

THE ROLE OF DOOMSDAY TOURISM IN SETTING NEW PARADIGMS TOWARDS ADDRESSING CLIMATE CHANGE ISSUES – A QUALITATIVE STUDY ON THE INDIAN PERSPECTIVE

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ABSTRACT:

In recent years, environmental degradation, global warming, green house effect, high levels of emissions, and pollution of various kinds are in the limelight owing to its threatening impacts on sustainability natural and manmade resources. With the passage of time both the landscape features and atmosphere of ‘Mother Earth’ is changing drastically. In short, every moment is being counted as the magnitude of climate change is causing unprecedented repercussions. In fact, climate change has aggravated the decline process of some of the unique tourist destinations in the world. Doomsday tourism is actually a black listing proposition. This concept is churned out in view of the heavy rush of tourists to endangered destinations before they disappear. The perspective of Doomsday tourism pronounces the aspect of ‘Now or Never’. Paradoxically, there are both positive and negative implications of this trend. Apart from this, there are some ethical values attached to it. The premier tourist destinations and cities of India such as Delhi and Mumbai stand out for the wrong reasons – mainly the scary pollution levels. Some of the rollicking rivers have vanished from the country due to excess heat, and of course sand mining. The amazing tourist spots in the foot hills of the Himalayas are no more fascinating as the glaciers melt fast resulting in flooding of rivers, landslides, and other natural calamities. Those tourist attractions which used to entice tourists because of its cool climatic conditions, now a days experience constant fluctuation of temperature. This paper attempts to bring to light the potential of Doomsday tourism in rejuvenating some of the unique destinations of India, by virtue of creating 360⁰ awareness among all stakeholders about the adverse effects of climate change. This study also deals with the ethical role of the major tourism players of India- both in the public and private sectors-in sensitizing the tourists and hosts on the need for adopting the best practices that will negate the causes of climate change. It is highlighted in this work that ‘to find solutions to the looming threat of disappearance of endangered flora, fauna, and environmental resources which are fabulous tourism products, institutions at various levels should utilize the money generated by mass tourism for renovating and protecting the destinations in the country’. Doomsday tourism can be used as a change or revitalizing agent.

KEY WORDS:

Doomsday Tourism. Sustainable Development. Climate Change. Global Warming. Pollution.

1. INTRODUCTION

Tourists have been attracted to particular types of climates since ancient times (Boniface & Copper, 2005). Cooler and drier weather conditions enticed tourists as compared to heat and humidity. The quest for mild and cooler climate resulted in the accentuation of hill and coastal resorts across the globe. The British and Dutch established highland resorts in their Asian colonies for similar purposes, and many of these are still used by the post colonial indigenous elite and middle class. Examples include Shimla and Darjeeling in India (Jutla, 2000). This impulse is strengthened with the increasing number of visitors to exotic beaches of India such as Colva and Calangute in Goa, Kovalam and Varkala in Kerala, and also the majestic hill stations of northeast, and island destinations in the country. What is so striking in the dynamics of tourism promotion in the present day is the strategies devised to tap the tourist generating markets; looking for an alternative climatic experience. In the context, the diversity of India's climatic offerings makes it a preferred destination as regards 'cool-to-hot' movement too. Some areas can be too hot for most tourists, as reflected in the low demand for equatorial and hot desert tourism. Essentially, a subtropical range of approximately 20-30° C is considered optimal for 3S tourism, and this is a good climatic indicator of the potential for large scale tourism development in beach-based destinations, provided that other basic 'pull' criteria are also present (Boniface & Copper, 2005). Global climate change is probably the most severe environmental threat in the 21st century, which is likely to affect the basic elements of life for people around the world – access to water, health, environment, and food production. Alarm bells have started to ring world wide for many important aspects of life such as food, water, ecosystems, extreme weather conditions and abrupt and irreversible environmental changes (Rosemary Viswanath, Equations – 2008). In 2003, the UN World Tourism Organisation (UNWTO) held its first summit on Climate Change and Tourism in Djerba, Tunisia, which set a proactive call for response from different sectors such as Governments, Tourism Organisations, academics, NGOs, Tourism Cooperatives, and public and private sectors in the form of the 'Djerba Declaration'. It recognised the complex relationship between tourism and climate change, the prevalent and drastically worsening impact of climate change on tourism development in fragile ecosystems and also the contribution of tourism industry to climate change. In fact, tourism, one of the largest industries in the world, is depending to a great extent on climate

and environment for its success and sustenance. Conductive and pristine environment is the crucial element of all forms of tourism, especially nature – based tourism. As average temperatures are forecasted to increase by up to as much as four degrees, tourism has to look beyond the short term. Although a few kinds of gains are figured out from climate change, the negative impacts of it outweigh them to a greater extent. Doomsday Tourism is now often heard in connection with how destinations and fragile natural resources are fast disappearing. The phenomenon of Doomsday tourism has come alive in India too, in the recent past and the holiday makers and tour operators are cashing in on the whole idea of *'seeing the destinations and resources before they are gone'*. This form of tourism could be construed as *'destination alert'* or an *'alarm call'*, sensitizing all the stakeholders to come up with concrete efforts to minimize or offset the activities and processes that adversely affect the climatic conditions.

2. OBJECTIVES OF THE STUDY

- To study the implications of adverse effects of climate change on Indian Tourism vis – a – vis development of Doomsday tourism.
- To analyze the ethical responsibilities of Doomsday tourism stakeholders as regard, vulnerability of tourist destination and resources of India.
- To illustrate the potentials of Doomsday tourism as a change or revitalizing agent.

3. DOOMSDAY TOURISM

Doomsday tourism refers to travelling to see and imbibe the awesome sites before they are gone. It is the outcome of the thought process that one must rush and visit places that are fast deteriorating, usually as a result of environmental problems and global warming. The ironical aspect is that through Doomsday tourism, the call has been sounded frequently that if humanity is not careful, the fiber of the planet which makes life possible will be lost. Cashing in on the Doomsday phenomenon, tour operators across the world organizes packages to some of the exotic and fascinating places which are either too vulnerable, about to be faded or crumbled, or which can never be seen or experienced in quite the same way again. Media also reports this travel trend whereby tourists increasingly seek to experience the world's most endangered sites before they vanish or are irrevocably transformed.

The ardent desire of tourists to witness/relish vanishing landscapes or seascapes and disappearing species may have important consequences for tourism promotion and development. Concerns over vanishing destinations such as Great Barrier Reef, the Everglades of Florida, the icecap on Mt. Kilimanjaro, and the Maldives (Agnew & Viner, 2001; Amos, 2001; Becken & Hey, 2007; Hall & Higham, 2005; Uyarra et al, 2005) have motivated some travel operators and tour agencies to recommend these destinations to tourists before they disappear. The trend is also embodied by a surge in the number of travelers to the Galapagos Island and the polar regions, all besieged by changes to their ecosystems (Harvey Lemelin et al, 2009). Glorifying the fragility of certain threatened destinations can be, as Burns and Bibbins, (2009) and Dawson et al (2010) argue; a double edged sword. In a way it would serve to help raise awareness and visibility for a problem, and may in some cases – promote protection and conservation efforts. Paradoxically, it could also attract more tourist influx seeking to extensively experience and enjoy the fading attributes of the destination (s), thereby accelerating negative impacts.

4. TOURISM, GLOBAL WARMING, AND CLIMATE CHANGE – THE COMPLEX ENGAGEMENT

The UNWTO, as part of World Tourism Day celebrations in 2008 chose the theme: “Tourism Responding to the Challenge of Climate Change”. This is mainly owing to the realization that the tourism sector, like the rest of the economy, needs to rapidly respond to climate change if it is to progress in truly sustainable manner – reducing its own greenhouse gas (GHG) emissions meticulously and responding expeditiously to the impacts of its own operations. Many surveys of Domsday tourists clearly indicate that they agree or strongly agree to the proposition: ‘humans are contributing to changes in the global climate’. Few also strongly opine that ‘air travel is a contributor to climate change’.

Global Warming, which is caused primarily by the very foundation on which the modern civilization is built – the burning of coal, oil, and gas – has lead to a new travel boom as holiday makers embrace what tour operators are calling Domsday tourism. It is of grave concern that the Earth has not seen anything like the present built up of carbon dioxide for over half a million years. Emissions from the developing countries are soon to surpass that of advanced industrialized nations according to certain reports. Undoubtedly, human activity is chiefly responsible for the increasing problems of Global Warming.

Climate refers to the general features of the weather experienced in any region. Green House Gas (GHG) effect keeps the earth's atmosphere warm and comfortable for the peaceful existence in this planet. The augmentation of GHGs in the atmosphere is the prime cause of Global warming. Carbon dioxide, Methane and Nitrous Oxide are the major GHGs. Fossil fuel burning is also an important factor that causes climate change. Ozone layer depletion, Sulphate emissions, aviation exhaust, and fluctuations in solar radiation are some of the other factors. According to the report of the first International Conference on Climate Change and Tourism, the possible effects of climate change are:

- (i) Rise in average temperature
- (ii) Rising sea level (the reason attributed to thermal expansion)
- (iii) Increasing frequencies of extreme climatic events such as storms, precipitation changes, sea surges, etc.

The average global temperature is predicted to rise between 1.40 C and 5.80 C due to climate change. The sea levels are expected to rise between 9 and 88 centimeters by 2100, with a central forecast of 48 centimeters, projecting a rate of increase between 2 and 4 times greater than during the previous century. Precipitation is expected to aggravate rainfall by 3 – 10% by 2050. The possibility for increasing drought over continental areas is looming large. In every decade, 4 – 10 cm increase in sea level is projected. Many reports point out that rise in temperature, changes in precipitation, floods, and droughts are the common outcomes of climate change.

In the 21st century, climate change is a top issue for policy makers around the world and tourism is becoming one of the highlights of the discussions. This is mainly because climate represents a key resource for tourism and climate related risks in the form of changing weather patterns and extreme climatic conditions have a profound impact on travel patterns. Further more, tourism industry is a contributor to climate change by generating greenhouse house gas emissions through tourists' increasing use of transport and travel services, notably road and air transport and travel, and high levels of energy consumption, namely, air conditioning, heating and lighting in tourism ventures. The airlines industry is the biggest threat as it is the fastest growing source of GHG's, growing at a rate of 5% per year and contributing to three percent of global emissions. Long haul international aircrafts emitting GHG's at high cruising altitudes, contribute substantially to the effect of climate change.

The vicious circle involving earth's biodiversity and climate is a case of serious concern. Bio – diversity is pronouncedly threatened by human – induced climate change and climate change is already forcing biodiversity to adapt either through shifting habitat or changing lifecycles.

Hence, climate change is now recognised by the majority of governments and scientists throughout the world as a significant social, cultural, and environmental issue facing the global population and its resources. Any change in climate is bound to affect tourism in an unfavourable manner. Tourist destinations and the dynamics of tourism industry are very sensitive to climate change. It is deduced that nature based tourism and leisure tourism would be mostly affected by climate change. Food scarcity, water shortage, depreciating landscape aesthetics, changes in agricultural production, increased natural calamities, coastal erosion, inundation of rivers, and aggravating incidences of diseases will impact tourism in varying degrees.

The 360° expansion of tourism industry is a major cause for concern. Tourism continues to pervade vulnerable ecosystems such as coasts, backwaters and islands, especially in destinations like India, leading to undesirable impacts on the ecological habitats and biodiversity.

The consultancy report of Equations calls upon governments to take serious and urgent steps for the implementation of conventions, protocols and resolutions related to climate change. It is urged to take into consideration tourism and closely related industries, namely, aviation and transportation as significant segments contributing to climate change, and hence to formulate international and domestic environmental and tourism policies and regulatory mechanisms, to adapt and mitigate climate change impacts. It is stated in the report that tourism industry is noted for high per capita consumption of water, poor energy efficiency, waste management issues and serious negative environmental impacts. Equations call upon the tourism industry to take on the challenge of an authentic response to the climate change crisis by implementing measures to reduce energy consumption in tourism establishments by employing energy efficient and appropriate green technologies. The firm recognizes that this will require a significant transformation of current forms of mass tourism and urges for a serious engagement on this issue to reduce tourism's climate change foot print.

5. THE TOURISM CLIMATIC INDEX (TCI)

The Tourism Climatic Index (TCI), first developed by Mieczkowski (1985), allows quantitative evaluation of the world's climate for the purpose of general tourism activity. The TCI is based on the notion of "human comfort" (what the authors of the present study would call the "feel good factor") and consists of five sub indices, each represented by one or two monthly climatic variables. The five sub indices and their constituent variables are as follows:

1. Day time comfort index (maximum daily temperature in [$^{\circ}$ C] and minimum daily relative humidity [%])
2. Daily comfort index (mean daily temperature [$^{\circ}$ C] and mean daily relative humidity [%])
3. Precipitation (total Precipitation, in [mm])
4. Sunshine (total hours of sunshine), and
5. Wind (average wind speed, in m/s or km/h)

The Index is weighted and computed as:

$$\text{TCI} = 4 \text{CID} + \text{CIA} + 2 \text{R} + 2 \text{S} + \text{W}$$

Where *CID* = day time comfort index,

CIA = daily comfort index, *R* = precipitation, *S* = sunshine, and

W = wind speed.

With an optimal rating for each variable of 5.0, the maximum value of the index is 100. Based on a location's index value, its suitability for tourism activity is then rated on a scale from -30 to 100. Mieczkowski (1985) divided the scale into 10 categories, ranging from ideal (90 to 100), excellent (80 to 89), and very good (70 to 79), to extremely unfavourable (10 to 19) and impossible (9 to -30).

6. ILLUSTRATION OF DOOMSDAY TOURISM BASED ON THE INDIAN PERSPECTIVE

6.1. Illustration A

Glaciers in the Himalayan regions are retreating. The exotic tourist destinations at the footfall of the mighty Himalayan ranges is under the threat of loosing its sheen owing to constant fluctuations in climate and weather. The famous ski resorts are threatened by rising temperatures. The winter sports destinations in Uttarakhand, Jammu and Kashmir, and Himachal Pradesh will be affected badly by climate change. Other majestic mountain regions of India are also at the receiving end, but in varying degrees.

Rising temperatures will result in melting of ice fast and ultimately it will deteriorate the environment. As a result of climate change, studies indicate that, the seasons will get shortened in the mountain regions of India – which are key tourism resources and the demand pressure on higher

altitudes will increase. Further, less snow, melting permafrost and land slides are some possible effects of climate change in the mountain areas.

The tourism industry has to take into account the potential impacts of climate change during the planning stage. Doomsday tourism ideally must catalyze the implementation of policies to curtail the destructive practices. The surge in demand for Doomsday tourism destinations is by all means an alarm call to stakeholders. Mountaineers, hikers, trekkers, and camping tourists visiting the high altitude spots of the Himalayas report about the aftermath of climatic changes. Tour Operators based in Delhi and other parts of north India, urging travelers to visit the endangered attractions of the Himalayas have also adopted few places such as Kasauli, to make the tourists and host communities aware of the dire consequences of pollution, and also to do their bit towards preservation of landscape features.

6.2. Illustration B

The scintillating beach tourism destinations in India face hampered progress due to climate change as rise in temperature as well as sea level is affecting the marine areas. The adverse effects are in various forms like beach erosion, flooding, and sea surges and storms. The threat of demand graph taking a downward side looms over many a beach destination in India.

The travel demand pattern experience frequent changes as rivers vanish, beaches erode, and non – seasonal rainfall and long drought – kind of situation “shadows “the pull factors of the destinations. Doomsday tourists (both foreign and domestic) to Indian hotspots are passionate about nature. The motto “Being one with nature” inspires such tourists to visit splendid sites which are unfortunately ‘doomed’, due to more or less, human interface with climate. The visit of Doomsday tourists to such vulnerable locales should be considered as the last straw to save the destination(s) or product(s). Doomsday tourists may set new paradigms in preservation or open new vistas leading towards enhancement of destination appeal.

6.3. Illustration C

India is renowned to possess some serene island tourism destinations, such as Andaman and Nicobar Islands and Lakshadweep. The precious coral reefs of these islands are facing extinction due to climate change. Andaman is famous for beach and water sports activities like scuba diving, snorkeling, under water aquarium, deep – sea fishing, angling, etc. In some areas water have receded, whereas certain premier spots have submerged with the rise of sea level, posing hassles to the water sports activities. Moreover, Global Warming is heating sea water leading to coral bleaching. These aspects obviously play spoilsport as regards tourism development.

Doomsday tourism may be construed as the form of tourism which maintains a constant watch on the sensitive spots and enforces regulations and positive checks. This form of tourism has the potent capacity to generate worldwide public opinion in favour of mitigating Global Warming and conserving resources. Awakened to the dangers, scientists and researchers are leading the charge as Doomsday tourists to the priceless island destinations of India.

6.4. Illustration D

The mesmerizing destinations around the rivers in India namely the Ganges, the Cauvery, the Narmada, and the Krishna experiences seasonal or regular water inadequacy. Apart from being venerable pilgrim centers, these places provide robust river rafting experiences to tourists. The scarcity of water affects the image of otherwise vibrant tourist attractions.

Doomsday tourists to such destinations have also donned the role of social and environmental activists whereby they tend to give wake up call to the authorities and managers to prevent sand mining, quarrying, littering of plastic wastes, and such activities that contaminate the invaluable water bodies. Also, in recent years, the awareness of tourism stakeholders regarding the impact of tourism on climate change was upgraded by campaigns of Doomsday tourists through websites, carbon neutral initiatives, conferences, etc. Doomsday tourism could also insist on the accountability of stakeholders and promoters, for instance, analyses of the content and evolution of the environmental reporting of airlines companies and tour operators, the opinions, attitudes, and preferences of business conglomerates, etc. Certain rivers like the Bharathapuzha in Kerala was treated with awe by international and domestic tourists and many festivals of great repute used to be conducted on the banks of the river for centuries. The dried river now offers a pathetic sight. It is to be noted that this condition was not only inflicted by excessive heat, but also by extensive and mindless sand mining. Constant visits of Doomsday tourists can exhort media to take up the issue at various levels. The *travelogues* of such tourists can also play a crucial role in conservation and protection of rivers like Bharathapuzha.

6.5. Illustration E

India dots a significant place in the global tourism map owing to the promotion of its multiple USPs. With the nation's vast expanses of fertile agricultural lands, Farm tourism has been identified as an USP. Media reports and researches project a struggling picture of India's Farm tourism sector. The primary reason attributed for the dampening situation is constant fluctuation of weather and unpredictable climatic conditions. Due to rise in mercury levels, in otherwise cool places such as Wayanad in Kerala, pepper cultivation is extremely in turmoil. Farmers undertake

agricultural practices by indulging in cultivation of cardamom, etc., in bordering states. When agricultural lands are used for construction of sky rise buildings and apartments, the prospect of farm tourism in India becomes dim. The condition is more or less similar in Andhra Pradesh, Haryana, and some other States that are recognized as fabulous farming destinations. Landslides, soil erosion, floods, and many other natural disasters resultant of Global Warming and climate change adversely affects farm houses and resorts situated in an idyllic rural ambience.

Doomsday tourists visiting endangered rural tourism destinations tend to uplift the status of its products and activities. In a way, they are patronizing the destinations. Attracting Doomsday tourists to picturesque rural tourism havens can be a highly productive marketing strategy to be employed by destination designers to rejuvenate the destination. The afforestation efforts of many focused and sensible Doomsday tourists have turned out to be a model for the local communities in some farm tourism destinations in hilly regions of India. This gesture is to be lauded as it is one of the key actions to mitigate the ill effects of climate change.

7. RESPONSIBLE DOOMSDAY TOURISM IN INDIA – INSIGHTS

Doomsday tourism has a profound philosophical vein and is linked to Responsible tourism. This phenomenon is all about choosing destinations based on threat or danger, the destinations which would not be the same after some years or decades of Global Warming and other environmental and human impacts. Responsibility in the broader sense implies sensitized and sensible tourists who can bring about the much needed change to prevent effectively the environmental disasters that loom ahead in destinations due to climate changes. The Kyoto Protocol in one of the most important global initiatives to deal with the climate changes by duly addressing the excess emissions and uncontrolled rise in pollutants.

A wide range of responses and instruments are available for tour operators in India to curb tourism emissions. They need to be evaluated with respect to criteria such as cost, efficiency in the reduction of impacts, technical feasibility, impacts on the freedom to travel, and political feasibility. The responses consists of (a) Technical responses – such as improved energy efficiency of vehicles, better landing and take off procedures or tools to improve the load factors; (b) Taxation and “Carbon neutral” initiatives – through tree planting and carbon sinks; (c) Carbon trading schemes; (d) Spatial planning; (e) Action on travel demand, and (f) Cultural change – low impact (Dubois & Ceron).

The impact of tourism on climate and environment in India is a serious issue which needs to be addressed immediately, if tourism is to survive. Adverse impacts can be mitigated by using management tools such as carrying capacity, visitor and traffic management, LAC, Environmental Impact Assessment (EIA), and other productive feasibility studies, and sustainable tourism development. Responsibility in Doomsday tourism is essentially a positive approach by all the partners and tourists to plan and manage the fragile destinations in a responsible way. It promotes environment friendly practices. There would also be linkages with the local community. Most importantly responsible Doomsday tourists observe local norms, customs, rites, and practices.

8. CONCLUSION

This study concludes by highlighting the fact that climate change adaptation and mitigation are two sides of a coin for the tourism industry. Responsible tour operators and Doomsday tourists should be concerned with the mitigation of their impacts on the climate and the environment. At the same time, Doomsday tourists to the sensitive and endemic destinations in India can take the responsibility of seeking viable and sustainable solutions to avert the climate crisis. As a focused and responsible form of tourism, Doomsday tourism has the potential to counter unsustainable growth strategies in the Indian context. The 'last – chance' tag of Doomsday tourism is likely to do wonders for the sustenance of vulnerable tourist destinations in India, provided it prompts to raise ethical questions as regards preservation efforts and governance are concerned. Climate change represents an important long – term challenge to Indian tourism industry. The adaptive response of Doomsday tourists and their increased collaboration with NGOs', scientists studying climate change, Governments, tourism officials, and the tourism industry in India is of paramount importance in bringing to light the repercussions of climate change on fragile tourism attractions, and in mitigating the ill – effects caused by tourism and allied sectors, and also the other industries.

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