



# SUSTAINABLE TOURISM DEVELOPMENT: THE CASE OF PERIYAR TIGER RESERVE

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## Abstract

*Tourism, evolved through many centuries, is one of the most vibrant, growing and economically useful activities in the world having wide cultural and social ramifications. In its modern form, since the end of the Second World War; tourism has grown into one of the world's largest industries with a growth rate in excess of 5 percent per annum over the past twenty years. It is accepted that tourism is a major force in the economy of the world, an activity of global importance & significance (Cooper, et. al, 1996). This most rapidly expanding industry is contributing over ten per cent to global GDP and generating employment for 200 million people (WTTC). It is reported that Travel & Tourism can be part of the solution to world problems, such as bridging the gap between the 'have's and 'have nots'. As an economic activity it can help contribute to the alleviation of poverty in almost all the areas of the globe. But at the same time attention has also been focused on the impacts of tourism on different spheres, in particular on the physical and human environment of destination, creating new, vitally important issues of consideration on this tourism agenda.*

*Humankind has experienced stunning developments during the last half a century where technology has played a significant role.*

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Concurrently, the other side of the developments, the negative impacts, has also emerged as threatening factor to the existence of life on the Earth. The intensity of the issues due to developments raised many eyebrows and led to the search for alternative development paradigm. Tourism was initially highlighted as smoke less, non-polluting industry, emerged as a big player in the world industrial scenario and occupied one of the top most positions in the list of largest industries. The experience has shown that Tourism is also a problematic industry, produces severe reversible as well as irreversible impacts in many areas.

The issue posed by modern development was a major topic of discussion in the Earth summit at Rio, and the outcome was the globally accepted concept- 'Sustainable development'. Today it is widely believed that Sustainable development of tourism can make significant contribution towards resource conservation while enhancing economic benefits. Periyar Tiger Reserve, is a wildlife sanctuary, a protected area as per Government of India wildlife protection laws and during the last fifteen years different biodiversity preservation programmes are being planned and implemented at Periyar Tiger Reserve of which majority of them are tourism related. Against the backdrop of the discussion on sustainability, this paper attempts to examine the various tourism practices being followed at Periyar Tiger Reserve which can be considered as sustainable forms of tourism practices.

## Sustainable Development and Tourism

The beginning of second half of last century have experienced the intensification and spread of pollution-one of the primary issues that development has generated. During 1970s the environmentalism concept was reemerged, not as a unitary movement, but sectionalized into a diversity of groups and ideologies and many discussions were held in order to discuss about the factors related to pollution and environmental changes. It has been reported that the concept sustainability appeared to be accepted as the mediating term designed to bridge the gap between the developers and the environmentalists. But later the concept of sustainability has been broadened from the idea of just intelligent use of resources to a wider aspect, which includes a variety of interrelated factors. Sustainability is a broader phenomenon embracing ethical norms pertaining to the survival of the living matter, to the rights of the future generations and to the institutions responsible for ensuring that such rights are fully taken into account in policies and actions. (Kerryturner,1988). 'Our common future' (World Commission on

Environment and Development, 1987) gave clear direction for the consideration of the concept of sustainability in all kinds of sustainable developmental priorities all over the world. Early 1990s have seen rigorous discussions that were dealing with how to implement sustainability aspects in the industrial scenario. The Rio-Earth summit is an example of it. United Nations Conference on Environment and Development was convened in Rio de Janeiro in June 1992. The purpose and content of the conference was to elaborate strategies and measures to halt and reverse the effects of environmental degradation in the context of strengthened national and international efforts to promote sustainable and environmentally sound development in all countries.

The image of tourism as a clean industry with little impacts is now outdated since different kinds of tourism activities effect the natural and the built environment. Many studies have shown that tourism has an immense impact on the physical environment, and that little has been done to remedy or control the assault on the ecology. Any form of industrial development will bring with it impacts upon the physical environment in which it takes place. In view of the fact that tourists have to visit the place of production in order to consume the output, it is inevitable that the tourism activity will be associated with environmental impacts. As soon as tourism activity begins to establish, the environment is inevitably changed or modified either to facilitate tourism or during the tourism process. (Cooper, et al., 2000). The tourism industry very much represents *'a double edged sword for the socio-environmental movement, in that it is an activity which is both reviled and revered. It has become a focus of criticism, as a result of its impacts and a focus of promotion, as a means of achieving sustainable development.'* (Mowforth and Munt, 1998). The sustainability aspect has much relevance and role in tourism. It is difficult to give an exact definition of sustainable tourism. Swarbrooke (2000) defined it as the mass tourism which is economically viable, but does not destroy the resources on which the future of tourism will depend, notably the physical environment and the social fabric of the host community. WTO (1995) has defined sustainable tourism as a model form of economic development that is designed to improve the quality of life of the host community; provide a high quality of experiences for the visitors; and maintain the quality of the environment on which both the host community and the visitor depend. According to Mowforth and Munt (1998) sustainability in Tourism encompasses environmental sustainability, social sustainability, cultural sustainability and economic sustainability while deciding upon this carrying capacities in each area play decisive roles. Convention on Bio diversity and Tourism, Berlin, declaration on biological diversity and sustainable tourism, etc also stresses the importance of environmental conservation, preservation of natural resources, environmental impact assessment, etc. (CBDT, 1997)

World over many efforts have taken to develop sustainable forms of tourism and ecotourism is considered as a perfect form of it. Forest is one resource where ecotourism can be practiced with proper care and attention. In Kerala also ecotourism is practiced in a sustainable manner in different areas and wildlife sanctuaries are the areas where more ecotourism practices are being followed. Periyar Tiger Reserve is one protected wild life area where ecotourism is followed. With this background, attempt has been made to study about the sustainable forms of tourism (ecotourism) practiced at periyar Tiger reserve. Interviews with officials of Periyar Tiger reserve, local community and tourism operators inside the protected area were conducted to collect the data as part of the study. Also various publications along with various articles and papers published on Periyar Tiger Reserve was referred as part of the study.

## Periyar Tiger Reserve

Periyar Tiger Reserve (PTR) is one of the well-known Protected Areas (PAs) in India and it lies in the Western Ghats in the Idukki District of the Kerala state in India which spreads over 777 sq.km. of tropical evergreen, semi- evergreen and moist deciduous forests. It is the best known wildlife protected area of Kerala and Thekkady, the tourism destination area, is undoubtedly a visitors' paradise. The terrain is undulating with altitudes ranging from 600 Mtr. to over 2000 Mtr. It was declared a Project Tiger Reserve in 1978. The entire reserve is divided into 350 sq. km. Core Zone, and 427 sq. km. Buffer Zone, enclosing 50 sq. km. of Tourism Zone. The park encompasses a reservoir formed by the construction of Mullaperiyar dam built across river Periyar in 1895 and it forms a lake of around 30 sq.km. (Vijayakumar, 2004) The lake is an extraordinary eerie-looking sheet of water with blackened stumps sticks out everywhere, being the left over trunks of hard wood trees which were submerged by the water. (Seshadri, 1988). The reserve is featured with diversity of flora and fauna and according to some research reports, in all there are 1965 species of flowering plants including 171 grass species. Orchidaceae is represented by 145 species. The fauna of Periyar is rich and varied. There are 62 species of mammals including the endangered species like tiger, the nilgiri langur, lion tailed macaque, slender loris, nilgiri tahr, mouse deer, small travancore flying squirrel, brown palm civet and elephant. Besides, there is the sloth bear, leopard and wild dog. The gaur, sambar, barking deer and wild boar are among the other herbivorous species. The wide variety of habitats in periyar supports a rich bird life of over 314 species. There are 43 species of reptiles including the monitor lizard, fresh water tortoise and several poisonous and non-poisonous snakes. Over 16 amphibian species have been recorded in Periyar which include the malabar tree frog and the ubiquitous *Rana* curtipes found in the lake vicinity. The fish fauna include 38 species of which the

mahseer, Tor khudri is famous as a game fish. The three species *Lepidopygopsis typus*, *Crossocheilus periyarensis*, *Puntius micropogon periyarensis* are endemic to Periyar

The park includes some religious sites, of which Sabarimala is the most important. Every year millions of pilgrims visit Sabarimala. The reserve is a habitat of large number of indigenous people which include the humankind such as Mannans, Paliyas, Ooralies, Ullada, Malayaraya, and Malampandaram and around 250000 people in and around the protected area.

## Sustainable Tourism Practices at PTR

Periyar Tiger Reserve has faced many issues related to conservation and preservation of the biodiversity over there. Many issues have been identified related to the conservation of the reserve. People living in around the reserve depend to a large extent on it. The human-wildlife conflict or interface conflict is reported in Periyar Tiger Reserve. Problems associated with the pilgrimage is fuel wood collection from forest, garbage, degradation of forests, more demand for land, new construction, future threat of proposal Sabari Rail, etc. Electricity transmission related issues are also there. Illegal ganja cultivation exists in the interior forests of the Reserve. The ganja cultivators clear-fell the prime forests in the deep interior, since the ganja plant is a strong light demander. As the cultivation takes 6 months for harvest, it causes prolonged stay of the laborers within the forests and the associated damages including poaching take place. Though the core area is not affected by grazing, the fringe area suffers from large scale cattle grazing. Occasional fire incidences are reported in the buffer, especially in grasslands. Few cases of poaching of fauna and flora have been detected and also illegal fishing.

Many biodiversity programmes have been initiated at periyar tiger reserve. Some forest guards were recruited newly who got enough training in Wildlife Management in the Reserve. Through awareness/eco-development approach local people have been involved in patrolling, information sharing and arrest of criminals indulging in illicit activities. Ten Wireless Stations are being maintained. About sixty watchers are engaged to compensate the shortage of regular protection staff. Frequent camping and combing operations with sufficient staff and watchers are being carried out. Inspection Path Maintenance, vista-line clearance and roadside clearance are being done for strengthening the perambulation. Patrolling camps with trenches were constructed at some places. The repair of existing camping sheds was completed for ensuring staff presence at these key points. Nature Camps are conducted in Periyar Tiger Reserve for students and members

of various Nature Clubs. In addition to regular staff, there is special flying squad headed by a Range Officer for protection and patrolling. An experiment in forest management called India Eco-development Project (IEDP, the world Bank funded participatory bio-diversity conservation programme) was started at Periyar Wildlife Sanctuary in Thekkady, Kerala, India and it has developed an ecotourism component, the 'Thekkady Tiger Trail' in 1998.

The important components of the Project are Eco-development Programmes, improved protected area management, Impact monitoring and research and Environmental education and awareness campaigns. The eco-development initiative aims to improve the capacity to manage biodiversity, to empower local community and fosters partnership, Quid pro-quo arrangement and to attempt a social fence around the park. Seventy two Eco-development Committees (EDCs) were constituted in the fringe area including neighborhoods, user groups and professionals. These are helpful in forest protection also. This programme is expected to benefit 5540 families (40,000 people).

Tribal Trackers Eco Development Committee (TTEDC) was the first EDC formed in PTR in the year 1997. Ex wayana bark Collectors EDC is another group where the members in this group are once poachers, who engage in destructive activities. Now they are protecting the forests. They patrol the forests at regular intervals in day and night. Along with them, they also carry a minimum number of tourists. They also arrange one day, two day or three day trekking to the tourists. Tribal Heritage EDC which consists of members of Mannakkudy tribe only. They promote their culture and heritage as the means of attraction. The Tribal Trekkers Eco-Development Committee, a group of 20 young tribal youth and the Periyar Tiger Samrakshan (PETS), a group of 70 members who were earlier employed by the Forest Department as watchers have an involvement in the sustainable tourism activities. They provide services like day treks through the forest, arranging nature camps, horse riding and special programmes for the tourists. The local women have formed a body called Vasanta Sena to look after Periyar Tiger Reserve. The Vasanta Sena comprises 100 women belonging to eight different EDCs who form groups of seven and patrol the forest on a rotation basis from 10 am to 4 pm daily. Carrying bags with the logo of Periyar Tiger Reserve, members of the Vasanta Sena come from the nearby villages.

The above discussion clarifies how biodiversity programmes are practiced while promoting ecotourism and vice versa also. Basically ecotourism development approach is based on local people involvement in programmes, protection oriented programmes and benefits sharing by them. The impacts of this stage are park protection strengthened, generation of sizable money for community

welfare and excellent interpretation on park values. A variety of community based ecotourism programmes were being identified as part of it and they are Nature Walk; Periyar Tiger Trail; Border Hiking; Bamboo Rafting; Jungle Patrol; Tribal Heritage; The Jungle Inn; Bamboo Grove; and Green Mansions. The implementation of such practices generated some impacts and according to Krishnan (2004) the impacts generated are creation of the community revolving funds; participatory patrolling and social fencing; reduced forest offences and improved regeneration; village level monitoring and public auditing; recognition by government, politicians and media; and decentralized model of development. In the year 2004-05 a revenue of Rs.84 lakhs has been accrued from the EDC activities (Mohanlal, 2006). Out of which 10% have gone to Government; 10% to Government; 10% for Marketing efforts; 10% for park welfare; and 70% have gone to the local community as wages and welfare funds and it is estimated that the programmes at PTR are benefiting 5540 families and 40,000 people. The inception and implementation of India eco-development project made the managers of Periyar Tiger Reserve think seriously to identify sustainable tourism activities that ensure local participation in its fullest sense and the reduction of human dependence on the forest for their livelihood.

## Conclusion

Periyar Tiger Reserve is a protected area and as part of the bio diversity preservation as well as community development programmes some ecotourism practices are being followed which adhere to the principles of sustainable tourism. Through this paper an attempt is made to give an overview of the sustainable practices being followed at Periyar Tiger Reserve where some ecotourism activities are also undertaken.

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