CONSERVATION OF INTERNATIONAL ECOTOURISM ATTRACTIONS
(CASE STUDY: GAVKHUDI SWAMP IN IRAN)

Zahra Soltani*, Rana Shaykh Baygloo and Maryam Chaman Mah

1. Department of Rural Planning, University of Isfahan (IRAN)
2. Department of Urban Planning, University of Isfahan (IRAN)

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ABSTRACT

Ecotourism focuses on volunteering, personal growth, and learning new ways to live on the planet. Iran has many international attractions in ecotourism which appeals to ecologically and socially conscious individuals. One of its significant attractions is Gavkhuni swamp with great biological and geological varied natural resources, which is located in central Iran, east of city of Isfahan, is the terminal basin of the Zayandeh-rood river. It has great potentials in tourism industry especially ecotourism. The aim of this study is comprehensive analysis about environmental potentials and hazards in this area. It is necessary to adopt appropriate actions to conserve the significant attractions of this territory which is one of the principles in sustainable development.

Key Words: Ecotourism, Environmental potentials, Gavkhuni swamp, Sustainable development.

INTRODUCTION

Tourism is widely believed to be the most rapidly growing global industry, and the World Tourism Organization predicts international tourism will grow at approximately 4% per year through the year 2010 (World Tourism Organization, 1996). While difficult to measure, ecotourism is believed to be the fastest growing tourism segment.

Tourism is seen as a valuable part of any country's economy; particularly because of its potential to earn foreign exchange and its relatively high employment prospects. The World Tourism Organization estimates annual tourism growth at around 3.8%. Global tourist arrivals in 1994 reached 532 million and tourism related receipts worldwide accounted for over US$337 billion.

Increasingly, countries are turning to new forms of tourism as a viable alternative to uncontrolled mass tourism and its related problems and as a means of earning valuable revenue for natural areas. Ecotourism is frequently offered as a panacea to both tourism and conservation problems, in both developed and developing countries. It is said to link natural resource conservation with local economic development, providing a viable economic alternative to environmental exploitation by developing fee-earning enterprises that capitalize on the natural resources of a country.

The extinction of species and subsequent decline in biological diversity is eliciting
worldwide concern. The causes for the loss of species are numerous, including, for example: over-exploitation of plant and animal species; the impact of exotic species; the degradation of habitat through pollution; and may soon include climatic change. However, it is widely recognized that the most important cause is the loss and fragmentation of natural habitats. Whilst there is recognition of the need to conserve such areas, there is equal recognition that economic value must be assigned to ecological resources if they are to be conserved. Revenue earned from operations that rely upon the use of natural resources in their protected state may offer a powerful economic incentive, which is effective in countering any demand to harvest resources and/or develop sites for near-term profits.

**Ecotourism**

Whereas tourism research has begun to acknowledge the negative social, economic and environmental effects of tourism development, ecotourism is praised for its positive effects, with many people arguing that it is the only truly sustainable form of tourism and that it provides the economic rationale to promote natural resource conservation and wildlife protection policies. For example, in Kenya, the 'visitor attraction' value of a single lion has been estimated at US$27,000 per annum, with a herd of elephants valued at US$610,000 per annum. Similarly, ecotourism can be used to justify the protection of entire ecosystems. For example, the economic benefits of rainforest ecotourism ventures are often used as an argument to limit the extraction of timber from the forest: a case of where the forest is worth more than the trees.

There is considerable debate over what ecotourism really means, however, and estimates of value generated by Filion et al. (1994) are based on a definition of the form which allows tourists to enjoy and appreciate nature. This reflects the original ecotourism definition provided by Ceballos-Lascurain and popularized by Boo (1990), that focused on the site or object of tourist viewing. As ecotourism has grown in popularity, sometimes resembling traditional mass tourism, its definitions have been expanded to incorporate ideas about ecotourism responsibility, environmentally friendly destination management, profit linkages to conservation efforts, and the sustainable development of local human populations (Campbell, 1999).

**Conservation of natural areas: A prerequisite for sustainable development**

Far from offering an instant tonic to economic and environmental problems, ecotourism as a concept should be accompanied by a health warning. Too often the concept is grabbed by economists trying to find an acceptable economic argument for the conservation of natural areas, or by tourism entrepreneurs using it as a marketing tool to promote any natural area-based recreational activity. Whilst ecotourism might provide a sufficient incentive to prevent the destruction of natural areas for alternative development, there is no guarantee that the area and its wildlife will thereafter be sufficiently protected from the tourists and their potential to cause damage. Similarly, local communities might suffer from the exploitation of the area for ecotourism rather than reap the benefits.

For developing countries, a rapidly growing tourism industry has proved to be an increasingly important source of foreign exchange inflows. Nature tourism, a particularly dynamic sub-sector, is an important tool for generating employment and income in underdeveloped, biodiversity-rich Third World regions because it requires comparatively small investments. Conservationists also look to nature tourism as a potential ‘win-win’ strategy of sustainable development, where tourist spending constitutes a much-needed instrument for capitalizing on biodiversity and natural sites. For nature tourism to be sustainable — and thus acceptable to both developmentalists, conservationists and
environmentally conscious tourists — a number of environmental, economic and social requirements have to be fulfilled. This has led to the introduction of ‘ecotourism’, as a nature tourism eco-label. Definitions focus on ‘environmentally responsible’ tourism that provides ‘direct benefits’ to the nature conservation area and to ‘the economic welfare of local residents, or a ‘nature tourism that promotes conservation and sustainable development’. The criteria for ecotourism employed in the literature may be summarized as follows:

1. Minimal physical and social impacts on the visited area
2. Ecological education of the tourist at the natural site
3. Notable economic participation by local residents (Centre for Development Research, 2000)

The growth and divergence in the size and nature of the ecotourism sector and its relevance to wider questions of conservation and development has prompted many researchers to focus on the impacts of ecotourism in terms of local economic benefits, changes in socio-cultural attributes of residents and communities as well as the protection of the natural environment. Analyses of these impacts have frequently drawn upon models of tourism development that assume stages or a cycle of evolution reflecting the numbers of visitors and the perceived attraction of the destination. An assumed similarity between ecotourism activities and the early stages of these models has been used to highlight the potential for ecotourism to open up new destinations for subsequent mass tourism development and the need for adequate planning and management of this process. However, this assumption necessitates re-appraisal in light of the current uncertainty in the travel market associated with global political events. Furthermore, the proliferation of ecotourism activities requires that evaluation of impacts associated with ecotourism considers the degree to which particular types of ecotourism are congruent with the destination environment.

Conservation is an old theme that has been played many times before to a somber and depressing tune. We rather acknowledge that our environment has in some places been spoiled beyond acceptable levels. We should also submit that we have in many places and in several ways improved the natural environment as a habitat for man. Environmental degradation causes a variety of direct effects on mankind. Ecologists attempt to anticipate the effects of environmental changes and to warn against such unwise practices as overcrowding and overuse of our natural resources.

Given a modicum of habitable space, with food, water and shelter, wild things take care of themselves. Therefore, conservation should accompany competitive enterprise. A government has a unique responsibility as coordinators and supervisors of conservation programs and polices, but the actual applications of conservation practices develop largely upon private enterprise. Hence we conserve a resource when we make the best use of it, not when we let it be idle; conserve renewable resources when we use them without destroying them and overtaxing their rejuvenation powers. For instance, soils are conserved when they are so tilled that they produce good crops. Forests are conserved when they are so managed that they produce one-generation useful trees. There is a widespread recognition that the biophysical resource base is endangered by development (depletion of natural resources stocks). Existing principles for environmental protection provide the basis for the formulation of a sustainable strategy. The consistent application of these principles, both generally, to islands and to tourism, could contribute significantly towards enhancing sustainability. Therefore, protection could be achieved through desirable forms of tourism development. This is a characteristic of so-called soft tourism.
METHODOLOGY
Most of the research work for this paper were performed through primary research techniques. Hence research methodology has done in Gavkhuni Swamp (Iran). Even then some secondary research work has also been performed.

RESULTS AND DISCUSSION
Gavkhuni Swamp: A rich environment

Gavkhuni also known as Batlaq-e-Gavkhuni, located in central Iran, east of city of Isfahan, is the terminal basin of the Zayandeh-rood River. Gavkhuni is a salt marsh with a salinity of 315% and an average depth of about 1 m. The salt marsh can dry up in summer. The Zayandeh-rood River originates in the Zagros Mountains and travels around 300km, before terminating in Gavkhuni (Fig. 1 to Fig. 3).

Fig. 1: Location of Iran and Gavkhuni swamp.

Fig. 2: Views of Gavkhuni swamp. Source: http://fiveprime.org/hivemind/Tags/gavkhooni
www.flickr.com

Fig. 3: A view of Gavkhuni swamp. http://alaska.us.gs.gov/science/biology.
Gavkhuni receives pollution from Isfahan and other urban sources. Isfahan is a major oasis city on the Zayandeh-rood River with a population over 1.5 million. From Varzaneh one could continue east for 25kms to visit Gavkhuni wetland (altitude: from 52°21’22” to 34” east, latitude: from 31°50’18” to 33°43’50” north). The diversity of the wetland environment is so rich. The mouth of the river is located in the north and the north-west parts of the wetland. On the south there is a vast coverage of salt which is now being extracted and used. On the west and south west parts there is an extended range of sand hills which results in a totally different interesting panorama. A large mountain range encircles the land located on the east. The Black Mount is on the edge of the water. Gavkhuni wetland is a preserved ecosystem in Iran. It hosts a large number of birds who migrate to this area during winter. A large number of birds, most of which were geese and flamingos, migrate to this area. Gavkhuni wetland not only plays an important role in reducing the severe heat of the area during summer times, it is also considered very important for the underground supply of water and preventing the area from turning into a desert.

There are some attempts to introduce the enormous potentials this area has in attracting tourists. In a not very far past, the area was the settlement of a large number of zebras who became extinct due to the environmental changes and uncontrolled hunting in the region.

Different species of birds and marine animals still live in the area. By changing this wetland to an international tourism destination, a large number of tourists will be attracted to the area which would result in attracting investment to this region.

Experts estimate that during fourth and fifth millennia BCE, Gavkhuni Swamp was ten times larger than what it is at present.

“Gavkhuni which had been a huge lake in ancient times gradually dried up and was changed into the present swamp, and various civilizations settled in the area from the fifth millennium BCE up until the mid-post-Sasanid era.

Objects found in a historic site excavated near Gavkhuni Swamp recently suggest that the first communities had settled in the area during the prehistoric period and most probably in the Neolithic Age (some 10,000 years ago). Recently, archaeologists came across a Neolithic site near Gavkhuni Swamp.

Throughout history, civilizations have always been established along riverbanks. Therefore, it is probable that ancient civilizations had been formed along the banks of Zayandeh-Rood River.

Critical condition of Gavkhuni swamp

Now, encouraging people to visit the great natural attractions is accounted as one of valuable objectives of governments. But if adopted actions do without any intellectual and rationally planning for ecotourism, these attractions would not be sustainable.

From past to now, some factors have affected the Gavkhuni swamp and have intimidated its environment which most important of them are as follows:

- **Decreasing the water level of swamp.** The exploitation from Zayandeh-rood river—which is only resource for supplying the swamp water- is increasing, and is aggravated by industry development, agricultural uses, urbanization development and so on. So, the little remained amount of water is devoted to swamp.
• **Excessive grazing.** Too much use of grasslands of Gavkhuni, especially in past durations has led to the extinction of some various species of plants.

• **Water pollution.** The location of some cities and villages, and deploying the agricultural units and factories near the Zayandeh-rood river, from past to now, have caused that the sewage of those activities enter to the river, and consequently caused the water pollution. This pollution has led to the extinction of some rare species of plants and animals.

• **Climatic conditions.** The decline of rainfall, decreasing the entering water to Gavkhuni swamp from Zayandeh-rood river, and much of water evaporation has caused the saltiness of water and fall of water level of swamp.

• **Fires in swamp environment.** Extensive and sudden fire by some of cattlemen or some residents of adjacent settlements or some visitors, have damaged the environment of swamp.

• **Illegal and excessive hunting and fishing.** Gavkhuni swamp and its adjacent areas are of great importance for wild animals, aquatics and various rare species of native and migrant birds. There are special laws and rights for hunting and fishing in this area. But some hunters don’t observe these laws (Fazeli, 2006, 109-113).

The other problems are as follows:

• Inappropriate management,

• The lack of available information about swamp,

• The lack of managerial and environmental comprehensive plans,

• Frequently economic exploitations such as: salt extraction, mining, to change the course of streams, to pump the underground water.

**CONCLUSION**

Gavkhuni swamp as one of the greatest natural attractions in Iran—which is habitat of some rare species of plants and birds—has faced critical conditions. Some problems which affected the Gavkhuni swamp are as follows: decreasing the water level of swamp, excessive grazing, water pollution, fire, Illegal and excessive hunting. Besides, as a result of the lack of managerial and environmental plans, and inappropriate management system, it has begun to decline. So, it is critical to conserve this great natural area by adopting appropriate actions.

**REFERENCES**


