified.

9. Eco-tourism: independent excursions from Palmyra

Ecotourists travel either independently or in organized small-scale groups (10-15 persons) like those recently carried out by two birdwatching tour operators. The listed below excursions can be arranged locally using either a local trained guide or not (with the exception of a few which will require a guide).

Half day excursions

Brief Title: DISCOVERING THE PALMYRA OASIS

Thematic interest: AH, DCT, DLA, BN, BW

Destination: a loop inside the oasis

Distance from Palmyra: few Km

Road/Road + OR/OR: OR

Means of transportation: by foot, by camel or horse, by mountain bike

Facilities en route: WC at the tourist information center beside the Baal Temple, garden owners' hospitality, bar terrace at Zenobia hotel

Attraction description: quietness & timeless atmosphere, ideal for relaxing and dreaming about the ancient times, learning about traditional orchard cultivations and the millenary irrigation system, in a timeless atmosphere, walking along the mud-brick sided alleys, with amazing and unexpected views on the ruins and the castle lovely framed by palm, pomegranate and olive trees. Excellent potential for naturalistic observations, especially during bird migration time, but also during the winter. Enjoying a stop-over in a local "garden" (orchard) accepting the hospitable offer of tea by a local owner (a very recommended one is the one owned by Mr Kakhtan, named "Paradise Garden", including also a tower that can be used for getting an unusual overview of the Palmary and for birdwatching – see Annex 4). This excursion can be easily combined with a visit to the archeological site. It does not need any transportation from the town. See Annex 4 for five recommended trails across the Palmyra oasis, of different quality and effort level.

Time Reqd: from 1 to few hours / half day

En route attractions : archeological site of Palmyra

Brief Title: THE SALT LAKE SABKHA AL MOH

Thematic interest: DLA, BN, BW

Destination: the shore of Sabkhat al Moh (see Annex 3 for geographic coordinates)

Distance from Palmyra: 5-7 Km (variable according to rainfall)

Road/Road + OR/OR: OR

Means of transportation: by hiking, by camel or horse, by mountain biking (4x4 vehicles should be forbidden to enter this protected area)

Facilities en route: none

Attraction description: there are several dirt tracks taking from the oasis to the shores of the sabkhat. It is recommended to hire a local eco-guide in order to pick the best track to reach the lake (the chances of getting lost are minimal, due to the abundance of landmarks available in such a flat environment). The salty water occurs seasonally, usually between November and March. When water is present, many waterbirds - including pink flocks of flamingos - occur. Desert landscape from the sabkhat is superb – especially the view of the Palmyra oasis and the castle, and the mountains in the background.

Time Reqd: from a couple of hours to a half day

En route attractions : oasis of Palmyra

Brief Title: THE NATURAL HERITAGE OF THE STEPPE: AL TALILA PROTECTED AREA

Thematic interest: DCT, DLA, BN, BW, CE

Destination: Al Talila protected area (see Annex 3 for geographic coordinates)

Distance from Palmyra: 20-30 minutes drive

Road/Road + OR/OR: Road + OR

Means of transportation: 4x4 vehicle, camel or horse, mountain bike, hiking. Note: a vehicle is needed to reach the protected area, which is about 20-30-min drive from Palmyra.

Facilities en route: WC at DNEC

Attraction description: see chapter 3.1 for a description of this protected area, located 20-30 minutes drive to the south-east of Palmyra. The highlights of a visit to AI Talila are: the Desert Culture and Nature Education Center (DNEC), the antelopes enclosure, appreciation of landscape and of pristine steppe vegetation cover, sulphurous thermal bath, hiking on trails, meeting the Camel Bedouins, spotting birds and wildlife. Information on trails (length, effort needed etc.) is available at the DNEC inside the protected area (a large panel at the entrance). A local trained eco-guide is highly recommended.

Time Reqd: 3 hours / half day

En route attractions: ancient quarry of Palmyra, Douara (Paleolithic cave and Griffon Vulture colony) and Arak village

Brief Title: A PALEOLITHIC CAVE AND THE GRIFFON VULTURE COLONY AT DOUARA

Thematic interest: AH, DLA, BN, BW

Destination: Douara (see Annex 3 for geographic coordinates)

Distance from Palmyra: 20-25 Km

Road/Road + OR/OR: Road + OR

Means of transportation: 4x4 vehicle

Facilities en route: none

Attraction description: it can be easily combined with the visit of AI Talila and/or the visit of Arak village (see below). A local trained guide is recommended to appreciate the interest of the Paleolithic fabric (excavated by a Japanese team in recent years). Collection of flints should be forbidden. An adjacent sheer cliff is home to one of the 2 last surviving colonies of Griffon Vulture in Syria (a majestic bird of prey with > 2.5 m wingspan, not occurring in Northern Europe). See Annex 3 for geographic coordinates.

Time Reqd: 2 hours / half day

En route attractions: ancient quarry of Palmyra, Al Talila protected area

Brief Title: ARAK, A TRADITIONAL VILLAGE AND SMALL OASIS

Thematic interest: DCT, DLA

Destination: Arak (see Annex 3 for geographic coordinates)

Distance from Palmyra: about 30 Km

Road/Road + OR/OR: Road

Means of transportation: car, van or minibus

Facilities en route: none

Attraction description: the village is tiny and has maintained its charm due to traditional mud architectures and the small adjacent oasis. Moreover, it is possible to admire a Roman-time canalization carrying the water to the village.

Time Reqd: 2 hours / half day

En route attractions : Al Talila protected area and Douara

Brief Title: HALILI JEZEL: REMOTE CLIFF HERMITAGE

Thematic interest: AH, DLA, BN

Destination: Jezel mountain range

Distance from Palmyra: about 80 Km (see Annex 3 for geographic coordinates)

Road/Road + OR/OR: OR

Means of transportation: 4x4 vehicle

Facilities en route: none

Attraction description: through a dirt track, in about 1-2 hours the visitor reaches, by crossing beautiful rocky desert landscapes and mountains, a remote limestone cliff with Byzantine-period tombs and dwellings (similar to the certainly more famous ones from Petra). Hiring a local trained guide is highly recommended. See Annex 3 for geographic coordinates.

Time Reqd: 3-5 hours / half day

En route attractions: desert landscape and scenery, natural heritage and culture (nomads), birdwatching

Brief Title: BIRDWATCHING IN THE DIFFERENT DESERT ECOSYSTEMS

Thematic interest: BW, BN, DLA, DCT

Destination: see web site <u>http://www.andrewsi.freeserve.co.uk/birding-in-syria.htm</u> and article Hofland and Saveyn (2005)

Distance from Palmyra: variable

Road/Road + OR/OR: Road + OR

Means of transportation: 4x4 vehicle, camel or horse, mountain biking, hiking

Facilities en route: depending on tour: in general very few facilities

Attraction description: visiting the different ecosystems of the Palmyra desert (see chapter 1.1) to discover the interesting birdlife of the area. Recommended to hire one of the local trained birding guides.

Time Reqd: from few hours to half a day

En route attractions: all the other described tours can be easily combined with birdwatching

Whole day excursions

Brief Title: THE NATURAL HERITAGE OF THE STEPPE: AL TALILA PROTECTED AREA

See box above: that excursion can be easily extended to a whole day.

Brief Title: MOUNTAIN PROTECTED AREAS TOUR: ABU MINGEL, ABU RIGIMIN AND JEBEL BILAS

Thematic interest: DLA, DCT, BN, BW

Destination: Abu Mingel, Abu Rigimin and Jebel Bilas protected areas (see Annex 3 for geographic coordinates)

Distance from Palmyra: a loop of about 200 Km

Road/Road + OR/OR: Road

Means of transportation: car, van, minibus

Facilities en route: none

Attraction description: this is an excursion that can be traveled on a paved road in one day, crossing the 3 mentioned protected areas. The rocky mountainous landscapes are outstanding. Scattered surviving *Pistacha atlantica* trees evidence that these mountain ranges were until recently covered with an oak woodland. During spring time (March-April) of wet years mountain slopes are blossoming with gorgeous wild flowers. Short hikes can be carry out here and there from the vehicle parked at a suitable site with a scenic view. A good local eco-guide would surely enhance the enjoyment.

Time Reqd: 4-5 hours / whole day

En route attractions : the lake of Sed Wadi Abiad, sceneries and landscapes. A place to stop over for lunch or coffee break would need to be identified.

Brief Title: HAMAD DESERT AND THE BEDOUIN CULTURE

Thematic interest: DLA, DCT, BN, BW, RS

Destination: Hamad desert (see Annex 3 for geographic coordinates)

Distance from Palmyra: starting about 80 Km south of Palmyra, and reaching the border with Iraq

Road/Road + OR/OR: Road + OR

Means of transportation: 4x4 vehicle

Facilities en route: Bedouin tents

Attraction description: Hamad is the northern edge of the flat desertic plateau that extends into Saudi Arabia and Iraq. Huge horizons and a flat desert scenery. Hamad seasonally offers the traditional grazing grounds to many Bedouin tribes during the period October - April (variable according to rainfall). Wondering around, learning about the desert's secrets, spending some time (even overnighting) in a true Bedouin tent, respectfully interacting with this charming people and learning about their culture (a special care should be taken in taking picture, avoiding it is the most respectful approach). A trained local guide with good driving capacity is certainly needed.

Time Reqd: one full day or more than one

En route attractions: desert scenery, horizons and atmosphere; natural and cultural heritage (Beduin nomads)

Brief Title: CAMEL DESERT TREKKING

Thematic interest: DLA, DCT, BN, RS

Destination: Palmyra desert surroundings

Distance from Palmyra: variable

Road/Road + OR/OR: OR

Means of transportation: camel

Facilities en route: none

Attraction description: there are several locals in Palmyra that claim to be able to organize such excursions – certainly an ability locally available since the time of queen Zenobia and the silk road. This experience will give the visitor a taste of what was the ancient way of traveling across the deserts.

Time Reqd: one or more days

En route attractions: all other described tours could be combined with this one

Brief Title: BIRDWATCHING IN THE DIFFERENT DESERT ECOSYSTEMS

See box above: that excursion can be easily extended to a whole day.

10. Specific recommendations

10.1 Keeping two separated tracks for ecotourism and nature tourism

It is recommended to maintain two different and separated tracks in developing ecotourism and nature tourism for several reasons, such as:

- ecotourism and nature tourism have two different markets, with quite different requirements
- ecotourism, through the international certification system, is able to ensure that the local community will directly gain benefits from the visitors
- because protection and management of natural assets is currently not sufficiently developed yet, some very vulnerable sites and assets could be at this stage already visited by small groups of ecotourists without major harm, while large groups of organized tours would surely have a negative influence. For instance, it is surely recommended to not market any visit of large groups to the N. Bald Ibis colony yet, not until trained rangers and guards are employed permanently and until a proper management plan for the protected area is in operation. The same applies for Sabkhat al Moh or Arak village.

10.2 Additional infrastructure development

In order to become a premier quality tourism and ecotourism destination Palmyra should definitely try to avoid the mistake - so often done by other famous sites with a major tourism vocation: which is not resisting the temptation to interpret development mainly through building visually invasive infrastructure irreversibly deteriorating the original landscape. It should never be forgotten that the original landscape is the very reason attracting visitors to a site from all over the world.

The desert landscape and the aesthetics surrounding the ruins is still the major reason for the fascination of the western visitor for Palmyra. Therefore preserving the landscape of Palmyra should be the priority number one for a sustainable development planning. Keeping in mind that Palmyra has at least 5 mutually interactive



landscapes that make its archeological site unique in the planet:

- the palmary
- the flat desert to the south and the east
- the sabkhat to the south
- the rocky mountains to the north.

The beauty and aesthetical value of a desertic landscape - especially in the eyes of western tourists coming from higher latitudes - is essentially based on an immense and flat horizon on one side, the view of mountains and sheer cliffs on the other side, and associated emptiness and quietness. It is self-evident that any building erected <u>vertically</u> in a desertic flat habitat, characterized by a high visibility, is much more eye-impacting than in a forested and vegetated or hilly habitat. A special care should be therefore placed in planning to erect buildings with more than one storey, for instance the so-called "palaces". This kind of buildings, typical of urban areas, cannot be harmonized in an environment such as that of Palmyra and its surroundings.

Too many buildings and infrastructures have already been built around and inside Palmyra, without putting too much thinking, disturbing and partly degrading or destroying already the original landscape. The most eloquent is the mast towering over the archaeological site, beside the castle: it is really hard for a tourist to even take a picture avoiding to include this ugly modern structure inside the frame of the picture. Removing and relocating the mast would be seen by Palmyreans and by the international community of Palmyra lovers as a sign of a new era of sustainable and more landscape-sensitive development.

10.3 The atmosphere of Palmyra, the oasis and the desert

One of the most enjoyable quality of visiting Palmyra and its desert is the general atmosphere of quietness and the silence of the empty spaces surrounding it – the same atmospheres described by Lawrence of Arabia in its famous The Seven Pillars of Wisdom. It is recommended to take this into account especially when planning the construction of an airport, or of the ring road around the town or the establishment of bazaars around – or, even worse, inside - the millenary oasis. Especially the oasis is very vulnerable: promoting the increase in motor and human traffic, through the tiny oasis' alleys, will irreversibly destroy its atmosphere. In particular, it is recommend to avoid to establish any bazaar <u>inside</u> the ancient oasis nor to pave or enlarge the alleys of the oasis. Moreover, while planning the establishment of an airport, the noise produced by planes when taking off should be seriously taken into account as this noise will surely negatively affect the quality of a visit to Palmyra.

10.4 Making the protected areas operative

As already mentioned, during a high level meeting organized by the British Syria Society on the tourism development in Palmyra, in mid April 2008, the Prime Minister and several other ministers showed to be highly aware about the importance and potential role of the recently established protected areas in diversifying the tourism product and therefore in helping turning the town to become a premiere quality tourist destination.

In fact, Palmyra cultural and natural heritages are strictly intertwined and cannot - and should not - be separated. Actually they held many aspects in common: not only they both make Palmyra and its surrounding desert unique globally but they are currently both still very vulnerable and threatened. For instance, not only the ruins of Palmyra are unique globally: also the 6 still surviving bald ibises of Palmyra are unique in the world (BBC World, National Geographic, Guardian, The Telegraph etc. have extensively covered the issue in the past years). The visitor might become fascinated by realizing that these birds are the last living descendants of those revered by Egyptian pharaohs!

In the words of Mr Haloush, director of the Environment Department of the State Planning Commission, recently interviewed by Syria Today: "[...] the bald ibises of Palmyra are becoming famous internationally as the queen Zenobia".

But despite the remarkable awareness of Syrian authorities regarding the importance of the recently established protected areas and associated biodiversity, there seems to be little awareness on the need to ensure a proper management and staffing to these



protected areas before planning to use them in the framework of tourism development.

In fact, the globally unique biodiversity assets of Palmyra, especially the bald ibises, are still highly endangered: for instance, five years after the colony discovery, the bald ibises are still hyperthreatened as the Abu Mingel protected area is still sadly only a protected area on a paper (no borders defined, no qualified staff, no management plan, no equipment etc.). In fact, after the termination of the DGCS/FAO project in 2004, this year for the second time in three years, the ibis colony failed the breeding due to poor protection. Not to mention that in 2007 an oil concession was granted in the core ibis breeding area and a water well was built in front of the ibis nesting cliff.

Al Talila protected area is not in a better state. A management plan for this protected area was prepared in 2004 (Serra and Williamson 2003b), using a participatory approach, and delivered by the FAO to the national management. It appears that this management plan has never been implemented - starting from the hiring of proper and qualified staff. Moreover, the traditional users of Al Talila, allowed to use the protected area during the DGCS/FAO Palmyra project, are currently excluded from it. Therefore, despite the considerable investment of DGCS/FAO Palmyra project, Al Talila PA has failed short to become the first operational protected area of Syria – and have become one among the many "protected area on paper".

Alarmingly, it has become common to hear of making revenues from the natural heritage of Palmyra through ecotourism, forgetting that the first step is to ensure the survival of the unique resources that are still striving to survive: without them, no ecotourism nor nature tourism will be possible. There is actually a need to act urgently.

In order to preserve the globally unique natural heritage of the Palmyra desert, the recentlyestablished protected areas of AI Talila, Abu Mingel and Sabkhat al Moh should be turned as soon as possible into operative protected areas according to international IUCN standards. It is therefore recommended to allow and facilitate the technical assistance by the competent international conservation organizations - already activated and very committed - aimed at building the technical capacity of protected areas and at providing them with scientifically-based management plans and ensuring the involvement of the local communities.

It is clearly urgent that key national and international stakeholders prepare, discuss and agree on a management plan for the Abu Mingel protected area, as the development pressures are increasingly growing in the area. It is especially recommended to involve the Governorate of Homs as much as possible and to make it aware that the plan for a tourist village at the site of Wadi Abiad dam would be located just inside the Abu Mingel protected area and it would not be compatible with the preservation needs for the area.

Unitl a clear management and preservation plan is not prepared and agreed, it is strongly recommended that Abu Mingel PA is not open to tourism - at least not outside the paved road

network - as at the moment this could deliver the last blow to the chances of survival of the last surviving N. Bald Ibises.

10.5 A Desert National Park



Abu Mingel PA could well qualify as a national park, according to the standard protected areas guidelines and classification of IUCN. The natural and cultural assets of international relevance present in this protected areas are the following:

- an outstanding and dramatic desert (lunar) landscape
- a globally unique colony of birds, the N. Bald Ibises, last living descendents of those revered by the ancient dynasties of Egyptian pharaohs
- occurrence of one of the last herds of wild Reem gazelles (good potential for reinforcing them with the captive ones from AI Talila stock)
- potential for reintroduction of charismatic, only recently vanished, mega-fauna such as the Nubian Ibex and the Arabian Leopard
- fascinating culture and traditions of the nomad pastoralists
- remarkable potential for outdoor activities such as hiking, mountain biking, climbing etc.

It would be the first national park for Syria, which could become something equivalent to what Wadi Rum is for Jordan. The Souss Massa National Park in Morocco, the last breeding area for N. Bald

Ibis from the western subpopulation, could be used as a model (see www.moroccotravel.com/morocc o/Massa). The presence of а National Park located in the desert



surrounding Palmyra would certainly enhance the tourism vocation of the town, making more attractive for tourists to spend more days in the Palmyra region.

10.6 Legal framework on protected areas and ecotourism

A legal framework is needed aimed at regulating the sector of protected areas and ecotourism nationally. The lack of such a legal framework is a grave vacuum for Syria that has already been pointed out as early as 2003 by Anderson (2003) and Cirelli and Monif (2003) – and subsequently also by Serra (2007). Recently, another possible major emerging conservation project in Syria, Sabkhat Al Jabbul protected area, has expressed again the need for a legal framework as the condition *sine qua non* to proceed.

This legal vacuum appears to be the critical constraint preventing the implementation of efficient and sustainable conservation strategies and plans in Syria nowadays. Ecotourism policy should be ideally flexible enough in order to ensure the quality of the visit and the viability of the business, and at same time should address the key conservation concerns.

A key issues that the framework should regulate is the outsourcing of services from the Govt. to the local community (private sector). This is the most viable and safe path through which real and

tangible revenues for the local community can be generated. It is recommended that services like interpretation, local transport, accommodation and food provision inside and around the protected areas should be outsourced to the local community.



is clearly lt а precondition to any idea of planning an ecotourism scheme in the Palmyra desert. Such legal framework would be the real starting point: in facts DGCS/FAO project Palmyra had hired а

consultant with the goal of assisting Govt. in preparing a preliminary draft of the legal framework (Cirelli and Monif 2003). Most important issues that should be addressed and regulated by the legal framework are the following:

- outsourcing of ecotourism services to traditional users of land protected
- priority status for traditional users of land protected relatively to staff employment
- clarifying competences and roles of different institutions in the field of conservation and protected areas
- indicating the key staff needed in a protected area and specifying the criteria for selection (based on qualifications and training)
- basic equipment needed in a protected area
- management plan and financial sustainability of a protected area
- land tenure issues of protected areas and their buffer zones / controlled grazing plans.

10.7 Halt Al Badia ecological degradation

As explained in chapter 2 the Palmyra desert is experiencing a very severe ecological degradation process. The land tenure issue is particularly important for Al Badia as it is strictly linked to any possible hope to sustainable exploitation of its pastures. As long as Al Badia pastures are exploited on a free access system basis there is little hope to halt the increasingly quick ecological degradation: the free access system in fact encourage each Bedouin pastoralist's family to exploit as much as possible any pasture until depletion - and then rapidly moving to another one. Before the advent of the open access system era (during the 1960s), each Bedouin tribe would control certain pastures, therefore holding responsibility for it (the so-called hema system) – adopting the long-term view approach or keeping in mind the next generations.

DGCS/FAO Palmyra project realized that MAAR is aware of this root problem for the degradation of the desert, and that it is ready to reform this land regulation at least within protected areas – preparing the ground for negotiating sustainable grazing plans with mobile pastoralists – the same way it happened with the Sba'a tribe in AI Talila PA. Without clarifying the land tenure, it is in fact impossible starting any discussion with the pastoralists about sustainable grazing plans. Ecotourism and protected areas will be accepted more readily by indigenous local community if the legal status of the land in question is first settled to their, at least partial, satisfaction.

10.8 Clarify the role of tourism in the local economy

A dangerous myth associated with tourism development is that it could replace the traditional local economic practices. Instead, tourism should be regarded as a complementary income, never an alternative to traditional livelihoods. The main reason for planning so, is that tourism is completely dependent on international demand, markets and policies - all variables totally out of control of a remotely located rural community. For instance, after an initial success of a tourism scheme, visitors could suddenly stop coming from one year to another, without any notice of advance, just due to any arisen political regional instability, to increasing competition from a different alternative destination, to climate fluctuation and even to fluctuation in currency exchange rates. In the Middle East region tourism is especially negatively affected by the constant international political tensions.



Moreover, disrupting the traditional practices by tourism would mean sweeping away the local cultural heritage and traditions - which would be against the very definition and basic objectives of ecotourism. For instance, nomadic Bedouin of Wadi Rum (Jordan) have been engaged in guiding foreigners in desert tours since long time ago, and managed to integrate and blend well this activity with nomadic pastoralism (Chatelard 2005). In fact, their traditional multi-resource approach is a strategy to minimize risks: for instance, when the tourism

to Jordan suddenly dropped 70-80% in 2001 following the September 11's events, those Bedouins who had not completely abandoned their traditional activities, simply re-focused on pastoralism and just froze the provisions of guiding services (Chatelard 2005).

10.9 Water sustainable management

According to the timeless wisdom legacy of all the desert oases of the world, "water is the golden element" of this harsh and otherwise inhospitable environment. Technological progress and an

exponential demographic growth of Palmyra population during the past 10-20 years somehow induced the people to neglect this long-held wisdom and to start a new and unsustainable era of misusing the precious underground (fossil) water coming up from the Palmyra basin. This new era certainly started with a kind of water "crime" taken place in the 80s: the destruction of the millenary and historical Ifga spring during the construction of a five-star hotel (presently called Cham Palace).



Surprisingly, in these years many ideas

were proposed on how to solve the problem of the limited water in Palmyra, mostly based on bringing water from outside Palmyra (even as far as from the Euphrates!), except the most sensible one: start to use the water of Palmyra in a sustainable way, the same way it has been used by past generations of Palmyra during millennia: in fact past generations were able to use the water of the oasis sustainable for long time, using a traditional and very sensible system of sharing equitably the limited water.

Reverting to a sustainable water management should be the starting point together with the realization that a desert oasis with limited water supply cannot sustain an exponentially increasing human population for long time (it is unsustainable): awareness on family planning concepts and practices should be spread among the Palmyra population, in parallel to the awareness on the need to wisely use the precious water.

10.10 Solid and liquid waste management

The solid waste management is a major long-standing problem for Palmyra. In fact, a site with ambitions of becoming a tourism (let's not mention ecotourism) attraction - or even more, a destination - should firstly tackle and solve the problem of properly managing the rubbish. The waste generated by Palmyra is collected daily and simply dumped just outside the town without any treatment. The wind then spreads most of this rubbish, especially plastic bags, in all the directions.

Travelling across the Palmyra desert, but even across the famous ruins, one can "admire" black plastic bags almost everywhere, blown by the wind and often stuck on the shrubs. This is not only a huge aesthetical problem: several antelopes from AI Talila have died due to plastic bags ingestion in past years.

Awareness should be raised among school teachers, students and shop keepers of Palmyra on the need to minimize use of plastic bags and to not throw them in the desert. Raising the price of plastic bags nationally could be a helpful measure.

A liquid waste management, if not in place yet, should be definitely prepared and implemented, in order to guarantee a sustainability of the water use in Palmyra. Especially taking into account the current population growth and the prospects of increasing dramatically the number of visitors *per* year.

10.11 Certification of ecotourism

As explained in chapter 4 ecotourism, in order to achieve its ambitious objective of both benefiting nature and the local economy at the same time, should be controlled by independent subjects. It is recommended that the people involved in ecotourism activities and businesses make their best to get certifications by the internationally acknowledged non profit international organizations (see chapter 4.3).

The role of local and national conservation NGOs could be important as well, as long as they act as impartial subjects independent from the business. The inclusion of Palmyra tours within the web sites of the most important ecotourism and responsible travel organization could become an excellent first step for advertising and marketing their quality products internationally.

10.12 Certified local guides

Increasing the number of trained local eco-guides would certainly be needed, if ecotourism and nature tourism is planned to be developed and promoted. A national eco-guide certification system should be also established and standardized by the Ministry of Tourism (something seems already moving in that direction). A training program in the benefit of locals should be organized. The guides should in fact be only from the local community.

10.13 A Visitor Management Plan

It is important that the authorities and the local community discuss and agree patterns in which visitors and locals can meet in circumstances of mutual respect. If Palmyra is planned to become a "destination", with hundreds of thousand of visitors arriving every year, important it is that stakeholders, including the discuss and population. agree on a way to manage and control this mass of tourism, producing a Visitor Management Plan and



some sensible Limits of Acceptable Changes (sensu Anderson 2003). The risk is that the tourism will negatively affect, irreversibly, the local culture and traditions: literature on the subject is abundant about case studies around the world.

The visitor management plan should also include a "Visitor Code of Conduct" that the visitors should become familiar with upon their arrival. Especially important is that ecotourists and tourists, getting into contact with Bedouin nomads, do so in a respectful way and being aware of their customs and traditions. Photographs at people should be avoided - or at least should be taken only after asked the permission -, in order to avoid experiencing the impression of being on a "human safari" and to avoid promoting a possible unpleasant habit of locals of charging tourists for being photographed – situations already seen in other parts of the world. See for instance a proposal for a Visitor Code of Conduct in Annex 5.

10.14 Zoning Plan of the Ministry of Culture.

The Ministry of Culture has defined a "Zone 3: Agricultural Area", south of the Palmary, where "ecological tourism development " will be allowed. This area seems suitable for establishing an "eco-lodge" (on the same lines of those common in African parks), well blended and harmonized with the environment, perhaps offering the chance of a bath under the palm trees, and the possibility of hiring a camel or horse, and mountain bikes. Also an observation tower could be useful. This lodge would become an ideal setting from which starting environmentally friendly guided excursions to the ruins, the oasis or the sabkhat, or even to the Al Talila PA.

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Note: for a complete and extensive list of references on ecotourism see Serra (2007) (<u>http://www.ecotourismsyria.com/pdf/feasibility%20ecotourism%20palmyra%20BLI%20-%20light%20version.pdf</u>)





ANNEX 2 – Article of The Guardian on ecotourism (July 2006)

BOOM IN GREEN HOLIDAYS AS ETHICAL TRAVEL TAKES OFF

Gas-guzzling industry is belatedly catching up with growing market

Esther Addley, July 2006, The Guardian

It was the cockroaches, in the end, that turned Paul Leonard into an ethical traveller. A disastrous package trip to Spain, involving collapsing roofs and a beetle infestation, convinced him there had to be another way. He did not have much in the way of green convictions at that stage, he admitted, but, encouraged by his vegetarian girlfriend, he was persuaded to try a holiday through a "responsible" travel operator.

After two weeks in a Malaysian mountainside lodge, bathing in the warm feeling of doing good, the 31-year-old electrical project engineer was a convert. "They explained that they used environmentally friendly products, ensured that money got paid back into the local economy, employed local people - which we liked. I was surprised that a holiday could be so different."

The pair now take their holidays at organic farms and B&Bs, and pay to offset air travel carbon emissions. They have taken their ethics home with them, too, recycling as much as they can.

Mr Leonard is not alone. While there have always been travellers who have sought to minimise the negative impact of their journey, the travel industry at large has long been more associated with thirsty golf courses and gas-guzzling air miles than a desire to do good. But as mainstream consumers become increasingly accustomed to recycling their household rubbish and going easy on the gas heaters, they are also looking for more ethical ways of taking a break - prompting a striking surge in demand for a greener type of travel.

"In the past 10 to 12 months we have seen a 10-fold increase in sales," said David Wellington, of climatecare.org, a website that calculates carbon emissions and invests in projects to offset them. He added that 85% of the growth was in "online sales for offsetting flight emissions". In 2006 that would be equivalent to 220,000 return flights to Paris.

Justin Francis, managing director of the firm ResponsibleTravel.com, said: "Our bookings are double what they were this time last year. We have had this consumer demand [for ethical products] in food and fair trade for 15 years, but not in travel."

Five years ago, when the company started, he says, they could find only five travel firms in the UK supplying holidays they were happy to recommend. "Now we have over 160 tour companies ... Tourism is one of the world's biggest industries, some say the biggest [for] employment. This is an industry that until the last two or three years has been untouched by a strong consumer ethical dimension, though other global giants, like oil and mining, have had to show a commitment ... We have the world's biggest industry belatedly in catch-up."

Holidays sold as "responsible" or "sustainable" still make up perhaps just 1% of trips overseas, equating to 450,000 holidays from Britain a year. But as the ethical consumer market grows - Fairtrade food and drink sales increased by 52% in 2005, while ethical investments were up by 31%

- the ripples reach the travel industry. According to consumer research firm Mintel, by 2010 the outgoing "ethical" holiday market from the UK will have swollen to 2.5m trips a year.

Jane Ashton, head of corporate social responsibility at the holiday giant First Choice, said: "The product we sell is the people and environment - so we have an obvious interest in protecting them." First Choice, she said, would be working on diverse projects, including environmental and educational schemes. She added: "We're not experiencing a huge demand from the average consumer, but we do believe that awareness is increasing, and in a few years' time we will have needed to have integrated these principles into our supply chain."

Tricia Barnett, director of Tourism Concern, accepted that talking in terms of an "ethical" holiday when flights were one of the main contributors to carbon emissions was "a very difficult issue", but argued that even mass tourism, when fair to local communities, could do more good than harm: "If people stop travelling then the benefits wouldn't get to the people at all." Travellers, she said, should ask to see operators' policies and choose a travel firm that respects the environment and pays fair wages to local staff. "We joined the Make Poverty History coalition, because we see tourism as an opportunity for people to come out of poverty."

As for Mr Leonard, so enamoured was he with one Malaysian ethical holiday he proposed to his girlfriend there, on the island of Tioman. They are planning a highly responsible honeymoon.

How to be a responsible tourist:

Offset your flights

The travel industry is eager to point out that flights account for just 3-5% of carbon emissions, but they are still a significant contributor to global warming. Sites such as www.climatecare.org will calculate the equivalent cost of your emissions and invest in a carbon reduction project, such as planting trees, to offset them. Offsetting return flights for two to Marrakech, for instance, would cost just £7.56.

Find out as much as possible about your destination

Tourism Concern is running a campaign about the Maldives, a luxury destination where 30% of under-fives suffer from malnutrition and more than half the population live on just over \$1 a day. Rather than calling for a boycott it is urging concerned travellers to join its campaign. For more information visit tourismconcern.org.uk or see The Ethical Travel Guide by Polly Pattullo, available from www.earthscan.co.uk

Choose a responsible operator

Ask your operator if they have an ethical policy. Are they committed to reducing waste and water use, and to minimising damage to wildlife and marine environments? Do they use local staff and, wherever possible, locally sourced produce? Do they pay fair wages to their local staff?

ANNEX 3 - Geographic coordinates of sites mentioned in the text

Abbasieh: 34.383821, 38.387775

Abu Mingel protected area: 34.763615,38.358765; 34.676700, 38.399277; 34.851002,38.167191;

Abu Rigimin protected area : 34.937171, 38.268127; 34.941111,38.502274; 34.852692, 38.450089; 34.825641,38.231735

Arak village: 34.641823, 38.567677

Dahek (AI) cliff: 35.010315, 38.786545; 34.960246,38.783798; 34.934919, 38.823624; 34.973188,38.895721

Desert Culture and Nature Education Center (DNEC): 34.519853,38.534889

Douara: 34.672465, 38.467598

Halili Jezel: 34.720733,37.968063

Hamad desert: 34.107256, 38.973999; 33.838483,39.221191; 33.797409, 38.155518; 33.642063,38.605957 34.812112, 37.861633; 34.650155,37.840347

Jebel Bilas protected area: 35.021000, 37.612381; 35.02606,37.781296; 34.882551, 37.546463; 34.857764,37.675552

Sabkha al Moh: 34.508254,38.2901; 34.516175, 38.363571; 34.461843,38.307953; 34.473732, 38.378677

Talila (Al) protected area: 34.533147, 38.649902; 34.448821, 38.647156; 34.424470, 38.384171; 34.474864,38.401337; 34.525227, 38.524933

ANNEX 4 – Proposed trails across the oasis



Interest: the trail is following the whole length of the ancient wall: nice combination of cultural heritage (AH) and a visit to the oasis (DCT, BN, BW). *Length*: about 6 Km. *Duration* (at slow pace by walking): 2-3 hours. *Effort*: medium (depending on the season and temperature).

TRAIL 2



Interest: the trail is following a segment of the length of the ancient wall: nice combination of cultural heritage (AH) and a visit to the oasis (DCT, BN, BW). *Length*: about 3-4 Km. *Duration* (at slow pace by walking): about 2 hours. *Effort*: low-medium (depending on the season and temperature). A reduced low-level effort variant of this trail is the one shown below.



TRAIL 3



Interest: Temple of Baal, wadi and the oasis. *Length*: about 5 Km. *Duration* (at slow pace by walking): 2-3 hours. *Effort*: medium (depending on the season and temperature).

TRAIL 4



Interest: the oasis. *Length*: about 3.5 Km. *Duration* (at slow pace by walking): 1-2 hours. *Effort*: medium (depending on the season and temperature).

TRAIL 5



Interest: the oasis. *Length*: about 6 Km. *Duration* (at slow pace by walking): 2-3 hours. *Effort*: medium-high (depending on the season and temperature).

ANNEX 5 – Proposed Code of Conduct for visitors

- never throw litter or garbage in the ground, use bins
- avoid driving off of tracks this is one of the cause for the desert ecological degradation
- when in the desert, respect the Bedouin pastoralists, do not take pictures at them (unless asked by them or after having asked the permission)
- while in the town, you might consider that western summer light clothing, especially that of women, can be seen as offensive relatively to the local culture
- do not drink alcoholics in public, on the streets
- no collecting plants and flowers; no harassing, collecting, or capturing fauna.