

TOURISM: A CONTRIBUTOR TO THE ENVIRONMENT'S MISERY

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Abstract

Man bears a moral duty to respect and safeguard the natural life on earth. Every human being should realize this pious obligation and should make every possible endeavour to protect the environment. This duty is not limited only to the territorial extent of one's country, but also to the countries where one arrives as a tourist. In recent times, degradation of the environment has become a worrisome international issue. One of the chief causes for the contamination of the environment is the growth in tourist activities. Tourism has an intrinsic connection with the growth and development of a country. This sector has significantly contributed in assortment of large amount of foreign exchange, besides providing a boost to the country's overall economic and social development. But like every two-faced coin, tourism too has its adverse effects. Land degradation, pollution, deforestation, climate changes, solid wastes, etc., has been viewed as important environmental effects due to the development of tourism. Therefore, there lies a dire need for tourist activity around the globe to be developed in such a manner that it accommodates and entertains visitors in a technique which is minimally invasive or disparaging to the environment and protracts the native cultures in the locations it exists in. Eco-tourism needs to be endorsed so that the natural environment around the globe can be conserved and sustained. This research work is an overview on the environmental issues of the development of tourism. It seeks to highlight the adverse impact on the environment due to increased tourism at international and national contexts. It ushers concern on the present need of regulating tourism by enacting appropriate environment-friendly laws. It further elaborates sustainable measures that could be adopted in exterminating the present quandary. Lastly, plausible suggestions are forwarded by the authors that may result in reaching an equilibrium state of tourism development without depraving the environment.

Keywords: Environment, Tourism, Deforestation, Pollution, Climate change, Eco- tourism, Sustainable development.

Introduction

*Pancha Mahabhutas*¹ creates a web of life that is shown forth in the structure and interconnectedness of the cosmos and the human body. The five great elements include space, air, fire, water and earth. These constitute the environment and are all derived from *prakriti*, the primal energy. Each of these elements has their own life and form; together the elements are interconnected and interdependent.² It is therefore, worth mentioning that, to protect the environment is an important expression of *Dharma*³. Association of this sublime spiritual ontology to the present era renders us the nexus between the *Dharma* and the Doctrine of Rule of Law⁴, which ultimately binds us with a legal obligation to conserve our environment.

In recent times, the environment has become one of the most active subjects of debate and discussion. The desire to put feet into an environment that could trace its sculpture links with devotion in an unbroken skein reaching back to antiquity is vanishing. One of the major causes of the deterioration of the environment is unplanned and unchecked developmental activities in the tourist destinations. And the lamenting part is that, we, as the whole globe, lack appropriate and significant laws in this regard.

There is indeed no denying the fact that tourism is enormously beneficial for any country's economy. According to World Travel and Tourism Council Report 2015, tourism represents around six per cent of world trade, and almost 13 per cent of the total global consumer spending.⁵ But it is pathos and bathos that the environment will probably be damaged if overused, and if the limits of its carrying capacity are surpassed, the ecosystem will lose its sustainability and be damaged or destroyed for a long time, if not forever. Since, as compared to developed nations, most developing countries at their first stages of tourism development

¹ *Pancha* and *Mahabhutas* are the *Sanskrit* words, the former means 'five' and the latter means 'great elements'

²The *Upanishads*: The *Upanishads* explains the interdependence of these elements in relation to *Brahma*, the supreme reality, from which they arise: "From *Brahma* arises space, from space arises air, from air arises fire, from fire arises water, and from water arises earth."

³*Dharma* is one of the most important Hindu concepts, has been translated into English as duty, virtue, cosmic order and religion.

⁴ Justice Dr. Ram Joise, *Rajdharm and Lessons on Rajneeti*

⁵ *The 2010 Travel and Tourism Economic Research*, Economic Data Research Tool, World Travel and Tourism Council (www.wttc.org)

had no control or proper planning for tourism, the carrying capacities of their environment were not taken into account and thereby are abused the most.

Tourism: A Catalyst to Economic Boost

In India too, tourism has become one of the chief sectors of the economy, contributing to a hefty proportion of the national income and generating huge employment opportunities with great potentials for its further expansion and diversification. The first conscious and organized efforts to promote tourism in India were made in 1945 when a committee was set up by the Government under the Chairmanship of Sir John Sargent, the then Educational Adviser to the Government of India. But it was only after the 80's that tourism activity gained momentum.⁶

Tourism in India is the largest service industry, with a contribution of 6.23 per cent to the national GDP and 8.78% of the total employment in India. The Ministry of Tourism is the nodal agency to formulate national policies and programmes for the development and promotion of tourism. Concerted efforts are being made to promote new forms of tourism such as rural, cruise, medical and eco-tourism. The Ministry of Tourism also maintains the *Incredible India* campaign.⁷

During the year 2011, the growth rate of 8.9 per cent in tourist arrivals in India was almost double the growth of 4.4 per cent in tourist arrivals worldwide. The tourism sector in India, therefore, has fared quite well vis-à-vis the world. Foreign Exchange Earnings (FEE) from tourism in India during 2011 were \$16.56 billion as compared to \$ 14.19 billion in 2010, showing a growth of 16.7%⁸. According to *World Travel and Tourism Council*, India will be a tourism hotspot from 2009-2018, having the highest 10-year growth potential. As per the *Travel and Tourism Competitiveness Report of 2009*, by the *World Economic Forum*, India is ranked 11th in the Asia Pacific region and 62nd overall, moving up three places on the list of the world's attractive destinations.⁹

Moreover, India has been ranked the “best country brand for value-for-money” and “second best country brand for history” in the Country Brand Index (CBI) survey conducted by *Future*

⁶ Access at, www.incredibleindia.com

⁷ Dr. P. Sekhar, *Secured Techno- Economic Growth of India: Unleashing Hidden Growth Potential*, Micro Media Marketing Pvt. Ltd., pp. 187

⁸https://www.academia.edu/7836294/EMERGING_ENVIRONMENTAL_ISSUES_WITH_THE_DEVELOPMENT_OF_TOURISM_INDIUSTRY_IN_INDIA_A_STUDY (Government of India, Ministry of Tourism, 2012)

⁹ www.ibef.org/industry/tourismhospitality.aspx

Brand, a leading global brand consultancy.¹⁰ However, like every coin has its two sides, one a boon and the other a curse, tourism too has its pros and cons.

International Regime on Tourism *vis-à-vis* the Environment

Environmentally responsible tourism's formal enunciation emanates from the *1989 Hague Declaration on Tourism*, which advocates rational management of tourism so that it may contribute to the protection and preservation of the natural and cultural environment. Even at the *Earth Summit in Brazil June 1992*, the issue of 'sustainable tourism' was discussed within the context of overall sustainable development.¹¹ The *Commission On Sustainable Development* as a UN body responsible for the follow up of *Agenda 21*, addressed sustainable nature based tourism, first in the framework of sustainable development of Small Islands Developing States and then in the context of the working programme of its Seventh Session in 1999. A couple of years back, UNEP took initiatives of regarding sustainable tourism in the *UNEP Draft Principle on Sustainable Tourism*, which was initiated in 1995 and final draft was published in early 2000. The time of launching the UNEP initiative coincided with Commission on Sustainable Development and the adoption of *decision 7/3*. It may be regarded as an environmental approach to tackle nature-based tourism.

The Ghastly Aftermath of Global Tourism

The negative impacts of tourism on the environment can be analyzed in different ways. One of them looks at the specific elements of the ecosystem of the tourist locale. For instance, tourism can have detrimental effect on vegetation¹² and can create pressure on local resources,¹³ it can also have an effect on air and water quality,¹⁴ wildlife can also be adversely affected by tourism,¹⁵ resort development can cause harm to the environment on which it is

¹⁰ www.ibef.org/industry/tourismhospitality.aspx

¹¹ <http://www.yourarticlelibrary.com/essay/short-essay-on-tourism-538-words/8573/>

¹²E.g., the collection of plants or careless use of fire can destroy plant life; littering causes changes in soil nutrients; human and vehicular traffic affects both the soil and the vulnerability of plants.

¹³Tourism can create great pressure on local resources like energy, food, and other raw materials that may already be in short supply. Greater extraction and transport of these resources exacerbates the physical impacts associated with their exploitation. Because of the seasonal character of the industry, many destinations have ten times more inhabitants in the high season as in the low season. A high demand is placed upon these resources to meet the high expectations tourists.

¹⁴Air pollution can be attributed to the tourist vehicles in resort areas. There can also be pollution of lakes, rivers and oceans caused by large quantities of waste material and inadequately treated sewage from tourist facilities and from oil spills from recreational vehicles.

¹⁵By intruding on the animals' natural lives, tourism can disrupt feeding and breeding patterns, and sometimes can even force the relocation of wildlife.

located as well,¹⁶ it also plays a crucial role in water depletion,¹⁷ it may lead to land degradation,¹⁸ etc.

Another way, and probably a better way, to analyze the impacts of tourism on the environment, is to look at how tourism affects certain ecosystems.¹⁹ For instance, clearing plant life for the sake of tourism “disturbs” wildlife and reduces habitats. And since these components and ecosystems are interconnected not just locally, but globally, affecting one of these may disrupt another in a different part of the region or even the world.

Out of all, marine ecosystems suffer the most due to high popularity of ‘beach tourism’. There are 109 countries with coral reefs. In 90 of them the reefs are being damaged by cruise ship anchors and sewage, by tourists breaking off chunks of coral, and by commercial harvesting for sale to tourists. One study of a cruise ship anchor dropped in a coral reef for one day found an area about half the size of a football field completely destroyed, and half again as much covered by rubble that died later. It was estimated that coral recovery would take fifty years.²⁰

The European marine ecosystem has probably been the worst affected because it is an inland sea, thus it has a longer self-cleaning process due to the limited tide.²¹ Out of all the components affected in this ecosystem, coral reefs are the most vulnerable. Reefs can be harmed by trampling from scuba divers and snorkelers, untreated sewage dumped from hotels or the resort cities themselves, and many developing countries use coral for construction of hotels and roads. The construction of hotels²² and roads destroys dunes and beaches, causing severe environmental consequences, such as erosion, which in turn induces more environmental problems.²³

¹⁶Architectural pollution is a condition where resort facilities clash with the native surroundings and architecture.

¹⁷Source: *Tourism Concern*- Golf course maintenance can also deplete fresh water resources. In recent years golf tourism has increased in popularity and the number of golf courses has grown rapidly. An average golf course in a tropical country such as Thailand needs 1500kg of chemical fertilizers, pesticides and herbicides per year and uses as much water as 60,000 rural villagers. In dryer regions like the Mediterranean, the issue of water scarcity is of particular concern. Because of the hot climate and the tendency of tourists to consume more water when on holiday than they do at home, the amount used can run up to 440 liters a day. This is almost double what the inhabitants of an average Spanish city use.

¹⁸For e.g., one trekking tourist in Nepal - and area already suffering the effects of deforestation - can use four to five kilograms of wood a day.

¹⁹Stephanie Thullen, ‘Tourism and Trade’, available at, www.american.edu/ted/project/tedcross/xtour8.htm

²⁰Source: *Ocean Planet*

²¹See: *The Mediterranean case*

²²See: *The Greek Island case*

²³See: *The Bali and Jamaica cases*

Discussing the other aspects, construction of hotels, recreation and other facilities also leads to increased sewage pollution. Wastewater has polluted seas and lakes surrounding tourist attractions, damaging the flora and fauna. Sewage runoff causes serious damage to coral reefs because it stimulates the growth of algae, which cover the filter-feeding corals, hindering their ability to survive. Changes in salinity and siltation can have wide-ranging impacts on coastal environments. And sewage pollution can threaten the health of humans and animals.

Often tourism also fails to integrate its structures with the natural features and indigenous architectural of the destination.²⁴ Large, dominating resorts of disparate design can look out of place in any natural environment and may clash with the indigenous structural design.

The case of Trinidad and Tobago can be discussed here, where after the decline of oil revenues in the 1980's, both states turned to tourism in order to resolve its serious economic problems. However, the country proceeded without any assessment on the environmental impacts of tourism on the islands. As a result, several environmental problems have arisen in Trinidad and Tobago. There are shortages of water due to the overpopulation of tourists on the island; sand has been depleted for construction, which has damaged beaches and destroyed the habitat of turtles, where they come to lay their eggs. The most damaging effect of tourism has been the destruction of coral reefs, as they are harvested for sale to tourists and destroyed by tourists stepping on them as they enter the water.²⁵

Navigating the land ecosystem, in industrial countries, mass tourism and recreation are now fast overtaking the extractive industries as the largest threat to mountain communities and environments. Since 1945, visits to the 10 most popular mountainous national parks in the United States have increased twelve-fold. In the European Alps, tourism now exceeds 100 million visitor-days. Every year in the Indian Himalaya, more than 250,000 Hindu pilgrims, 25,000 trekkers, and 75 mountaineering expeditions climb to the sacred source of the *Ganges* River, the *Gangotri* Glacier. They deplete local forests for firewood, trample riparian vegetation, and strew litter. Even worse, this tourism frequently induces poorly planned, land-intensive development.²⁶

Not only has tourism impacted the internal ecosystem of a state, but it is also the fastest growing contributor to global warming. Wanting to travel by air by sheer numbers us has led the

²⁴See: *The Cancun, Mexico case*

²⁵ Stephanie Thullen, 'Tourism and Trade', *access at*, www.american.edu/ted/project/tedcross/xtour8.htm

²⁶Source: *People and the Planet*

Aviation to be targeted for a fair amount of criticism. There is no denying the fact that the farther you go the more Green House gases you produce and *KLM* estimates that trips over 1,500 km are responsible for around 80% of the CO₂ produced by air travel. Transport by air is continuously increasing and it was reported that the number of international air passengers worldwide rose from 88 million in 1972 to 344 million in 1994. According to *Tourism Concern*, scientists predict that by 2015 half of the annual destruction of the ozone layer will be caused by air travel.²⁷

One consequence of the increase in air transport is that tourism now accounts for more than 60% of air travel and is therefore responsible for an important share of air emissions. One study estimated that a single transatlantic return flight emits almost half the CO₂ emissions produced by all other sources (lighting, heating, car use, etc.) consumed by an average person yearly.²⁸ Not only does aviation affects the air but on the ground as well, it is performing its part, no less. The issues of noise, congestion and the loss of green belt due to the new runways has also been an important part of discussions; also the average airport's annual carbon debt is beginning to look pretty daunting.²⁹

Climate scientists now generally agree that the Earth's surface temperatures have risen steadily in recent years because of an increase in the so-called greenhouse gases in the atmosphere, which trap heat from the sun. Global tourism is closely linked to climate change. The *Second International Conference on Climate Change and Tourism, 2007*, was a milestone event that brought together a wide variety of stakeholders and delivered a clear commitment for action to respond to the climate change challenge. Tourism involves the movement of people from their homes to other destinations and accounts for about 50% of traffic movements; rapidly expanding air traffic contributes about 2.5% of the production of CO₂. Tourism is thus a significant contributor to the increasing concentrations of greenhouse gases in the atmosphere.³⁰

In areas with high concentrations of tourist activities and appealing natural attractions, waste disposal is another major and grave issue and improper disposal can be a major despoiler of the natural environment - rivers, scenic areas, and roadsides. For example, the Wider Caribbean

²⁷ Dr Gareth Evans, *Aviation and Global Warming*, Updated: 16 Oct 2012, ecoholidaying.co.uk

²⁸ Mayer Hillman, *Town & Country Planning magazine*, September 1996. Source: MFOE

²⁹ Dr Gareth Evans, *Aviation and Global Warming*- Updated: 16 Oct 2012, ecoholidaying.co.uk

³⁰ Source: *Mountain Forum*

Region, stretching from Florida to French Guiana, receives 63,000 port calls from ships each year, and they generate 82,000 tons of garbage. About 77% of all ship waste comes from cruise vessels. The average cruise ship carries 600 crew members and 1,400 passengers. On average, passengers on a cruise ship each account for 3.5 kilograms of garbage daily compared with the 0.8 kilograms each generated by the less well-endowed folk on shore.³¹ Solid waste and littering can degrade the physical appearance of the water and shoreline and cause the death of marine animals.

In mountain areas, trekking tourists generate a great deal of waste. Tourists on expedition leave behind their garbage, oxygen cylinders and even camping equipment. Such practices degrade the environment with all the detritus typical of the developed world, in remote areas that have few garbage collection or disposal facilities. Some trails in the Peruvian Andes and in Nepal frequently visited by tourists have been nicknamed “Coca-Cola trail” and “Toilet paper trail”.

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Physical impacts are caused not only by tourism-related land clearing and construction, but by continuing tourist activities and long-term changes in local economies and ecologies. In Yosemite National Park (US), for instance, the number of roads and facilities have been increased to keep pace with the growing visitor numbers and to supply amenities, infrastructure and parking lots for all the tourists. These actions have caused habitat loss in the park and are accompanied by various forms of pollution, including air pollution from automobile emissions; the *Sierra Club* has reported “smog so thick that Yosemite Valley could not be seen from airplanes”. This occasional smog is harmful to all species and vegetation inside the Park.³³

Tourists using the same trail over and over again can be another example of continuing tourist activities which results in trampling the vegetation and soil, eventually causing damage that can lead to loss of biodiversity and other impacts. Such damage can be even more extensive when visitors frequently stray off established trails.³⁴ Tourists and suppliers - often unwittingly - can bring in species (insects, wild and cultivated plants and diseases) that are not native to the local environment and that can cause enormous disruption and even destruction of ecosystems.

Indian Scenario

³¹ Our Planet, *UNEP Magazine For Environmentally Sustainable Development*, volume 10, no. 3, 1999

³² Access at, www.unep.org

³³Source: *Trade and Environment Database*

³⁴Source: *University of Idaho*

Shifting the focus on India which is known for its generous conduct to all visitors and the notion of *Atithi Devo Bhava*,³⁵ in recent times, has also suffered due to the increase in tourism which has led to environmental issues, which call for a great need for sustainable tourism policy³⁶; the most relatable and visible example of it is the melting of *Amarnath Linga*, resulting from the increase in temperature caused due to overcrowding in its premises.

In coastal zone of Goa also known as the Tourist hub of India, problems of loss of mangrove, reducing fish catch and species, erosion, sanitation, water resources, etc., has affected the marine life, land of coastal zone and the environment.³⁷ The water level there has fallen far below the reach of the village wells since the deep wells of the hotels keep pumping up water for their pools and lush green lawns. Along with that, the hotels are ensured 24 hours water supply and water in tanks.

Adverse impact of tourism development is witnessed in the state of Maharashtra as well. Findings on a study revealed that 89 per cent of the surveyed respondent experienced that there would be maximum negative impact on the environment as a result of developing tourism; they experience that more forests degradation might take place in and around the area because of tremendous demands for area and encroachment of hotels and restaurants.³⁸

In *Mussorie, Garhwal* and the Himalayas also, due to huge influx in the tourists the demand for the lodges/hotels and other infra-structure and super-structure facilities and amenities in the area were enormous, and it imposed a great stress on the natural environment of the place.³⁹ In fact, some areas, such as the *Aravallis*, have been declared as being eco-sensitive and commercial development in and around national parks and wildlife sanctuaries is being strictly regulated.

Coastal tourism in *Kolavam* in India, has led to increased conflicts between the demands of existing environmental and tourism development policies. One may see the seeds of demise of

³⁵ It is a Sanskrit verse, which means that, the guest is equivalent to God

³⁶ *Access at*, shodhganga.inflibnet.ac.in/bitstream/10603/9790/10/10_chapter%203.pdf

³⁷ Kalidas Sawkar, Ligia Noronha, Antonio Mascarenhas, O.S. Chauhan, and Simad Saeed (1998): "Tourism and the Environment-Case Studies on Goa, India, and the Maldives", *The Economic Development Institute of the World Bank*, The International Bank for Reconstruction and Development/The World Bank, Washington, USA.

³⁸ Dr. D. Y. Patil and Ms. Lata S. Patil 2008, Environmental Carrying Capacity and Tourism Development in Maharashtra; in *Conference on Tourism in India – Challenges Ahead*, IIMKPart II – Tourism Society and Environmental Issues; 15-17 May 2008

³⁹ SAPANA MADAN and LAXMI RAWAT 2000, The impacts of tourism on the environment of Mussoorie, Garhwal Himalaya, India, *The environmentalist*, 20, 249-255. *Kluwer Academic publishers, Manufactured in the Netherland*

a prospective industry by the deterioration of that very ecological milieu on which it thrives. Environmental conservation and community development have never been taken as the prerequisites for the betterment of tourism industry in this place.⁴⁰ The *Krushedei* Island near *Rameswaram* which was once called paradise for marine biologists has been abandoned due to massive destruction of coral and other marine life. The impact of tourism on the environment of Sikkim and the Himalayas is also threatening on the protected areas in the region. Sustainable planning for tourism in the state is advocated.⁴¹

People who come to enjoy the scenic beauty often litter the places with polythene and left over food without thinking about its adverse impact on the environment. The *Dal* Lake which was once pristine has lost its nature due to tourist pressure and is now covered with animal carcasses, sewage and weeds. The lake has shrunk as it was unable to handle the pollution caused by constant tourist influx.

Moreover, habitat has also been degraded by tourism leisure activities. For example, wildlife viewing brings about stress for the animals and alters their natural behaviour when tourists come too close. Safaris and wildlife watching activities have a degrading effect on habitat as they often are accompanied by the noise and commotion created by tourists.

Panaceas and Suggestions

It brings blues as far as the present scenario and ignorance on the part of humans is concerned. The plight is that, though there are countless environment protection schemes and organisations, none of them are capable of restraining the tourist activities, more specifically, from extinguishing our ambient natural habitat.

The Davos Declaration⁴² is worth mentioning here which is a huge step forward and presents concrete recommendations to the key interest groups involved in tourism, it required certain

⁴⁰ Proshanta Kumar Ghosh and Debajit Datta 2012, Coastal tourism and beach sustainability – An assessment of community perceptions in Kovalam, India *GEOGRAFIA Online Malaysia Journal of Society and Space*, 8 issue 7, pp.75 – 87

⁴¹ Joshi, R. and Dhyani, P. P. 2009, Environmental sustainability and tourism- implications of trend synergies of tourism in Sikkim Himalayas. *Current Science*, 97 (1), 33-41

⁴² II International Conference on Climate Change 2007

actions, such as, to mitigate greenhouse gas emissions from the tourism sector, derived especially from transport and accommodation activities; adapt tourism businesses and destinations to changing climate conditions; apply existing and new technologies to improve energy efficiency; and secure financial resources to assist regions and countries in need.

India, specially, lacks laws regarding tourist control. Except for Article 48(a)⁴³, Article 51A (g)⁴⁴ and a few generic legislations⁴⁵, India is destitute in the field of protection of the environment *vis-à-vis* tourism. And the legislations which mention tourism, like the Wildlife Act, fail to achieve the goal due to their ineffective nature.⁴⁶ The perplexity is that it is in fact challenging to control the tourism and tourists from damaging the nature. One of the complexities is regarding holding the tourists liable for their acts, which is very tough due to their temporary stay and the doctrine of *de minimus non curat lex* which postulates that law does not take account on trifles. And most of the acts like littering and intruding in wild animals' routine come under the latter category. But indeed, certain regulations, laws, norms and constructive techniques can be enacted like barring the carrying of junk like polythene to natural tourist spots or limiting the amount of water used by hotels by removing bath tubs and encouraging water conservation or limiting water activities away from coral habitats etc.

*M.C. Mehta v Union of India*⁴⁷ enlightened the concept of CNG transportation which can be considered as the landmark to regulate the transport system which is the most crucial mode of transmission as well as a major contributor to tourism menace. The decision created a role model for the tourist destination to regulate the transport sector and use environmental friendly and cleaner means of transport. Not only in Delhi, but at all Tourist places, CNG taxis and

⁴³ Article 48 in the Constitution of India 1949 provides that, the State shall endeavor to organize agriculture and animal husbandry on modern and scientific lines and shall, in particular, take steps for preserving and improving the breeds, and prohibiting the slaughter, of cows and calves and other milch and draught cattle.

⁴⁴ Article 51A (g) in The Constitution of India 1949 provides, to protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creature.

⁴⁵ Air (Prevention and Control of Pollution) Act, 1981, Biological Diversity Act, 2002, Environment (Protection) Act, 1986, Forest Conservation Act, 1980, Indian Forest Act, 1927, National Green Tribunal Act, 2010, Protection of Plant Varieties and Farmers' Rights Act of 2001, Public Liability Insurance Act, 1991, The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, Water (Prevention and Control of Pollution), 1974, Wild Life (Protection) Amendment Act, 2002, Wildlife Protection Act of 1972, Noise Pollution Act, Hazardous waste Handling and management act, 1989

⁴⁶ The Act restricts the tourist from degrading the environment or other related activities which directly or indirectly affects the environment. As the wildlife parks, sanctuaries, and reserves are in abundance and serves as major tourist attraction, this Act helps in regulation and protection of these important destinations, which also serves the most number of tourist count.

⁴⁷ 2001 (2) SCR 698

tourist buses should be made compulsory. Although these are small measures but they can definitely contribute to conserve the environment.

Eco-tourism can be one of the objectives for many biological park projects. In *Niyamavedi v State of Kerala*, the Kerala High Court found that a project for such a park was designed after consulting many experts who gave full support for watching wildlife at close quarters, without interfering with the sanctity of flora and fauna. In the court's eyes the government's decision to establish a park after consultation was a policy decision, which could not be interfered with.

On the brighter side, tourism can significantly also contribute to environmental protection, conservation and restoration of biological diversity and sustainable use of natural resources and there are numerous significant examples where nations have developed techniques, modus and laws to protect nature. For example, in Hawaii, new laws and regulations have been enacted to preserve the Hawaiian rainforest and to protect native species. The coral reefs around the islands and the marine life that depend on them for survival are also protected. Hawaii now has become an international centre for research on ecological systems - and the promotion and preservation of the islands' tourism industry was the main motivation for these actions.⁴⁸

Grupo Punta Cana, a resort in the Dominican Republic, offers an example of how luxury tourism development and conservation can be combined. The developers have set aside 10,000 hectares of land as a natural reserve and native fruit tree garden which includes 11 fresh water springs surrounded by a subtropical forest where many species of unusual Caribbean flora and fauna live in their natural state. The *Punta Cana Ecological Foundation* has begun reforesting some parts of the reserve that had been stripped of their native mahogany and other trees in the past. Other environmentally protective policies have been put into effect at the resort, such as programs to protect the offshore barrier reefs and the recycling of wastewater for use in irrigating the grounds. The fairways of the resort's new golf course were planted with a hybrid grass that can be irrigated with sea water and also requires less than half the usual amounts of fertilizer and pesticides.

Tourism has had a positive effect on wildlife preservation and protection efforts, notably in Africa but also in South America, Asia, Australia, and the South Pacific. However, numerous animal and plant species have already become extinct or may become extinct soon. Many countries have therefore established wildlife reserves and enacted strict laws protecting the

⁴⁸Source: *Mundus*

animals that draw nature-loving tourists. As a result of these measures, several endangered species have begun to thrive again.

In the Great Lakes region of Africa, mountain gorillas, one of the world's most endangered great apes, play a critical ecological, economic and political role. Establishment of a gorilla tracking permit, which costs US\$ 250 plus park fees, means that just three habituated gorilla groups of about 38 individuals in total can generate over US\$ 3 million in revenue per year. The presence of such a valuable tourism revenue source in the fragile Afromontane forests ensures that these critical habitats are protected, thus fulfilling their valuable ecological function including local climate regulation, water catchment, and natural resources for local communities.⁴⁹

Observing wild and semi-wild orang-utans in their natural habitat is a significant environmental education opportunity for large numbers of domestic visitors. To enhance this education experience, the existing station at Bohorok, North Sumatra is to be transformed from a rehabilitation centre into an orang-utan viewing centre, thus offering another, crucial contribution to the sustainable conservation of the rainforest ecosystem. This will increase their awareness of the importance of rainforest conservation.⁵⁰

Conclusion

Like other few nations, India should adopt strict and innovative laws, compulsory execution of such norms and avant-garde techniques in order to preserve what has been gifted to us by the omnipotent. Regulatory measures may help offset negative impacts; for instance, controls on the number of tourist activities and movement of visitors within protected areas can limit

⁴⁹Source: *UNEP Great Apes Survival Project and Discovery Initiatives*

⁵⁰Source: *Sumatran orangutan conservation programme*

impacts on the ecosystem and help maintain the integrity and vitality of the site. Such limits can also reduce the negative impacts on resources.

Tourism industry in India is growing and it has vast potential for generating employment and earning large amount of foreign exchange besides giving a fillip to the country's overall economic and social development. Yet much more remains to be done. 'Eco-tourism' needs to be promoted so that tourism in India helps in preserving and sustaining the diversity of the India's natural and cultural environments. Tourism in India should be developed in such a way that it accommodates and entertains visitors in a way that is minimally intrusive or destructive to the environment and sustains and supports the native cultures in the locations it is operating in. Moreover, since tourism is a multi-dimensional activity, and is also basically a service industry, it would be necessary that all wings of the Central and State governments, private sector and voluntary organisations become active partners in the endeavour to attain sustainable growth in tourism, if India is to become a world player in the tourism industry.⁵¹

The findings of the study leaves more question on the development of Eco-tourism in India. Environmental issues of tourism in India are different per region or state as per the types of tourism. It has been viewed that the issues like carrying capacity, land degradation, pollution, deforestation, climate changes, solid wastes, etc., are the main problem to look upon. From the various studies it is clear that the environmental effect of tourism development in India differs from region to region. One cannot study and plan the same for all the regions. Like, the more development of tourism in the Coastal area like Goa, Kerala, Pondicherry and other coastal region have impact on the marine life and water resources. In case of the Himalayan states of India, the impact is on the forest, climate, land degradation, temperature, and threat to the protected areas. Further, in the metropolitan cities and states having maximum population, further development of tourism has impact on environmental pollution, deforestation, crowd and carrying capacity. The study also awakes us and provokes us to take the issue in a more serious point to discuss. Though many environments are endowed with great tourist potential, they are delicately balanced and large scale unplanned expansion of tourism in such areas often manifests itself in problems of serious environmental concern. It is necessary that tourism should be developed in a planned way taking care of environment and infrastructural development.

⁵¹ Access at, <http://www.trcollege.net/articles/74-development-and-impact-of-tourism-industry-in-india>

Therefore, state-wise/region-wise in-depth study on environment assessment of tourism industry in India is very necessary for the sustainable management of tourism and environment. Further, the tourism planning should be made on the basis of regional characteristic of the tourist destinations. Further, a sufficient fund for Research and Development is required to execute these studies effective for sustainable tourism policy in India.