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Mitigating Tourism Impact through Ecological Ethics: Conceptual Approach

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Abstract. Today among the business industries in the world, tourism is the fastest growing business industry. Tourism is considered as one of the most profitable business among the local, national, and international business industries. It is considered as region's economic catalyst. But tourism may be disastrous for the natural environment and ecology when it is unsustainable. The region which crosses the legal and ethical barriers in tourism industry to earn more profit, can lead to an enormous degradation of the environment, in that particular area. Due to such irresponsible and unsustainable tourism, the local population of human, flora, and fauna, suffer greatly. It gives a great stress on use of community and regional land and can lead to encroachment of land, erosion of soil, over pollution, loss of natural ecology, and might result in the extinction of the endangered species. Unsustainable tourism might lead to the demolition of its resources, ecology of many species and the natural environment. Ecological ethics is an emerging concept in the philosophical field of studies of the moral values, conciseness and relationship of human beings with respect to its non- human contents in the nature. In the discipline of environmental studies, ecological ethics is one of the very important component which sets up the connection between the human being and mother earth. This is an exploration to study, which is conceptual in nature with logical debate. The paper proposes the significance of ecological ethics and its relevance in the field of tourism. The study discusses various adverse impacts of tourism on ecology and natural environment. It also tries to understand how the implication of ecological ethics could mitigate these impacts and maintain the ecological balance.

1. Introduction

Tourism promotes good will among the people of different places, countries or regions. It encourages international understanding. It creates numerous social and economic benefits for the countries, who are involved in tourism.

Among the world's largest industries, tourism and travel industry is extremely huge. Tourism provides employment to the locals of the certain tourist destinations as it involves the activities such as, promotion of local handicrafts, traditional & cultural activities, local services etc. resulting in the generation of income as well as the foreign exchange. Hence, it creates prosperity and goodwill among the people of the nations.

However, people tend to forget some basic ethics which might lead to some negative effects on our nature. Despite of its numerous benefits, excess tourism may lead to imbalanced in the ecology of many species including the human being.

According to the United Nation's world tourism organization, there is excessive exports of oils, food products and automobiles in past few years. The entering tourism boosts the economic growth of a region's economy while providing high prospective to support job creation. The outward departing tourism promotes cross-cultural understanding and goodwill. According to Mark Twain, "Travel is fatal to prejudice, bigotry, and narrow- mindedness..." (USA Today.com)

The unsustainable tourism might create a huge pressure on local and regional land uses, which might increase the erosion of soil, increase pollution, loss of natural ecology, and more pressure on the species which are already declared endangered. These can slowly result in the adverse negative consequences and damage in the environment and its resources on which tourism itself depends (Worldcounts.com).

Too many and increasing tourists might lead to an adverse impact on the environment and might degrade the standard of the natural existence. This occurrence might create load & pressure in the natural ecology of certain destinations such as in rural areas of Patagonia, Chile and urban areas of Barcelona and Spain, which are known as places burdened by excess tourism.

Another such example is the mountain slopes and valleys of Everest which are littered with rubbish and wastes. In the tourist destinations such as Iceland, the population of tourists has outnumbered the population of local residents.

The top 10 parks in U.S.A reported more than 44 million visitors in the year 2016. The National Park Service is trying to look for solutions to protect natural resources as the visitors are increasing year- on-year basis.

Worldwide tourism accounted 8% of global greenhouse gas emissions in the year 2009 to 2013. New researches done in past few years has found that the tourism sector acts as a bigger polluter than the construction industry (www.carbonbrief.org).

The philosophical field that considers the moral relations, values and consciousness between human beings and their natural ecology and environment is known as ecological ethics. It regards that, the human beings must consider certain commitments and sense of responsibility towards its nature. It looks about to assist the individuals and their leaders to become aware of ecologically conscious and to act responsibly when they do things that affect the environment.

Considering human being as the most important entity over other beings and natural environment is one of the major reason for the exploitation of natural resources and minerals in the name of mankind development. It takes millions of years for nature to recover the natural resources and minerals but it takes only few hours to use and burn it. In fact, human beings are gaining less and losing more.

Today many people acknowledge that some collaborative instructions or general rules should exist between people when they interact with nature. If they don't do so, nothing in our lives would be foreseeable and safe. Besides actual laws, it is important to know that, there are some basic common ethics or principles of what is right and what is wrong that everyone should agree upon and must follow and live by it. As a specialized part of ethics, ecological ethics is concerned with the human morality of treating the nature in a right way. As, treating it in a wrong way may affect the ecology and the natural environment. The growing human needs have troubled these natural components and created an ecological imbalance. Expanding and growing population, emission of harmful gases and the thought & philosophy of anthropocentrism among the people where, human beings are considered as the most superior being over nature has posed a serious threat to the ecological balance. Indirectly

or directly, unsustainable tourism without any ethical norms is one of reason for all these increasing environmental problems which might destroy the existence of not only the human beings but the whole nature. Therefore, it is very important and necessary for us to realize the importance of sustainable alternatives and ecological ethics not only in tourism industry but in other industries too.

Increasing tourism increases the population in the particular tourist destinations resulting in the increase of cutting down of forests for creating hotels & tourist lodges, parks etc., increases the movement of automobiles, increases air and water pollution, increases the use of plastics and wastes etc. which disturbs the natural habitat of many species of animals and plants as well. And which may affect human beings in a long run.

Following are some data about the domestic and international arrivals of tourists from different places to India and its north-eastern states which clearly shows how the population of human beings are increasing each year in these places.

Table no.1 shows the number of foreign tourist arrivals in N.E states of India and in all India.

Table No.1: Foreign Tourist Arrivals

Year	Arunachal Pradesh	Assam	Manipur	Meghalaya	Mizoram	Nagaland	Sikkim	Tripura	N-E Region	All India
2005	289	10782	316	5099	273	883	2677	16523	36842	9939782
2006	607	10374	295	4287	436	1002	3245	18026	38272	11403661
2007	2212	12899	396	5267	669	936	17498	3181	43058	13267273
2008	3020	14426	354	4919	902	1209	19154	3577	47561	14112590
2009	3945	14942	337	4522	513	1423	17730	4246	47658	14372300
2010	3395	15157	389	4177	731	1132	20757	5212	50950	17910178
2011	4753	16400	578	4803	658	2080	23602	6046	58920	19497126
2012	5135	17543	749	5313	744	2489	26489	7840	66302	18263074
2013	10846	17638	1908	6773	800	3304	31698	11853	84820	19951026
2014	5204	21537	2769	8664	836	3679	49175	26688	118552	22567650
2015	5705	24720	3260	8027	798	2769	38479	34886	118644	23326163
2016	6598	12685	3064	8476	942	3260	66012	36780	137817	24707732

Source: NEDFi Databank NEC, Govt. of India

Table no. 2 showcases the number of domestic tourist arrivals in the N.E states of India with comparison with all India Statistics.

Table No. 2. Domestic Tourists Arrival in NE States in comparison with All India statistics

Year	Arunachal Pradesh	Assam	Manipur	Meghalaya	Mizoram	Nagaland	Sikkim	Tripura	N-E Region	All India
2005	50560	2467652	94299	375901	44715	17470	251744	216330	3520676	391948589
2006	80137	3268657	116984	401529	50987	15850	292486	230645	4459281	462310177
2007	91100	3436833	101484	457685	43161	22085	329075	244795	4728225	526564364
2008	149292	3617306	112151	549936	55924	21129	460564	245438	5213748	562982298
2009	195147	3850521	124229	591398	56651	20953	615628	317541	5774077	668800482
2010	227857	4050924	114062	652756	57292	21094	700011	342273	6168279	747703380
2011	233227	4339485	134505	667504	62174	25391	552453	359515	6376265	864532718
2012	132243	4511407	134541	680254	64249	35915	558538	361786	6480945	1045047536
2013	125461	4684527	140673	691269	63377	35638	576749	359586	6679293	1145280443
2014	335974	4826702	115499	716469	68203	58507	562418	361247	7045019	1281952255
2015	352067	5491845	146169	751165	66605	64616	705023	363172	7940662	1431973794
2016	385875	5160599	150638	830887	67238	58178	747343	370618	7771376	1613551505

Source: NEDFI Databank NEC, Govt. of India

2. Objective of the study

- i) To study the various adverse impacts of tourism with special reference to the environment impact.
- ii) To study ecological ethics as a tool to mitigate the adverse impact of tourism on environment.

3. Review of Literature

The damage created by human being to its nature is irreparable according to (Barta, 2011). The concern and the relation between human and nature has emerged since very early days when the great philosopher like John Muir (1838-1914) and Jeremy Bentham (1748-1832) stepped in field of philosophy. And till today they both are still very influential in the philosophical field of environmental ethics. Similarly, Aldo Leopold's work during (1949) 'A sand country almanac' cannot be ignored where he did a significant work related to ethics related to land.

Rachel Carson's "Silent Spring" published in 1962, was another contribution in the field of environmental studies and was a development of such awareness among the people and its readers, how the widespread use of chemical pesticides was creating a serious threat to the health of common public and leading to the demolition of nature and wildlife.

The papers published by Lynn White's "The Historical Roots of our Ecologic Crisis" (March 1967) in field of science had a very crucial significant where, he believed man's relationship with the

natural environment was always a dynamic and interactive one, even in the middle ages, but marked the industrial revolution was a fundamental turning point in our ecological history. Also, the write up by Garrett Hardin's book "The Tragedy of the Commons" (1968), which was an eye opener to "the damage that innocent actions by individuals can inflict on the environment". He also introduced, Hardin's first law of human ecology.

One of the significance report was Paul Ehrlich's 1968 book, "The Population Bomb" which alerted the disastrous consequence of the twisting human population has on the earth and natural resources. During 1970s, in field of science, the study of ethical questions raised by human relations with the non-human environment emerged as an important subfield of philosophy. An essay "Exploring New Ethics for Survival" by Garrett Hardin's (1972) was also an important and influential work in the field of research.

Naess (1973) founded the theory "Deep Ecology" to refer to an environmentalism that believes fundamental changes in the way our species conceives our relation to nature are necessary before we find a way out of the ecological crisis around us. According to him it is a normative political philosophy which contrasted with shallow ecology. Which also assumes that minor technical fixes in our present way of doing things will solve our environmental problems. He believed, with our present way of considering the nature only as a resource will never work according to deep ecology.

Holmes Roston III (1975) introduced the concept of "ecological consciousness" in his paper "Is there an ecological ethic?" Nature must be appreciated for its intrinsic value, or worth in itself, regardless of how humans might benefit from it. Further researches and academic journals by many researchers were reviewed, and the term "Environmental Ethics" 1978 was founded by Eugene Hangrove.

From 1980's onward, research, publications and teachings in the philosophical field of Environmental Ethics was expanded rapidly. And at present it is a flourishing area of research. Extending the further research and theory of Deep Ecology of Arne Naess, Devall and Sessions 1985, 75 quoted, "With maturity, human beings will experience happiness when other life forms experience happiness and sorrow when other living beings and forms experiences sorrow. We feel sad when our brother or a dog or a cat feels sad, but we will grieve when living beings, including landscapes, are destroyed. In our civilization, we have vast means of destruction at our disposal but extremely little maturity in our feeling. Only a very narrow range of feelings have interested most human beings until now" Hangrove (1992) published a book "Foundation of Environmental Ethics" He starts with the history of Greek philosophy related to nature and environment. He termed applied ethics along with environmental ethics in his write-ups. He proposed the study of philosophical aspects and social attitudes in western culture with respect to its environment and nature, including the protection and conservation of wildlife, land management and uses etc. He gave the ontological argument for preservation of nature. He examined the historical significance and prepared a framework for further discussions on environmental ethics.

In the book by Callicott (1994) "Earth's Insight: A multicultural survey of ecological ethics from the Mediterranean Basin to Australian outback" examined that the environmental disaster is a global problem, yet ecological consciousness is merely discussed in the field of philosophy and it is mostly centered in western philosophy and religion. He further expanded the scope of environmental ethics, implanted in non-western worldviews, to include the teachings on ecological consciousness. He explored broadly the sacred texts of Islam, Zen Buddhism, Jainism, Taoism, Hinduism, Confucianism, and, as well as the oral traditions of North and South America, Australia and Polynesia. Also, he documented the various attempts made by peoples to practice the environmental ethics in their locality and surroundings. He finally came up with a question to all human sharing the fate of our small planet which is of a very crucial significance. He also questioned, how the world's diverse environmental studies and philosophies can be brought together in a complementary and congruous fullness.

Rosa and Silva (2005), in their Journal of Agricultural and Environmental Ethics focused on the conservation of various species and ecology in the European Union. They analyzed the concept and values in their questions regarding the term like environmental ethics, anthropocentrism, non-

anthropocentrism, biocentrism and egocentrism. They examined the value and concept considering the following categories such as,

- Human worth and morals.
- asset worth and values e.g. economy, income, market, costs and benefits
- private property e.g. non-interference, property rights, landowner rights
- natural resources e.g. production, consumption, management of resources
- cultural values e.g. aesthetic value, scientific value, heritage
- sustainability e.g. future generations, sustainable development, sustainable use
- stewardship e.g. nature preservation, restoration, care, management);
- living beings e.g. animal rights/welfare, biological interests, individual organisms
- ecological values e.g. ecosystem stability/equilibrium, ecological services
- Intrinsic value of nature etc.

Fairbanks (2010) “Environmental Goodness and the Challenge of American Culture” where he wrote in her journal the western morality has never recognized nature-focused morality. As in the past western regions and philosophers always encouraged the idea of that human superiority over the natural environment and there is no ethical code to control our relationship to Mother Nature. According to her there must be a complete change in our viewpoint towards the nature if we have to reduce and match up the challenges created by present environmental issue

4. Research Methodology

The study aims to understand ecological ethics as a tool to mitigate adverse impact of tourism on the natural ecology. This study is a conceptual approach base on secondary information collected from various sources. The paper discusses various adverse impacts of tourism on natural ecology and need of ecological ethics in the field of tourism.

5. Analysis and observation

5.1. Analysis-I

The following table no.3 throws the light on the various impacts of tourism activities on environment.

Table no. 3 - Tentative lists of negative impacts of tourism on environment

Sl. No.	Negative outcome of tourism activities	Source
1	Deforestation	Kuvan, Y. (2010)
2	Ecological imbalance	Parsons, E. C. M. (2012)
3	Wildlife disturbances	Green, R., & Giese, M. (2004)
4	Effect on Land	Boori, M. S., Voženilek, V., &Burian, J. (2014)
5	Environmental Impacts of Tourism on Lakes.	Dokulil, M. T. (2013)
6	Global Carbon foot prints	Lenzen, M. et al. (2018)

7	Negative Impact of Tourism on Mountains	Cioancă, L. M. (2015, June)
8	Air Pollution	Andereck (1993), Lee et al. (2009).
9	Water Pollution	Lee et al. (2009)
10	Solid wastes	(UNEP, 1997)
11	Biodiversity loss	Joseph (2015)

As we know that, ‘every coin has its flip side’, indeed there is no doubt that tourism has got several benefits and contributing to the economy of the region and nation as a whole. However, one cannot deny the negative outcome of the tourism, which needs to be understood and work on it. From the table 3, it is clearly observed that various areas are affected and various environmental problems are contributed by the tourism. One cannot compromise with the destruction of the environment at the exchange of benefits. The above matters are serious and need to be pondered and discussed upon.

5.2. Analysis-II

Only in the past few decades of the twentieth century, the ecological consciousness is considered as a recent development in the field of philosophy and is also considered as a sub topic of organized ethical knowledge. Global climate change, deforestation, over population, degradation of natural resource, extinction of endangered species are the common issues among the adverse impact of tourism. Ecological ethics and consciousness are main attributes of environmental studies which set up the relationship between humans and the natural environment. With ecological ethics in tourism industry, one can ensure that he/she is doing his/her duty to keep the nature protected and safe. Any moment a forest is cleared, which are becoming scantly to find, to construct hotels, recreation centers, amusement parks and other means of human entertainment. With the speedy increase in travel and tourism industry, the human population increases in the particular tourist destinations and hence, utilization of natural resources also increases. It has caused the depletion of our planet’s ability to provide the natural resources. The exhaustion rate of natural resources is growing faster than the rate of natural replenishment. There can be an improved human values, morals and principles if, ecological ethics and consciousness is constructed on the basis of scientific understanding, which may also help to make wise decisions to conserve the entire human race, the ecology and the earth.

6. Conclusion

Ecological ethics plays an important role in defining the human-nature relationship. These ethics help in finding a formula of how humans behave towards the natural environment. Applying these formulas in long-term sustainable development plans, can bring significant economic benefits for investments, and more importantly, protect natural resource for future generations.

This is a bitter reality that the benefits of tourism industry can be a gain for few, but its negative impacts affect everyone and the natural environment. And thus, the ecology of the many species, which is not off course ethically correct. Therefore, in order to solve these problems, certain mechanisms are needed to be taken by the society and authorities to control and mitigate these adverse effects. In this research, after introducing the ethical aspects of natural environment in tourism, some measures for reducing and controlling the negative effects of tourism were reviewed and introduced, so that the industry can move towards social and environment equity and ultimately, be ethical and beneficial for all.

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