

**ENVIRONMENTAL DEGRADATION IN UTTARAKHAND:  
WITH SPECIAL REFERENCE TO TOURISM INDUSTRY DURING COVID -19**

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**Abstract** -This study reveals that there is developing trend in the tourist economic activity in Uttarakhand state simultaneously there is rapid increase in environment degradation. The pandemic has prohibited the tourist activity such as Chardham Yatra which has reduced the economy but decreases the pollution level also. It is essential to balance and restructure the economy and environmental activities. The state government is playing the prominent role in reducing the degradation along with corrective action has been initiated such as effective energy management and proper solid waste management, plantation and forestation activity, launching of program to minimize waste etc. The research also reflects the essential role of institutions in encouraging sustainable development in Uttarakhand. The study is conceptual in nature where secondary data of is used as a data base collected from different sources. The aim of the study is to identify the effect of Covid 19 on tourism industry and causes and cost of Environmental degradation in Uttarakhand. Study provides a document to analyze and to formulate a policy for the state to control pollution and sustain economic tourism development.

**Keywords:** *Economic Environmental, Sustainable development, Tourism Industry, Uttarakhand, Covid-19.*

## **INTRODUCTION**

It is clear that human being is made up of five elements and is the composition of all the elements exist on earth. The ecological and environment system around us provide all kind of resources to sustain life on this planet such as sun, water, land, air material. The association between ecological an economical activity is a matter of debate in the previous research for many years. The rapid economic activity to fulfill the requirement like accommodation, transportation, construction of hotels and motels and infrastructure results in environment degradation.

God has created this entire world and gift to mankind as a heaven on earth. Flora and Fauna in Uttarakhand has very vast range. Wildlife is prospering in the forest of this state. There are various flora and fauna in Uttarakhand and parks of National level have been established here which are with the sole objective of preservation of habitat for flora and fauna and it's a big centre for information for the visitors, student & tourist. Sports tourism like mountaineering, tracking, river rafting are effected and there is a massive false in visit of sport tourists. Indian domestic tourists in Uttarakhand have major share of tourist in the form of Religious and for Yoga purpose from the ancient time. Tourism is a universal force for economic and local development. Presence of economic factor motivated the tourist planner, entrepreneur and local people indulged in service industry or business activity across the country and state of Uttarakhand to choose tourism for economic development. Global climate change has been measured as the utmost challenges to international development efforts. It poses hazard to humans, the environment and the economy. The growth rate of output in the early stage of development is positively related to the environment.

## **REVIEW OF LITERATURE**

Literature review has been done to revise the previous study and provide foundation of knowledge on cause and cost of tourism industry of Uttarakhand during covid 19. This section of the paper deals with the publications devoted on the tourism impacts studies conducted within the state.

**Singh P.D. et al (2019)** -The researcher aim is to identify the reason and negative effects on environment degradation in Uttarakhand state in India. The outcome of the study is highlights the important role of institutions in promoting sustainable development . Economic activities also result in negative externalities. So, the resolution would be to find out their correct market value so that economic agents can take account the environmental costs. The study found that while there is a growing trend in the economic development of the state, at the same time, there is also an increase in activities resulting environmental degradation. Government agencies have been always acting to minimize and has an major role in reducing the environment degradation.

**Dey, et al. (2018)** Dehradun, is considering one of the famous tourist places in India situated in Uttarakhand state. It attracts tourist not from the country but also from abroad. To mitigate the requirement of tourist new infrastructure projects such as roads, buildings, and hotels, which in turn affects the landscape of the mountainous region. As per the study, remote sensing and GIS techniques are used to review the impact of tourism on the land environment of Dehradun. The overlie analysis expose that due to increase in tourism, the land use in terms of the built-up area has been extended from gentle slope to very steep slope. This study suggests that a appropriate developmental plan of the city is essential which comes under the principles of optimum use of land and sustainable tourism.

**Rana, G., & Kumar, S. (2016).** This study is aimed on Uttarakhand state as it is source of adventures and pilgrimage tourism and educational tourism because of this it is consider most important regions of Himalaya in the context of tourism. The state is divided in two parts the North-Western division is known as Garhwal and South-Eastern division is known as Kumaon. It has scenic beauty and hill station with marvelous forest and snowcapped mountains and holy pilgrimage spot which attract tourists all together. Uttarakhand is been consider as a developing state and this tourism industry plays an important role for generating employment for the local which is the only source of living of the host community. As the result of this mountain tourism has the massive environmental and socio economic consequences. As the huge infrastructural development activities are

arising from the promotion of tourism. Tourism is an essential source of development for the destination whereas simultaneously the massive supportive infrastructure construction is negatively putting impact on tourism and the area associated with the industry.

**Kumar, et al. (2015)** the author identify that there are positive socio economic impact on one side and adverse effect on other side of Himalayan Tsunami on tourism industry in the country and even in the state of Uttarakhand. India if taken in account the negative effect it can be listed in the most favored nation of the world. Incident like Ocean Tsunami (2004), Varanasi and Hyderabad Bombing (2006), and Mumbai terror Attack (2008), Leh Flood (2010), and Himalayan Tsunami (2013) pessimistically affect the development of International tourists' arrival in India. Despite of tourist arrival we all are specific about the adverse events like natural disaster. The Uttarakhand tourism data denotes that almost trend as of Indian tourism and increase in figure but in 2008-2013 the arrival has decrease in number because of negative incidents like landslides and cloud outburst in moonsoon season. The total tourist arrival in Uttarakhand is hike in a decade but if we except 2013 and tripled in 2012 but because of Himalayan Tsunami the tourism trend in Uttarakhand is poorly affected by a negative growth rate of - 28.07%.

**Rajashekariah, K. Natural, (2013)** reveals that Uttarakhand experiences the research aim was to identify prominent areas in the context of natural disaster in the Himalayan states. Our state is victim of unprecedented calamity from chain of natural disaster including nonstop rains, cloud busts and landslides, earthquakes and now also acing global warming. Flash floods from extreme rainfalls have swept away mountainsides, villages and towns, people, animals, agricultural fields, destroyed water sources, roads, dams, bridges and buildings. Tourism and the local employment it generates have been hit for ever. Research suggests there has been extensive devastation of local lives and the regional & Green economy.

**Butler, (1980)** – The author explored that tourist area has been observed dynamic resulting in the change over time. This evolution is brought about by a number of factors as well as changes in the preference and needs of tourists, the steady deterioration and possible replacement of physical plant along with facilities, and disappearance of

the original natural and cultural attractions which were responsible for the initial attractiveness of the area. Although these attractions remain, they may be make use of for different purposes or come to be regarded as less important when compare with imported attractions.' The idea of a consistent process through which tourist areas evolve has been vibrantly described by Christall.

**Doxey's Irritation Index Model (1975)** explored that during the antagonism stage, local resident irritations are expressed verbally as tourism activities go beyond its social carrying capacity. Moreover, negative socio cultural impacts include increased prostitution, use of drugs, smuggling, frantic & stressful lifestyle, and imitation of western or foreign culture Ap & Crompton (1998).

## **IMPACT OF TOURISM INDUSTRY ON ENVIRONMENT**

Tourism industry has been consider an engine to the economic growth to any country and is one of the largest industries on this globe. The Indian economy is largely dependent on tourism industry and to generate foreign currency in order to strengthen GDP. Uttarakhand tourism has been important industry for socio and economic growth and development of the state. The state economy is largely dependent on national and international tourism but the negative aspect of this industry is that, there is major imbalance among economic and environmental activity which draw our attention to holistic approach and sustainable development .

According to Swarbrooke (1999) the concept of environment divided as, a) Natural environment, b) Wildlife, c) Natural resources, d) Farmed environment and e) Built environment. Above all, it seems that tourism activities are directly or indirectly related to the environment. Major negative impacts on the environment include public littering, traffic congestion, pollution and damage or disturbance to wildlife habitats etc (Mason 2015). Unsustainable form of tourism activities destroys natural resources by over consuming and gradually results in floods, soil erosion, global warming, and loss of biodiversity and natural habitat (Katz-Balms 2016).Tourism, especially nature tourism, is closely linked to

biodiversity and the attractions created by a rich and varied environment. It can also cause loss of biodiversity when land and resources are strained by excessive use, and when impacts on vegetation, wildlife, mountain, marine and coastal environments and water resources exceed their carrying capacity.

This loss of biodiversity in fact means loss of tourism potential. With the increasing number of tourist and pilgrim's arrival as well as creation and expansion of tourism infrastructure comprises of accommodation, transportation and communication networks, Dehradun district once known for greenery and environment friendly tourist destinations have lost much of the destination charms and has started to lose its identity among tourist traffic by and large. The peak tourist season that normally begins in May, tourist places like Mussoorie, Rishikesh Chakarata Kaushambi, Nainital , Bhimtal , Auli and Ranikhet witness exceeded number of visitors and it is noticed that some of the tourists could not manage suitable amenities and facilities finally move away to nearby satellite locations for stay. The problem of parking further realized in majority of tourist places and to overcome this problem a major part of the government budget finally diverted to the development of parking stands. Local residents have been noticed annoyed on getting the tourist vehicles parked across the streets of Mussoorie town that have made the lives of local people uncomfortable. On realizing such practices common during the tourist season half of the roads of Mussoorie, Rishikesh Chakarata Kaushambi, Nainital , Bhimtal , Auli and Ranikhet are covered by transport carriers alone.

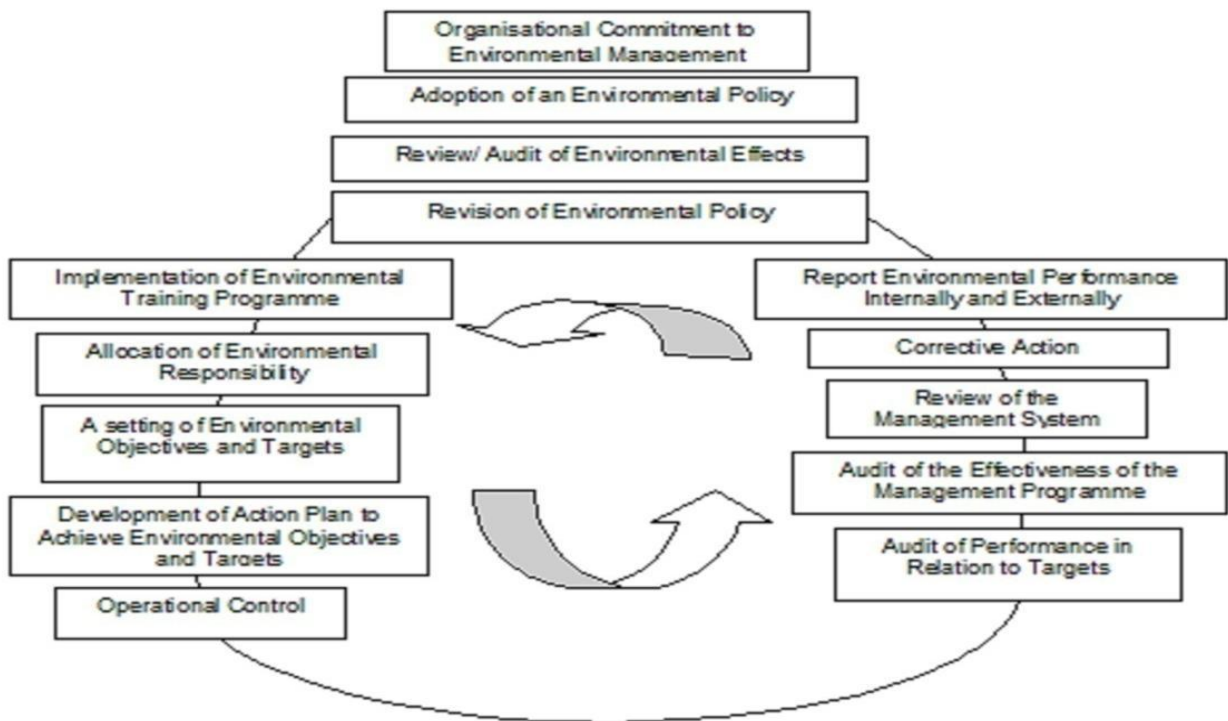
Uttarakhand state is now becoming the favorable spots of high profile marriage destination. While arranging such event at tourist places thousands of kilos of waste left behind by the marriage party then transported for disposal. Although local commodities are benefited with this kind of events in their business and economic activity but the consequences of such marriages are also effects the local community and they have to pay the cost .

Another significant environmental issue what one that has received very little attention, is the impact of tourism on the green slopes of surrounding hills. Since camping and

hiking is the emerging form of upcoming tourism, keeping hilly slopes free from pollution is the major issue in sustainable tourism promotion.

### **ACTION TAKEN BY ENVIRONMENT MANAGEMENT COMMITTEE**

In the year 1970s the management committee emerged in the favor of environment. This committee start highlighting the risks associated with industrial pollution and the increase of legislative and regulatory controls has been launch by the government. This committee prominently has an important role in the implementation and formulation of environmental plans as stated in the fig below:-



*Fig 1.1 Source :- ( Causes and consequences of environment degradation in Uttarakhand 2019)*

### **UTTARAKHAND BEFORE COVID 19**

Uttarakhand tourism is an employment generator which is an instrument to boost the economy of the state . As per the Economic Survey 2011-12, it generated huge amount of jobs both direct and indirect, for various sections in society. Uttarakhand is

witness of large figure of tourists since ancient times every year. After debating on integrated planning in Uttarakhand it has been concluded that there is enormous tourist potential which is yet not explored and still untapped.

Uttarakhand is well-known worldwide as *Devbhumi* (Home of God). It is rightly called divine Hindu temples for worship and possess spiritual and religious importance. This results in a large number of pilgrimage and holidays seekers.

Although Uttarakhand is exploring on one hand but the development that leads to flourish tourism industry it has some negative sides and consequences of the industry. Change in environment and degradation of natural beauty along with deterioration cultural heritage and crime in the societies are rapidly increasing within the state. To mitigate the requirement of tourists.

It is a matter of great concerns that harming and misuse of natural resources without any substitution strategy is spoiling the environment for future generation. Rapid increase in meeting the demand of tourists lead to degradation of environment such as Construction of Hotels and models, Tourists traffic, Transport facilities and taxi services lead to Deforestation. The previous study shows that the graph of tourism development has been increased but the level of environmental pressure was also hike in double ratio.

Facilities /amenities and Tourist traffic result in increase in population and garbage of used products without their proper disposal pollute the surrounding and environment. Noise pollution, Air Pollution and waste disposal are the consequence of unmanaged increase of tourism industry. The air pollution due to heavy traffic and deforestation to meet the demand are some of the negative result which increases in the atmospheric temperature, which is disastrous for future generations. Global Warming observation in rising in sea level, change in agriculture productivity also result in change in the ecosystem

## **UTTARAKHAND DURING COVID 19**



The tourism economy has been heavily hit by the corona virus (COVID-19) pandemic, and measures introduced to contain its spread. Tourism accounted for 5.06% of India's GDP (2016-17), but it was ignored in such recovery plans. Continued pandemics, travel restrictions and nationwide embargoes have stalled the entire tourism industry. Unlike other sectors, tourism will take longer to recover, especially leisure tourism. This will have a direct impact on states like Uttarakhand, Rajasthan, Kerala, Himachal Pradesh, Goa, Sikkim and other Northeast states, which rely extensively on tourism as a source of national income source.

The Indian tourism industry employs 8.75 crore people (12.75 per cent of the total employed population in 2018-19), such as people from the hospitality industry, tour operators, travel agents, home stay owners, drivers, guides, small traders, artisans and craftsmen among a host of other service providers. The sector also has strong forward and backward linkages to other sectors such as agriculture, transport, handloom, and FMCG to name a few. Disruptions in tourism sector will render many people in unemployed. The food and hospitality sector is already reeling under pressure from high fixed costs and no footfalls. FAITH, a policy federation of associations of tourism and hospitality industry has estimated a loss of Rs 10 lakh crore for the industry due to COVID-19. This will also impact inflow of foreign tourists, which means a drastic fall in foreign exchange earnings which was close to Rs 2,10,981 crore.

The coronavirus pandemic has caused a global reduction in economic activity and although this is major cause for concern, the ramping down of human activity appears to have had a positive impact on the environment. Industrial and transport emissions and effluents have reduced, and measurable data supports the clearing of pollutants in the atmosphere, soil and water. This effect is also in contrast to carbon emissions, which shot up by 5 percent after the global financial crash over a decade ago, as a result of stimulus spending on fossil fuel use to kick start the global economy.

The month of May, which usually records peak carbon emissions due to the decomposition of leaves, has recorded what might be the lowest levels of pollutants in the air since the 2008 financial crisis. In India the results were similar too; March 22 was the 'Janata Curfew', following which, a significant dip in air pollution levels was measured

across the country. Cities like Delhi, Bengaluru, Kolkata and Lucknow saw their average Air Quality Index (AQI) staying within two digits.

Another example of cleaner air was seen when, on April 3rd, residents of Jalandhar, a city in Punjab state, woke up to a view of the Dhauladhar mountain range, a rare feat in normal times, considering the distance between the two places- lying nearly 213 kilometres apart from each other and have not been visible from the city in recent memory. Water bodies have also been clearing and the rivers Yamuna and Ganga have seen significant improvement since the enforcement of a nationwide lockdown. According to the real-time water monitoring data of the Central Pollution Control Board (CPCB), the average water quality of 27 points of the Ganga seen in recent days, is suitable for bathing and propagation of wildlife and fisheries.

For the tourism industry, this is an excellent time to develop general safety and health standards to receive and serve its customers. Industry must also use this opportunity to adopt ecological waste disposal practices and adopt environmentally friendly daily practices. Obviously, India's tourism industry needs to double and reinvigorate its world recovery after COVID-19.

The Uttarakhand government must consider immediate recovery plans for the tourism industry of the state, not only because it is one of the most affected state and depends on tourism for its economic growth, but also because it is arguably the largest source of employment and income for many MSMEs.

## **CONCLUSION AND SUGGESTION**

The ecosystem of Uttarakhand is economically in the underdeveloped phase. The ecosystem has been categorized in dense mountain range ecosystem. This is the cause of rising of ecological and environmental issues. The adverse effect of developing economy is matter of debate and drew attention of many economists on Uttarakhand.

The state of Uttarakhand is mountain state of India and is depends on tourism economy on one hand and environment issue on other hand. The lock down of 2 months and this pandemic proves reduction in tourist activity and tourist traffic which lead to

environment cleanliness and the isolation / restriction of tourist in Uttarakhand and *CHARDHAM YATRA* evolve the environment in a very positive manner and control the pollution in the state . It is the joint responsibility of stakeholder and economic agent along with state government who must take in account the cost of environment and should execute the corrective action in the state. The study reveals that as there is developing trend in the tourist economic activity in the state of Uttarakhand simultaneously there is rapid increase in environment degradation.

The state government is playing the prominent role in reducing the degradation but along with this corrective action has been initiated such as effective energy management and proper solid waste management and plantation and forestation activity, launching of program to minimize waste etc. The research also reflects the essential role of institutions in encouraging sustainable development in Uttarakhand.

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