ECOTOURISM AND THE IMPACT OF THE CONVENTIONAL TOURISM ON THE FRAGILE ECOSYSTEMS

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ABSTRACT
The natural environment is crucial to the attractiveness of almost all travel destinations. It is dependent on natural and manmade resources, any kind of degradation leads to decline in tourism. Loss of flora and fauna may occur due to the expansion of tourism industry. The influx of tourists with different life styles and different cultures may disturb the existing lifestyle and cultures of the locality. The concept of ecotourism may solve some of the issues. Ecotourism may provide economic benefits to the people and may be less destructive as compared to conventional tourism in the long run.

KEYWORDS: Ecotourism, conventional tourism, environmental stress, sustainable development

INTRODUCTION
There is some confusion surrounding the etymology or origin of the term ecotourism to late 1980’s from the voluminous literatures available (Orams, 1996; Hvenegaard, 1994) while other suggest its usage to late 1960’s and early 1970’s through the work of Muller (1989) on eco development (Higgins, 1996) and on environment tourism and culture (Hetzer, 1965) . One of the themes opted out from the literatures supports the fact that Caballos–lascurain was the first to coin the phrase in early 1980’s (Thompson, 1995; Boo, 1990; Van, 1996). Ecotourism most likely has a convergent evolution, ‘where many places and people independently responded to the need for more nature travel opportunities in line with society’s efforts to become more ecologically minded (Fennell, 1998, 2003; Nelson, 1994). This evidence comes at a time when researchers were struggling to find relationship between ecotourism and other forms of tourism (Mathiesion and Wall, 1982; Romeril, 1985). The fact that ecotourism was viable long before the 1980’s in practice, if not in name from the literature that the Travel Department of the American Museum of Natural History has conducted natural history tours since 1953 (Blangy and Nielson, 1993).

The principles that separate ecotourism from its more broad-based nature counterpart include an educative component, a sustainability component, ethical nature of the experience and narrow base (Blamey, 1995; Kutay, 1989; Wight, 1993; Hawkes and Williams, 1993; Wallace and Pierce, 1996; Goodwin, 1996). The Quebec declaration in the International Year of Ecotourism (2002) suggested that five criteria be used to define ecotourism namely nature based product, minimal impact management, environmental education, contribution to conservation and contribution to community (UNEP/WTO, 2002). Although ecotourism has been defined at times by various researchers as small-scale, sustainable, responsible, low impact, education and study, highly beneficial, local people oriented, reliance on parks and protected areas, contributes to conservation, interest in nature with long term benefits (Kutay, 1989; Ziffer, 1989; Fennell and Eagles, 1990; Valentine, 1993; Western, 1993; Brandon, 1996; Goodwin, 1996; Wallace and Pierce, 1996; Funnell, 2003). With many definitions and the continues evolution of the concept. The International Ecotourism Society (TIES) defines ecotourism as travel to natural destinations, minimizes impact, environmental awareness building, direct financial benefits to conservation, creation of financial benefits and empowerment for local people, respect local culture and supports human rights and democrative movements (Honey, 2008).

India’s recognition as one of the four “mega-diversity” countries of Asia is derived largely from two of its most important biodiversity “hot-spots”: the Himalayas, including the north-eastern hills along the northern border, and the Western Ghats in peninsular India (Ramakrishnan, 2000). The Himalayas cover 18% of the geographical area and extend over 12 States of India. In the context of the global agenda many programmes have been implemented for conservation and management of biodiversity in the Himalayas. These have aimed to keep the rich biodiversity of the region and limit threats to biodiversity at the local and regional level. The implementation of a Natural Resource Management Plan (NRMP)–that includes creation of protected areas in the form of sanctuaries, national parks and biosphere reserves—is an example for conservation of biodiversity and management of ecosystems in the region. These are closely linked to the surrounding resources/forests and mutually reinforcing (Nautiyal and Kaechele, 2007).

Various studies have been carried out on the symbiotic interactions among humans, animals, and plants from the perspectives of geographers, economist, biologists and
botanists (Anderson, 1952; Harlan, 1975; Cincotta et al., 1992; Gooch, 1992; McCorkle, 1992; Kuznar 1994; Kaechele and Dabbert, 2002; and Maikhuri et al 2001). In developing countries, conservation has mainly focused on a segregated approach and mainly adopted from the North American approach for management of the area based on strict natural preservation and exclusion of human interaction and dependency despite the fact that in developing countries the human–ecosystem interaction is more complex and closely interwoven to support conservation options and the sustainable livelihood of the local people (Colchester, 1997; Ramphal, 1993 and Hjortso et al., 2006). Many studies have indicated that following the segregated approach for conservation and management without emphasising the multifunctional values of ecosystems/landscape and society can lead to conflicts between conservation and utilisation of the resources. This is widely termed as resource–people conflict and has been identified as a major hurdle for sustainable management of the ecosystems/landscape (Pimbert and Pretty, 1997; Nautiyal, 1998; and Hjortso et al., 2006). Therefore, the implications related to production and economic objectives of the environmental, cultural and social systems need to be emphasized in detail (Benjamin et al., 2005).

Natural resources refer to functional utility that social groups derive from the environment. It is a problematic term because of attribution of utility and value to nonhuman world is one of the primary means by which dominant social groups impose order and control upon the world (Bridge, 2009). Conservation of areas and species, education, legislation and the development of natural resources are priorities for IUCN (Berwick, 1969). There is an urgent need to understand different people’s relationship with the environment and incorporate these knowledge’s, experiences and attitudes into decision making, planning and implementation process (Michener, 1998; Leech et al., 1997). Environments have been modified, managed and, in some instances improved by people for centuries in most parts of the world (Ghimire and Pimbert, 1997). Protected areas have stereotypically restricted resource use for local populations and customarily lead to extensive resource alienation and economic hardship for many rural groups (Ghimire and Pimbert, 1997).

METHODOLOGY

The search for relevant literature was approached with a rather broad perspective. Keywords were tourism, ecotourism, environment, climate, and natural resources and stress with a number of synonymous such as sightseeing, surroundings, type of weather, and people behaviour. The language was limited to English only. The quality of reference was assessed by using the criteria such as contribution of new knowledge, originality of empirical findings, use of theory in design and analysis, and finally whether the reference took the special characteristics of tourism into consideration.

IMPACT OF TOURISM

Climate, tourism and ecology

Climate is often said to delimit optimal zones for tourism at a global and regional scale, as illustrated by the warm temperate zone, considered optimum for sun and beach tourism (Burton, 1991). Environmental degradation is one of the shortcomings commonly associated with tourism in developing regions (Brohman, 1996). Mountain tourism in developing countries is becoming a growing environmental concern due to extreme seasonality, lack of suitable infrastructures and planning, and interference with fragile ecosystems and protected areas. High-altitude ecosystems are inherently fragile and characterized by low resiliency, and therefore they are particularly susceptible to human interference, such as soil and vegetation trampling, disturbance to native wildlife, and waste dumping (Arrowsmith and Inbakaran, 2002; Buckley et al., 2000).

Concern over the ecological impacts of tourism on environment started to mount during 1960s and 1970s through the realization that the industry had the capability of either moderately altering or completely transforming destination regions in adverse ways and tourism related developmental activities have major impacts on environment (Pearce, 1985, 1982 1989, 1991). There is a need to alleviate some of the stresses caused by high concentration of tourism by employing regional development strategies designed to promote other areas (Naylon, 1967). The vital necessity for conservation in the interests of ecology, tourism and for moral, aesthetic and other reasons has been recognised at both levels, although tourism has begun to play an important role in economy. Tourism development is a classic case of the battle existing between conservation and preservation (Jones, 1972). As tourism related activities have transformed much of the world natural beauty into gold, it may too have planted the seeds of its own destruction (Crittendon, 1975). Unregulated development of hotels as a result of mass tourism has threatened the quality of life (Harrington, 1971).

Krippendroff, (1977) is of the view that importance of planning and dispersion of tourists and tourism development activities is a means to minimize impacts on environment. Cohen (1978) studied the difference between developmental purposes of aesthetic appeal verses the modern unsustainable tourism.

Tourism and environmental stress

Most studies on tourism concentrated on the economic benefits while there is tremendous range of topics related to its negative impact including pollution, crowding and congestion, ecosystem damage, loss of flora and fauna, increased urbanisation, damage to heritage resources (Travis, 1982). The resource base recognised as being acted as raw material of tourism loses its value through improper use and overuse (Krippendorf, 1982). There is always the risk of deterioration or even destruction of environment from the use of tourism resources in unsustainable manner (Romrell, 1985, 1998). Shackleford (1985) in his review on tourism and the environment is of the view that the International Union of Official Travel Organisation (IUOTO) has been working with environment hand to hand through the efforts of the Commission for Travel Development. The carrying capacity of tourist sites is an important factor in the planning and design of appropriate tourist facilities while
planning and policy are critical components of a more ecologically based tourism development strategy for the future. Newsome et al., (2002) had identified a wide range of different types of environmental impacts of tourism, their sources, and place of activity. A whole range of recreational activities and their associated impacts along the lines of habitat loss, species loss, aesthetics, physical pollution, energy/water usage etc have been identified (Tribe et al., 2000). Environmental impacts of tourism industry can be measured through an analysis of ecological conditions as the term impact denotes undesirable change (Hammit and Cole, 1987) and the concept of carrying capacity for tourism industry requires proper management. Previous studies have pointed out that visiting the environmentally degraded tourist spots may have a negative impact on tourist arrivals and thus on economy (Greenpeace, 2009, Ritzer and Liska, 1997). Shrinking tourist flows have lead to identification of environmental quality as a key asset for tourism and its loss with tolerance to landscape change no doubt an individual psychological dimension cannot be ignored (Caletrio, 2011).

Regulation of visitor behaviour is an important approach to address the management problems at recreational sites as ecotourists were likely to view management actions as acceptable and regulations as attainments of certain outcomes (Frost and McCool, 1988). Environmentally destructive tourism development has lead to number of problems like water pollution, erosion of soils, destruction of natural habitat and to some extent cultural pollution (Mathur and Chowdhary, 1999). Development of tourism activities are often accompanied by a host of negative impacts on ecology, environment and socio-economy of the host communities/destinations (Pleumaron, 1992; Mathiesion and Wall, 1982; Butler, 1990; Nelson, 1994). Tourism has been blamed for damaging local environments in different regions of the world (Lukashina et al., 1996). Tourism is often viewed as a means of achieving development in destination areas as tourism takes place in any destination area (environment) which are made up of both human and natural features. The human environment comprises of economic, social and cultural factors and processes while the natural environment is possible to comprise plants and animals and their habitat and environment is particularly useful when discussing the impact of environment (Mason, 2003). A study on economic and environmental impacts of tourism indicated that 57.6% of the residents suggest that the historical buildings and natural environment had been restored due to introduction of tourism and 71.2% indicate that tourism has not yet produced any pollution and 66.7% indicated that construction of tourism facilities resulted in destroying the natural environment in some coastal areas (Hazbar and Anand, 2009).

Tourism, religious activities, bathing, washing, road construction, fishing, drinking water intake, rafting etc affect water quality (Semwal and Akolkar, 2006) and unsustainable tourism activities including forest fires, landslides affect River ecology (Singh et al., 2002). Tourism is having a wide range of impacts on water quality from untreated human wastes, resorts, hotels, roads, and vehicle parking’s (Pickering et al., 2001; Cullen, 1992; Marston and Yapp, 1992; Good and Grenier, 1994; Digance and Norris, 1999; Growcock, 1999; Buckley et al., 2000). Tourist facilities increase the amount of impervious surfaces, causing more runoff to reach water bodies and this runoff contains nutrients, suspended particles, oil and gas affecting water quality (Davies and Cahill, 2000). Tourism is increasingly built on the marketing of nature and natural resources, which have become its central elements (Urry, 1995). The marketing of immobile resources such as landscapes, sights, and cultures represents a substantial economic advantage for tropical developing countries, because their immobility makes it necessary for tourists to travel in order to consume them (Urry, 1990). Moreover, tourism allows the use of natural areas which are otherwise of less economic value for developing countries, but perfectly meet the demands of industry (World Bank, 1998; WWF, 1995).

The rising interest in nature is thus seen as a major advantage for developing countries, with economic gains even contributing to the conservation of protected and other areas (Ellenberg, 1999; Vorlaufer, 1997). Natural reserve tourism has gained much importance over other types of tourism promoting increase in the number of natural reserves (Mu et al., 2007). Negative impacts from tourism include water pollution, land degradation, destruction of breeding environment and food sources for wild animals (Yang and Ding, 2003). Environmental degradation, species loss, waste accumulation, water pollution, and landscape degradation in natural reserves are widely reported (Wang and Hao, 1988). Decreased water quality, loss of flora and fauna, habitat destruction and reduction as a result of tourism activities have been reported in protected areas of Australia (Pickering et al., 2001). Cooper (1995) identified the adverse impacts of tourism on natural areas characterised by loss of habitat, damage to soil and vegetation, floral and faunal disturbance. The earth is fast becoming an unfit home for its noblest inhabitants and perhaps even extinction of the species (Bowler, 1993).

Impact of tourism on flora and fauna of sanctuaries: Today sanctuaries serve a variety of purposes but face number of pressures from tourist activities (Lovejoy, 1992). Disruption of local cultures and economies has adverse impacts on ecologically fragile areas (Hough, 1988). Natural reserve tourism has major threats because of external pressures from recreational activities (Dearden and Rollins, 1993). Growing concerns about negative impacts of tourism and tourists on short and long term animal behaviour (Constantine and Bejder, 2007; Green and Giese, 2004; Green and Higgimbottom, 2001; Higginbottom et al., 2001), physiology and reproductive success (Constantine and Bejder, 2007) have been raised. Negative impacts on the environment like trampling, wave action, management actions and pollution, may in turn show impact on the wildlife (Reynolds and Braithwaite, 2001). Various studies have illustrated the negative impacts often resulting from tourist–wildlife interaction (Hanna and Wells, 1992; Burger and Gochfield, 1993; Griffith and Van Schaik, 1993; Ingold et al., 1993; Wallace and Lindberg, 1993; Viskovic, 1993; Muir, 1993; Orams, 1995).

In birds, negative impacts of tourism may result in nest failure and reduced reproductive success, which
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potentially affects population growth or stability of species (Haysmith and Hunt, 1995). Bird communities have been studied fairly well both in temperate and tropical forests (Black, 2007; Keast, 1990; Latta et al., 2003; Robinson et al., 2000; Terborgh et al., 1990; Thiollay, 1994). It is essential to delineate the importance of regional or local landscapes for avian conservation by understanding the diversity and structure of bird communities (Kattan and Franco, 2004). Studies have documented the bird communities of Himalayan region, mostly in western part (Khan et al., 1993; Price et al., 2003; Shafiq et al., 1997; Sultana and Khan, 1999, Sultana et al., 2007), few in east region (Acharya, 2008; Chetri et al., 2001; Raman et al., 1998). Eastern Himalaya, a global hotspot of biodiversity and an Endemic Bird Area (Mittermeier et al., 2005; Myers et al., 2000; Stattersfield et al., 1998) is biologically most diverse region in India, probably because of diverse climatic conditions and marked altitudinal zonation of vegetation (Hooker, 1854; Mani, 1974) and Overa-Aru Sanctuary falls in this region.

There is an increasing evidence that wildlife tourism can have positive short and long term impacts on visitors’ environment, via developing a respect and appreciation for wildlife and nature; environmental issue awareness raising; promotion of environmentally sustainable attitudes and actions; and building tourists capacity for the longer term adoption of sustainable living practices (Ballantyne and Packer, 2009; Ballantyne, et al., 2007; Tisdell and Wilson, 2003; Zeppel and Muloin, 2007). A more notable positive impact of wildlife tourism on the environment itself is by providing income for the protection and sustainable management of wildlife and wildlife habitats (Buckley, 2002, Buckley, 1999; Fennell, 1998; Goodwin et al., 1998; Wilson and Tisdell, 2001; Zeppel and Muloin, 2007); encouragement of visitors to make financial and non-financial contributions to environmental causes; providing socio-economic incentives for the conservation of natural resources (Higginbottom et al., 2001; and influencing of tourist behaviour. The educational aspects of wildlife tourism experiences impact not only on visitor learning and subsequent behaviour, but are also an important contributor to visitor satisfaction with the experience (Moscardo and Saltzer, 2004).

Observing, feeding, touching, photographing, experiencing wildlife occurs in a wide variety of settings throughout the world as evident from various works (Duffus and Dearden, 1990; Clamen and Rossier, 1991; Duffus and Wipond, 1992; Muir, 1993; Hammitt et al., 1993; Shackley, 1996; Ryan, 1998). Increased growth of nature-based tourism and more specifically wildlife-based tourism is having a lot of potential benefits for wildlife (Davies, 1990; Groom et al., 1991; Borje et al., 1991; Barnes et al., 1992; Burnie, 1994). Natural area tourism involves experiencing natural ecosystems or wildlife for recreation or education (Haysmith and Hunt, 1995) with a significant proportion of wildlife tourism focussing on endangered or threatened species (Shackley, 1996), and much nature-based tourism takes place in protected areas (Ceballos-Lascurain, 1996). Tourism can also provide the economic strength for the long-term conservation of endangered and rare species (Wilson and Tisdell, 2001), and result in the creation or continued existence of protected areas (Hunter, 1995). Despite all these efforts and potential, creation of a symbiotic relationship between tourism and conservation has often been unattainable (Higham and Luck, 2002). However, there is growing recognition that activities such as wildlife viewing, photography, and even the simple act of walking through an animal’s territory, can have serious negative impacts on wildlife (Boyle and Samson, 1985; Gutzwiller, 1995).

**Impact of tourism on socio economics**

A notable social impact of tourism on traditional valves is where local consumption patterns change to that of the tourists (Britton, 1977; Hope, 1980), with tourism leading to conflicts between locals and hosts (Erisman, 1983). Studies on back water tourism in Kerala: Challenges and Opportunities implies that the effect of tourism on environment as felt by different category of people cannot be ignored by the fact that 39.2% of the respondents were of the opinion that environment is very much affected, 37.7% were of the opinion that environment is slightly effected and 23.1% opined that environment is not at all effected (Zacharias et al., 2008). Creaco and Querini (2003) identified issues for future consideration, especially in view of making tourism to become compatible with the conservation of major ecosystems and with the preservation and good use of historical-cultural heritage. The socio economic and socio environmental impact of tourism in the developing countries highlighted that tourism is an economic and industrial activity in which many individuals, firms, organisations, cooperation’s and associations are engaged and is directly concerned to many others (Negi, 1990). The tourism industry in India is associated with various problems and various measures for removal of these problems were suggested and analysed for tourism promotion (Singh, 2003).

Tourism has lead to emergence of a lifestyle that is oriented towards leisure, pleasure, and consumption (Craik, 1995). Overall, tourism can be seen as an agent of modernization, which decontextualizes and dissolves the relationships individuals have with society and nature while increasing the separation from structures, being the base of sustainable human–Environmental relations (Croll and Parkin, 1992; Ingold, 1996). The inclusion and involvement of local communities in tourism management is a big boost for tourism industry as local residents are seen as a key resource in sustaining the product (Hardy et al., 2002). Community participation ensures a level of sustainability in tourism Industry (Woodley, 1993) with better opportunities for local people to gain benefits with the development of positive local attitudes and the conservation of local resources (Tosun, 2006). Sebele (2010) is of the view that increased local involvement and participation will help to ensure that people are empowered and the conservation of natural resources takes place and community-based ventures, if properly run and managed, can promote the conservation of natural resources and increase local benefits through participation in tourism activities.

A study on ecotourism concluded that, it endeavours to encourage and support the diversity of local economies for which the tourism related income is important and the revenue generation from tourism helps and encourages governments to fund conservation projects and training programmes (Babu, 2010). Tourism is less environmentally destructive than other forms of...
development and there are many significant effects which may be attributed by tourism. Ecotourism may or may not improve the socio economic conditions of developing countries by limited dollars, government directed financing, foreign vegetation, ownership of hotels and other facilities and non existing land use planning (Kusler, 1991). Important environmental challenge facing tourist planners and managers is to find small numbers of environmentally aware visitors into fresh environments rather than to devise sustainable forms of mass tourism (Wall, 1994). Tourism may provide economic benefits for conservation and this relationship is unsustainable if visitors reduce the viability of local ecosystems through the disturbance of wildlife (Lindsay et al., 2008).

CONCLUSION
Sustainable usage of protected areas by tourists is dependent upon identifying the coming impacts of tourism, proper management practices, encouraging awareness and responsible usage. A lot of adverse environmental impacts in protected areas are potentially caused by tourism with Government need to control the pace. Conventional tourism has negative impacts resulting in habitat loss, erosion, floral damage, and hydrological changes in protected areas. A popular recreational pursuit, wildlife tourism raises major concerns because of its impact on wild species and their habitats. Wildlife tourism management should be such as not to disturb the breeding behaviour and breeding success by careful supervision, monitoring and control. There is a dire need to remove some of the stresses caused by high concentration of tourist inflow by introducing ecotourism in these fragile areas. The change in the lifestyle and culture of the communities living in and around tourist spots is an invisible threat to the local culture and lifestyle of the people.

REFERENCES


Ecotourism and the impact of the conventional tourism on the fragile ecosystems


Ecotourism and the impact of the conventional tourism on the fragile ecosystems


Marston, F. and G. Yapp, 1992. A selected annotated Bibliography of Recreation water quality in alpine areas. CSIRO Institute of Natural Resources and Environment, Canberra.


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Ecotourism and the impact of the conventional tourism on the fragile ecosystems


UNEP/WTO, 2002. Quebec declaration on ecotourism:


