

Ecotourism as a Tool for Nature Conservation: The Role of WWF Greece in the Dadia-Lefkimi-Soufli Forest Reserve in Greece

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This case study of the Dadia-Lefkimi-Soufli Forest Reserve in north-eastern Greece is based upon the experiences of WWF Greece and their initiatives to establish an ecotourism project to enhance the conservation of threatened raptor species. Dadia is a bio-diverse region, notable for its raptors, whose numbers have been endangered by changes in agricultural practices introduced since the 1970s. Although designated a protected area in 1980 in an attempt to conserve the raptor species, WWF Greece realised that conservation would be unlikely to work without the support of local people. Restrictions placed on traditional economic activities, especially logging, after Dadia's designation as a protected area, made local support especially problematic. The NGO therefore undertook to develop ecotourism as a means of combining economic progress with conservation. The case study emphasises the proactive role of WWF Greece in using tourism as a tool for species conservation and community development.

Keywords: ecotourism, Greece, raptors, WWF, conservation, non-governmental organisation

Introduction

International tourism to Greece has developed dramatically over the last 30 years: natural resources of sun, sea and sand have encouraged coastal and island tourism development. The rich history and archaeology of Greece has provided an additional element in the tourism product. However, the diversity of Greece's natural and cultural resources for tourism is largely unknown to the foreign market. This diversity includes high mountains, coasts, wetlands and forests, ranging from the Mediterranean shrub landscapes of the south to the beech forests of the north. The diversity of the eco-systems, coupled with regional identities dating back from the city-states of ancient Greece (Courtledge, 1998) and the nation's underlying geography, have produced a rich cultural mix.

Greece has a coastline of 16,000 kilometres, with 10,000 islands (Catsadorakis, 1999). The country is also mountainous: 13% of the land surface is over 1000 metres in altitude with a further 65% over 200 metres. Over 400 bird species, many endangered in Europe and some globally, have been recorded. The rich biodiversity of Greece includes 116 species of mammals, 58 species of reptiles

and approximately 6000 plant species (Catsadorakis, 1999). Yet, little of the landscape is in fact natural or wild, in the sense of being unaltered by human activity. With the exception of the virgin forest of the Frakto district in Northern Greece, the Greek countryside has been shaped through human interaction over many years with nature, in certain cases contributing to its biodiversity. However, from the 1970s changing and more intensive agricultural practices alongside tourism development in some coastal areas and islands, have begun to threaten that established biodiversity.

Uneven Spatial Patterns of Tourism Development

Despite the potential attractiveness of the diverse nature and cultures of inland Greece, tourism development has concentrated on the coastline and islands. The intensity and style of development in certain areas has resulted in negative impacts including the loss of habitats, aesthetic pollution, illegal building, pressure on natural resources, especially water, and a stereotypical interpretation of the local culture. With over 14 million international tourists arriving per annum, mainly in the summer season, many coastal and island areas of Greece are subject to tourism impacts.

Tourism plays a prominent part in the Greek economy. Including direct and indirect impacts, travel and tourism accounted for an estimated 14.3% of the Gross Domestic Product (GDP) and 16.5% of employment in 2004 (WWTC, 2004). In terms of visitor arrivals, Greece is ranked 15th in the world, with 14,179,999 international tourist arrivals in 2002 (Greek National Tourism Organisation, 2004).

From a conservation perspective, based upon the observation of the degradation of the environment experienced on some of the coast and islands, it may be considered fortunate that the inland and mountainous zones have remained relatively undiscovered by tourism. Conversely, these regions have been excluded from the economic benefits of tourism, notably employment and income generation (Tsartas *et al.*, 1995). This lack of economic opportunity has had effects upon the demographic and social structure of the villages of inland Greece. Migration from the villages began in the economically and politically difficult time of the post Second World War period, with a mass exodus to the cities or abroad during the 1950s and 60s. Out migration of young people from the villages continues to this day.

Although tourism has provided economic opportunities for coastal and island communities, it has also rapidly changed their economic structure. For example, the island of Corfu, off the west coast of Greece, had 41% of the population working in the primary sector, mostly in agriculture, with just 10.5% working in the tourism sector in 1981. By 1990, only 12% were working in the primary sector, while 24% were employed in tourism (Tsartas *et al.*, 1995). A similar transference of labour from the primary sector to tourism is also evident in the islands of the Aegean (Ministry of the Aegean, 2004). While the higher income paid through tourism employment is a positive development, there is a concern about economic over-dependency upon tourism, making the local economy vulnerable to the changing market fashions and economic crises that can affect tourism demand.

Although the potential economic opportunities of the use of the countryside's natural and cultural heritage for tourism have to date not been realised, early

signs of an interest in the resources of the interior for tourism can be traced to the 1970s. During that decade both foreign and Greek nature specialists, alpinists and hikers started to use the Greece countryside for leisure and tourism pursuits. The popularity of the countryside grew during the 1980s and 90s as adventure tourism based upon kayaking, rafting, trekking and other 'high adrenaline' sports become fashionable. This trend was representative of new niche markets that developed worldwide alongside mass tourism at that time. One of these was 'ecotourism' and the term became established in the Greek tourism market by the late 1980s.

The Environmental Conservation Movement in Greece and its Synergies to Tourism

The development of ecotourism relies on an interest in the natural environment from the public. This is demonstrated in Greek society over the last two decades by the rapid growth in national and local environmental NGOs, the majority of which rely upon financial donations from the public. Although the history of the conservation movement in Greece can be traced to the foundation of the Hellenic Society for the Protection of Nature in 1951, from the 1970s onwards the numbers of environmental NGOs in the country increased considerably, along with public awareness of environmental issues.

Two of the most popular NGOs dating from this period are the 'Sea Turtle Protection Society' and the 'Hellenic Society for the Study and Protection of the Mediterranean Monk Seal'. With a focus upon the protection of two charismatic species, the sea turtle (*Caretta caretta*) and the Monk Seal (*Monachus monachus*), they gained attention and sympathy relatively easily compared to other NGOs who concentrated on a more holistic approach to the protection of ecosystems. Today there are approximately 200 officially recorded environmental NGOs in Greece.

Since the 1960s the World Wide Fund for Nature (WWF) initiated conservation projects in Greece, first as the World Wildlife Fund, and after 1991 as WWF Greece, an independent national organisation based in Athens. WWF Greece works differently to most other environmental NGOs, by implementing long-term projects that are supported by permanently sited scientific staff in the fieldwork areas. Other NGOs tend to work seasonally at local level for the purposes of scientific enquiry and awareness raising, rather than having staff permanently in the fieldwork area. The constant presence of WWF staff is important to begin to integrate with, and gain the acceptance of, local communities.

Although species and habitat conservation remains the priority of protected areas management, the integration of staff with local communities helped to give WWF an understanding of how conservation measures and strategies may sometimes be in conflict with the economic and social needs of local peoples. The conservation work of WWF Greece during the early 1990s was often met with hostility from local communities; the term 'ecologist' was often used in a derogatory sense to indicate that they cared more about nature than people. Part of this hostility was also associated with suspicion of the WWF as 'outsiders' and as instruments of the 'state', because they attempted to implement government conservation measures, that had been not put into practice through lack of political will, management experience, and resources. The foreign name of the WWF further emphasised the identity of WWF as an 'outsider', unlikely to understand

and relate to the concerns of local people. The word 'Fund' was also a problem, creating false expectations of money available for local people.

While public interest in the conservation of nature in Greece has increased, the action of successive Greek governments towards nature conservation have been mixed. Greece now has 27 National Parks, among which are 11 Ramsar sites for the protection of wetlands. The management of these protected areas has, however, been ineffective, so far, due mainly to lack of political will. It became apparent to WWF Greece that for successful conservation models to be established the support of local people was required, integrating economic development with conservation.

Ecotourism was identified by WWF Greece as having the potential to work in synergy with conservation and local people. WWF Greece's view of ecotourism became that of Ceballos-Lascurain (1996: 5) 'Ecotourism is environmentally responsible travel and visitation to relatively undisturbed areas in order to enjoy and appreciate nature (and any accompanying cultural features – both past and present) that promotes conservation, has low visitor impact, and provides for beneficially active socio-economic involvement of local populations.'

Ecotourism and the Dadia Forest Reserve

The pioneering work of WWF Greece in ecotourism began in the Dadia-Lefklimi-Soufli Forest Reserve, commonly known as the 'Dadia Forest Reserve', and henceforth referred to as 'Dadia'. The reserve is situated in the prefecture of Evros, in the region of Eastern Macedonia and Thrace in the north-eastern part of Greece, close to the borders with Bulgaria and Turkey. The location of Dadia is shown in Figure 1.



Figure 1 Location of Dadia

Dadia is ecologically significant as it is one of the few remaining refuges for raptors (birds of prey), in Europe, with 36 of the 38 species of diurnal European raptors having been observed in the forest. Some of these species pass briefly through Dadia during migration; others spend winter in the forest, while approximately 20 species nest here owing to the availability of carrion and the tranquillity of the forest. It is especially significant that Dadia is the only forest where three of the four species of European vultures breed (the Black Vulture, Egyptian Vulture, and Griffon Vulture), while the fourth species, the Bearded Vulture or Lammergeyer, also visits the area. All four species feed exclusively on carrion, on which they can be seen feeding simultaneously, as each species of vulture feeds on a different part of the animal. Dadia is essential to the existence of the Black Vulture, as it hosts its last colony in Greece, and is one of the only two remaining populations in Europe, the other being in Extremadura in Central Spain.

The ecological significance of Dadia is not limited to birds of prey. Its landscape and biodiversity includes extensive mature forests of pine, notably *Pinus brutia* and *Pinus nigra*, and also oak. The forests are interspersed with streams, small fields, grazing land and rock outcrops. A total of 219 species of birds, 40 species of reptiles and amphibians, and 48 species of mammals have been observed (Skartsi & Poirazidis, 2002).

About 1100 people live within the boundaries of Dadia, with the traditional economic activities being cattle breeding, agriculture, beekeeping and forestry. These traditional practices, based upon small fields and grazing land, resulted in open spaces that act as important feeding places for the birds of prey. The fences used in traditional farming techniques also provided nesting and feeding places for small birds and reptiles.

Centuries old traditional farming techniques that had created a stable ecosystem based upon human interaction with nature, began to change in the 1970s when European Community funding caused an intensification of agriculture. Especially significant for the raptors was progress in the medical treatment of cattle, which lowered death rates, and a move to the burial of cattle for hygienic reasons. These changes resulted in a substantial decrease in the availability of carrion for the birds. Illegal hunting and the use of poisoned baits also posed threats to the survival of the raptors. Concerns over the ecological imbalance that the new farming methods created led to the declaration of Dadia as a protected area in 1980. It has a core area of 7290 hectares, corresponding to Category 1 or 'Strict Nature Reserve/wilderness Area' designation under the International Union for Conservation (IUCN, 1994) classification, in which all use is prohibited. Surrounding the core area is a buffer zone of 35,170 hectares, corresponding to IUCN Category IV or 'Managed Resource Protected Area'. The total protected area of Dadia covers 42,460 hectares.

The two villages most affected by the establishment of the protected area were those of Dadia and Lefkimi, with a combined population of 1100 people, which border the Dadia Forest Reserve. The population of Dadia village had increased slightly in the 1970s as a consequence of economic opportunities provided by logging (Svoronou, 2000). However, following the establishment of the forest reserve in 1980, logging was prohibited in the protected area. Unsurprisingly, the prohibition of logging created tensions between the state authorities and the

village communities. A team of representatives from the two villages visited the government in Athens to protest against the regulations and to ask for compensation measures. They were refused. Alternative employment to logging was then sought. Although central and local governments suggested the development of ecotourism, a lack of local expertise and agency involvement meant that it did not develop.

WWF Greece became involved at Dadia in 1992 as there were concerns over the decline in the raptor population and conservation action was required. WWF programmes focused on raptor monitoring and conservation, and raising the public awareness of the uniqueness of Dadia's ecological habitat. At the initial stage of its conservation work, WWF Greece realised that developing ecotourism would be essential to the success of the project, helping gain acceptance of the protected area by the local community.

The ecotourism experience at Dadia

Three major problems faced WWF Greece in their efforts to develop ecotourism at Dadia. The first was a lack of facilities to receive tourists; the second was the need to have the support of the local community to make the scheme successful; and the third was a lack of market recognition as a potential tourism destination. Since the resource capabilities of WWF Greece could not commercially market Dadia as a destination, it concentrated its efforts on low cost promotion through word of mouth, press releases and the organisation of summer camps for volunteers. WWF also began the establishment and completion of ecotourism facilities.

Initially, two scientists of WWF Greece were located permanently in Dadia to carry out the conservation work. They also worked hard to build relationships with local people and break down potential barriers between WWF and the community. Initial suspicions of the WWF were successfully overcome over time. The WWF's proactive ecotourism policies and its commitment to economic development synchronised with conservation were vital here. The two WWF members who went to Dadia in 1992 are now permanent village residents.

The first priority for the WWF was the construction of a focal point for visitors to Dadia. There was already a half-finished hostel at the main entrance to the forest, one kilometre from the village of Dadia, originally initiated by the local authorities. The WWF decided to develop this into the Ecotourism Centre, through European Union funding secured by WWF: using local workers, it was completed in 1995. It comprises two buildings, a hostel and Information Centre and a café and souvenir shop. The hostel is a 20-room lodge that can accommodate up to 60 people. The whole complex is managed by the Municipal Enterprise and all staff is locally hired. Money is raised to support the conservation project through selling merchandise themed upon the raptors to visitors.

The establishment of the Dadia Women's Cooperative in 1993 was an important and tangible social and economic link to the wider community. Visitors provided an incentive for the women of the village to start small-scale entrepreneurial activity. The 34 members of the cooperative run a small restaurant serving local food in 'Katrantzides', a recreation area nine km away from Dadia. Additionally, their food products, e.g. marmalades, sweets and cakes are on sale in the Ecotourism Complex shop.

To accompany the development of the Ecotourism Centre, the WWF also designed and built a network of signposted paths for visitors to the Centre. The maintenance of these paths relies on the work of WWF volunteers, offering what Wearing (2000) refers to as a 'true form' of ecotourism experience. Youths from different parts of Greece are given the opportunity to live in the area for a fortnight, working as conservation volunteers. In a typical summer, two groups of volunteers, each of about 15 participants, come to Dadia village for two weeks. Their work helps maintain the existing trails, including signposting and providing nature interpretation panels for visitors, as well as opening new trails. Besides providing an opportunity for young people to be actively involved in nature conservation, these groups also have important cultural and social functions. The volunteers stay with village people, providing an educational and informative experience for both parties, enhancing the understanding of each other's lifestyles.

There are two main marked trails from the Ecotourism Complex, which lead to an observation post that was constructed in 1998 alongside a feeding site, with the aim of permitting visitors to view the raptors. There is also a third path that starts from the other end of the village and leads to the peak of 'Gibrena', a viewing point for the forest and the birds. However, the visitor experience begins in the Ecotourism Complex Information Centre, sited so that all visitors must pass through it on entering the reserve. The rationale for this is to make the visitors more aware of the natural environment they are about to visit. The exhibition in the Information Centre emphasises the ecological value of the forest, the socio-economic environment of the reserve, and the interaction between humans and nature. A key theme demonstrates the interconnectivity of the ecosystem, including links between the flora and fauna, and humans. Strong visual animation is used, including a slide show of the raptors, a three dimensional model of the forest, and a video presentation about the Black Vulture and other birds of prey. Visitors are made aware of the aims and work of the WWF, both at Dadia and generally. Visitors can freely browse around the exhibition at the Information Centre or ask the guides for more information.

The Information Centre also acts as point of data collection about visitors and visitor management, through surveys and questionnaires, gathering statistical information about the characteristics of the visitors and trends of visitation. This information has been recorded for the past nine years; a detailed analysis and report of the findings is under preparation (Skartsi *et al.*, 2004).

The trend in visitor numbers is shown in Figure 2. Numbers have risen from 10,243 visitors to Dadia in 1995 to 50,592 by 2003, a rise of 394% over the eight-year period.

The market for Dadia is predominantly domestic with 96% of the tourists originating from Greece, the dominant nationalities in the remaining 4% being Cypriot and German. The most common visitor age group is between 31 and 50 years old, with 36% belonging to this group: the full distribution of age groups is shown in Table 1.

Organised groups comprise 50% of visitors, with the remaining 50% being independent travellers. The group visits divide into those organised by the private sector, schools, environmental societies, and state-owned recreational centres for the elderly. Average group size is between 12 and 15 people, although

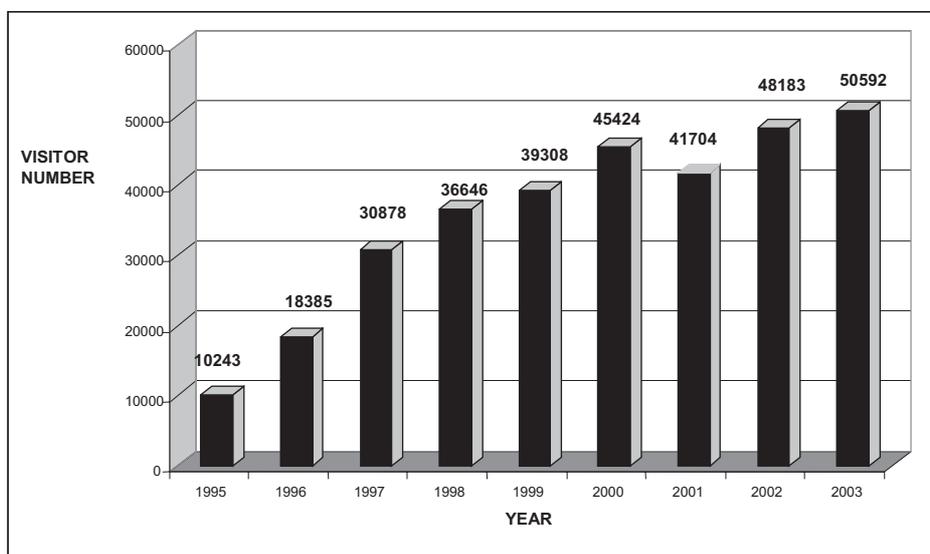


Figure 2 Visitor arrivals in Dadia 1995–2003

Table 1 Profile of the age characteristics of visitors to Dadia

<i>Age</i>	<i>Percentage</i>
under 19	20
20–30	16
31–50	36
51–60	18
60 and over	10

several hundred people have been accommodated at Dadia for the purposes of congresses and meetings on several occasions.

After visiting the Information Centre, visitors have three main options of: (1) walking along the short circular hiking path that leads to the observation post, a round trip of approximately 30 minutes; (2) following the alternative path of approximately two hours duration to a rocky hill, a very good point for bird watching; or (3) reserving a seat on the municipal bus that takes up to 14 persons at a time to the observation post (there is a fee of 3 Euros for this service, including the use of binoculars and telescopes, the bus ride and the service of a guide). The guides are hired locally and trained by the WWF, and although the quality of the guidance may vary slightly depending on the level of the individual's technical and communication skills and experience, the guides convey a sense of local ownership of the nature and culture. A key role of the guide is to advise the visitors about proper behaviour in the forest, e.g. keeping their voices low to avoid disturbance of wildlife. There is also a bilingual Visitor

Code of Conduct brochure, published by WWF in 2002, obtainable from the Information Centre.

From the observation post, visitors can view the raptor feeding site, created to provide additional food for the birds, owing to the limited availability of carrion. Through a well-organised partnership network with the local cattle breeders, the project has secured a regular supply of carrion to the feeding site every 7 to 10 days. The observation post is the major attraction for visitors, giving them the opportunity to see the birds in their own habitat. The observatory has also been designed to minimise impact on the birds' behaviour, being located at a suitable distance from the feeding site, to ensure no visitor disturbance. Similarly, the pathways to the post have been designed to avoid any visual or noise disturbance. This seems to have been successful; new birds' nests have been observed near the hiking paths.

Management of Dadia

While WWF Greece has been the driving force for the establishment of ecotourism at Dadia, it was never the intention to manage the project indefinitely. A key aim of WWF was to ensure that, having established the ecotourism project, its management would progressively be taken over by the community. It was one of WWF's priorities to promote the establishment of an agency, named the 'Dadia Municipal Enterprise', which would permit the local community to gradually take over the management of the ecotourism infrastructure created by WWF. There were two main reasons for this: (1) from the perspective of WWF, community involvement is a basic component of ecotourism; and (2) an NGO with limited resources has to prioritise its actions. Conservation work has always been the priority of WWF rather than managing ecotourism. The 'Dadia Municipal Enterprise' was created in 1994 and has progressively taken responsibility for the ecotourism scheme, taking control of the Information Centre in May 2004.

The Dadia Municipal Enterprise is community run, belonging to the municipality of Soufli to which the village of Dadia belongs. It has a board of directors, an executive director, and approximately 50 employees, most of them part-time. The mission of the enterprise is to promote and manage ecotourism at Dadia for the benefit of the local community and the conservation of the protected area. Types of employment created include guides, interpreters, and managers and workers at the café and shop. WWF was closely involved in the creation of the enterprise, researching similar schemes to identify suitable legal frameworks, and also providing a 'start-up' loan.

WWF retains an essential role in developing a comprehensive monitoring system for the ecology of the Dadia Forest Reserve. They also make recommendations on conservation measures, fundraising, providing environmental education, raising awareness of Dadia, and lobbying for further legal protection. The ambition of WWF to pass all ecotourism management to the Municipal Enterprise raised the key problem of ensuring the future environmental priority of conservation. WWF addressed this issue through capacity building and training programmes for enterprise members in environmental education and conservation. These have included training sessions on aspects of ecotourism, including interpretation and visitor management for the local guides; study visits to similar protected areas in Europe, and opportunities for the local guides to participate in

WWF's annual 'Schools', consisting of one-week training modules on protected area management.

In summary, the role of WWF Greece has been to establish ecotourism at Dadia as a means of conservation embodying economic development. This has involved the creation of an appropriate strategy for ecotourism, including the establishment of an ecotourism infrastructure, data collection and management systems, and the capacity building and training of local people in environmental and conservation management. Since the WWF's involvement at Dadia from 1992, emphasis has been placed upon the progressive transference of management responsibilities for the ecotourism project to the local community, which has now been achieved through the entity of Dadia Municipal Enterprise.

Evaluating the success of the scheme

In terms of assessing the success of the scheme within the context of ecotourism, a range of criteria can be used, including: (1) the success of the raptor conservation programmes; (2) the creation of economic opportunities for the local community, and (3) the quality of the visitor experience. The number of raptor species is monitored continuously, through the joint efforts of WWF and the Environmental Office of the Prefecture of Evros (Poirazidis *et al.*, 2001). Their numbers have increased from 26 individuals in 1980 to approximately 100 individuals in 2004. The conservation of the Black Vulture is particularly urgent, as Dadia represents one of the two remaining habitats of this species in the whole of Europe. The numbers of Griffon Vultures and Egyptian Vultures have also increased since 1980.

The creation of the feeding site has been critical to this successful conservation programme. However, the supply of carrion to the raptor population needs to be modified in a manner that will better resemble natural conditions. A new feeding scheme is being developed in which carcasses will be delivered at random to additional sites. This will also increase the opportunities for a greater number of birds to access the food. This measure is of vital importance, as the competitive behaviour of the vultures results in a situation where the weaker individuals are systematically malnourished and thus cannot reproduce. The new feeding sites in Dadia will be strictly for conservation purposes and not aim to attract tourists like the existing one (WWF Greece, 2003).

About 50 full- and part-time jobs were created in the Dadia Municipal Enterprise connected with the management of the ecotourism complex. Direct social and economic linkages to the wider community have also been made through the creation of the Dadia Women's Cooperative. Although an economic impact study of the indirect and multiplier effects of tourist income in Dadia has not been conducted, it would be expected that extra demand and income is generated in the economy, providing economic benefits for businesses and households.

The constant year-upon-year increase in visitor numbers suggests a satisfactory visitor experience, though one issue of concern relates to the levels of satisfaction if raptors are not seen. When visitors arrive at the observation post and there are no birds present at the feeding site, they are often disappointed. This disappointment is recorded in the Visitors' Book of Comments and has been

observed by the guides. A key issue, therefore, relates to the creation of expectations that birds will always be seen. Many visitors arrive in groups organised by tour agencies from various parts of Greece, and a visit to Dadia is included as part of a wider itinerary for the Evros area. The agencies often promote the sighting of raptors as the key part of the visitor experience and attraction of Dadia. One way WWF has combated this is by training local guides that escort visitors to the observation post to inform visitors about the birds' habitat and ecosystem, aiming to provide them with a fulfilling and educational experience, even if no birds are actually sighted.

The role of the private sector in tourism at Dadia does raise some issues for concern. To date there has been no environmental commitment from the private sector to conservation at Dadia, and a concern of WWF Greece is that the private sector fails to promote a message of conservation and education to tourists, instead emphasising and sensationalising the viewing of birds. There is a need for the management authority to work more closely with the tour operators to encourage them to promote a message of conservation. A financial commitment from the private sector to the ecotourism and conservation projects would also be desirable.

Conclusion

WWF Greece's involvement in the Dadia Forest Project is unique within Greece: an NGO has developed an ecotourism project that encourages a symbiosis of conservation and development. From the outset, WWF Greece recognised that for an ecotourism project to be successful it needed to have the support and the involvement of the local community, which in this case had been deprived of its main economic activity of logging when Dadia was given protected area status in 1980. By ensuring that employment opportunities have been available as guides, in the Municipal Enterprise, and in the women's cooperative, the local community now has a strong economic incentive to conserve the raptor species and the forest. The spin-offs of the employment creation include a newfound pride in the community, especially among young people, for Dadia. The development of the Dadia Women's Cooperative is especially important for the empowerment of women and their involvement in decision-making.

An important ingredient of the success of ecotourism here has been its careful visitor management by WWF with the aim of not exceeding the carrying capacity of the ecosystem. With consistently increasing visitor numbers this will have to be carefully monitored. If there is evidence that the carrying capacity is being exceeded the appropriate strategies to manage this will need to be developed.

While Dadia demonstrates that NGOs can initiate conservation linked ecotourism schemes, it is doubtful that many NGOs have the financial resources to manage ecotourism schemes indefinitely. There is also the key issue of an NGO as an 'outsider' and its ability to initiate and manage a local ecotourism project without causing community resentment. WWF aimed from the start to pass control to the local community in the long term. In the future, attempts need to be made to prolong the visitor's stay to include an overnight stop rather than just a few hours. Work is also needed to encourage private operators to take a more active conservation role at Dadia, including securing financial contribu-

tions for conservation projects, and advertising the vulture viewing experience in a less sensationalised manner.

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