



Ecologically-Sound Tourism Management and Sustainable Development

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Abstract

The management of ecotourism sites is a very important issue not only for environmental organisations, but also for many governments around the world. This concern is based on the need to balance the notion of sustainability of the environment with economic sustainability. Since successful management of ecotourism will create the conditions for sustainable development of the environment and the economy, both at local and regional and at micro and at macro levels. This paper considers some management issues and approaches associated to tourism and ecotourism development to single out the best practice available for developing countries such as Iran. It is also the starting point to make comparisons with other developed and developing countries.

Keywords: management, ecotourism, tourism, sustainable development, private sector.

مدیریت گردشگری و توسعه پایدار مطلوب اکولوژیکی

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مرکز تحقیقات سیاست‌های علمی کشور

چکیده

مدیریت سایت‌های اکوتوریسم نه تنها موضوع بسیار مهمی برای سازمان‌های زیست‌محیطی است، بلکه برای بسیاری از دولت‌های جهان نیز بسیار با اهمیت می‌باشد. این موضوع ناشی از مفهوم، پایداری زیست‌محیطی و پایداری اقتصادی نشأت می‌گیرد. از آنجا که مدیریت موفق اکوتوریسم باعث ایجاد شرایط لازم توسعه پایدار برای محیط‌زیست و اقتصاد در سطح ملی، منطقه‌ای و در سطح خرد و کلان می‌شود. لذا این مقاله روش‌های مختلف مدیریت را در این حوزه مورد مطالعه قرار می‌دهد و بهترین روش قابل دسترسی را برای کشورهای در حال توسعه مانند ایران شناسایی می‌نماید. همچنین اینجا می‌تواند نقطه شروعی در مقایسه با بسیاری از کشورهای در حال توسعه و توسعه یافته پیشرفته در این زمینه باشد.

کلیدواژه‌ها: مدیریت، اکوتوریسم، گردشگری، توسعه پایدار.

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Introduction

Since tourism provides considerable economic benefits for many countries, regions and communities, its rapid expansion is a temptation for national planners and policy-makers. However, this can be responsible for adverse environmental, as well as socio-cultural, impacts. Natural resource depletion and environmental degradation associated with tourism activities pose severe problems to many regions attractive to tourists. The fact that most tourists choose to maintain their relatively high consumption patterns and waste generation levels in the places they visit can be a particularly serious problem for developing countries and regions that lack sufficient or appropriate means for protecting their natural resources and local ecosystems from the pressures of mass tourism.

The two main areas of environmental impacts of tourism are: pressure on natural resources and damage to ecosystems. In order to face these tourism pressures, tourism destination regions need to develop a comprehensive management planning response to handle these problems.

Management issues in this field are primarily concerned with how ecotourism can be combined as a sustainable, resource-dependent economic activity. If the core of management is about how things are done and the process of organizing other people to undertake tasks towards common goals, then the ecotourism industry has to be managed at a number of levels to achieve a number of outcomes. Table 1 shows management policies in terms of management strategies and the responsibilities of different bodies in the ecotourism industry.

This paper considers the impacts of management of ecotourism activities at the micro level where planning agencies need to be able to manage ecotourism in both time and space. For that reason, the most important planning tools used to manage ecotourism activities are discussed, in particular visitor management zoning. This is followed by a discussion of management issues affecting ecotourism businesses and organizations which work together to produce and

distribute ecotourism goods. Although the concept of management is about planning, controlling, organizing and giving leadership in an ecotourism context, in this paper it is also about how ecotourism operators and businesses can create visitor experiences while using management principles to meet both commercial and resource conservation targets. This also brings to the fore the issue of how public sector agencies and private sector tourism interests control the inherent tension between commercial objectives for profit from ecotourism and the conservation of natural resources. The case study presented here will show the operation of such a management approach in two tourism and ecotourism sites.

Visitor Management in Ecotourism

One important measure of both the success and sustainability of ecotourism development is the management of visitor impacts to ensure the long-term protection of natural and cultural resources, as well as continued visitor enjoyment and the economic benefits from their exploitation (Marion and Farrell, 1998). Allowing visitors to use these areas for tourism activities will have some unavoidable impacts which, as a result of the management of ecotourism, must encompass attempts to face these problems by protecting natural and cultural resources at the same time as providing tourism activities and experiences and generating social and economic benefits for host communities. In the absence of an effective visitor management strategy, ecotourism can lead to negative impacts on the natural, cultural and heritage environments to the extent that they may also cause a big dissatisfaction affect on visitors (Marion and Farrell, 1998).

From a management point of view, visitor impacts are significant because they directly reflect the success of management strategies in meeting two important objectives: resource protection and recreation provision. Therefore, as Marion and Farrell (1998) recognize that visitor impacts need to be managed, for the following reasons.

Table 1- Examples of indicators which may be used to assess the status of relationships between people and protected areas.

Community characteristics	Characteristics of natural Area ecosystems and their inhabitants	Examples of relationship indicators
Population sizes (e.g. per sq km)	Size of protected area	Degree of independence of natural resources
Livelihood strategies	Ecosystem health (including extent of external impacts)	Local attitudes towards conservation
Social welfare of residents (including health, safety and education)	Number of endangered species/habitats	Extent of local participation in conservation (number and types)
Social structure/values	Population dynamics/statistics	Integrated use zones
Religion	and composition of flora and	(Frequency of use)
Culture	Fauna (minimum viable	
Traditional values	populations)	
Familial cohesion		
Exposure/flexibility to change	Inherent ecosystem sensitivities	
	Disturbance/succession regimes	
	Soil qualities	
Local uses of a protected area	Predator-prey relationships	
	Interdependent links among	
	Species	

Source: Ross and Wall (1999b:127).

1. Visitor use can negatively affect vegetation, soil, water and wildlife resources, as well as the quality of visitor experiences.
2. Visitor crowding and conflict can reduce the quality of visitor experiences.
3. Environmental attributes such as vegetation and soil resistance and resiliency, may influence the type and severity of visitor resource impacts.
4. The use/impact relationship limits the effectiveness of visitor use reduction and dispersal strategies.
5. Decision-making frameworks can provide an explicit and flexible means of managing visitor impacts.
6. Indirect management strategies are often less costly to implement and are preferred by visitors.

According to Hall and McArthur (1998), the visitor management techniques available to managers of natural resources include the following:

- Controlling access by area (i.e. by zoning).
- Controlling access by transport (i.e. allowing only pedestrian/foot access).
- Regulating visitor numbers by group and size (e.g. in Antarctica).
- Regulating visits by visitor type (through pricing mechanisms).
- Controlling visitor behaviour (through codes of conduct).
- Regulating equipment used (banning certain types of vehicles).
- Imposing entry or user fees.
- Modification of the site.

- Undertaking market research.
- Carrying out visitor monitoring and research.
- Promotional marketing (advertising alternative destinations that are not under pressure).
- Providing site interpretation programmes and facilities.
- Encouraging operators to seek alternative resources.
- Allowing only accredited organizations to bring visitors to the site.

One of the most important of the management tools mentioned above is the use of clustering and zoning, to which I now draw attention.

Zoning and Clustering as Management Approaches

Ecotourism, generally, is a resource-based activity that requires effective management. Geographical differentiation underlies the strategies of clustering and zoning since environmental considerations become important at the regional level where a range of spatial strategies may be implemented. These strategies, which include zoning, concentration and dispersion, will now be considered in relation to their relevance both for the environment and for tourism planning. Identifying the resource limitations for tourism development in any given area is fundamental to this approach. These features form the core around which other nature-based tourism products can be developed.

A tourism development policy often recommended for environmental and other reasons is the containment of tourism facilities as integrated resorts in contrast to allowing dispersion of development throughout a region. Since the concentration of tourist attractions and facilities in specified areas allows for efficient provision of infrastructure, offers a variety of easily accessible activities and facilities for tourism, encourages integrated planning and the application of

development control and contains any negative impacts in certain areas.

The spatial location of tourism development in a regional setting has long been the subject of debate. The options commonly favoured are either clustering – where tourism developments are located in selected development zones (hubs) – or dispersal – in which numerous, but smaller, developments are scattered throughout the region. Clustering developments in hubs is superior to dispersal because it favours a more efficient management approach (Gunn, 1994). Economically, it is more efficient to provide service facilities such as access, electricity, water supply and sewage to such clusters and it also leaves more of the environment between the hubs in a relatively natural state. Examples of national and regional tourism plans which have incorporated the hub concept of tourism development concentration can be found in Bali, Fiji, Hawaii, Jamaica and Taiwan (Inskeep, 1987).

These tourism destination zones should be located where they do not take over prime land areas that are more suitable for other types of economic zone development or for environmental protection zones. Tourists either remain within the cluster or take day tours to attractions outside the area. Gunn (1988) suggested that clustering is superior to dispersal in terms of benefits to visitors and reduction of unacceptable impacts to the host community and the environment. This approach is particularly relevant where large-scale tourism is being developed and substantial environmental and other impacts are anticipated. Clustering generally allows for a more efficient infrastructure, such as water supply and sewage systems, thus mitigating the affects of pollution. This provides the opportunity for better controls and a higher level of environmental quality. The environmental argument for clustering is two-fold. First, one argument in favour is that it can leave much of the environment (between the clusters or hubs) in a relatively natural state and thus, by implication, enjoyable, renewable and cheap to maintain. The alternative to this, of continuous strip

development, is usually regarded as unsatisfactory both for environmental and practical reasons (WATC/EPA, 1989).

Another strategy employed for reducing the negative environmental impacts of tourism is to distinguish different land-use zones (Walther, 1986). This can be applied on a variety of scales from small (within local parks) to large (at the regional level). The first process involves specific internal classification or zoning while the second centres on a land classification strategy. Environmental protection and the conservation of resources have generally been approached through the separation of functions involved in park classification. One of the most common approaches is that proposed by the IUCN (1975). At the regional level, the protection of natural environments has been achieved in many cases by the establishment of wilderness areas. One example of such an area is the Cairngorm mountain range in the Central Highlands of Scotland. These are special areas in which the influence of humans is reduced to a minimum and in which the manifestation of nature can readily be seen and appreciated. Other areas with an environmental protection orientation include marine and nature reserves. Among the increasing number and type of lands managed for conservation and recreation purposes are found international parks (such as World Heritage Areas and Biosphere Reserves), national and marine parks, conservation parks and state forests. Areas in which the primary use is for more intensive recreation are usually designated as recreation parks. These and the more accessible national parks have often been viewed as 'honey pots' which attract tourists and sports enthusiasts and are specially managed for a variety of often intensive uses.

Land-use classification has achieved a measured degree of success in terms of environmental protection and utilization, but within each park where it has been applied there are still conflicts over protection and use. To deal with this problem, park managers use the strategy of land-use classification and zoning which classifies park areas for certain kinds or groupings of

use or non-use and, in so doing, defines spatial limits of future use allocations. It provides a broad framework for land management that attempts to balance a park's dual goals of environmental preservation and public use by setting aside some areas primarily for protection and others for recreation and visitor facilities. As Forster (1973) noted in the national park context, zoning is one of the most important tools for planning, development and management. A five class zoning system that allocates land-use priorities to different areas of a park was developed by Parks Canada (1983). This zoning system was a resource-based approach by which the land and water areas of a national park were classified according to their need for protection and their capability to accommodate visitors. It can provide a guide for the activities of both visitors and managers within a national park and assist in managing the tension between use and preservation.

At the preservation end of the spectrum are special preservation zones based on specific and sometimes small areas within the park which possess unique, rare or endangered species. A second type of zone is classified as wilderness and represents areas with specific natural history themes and environments. These areas provide outdoor recreation opportunities for hiking and rough camping, with the activities widely dispersed so as to be consistent with their primary preservation role. The third type of zone is classified as a natural environment and is intended to allow those intermediate levels of outdoor recreation that are compatible with natural settings. Motorised access is allowed for the first time, but on a limited basis, to the periphery of this zone. In this way, visitors have easier access to the zone, but to enter it they must use strategically located and well-maintained trails. The natural environment zone, therefore, represents a balance between preservation and visitor access goals and, as such, provides the crucial buffer between the park's two differing functions.

The fourth type of zone is an outdoor recreation

zone that is a limited area accommodating a broad range of educational and outdoor recreation opportunities and related facilities. Recreational opportunities are provided in the location that can maintain the activities with minimal impairment to the environment, and interpretative services are used to explain the local ecosystem and the human place within it. The fifth and final zone relates to park services. These areas provide centralized visitor support services as well as park administration functions. Even in these highly developed, sometimes urbanized, areas the preservation of natural values and environmental qualities is attempted, with the location, design and size of the infrastructure and buildings being made as compatible as possible with the national park setting (Dowling, 1996c).

Shackleford (1985) noted that implicit in the above policy directives was the concept of classification or zoning, whereby areas with a particularly sensitive or fragile environment were not developed for tourism or at least had severe restrictions on tourism access. Zoning for environmental protection and tourism development has been carried out successfully in many locations and environments. Examples include Patmos Island, Greece (Spanoudis, 1982), Les Mielles, Jersey (Romeril, 1983), the Seribu Islands, Indonesia (Salm, 1985) and the Great Barrier Reef, Australia (Kelleher, 1987 and 1990).

Managing Ecotourism Businesses

Within the literature on ecotourism, comparatively little research has been conducted on the business and management issues associated with ecotourism operations. McKercher's (1998) excellent synthesis of the area is among the most notable studies and it is certainly useful for further detail on this area. (Lindberg *et al.*, 1998) noted that there is a tendency for protected area staff to be trained in the natural sciences, particularly biology or ecology. However, it has become clear that the challenges natural area managers face are often more social and political than ecological and technical. A major part of natural

resource management is managing people, with only a small focus required to manage the resource itself. Fennell (1999) suggested that this increased focus on social issues and corresponding staff skills inevitably enhanced the ability of natural area managers to respond effectively to ecotourism and broader conservation challenges.

A study by (McKercher and Robbins, 1998) examined many of the operational issues associated with running a new nature-based tourism operation in Australia. While the existing literature on tourism and small business development may be helpful as a starting point (see Page *et al.*, 1999), since most operators are small businesses, there are certainly issues specific to the sector. A worrying observation is that the failure rate of nature-based tourism ventures is high, and many that survive remain only marginally viable. Meredith (1995) has characterized nature tourism businesses as 'micro-businesses' since they are small, regional and fall outside the mainstream sectors of the travel industry. This has led to a sector, often run by the owner as an operator, where the owner has little knowledge or training in tourism and marketing (Cotterill, 1996).

In relation to business planning, McKercher and Robbins (1998) found that existing operators feel that many new entrants fail to identify clear goals and objectives for the business or, alternatively, set unrealistic goals. In addition, many enter the marketplace with unrealistic sales and profit expectations, assuming naively that the business will perform strongly in its first year. As with most other small tourism businesses, the initial business plan needs to be viewed as a dynamic document which the owner revisits annually to reassess progress and needs to be reoriented to the business environment and performance. As would be expected in the small business sector, nature based tourism operators failed to recognize how slow growth could lead to financial crises. Two constant problems which McKercher and Robbins (1998) observed among Australian ecotourism operators were that they tended to

underestimate the amount of time needed for a business to establish itself and many were substantially underfinanced. The under-financing belies a problem among operators that banks would not be interested in such enterprises. Yet, conversely, some businesses were overcapitalized in terms of physical assets. In relation to financial analysis, cash-flow and break-even analysis were seen as vital skills, especially as many operators tend to underestimate the true cost of doing business, with the product often priced too low to ensure profitability.

In research terms, McKercher and Robbins (1998) found that many business owners commented on their insufficient knowledge of markets and how to use research to differentiate their product from that of the competition. In terms of administration, some businesses faced frustration with the government agencies regulating ecotourism operations and this added to their business costs. Among the typical problems facing operators were acquiring a sound understanding of marketing skills and how to reach markets in a cost-effective manner. What emerged in the survey was a fundamental need to recognize strategic marketing issues, including defining the product, investment required for marketing, strategies for use (i.e. pricing policy) and the need constantly to fine-tune the product. In pricing the product, a cost-plus approach had been adopted by many operators due to concerns about the markets willing to pay for the product offering. This may have led to consumers undervaluing the product and the experience. Even so, advertising was seen as expensive and ineffective, especially where new entrants adopted a shotgun approach to advertising. Furthermore, the reality of dealing with the travel trade and commission rates of up to 35 percent deters many operators from using this distribution network, with large hotel commission rates acting as a deterrent to effective market penetration. Operators also recognized how small the pure ecotourism market was and saw the need to offer more diversified products.

Managing business operations on a day-to-day

basis highlighted the diverse management skills which owners belatedly recognized as vital to business success, particularly the management of staff and visitors (i.e. risk assessment, legal issues and safety issues). For interpretive tours, effective communication skills and an entertaining personality were seen as a vital element of the visitor experience as well as professionalism in the interaction with visitors (McKercher and Robbins, 1998). It was also seen as paramount that operators had a good knowledge of and affinity with natural areas. Established operators also raised ethical issues for new operators in setting limits on the number of clients taken to visit fragile areas. Hence, the tension between profit and conservation also emerged in this context.

What is vital for the new and existing nature tourism operator to recognize was the multi-skilled nature of juggling the demands of managing such a business. Ensuring that operators have sufficient resources to maintain the business while running a service business which deals with experiences that are intangible, various, non-renewable and produced and consumed simultaneously remains the perennial challenge for most tourism-related enterprises. Of course, the nature-tourism sector has its own specific needs and characteristics (i.e. a commitment to nature). However, many of the problems they face are not dissimilar to those encountered by any small tourism businesses globally (Page *et al.*, 1999). Other challenges for operators include ensuring they are equipped with the skills needed to provide high-quality ecotourism experiences while managing to minimize any potential adverse environmental (and social) impacts of their operation (Dowling, 1992b). This brings to the fore the importance of human resource management issues and the need for ecotourism operators to have sufficient knowledge and training (Finucane and Dowling, 1995).

A number of possible approaches to meet the requirements of training include:

- Developing training programmes for tourism operators to enable them to communicate their

message effectively, to be aware of the means to minimize the adverse impacts of tourism, and provide opportunities for active involvement in environmental protection and management.

- Identifying and addressing the training needs of ecotourism operators, guides and natural area managers.
- Raising awareness of the value of the need for site interpretation.
- Providing training jointly for natural area managers along with tourism operators to promote a better understanding of each other's interest and concerns.
- Including communication skills in the training of operators and natural area managers.
- Developing codes of practice for ecotourism operators, guides and tourists.
- Requiring that appropriate training be a prerequisite for accreditation.
- Using incentives to encourage training.

Interpretation and Guiding

Within the ecotourism experience, finding appropriate mechanisms to interpret and convey the essence of what is being consumed and delivered is vital to the quality of the experience. McArthur (1998) noted that there is no single definition of interpretation that has been adopted by ecotourism practitioners. However, the most widely accepted definition is that of Tilden (1977) who stated that 'interpretation' is an educational activity which aimed to transfer meaning and understanding through first-hand experience and by using illustrative media, rather than simply by communicating factual information. Interpretation is not just the communication of information but it seeks to reveal meaning and stimulate a cognitive and emotional response. This response should impel people into reconsidering their base values and behaviour. Interpretation should be a core part of any ecotourism experience.

Most ecotourism operators employ interpretation

in order to attract high-yield tourists, add value to their product, reflect an ethical position and/or to comply with the rules of the property on which they operate. McArthur (1998) stressed the need for operators to plan for interpretation and argued that for many ecotourism operators their interpretative techniques are relatively ineffective because of poor planning. The three essential planning stages necessary for successful interpretation are defining a target audience, determining content and its structure, and selecting a technique. Successful techniques include organized talks and discussions, guided tours and walks, theatrical performance, as well as building location, design, construction and operation. Beckmann (1991) identified four key benefits of interpretation. These were promotional, recreational, educational and management/ conservation benefits. Wearing and Neil (1999) added, as a fifth benefit, the economy.

Organizers and clients of the tourism industry are increasingly scrutinizing and evaluating the quality of services being provided in the name of ecotourism, in particular the quality of interpretation provided by tour guides. Tour guides operate across the spectrum of the natural and cultural environment, and their activities include tours of national parks, caves, heritage sites, observatories, mines, shopping centres, museums and art galleries and restaurants as well as outdoor activities. Indeed, the range of tour guide activities is as broad as the elements that make up the natural and cultural environment. The principal characteristics of tour guides are often set out as the 4 'E's':

- Education or knowledge both of the product and the surrounding region.
- Environmental awareness of the natural, cultural and heritage environments.
- An ethical approach which fosters integrity and honesty.
- Enthusiasm, which was noted by all presenters as representing the essential difference between an 'average' and an 'excellent' tour guide. (Dowling and Field, 1999).

The key role of guides is to enhance the quality of visitor experience both through the information and understanding they can provide and by the way in which it is imparted. It is one important way of adding value to the ecotourism experience and so the highest standards of guiding are essential to ensure that the needs and aspirations of visitors are met. Thus, the role of interpretive activity design is central to enhance the quality of guided tours. A sound design with clear objectives and a definitive theme for a guided experience that goes beyond presentation to include demonstration and participation will assure the interpretive quality of the activity. The presentation skills of the guide will significantly enhance the quality of the experience. However, a skilled presenter with a poor design is likely to reduce a guided activity into a form of entertainment rather than interpretation. Ecotour guides need to familiarize themselves with the full range of interpretive design techniques, including concept building, problem solving, sensory activities and wildlife observation skills. In some countries such as Australia with a more advanced ecotourism industry, they present annual Awards to reward ecotourism operators to provide the best qualities of guiding and interpretation.

A Case Study of Massouleh and Lake Zaribar

In order to consider small business activities in a given tourism area, the study approach of McKercher and Robbins (1998) that was used in Australia for tour operators has been chosen. This method is applied for all businesses in those places that either already are or have the potential to become sites for ecotourism. In order to apply this method, two major ecotourism sites in the North and West of Iran, namely Massouleh and Lake Zaribar have been chosen. Massouleh is a small town sitting on a hillside, with houses built on the side of the hill with their yards below them that attracts a huge number of domestic tourists each year. During *Nowrooz* (Persian New Year) in 2006, 141,000 people visited this town, with an average of 10,000 people per day, visited these town during the first 15 days of the

New Year. The surrounding mountains provide many opportunities for trekking, climbing and other ecotourism activities. This town is well known for domestic tourism in Iran and it has been the focus of work by the Culture Section of UNESCO and of the Iranian National Commission for UNESCO for several years, and a relatively extensive study has been undertaken for this site.

Some management planning has been carried out with the local authorities of the Gilan provincial governor's office and the cultural authorities of area for improvement of the site. This includes such actions as a job creation scheme for local youth and employing more environmentally sound methods for gathering rubbish by using more environmentally-friendly disposal bags. In addition to this, UNESCO held an ecotourism seminar in 2004 jointly with local authorities in Rasht in order to expand and develop the ecotourism industry and related activities in Massouleh and the surrounding area as major ecotourism site (SECAM, 2004). They also have programme for the safeguarding and conservation of the buildings of Massouleh with their unique architecture. At present, officials in the Cultural Heritage Organization and their local counterparts in the town are preparing a plan to propose this town as a world heritage site under UNESCO's World Heritage Convention of 1972. This, in itself, is interesting since the Convention combines both cultural and natural aspects of the heritage within its subject matter.

The methodology used for gathering information was based on handing out questionnaires to local people and businesses. Given the difficulties of using postal services and the level of awareness of local businessmen, this method is more effective in the context of Massouleh than distributing them by post or through the Internet. We could not manage to have as many questionnaires filled in as we would have wished however, Table 2 gives the general findings of our questionnaire. It should be mentioned here that the percentage of respondents to the questionnaire sent out in the Australian study (described above) was only

20%. If we bear in mind the difference in the stage of development between Iran and Australia, particularly infrastructural differences such as the road and communication systems, our experience in Massouleh should not be surprising. We have discovered fairly similar problems to those experienced by businesses in Australia and New Zealand, such as a lack of business planning, financial management, research, marketing, business skills, customer services and operational skills.

The site of Lake Zaribar is located in Kurdistan Province in the foothills of the north-west Zagros. The lake is deep, fresh water, with extensive marshes at northern and southern ends, and is fed by several small streams and a large spring at the north-west corner, overflowing into small river at the south end. It is often frozen in mid-winter. Habitats include extensive birds and fish especially flying fish. If this site were developed, it could become a major tourism and ecotourism attraction. This site and its surrounding area have a relatively untouched natural environment which has a strong potential for earning economic benefits and can provide employment for this deprived

part of the country during both summer and winter seasons. Despite the establishment of a wastewater treatment unit and prevention of Marivan's wastewater from flowing into Zaribar Lake, the wastewater of seven villages continue to flow into the lake. This represents a serious environmental hazard to the lake's fish population. The official pointed out that the flow of wastewater in the past 40 years has given rise to the growth of cane inside the lake. Feasibility studies have been carried out to find out other hazards in this area such as soil erosion and deforestation.

The number of businesses operating here is very small, especially out of season, and we managed to talk to most of them during a short visit there. The area needs much more investment by the public sector to provide basic services for attracting small business which are mainly to be found in the private sector. This area can serve as the centre of a cluster for the rest of the area and needs better service provision such as reasonable accommodation, restaurants, tourist information facilities, tour guides, other supporting businesses, transport links and the training of local youth. It also requires provision of financial facilities

Table 2- Important management issues for small business.

Major issues	Subsidiary issues
Public investment	Infrastructure
Business planning	Business planning Financial management Research Conceptual issues
Marketing	Marketing issues Project Price Place Promotion
Operational skills	Business skills Customer service skills Operational skills
Personal attributes	Personal attributes Ability to cope with bureaucracy Affinity with natural areas

in the shape of investment and cheap loans which need to be brought to this area through such training. Local tourism-related businesses have the potential to be the most important group in looking after the environment and be in the first line of conservation of the area. By addressing these findings now, we can help policy- and decision-makers to make necessary planning for sorting out any problems or reducing them to the minimum.

Conclusion

This paper has examined some of the management issues associated with ecotourism development, including the use of zoning techniques in controlling ecotourism and guiding activities. The natural environment is a fragile and rare resource and demand from ecotourism operators and ecotourists is showing an increasing trend and, therefore, a degree of intervention is necessary to establish the ground rules for ecotourism operations. In order to put the necessary control mechanism in place it is necessary for the planning authorities to establish a strategic management programme. It is clear that zoning is an important mechanism for managing visitor impacts and to guide ecotourism development. At the operator level, it is evident that micro-businesses, as evidenced in our case studies in Massouleh and Lake Zaribar, faced familiar problems in establishing and developing small tourism businesses.

In view of the fact that the essence of ecotourism is for the ecotourist to have a good experience of their visit and learn about the environment they visit and its ecology, an important aspect of this experience is the quality of guiding and interpretation offered. This should include educational activities, increasing environmental awareness, developing an ethical approach to tourism that fosters integrity and honesty and enthusiasm. It is therefore necessary to consider how far such guiding and interpretation in the context of ecotourism in Iran has developed and what needs for further training in this respect can be identified.

Since ecotourism is a growing sector and, for some

countries such as Iran it is a new challenge, it is necessary to provide a training programme for new arrivals in this business in order to reduce the rate of bankruptcy as experiences in Australia and New Zealand have shown. Training courses can offer a range of professional skills, such as marketing, financial know-how and communication which many entrepreneurs overlook. Although supporters of a market-oriented view say that the market will ultimately determine which businesses fail, survive or prosper, from a macro-economic policy viewpoint it is necessary for the public sector to provide such a programme for newcomers to this business, especially in case of developing countries such as Iran. Investment by the public sector is also vital otherwise ecotourism development will have a negative impact to the environment as well as on the local residents. This should avoid unnecessary failures, as well as the consequent unemployment and economic hardships and a bad image for ecotourism activities.

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