IMPACTS OF ECOTOURISM IN ENVIRONMENTAL SUSTAINABILITY AND CLIMATE CHANGE ISSUES: A CASE STUDY OF UTTAR PRADESH, INDIA

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Abstract: Eco-tourism and sustainable practices will increase positive impacts to visitors and the local community. It is a revolutionary way for improving the quality of life through increased socio-economic well-being and improved natural resource management. Eco-tourism is a new way to develop a resource-efficient, cleaner and stronger sustainable development. The paper describes the positive impacts of ecotourism initiatives in environmental sustainability and climate change. The case study focuses on providing better understandings into the existing ecotourism initiatives in Uttar Pradesh. By including the green growth concept with tourism helps to address the gaps of sustainable development. The research adopted is qualitative research methodology to collect data from the ecotourism stakeholder's through participant observation and interviews. This aims to assimilate the tourism industry with green growth concept to minimize the negative impacts of tourism development on the environment. Eco-tourism is a kind of conscious travel because one of its main goals is to reach closer to nature, know about environmental issues, and find out how we can protect natural diversity. Being away from own civilization and the usual comfort, tourists reconsider their values to find inner harmony and learn more about the culture of the people who reside there. Ecotourism is a unique opportunity to escape civilization and test your strength. This exhaustive study has been undertaken to do explore the ecotourism regions of Uttar Pradesh. In agricultural countries eco-tourism is a significant industry. Eco-tourism is "Responsible travel to natural areas that conserve the environment and improves the well-being of local people."(TIES, 1990)

Index Terms - Ecotourism, sustainable development, environmental sustainability, climate change

I. INTRODUCTION

Ecotourism derived from two words "Eco" and "Tourism" in Eco means "Environment friendly" and Tourism means "Travel" (Jamal & Stronza, 2009).). Ecotourism continues to be comprised as the opposite of mass tourism because of its promise of achieving sustainability through conservation mindedness, community development, education and learning, and the promotion of nature-based activities that were sensitive to both ecological and social systems(Fennell, 2015)   In this 21st era tourism industry is considered as one of the most contributing industry in economic development and can even contribute a sustainable and inclusive growth in the every socio-economic sector of the economy (Ashley,

Boyd, & Goodwin, 2000; Briedenhann & Wickens, 2004; Hunt & Rogerson, 2013; Williams & Shaw, 1991). Tourism should emphasize on addressing the sustainability challenges in destination by motivating the visitors, local community and tourism stakeholders to be more accountable with their doings. Ecotourism is the tourism industry that includes making a trip to undisturbed regular territories with the goals of considering, respecting and appreciating nature and its wild plants and creatures just as any current social viewpoints, past or present, found in these regions'. Ecotourism is in this manner being advanced as a device for bio-variety conservation and rustic turn of events (Aronsson 2000).). The green Indian condition of Uttar Pradesh consists of 1 National Park and 11 Wildlife sanctuary, 24 Birds sanctuary known for their remarkable characteristic and the extraordinary and assorted vegetation.Besides these wildlife holds, Ayurveda medications, and flawless crafted works created by the clans additionally add to the exceptional vacation destinations of Uttar Pradesh.The aim of this study is to evaluate the effectiveness of the Eco-Tourism initiatives in Uttar Pradesh in solving the environmental sustainability issues and climate change issues. To evaluate the positive and negative impacts, a case study approach with qualitative methodology was adopted to understand the perceptions of the local community, government officials and tourism stakeholders.

Overview of Eco-tourism in Uttar Pradesh

Uttar Pradesh with its 16620 sq. km forest area is home to some delicately beautiful landscapes, forest-vistas, meandering rivers and breathtaking beautiful waterfalls and a large number of rare birds and animals. There are forest dwelling tribes and communities who have maintained their traditions and culture while taking up modern technologies and life-styles. There is one national park, 11 wild life sanctuaries and 24 bird sanctuaries and 9 eco-tourism circuits to provide protection to endangered biodiversity of the state. Some bird sanctuaries have been declared important bird areas by the Bombay Natural History Society.

Uttar Pradesh government is excited to showcase these natural treasures for the tourists with active contribution of local communities so that the visitors can appreciate the dignity and generosity of nature, understand importance of recycling and decrease consumption and imbibe the culture of nature and resource conservation. This form of responsible tourism is now known as eco-tourism. Uttar Pradesh Government with its strong commitment to conservation is promoting eco-tourism to the wilderness areas of the state.

All ecotourism activities are to be in conformity with the spirit of existing environmental laws of the country, the wild Life (Protection) Act, a1972, the Forest (Conservation) Act, 1980, the Environment (Protection) Act, 1986 and the Environment(Protection) Rules, 1986 and notifications issued under it for eco-sensitive zones and guidelines of National Tiger Conservation Authority, Ministry of Environment & Forests Management Plan prescriptions and Guidelines issued by Government of India and Uttar Pradesh.

Rich natural/cultural resources and geographical diversity: Ecotourism spots in Uttar Pradesh are divided in 09 circuits.

1. Circuit of Western Wildlife

2. Riverine Circuit Lion Safari

3. Circuit Terai Tiger

4. Adventure Circuit of Bundelkhand

5. Mountain Path Vindhya

6. Circuit of West Bird/Wetland

7. Circuit of Central Bird/Wetland

8. Circuit of the Ganges Basin

9. Circuit of the East Wildlife

Uttar Pradesh is able to attract a good number of domestic and international visitors in this field with 35 ecotourism destinations on this 09 circuit. Uttar Pradesh's top ecotourism destinations

• Dudhwa National Park

• Pilibhit Tiger Reserve

• Katerniaghat Wildlife Sanctuary

• National Chambal Sanctuary

• Lion Safari Etawah

• Nawabganj Bird Sanctaury

From these over 06 ecoturism destinations, 04 destination (Dudhwa National Park, Pilibhit Tiger Reserve, Katerniaghat Wildlife Sanctuary and Lion Safari Etawah) are situated within driving range of metro cities, such as Delhi, Noida and Gurgaon.

RESEARCH METHODOLOGY

 This research has made an attempt to examine the environmental sustainability and climate change issues and their positive impacts on Ecotourism with local communities, service providers, government officials and local business units. It identifies the expectations of local communities, effectiveness of supporting services and community commitment in environmentally sustainable and climate change mitigating activities. This paper is based on a case study of environmental impacts of Ecotourism in environmental sustainability and how ecotourism helps in mitigating climate change. The study used qualitative research methodology through interviews and focus group discussions to gather data. The data were collected by face-to-face interviews and focus group discussions. A total of 50 respondents constituting local government authorities, Ecotourism destination coordinator and local people, village life experience package participants, police and security officers, hotels, provides more clarity about the environmental sustainability challenges in Uttar Pradesh. Both primary and secondary data was used. Secondary data collected through UP ecotourism website,Research papers,newspapers,Uttar Pradesh tourism policy 2022,Indian Tourism Statistics 2022,Tourism policy 2022-2023 government of India Uttar Pradesh etc.

RESULT, DISCUSSION AND IMPLICATION

Positive Impacts of Eco-Tourism in Environment

- **Reduce the need to hunt animals for income –** Through developing ecotourism sites and increasing interest of eco travels now the animal hunting have decreased to much extent. Some studies shows that strategy of direct payment and inclusion of local people for the amount of wildlife seen by tourist has resulted in decrease of illegal hunting and an increase in wildlife sightseeing.

- **Better protection of nature and local natural resources –**Ecotourism is known as responsible travel to natural areas that protects the integrity of the ecosystem and generates economic benefits for local communities that can encourage conservation. Through ecotourism better protection of nature can be done and it also safeguards local natural resources by including local people and creating awareness about Eco travel.

- **Helps to boost conservation practices –**Ecotourism helps in boosting conservation practices by safeguarding the natural resources by reduction in deforestation by providing economic alternatives to local people, by creating awareness to protect the region for its natural and economic value. Minimise the negative physical, social and behavioural impacts of tourism in natural areas.

- **Prevent illegal trade and over-exploitation –** A new study by the Wildlife Conservation Society (WCS) and Foundations of Success (FOS) finds that an ecotourism strategy based on "direct payments," where local people are compensated for the amount of wildlife seen by tourists, has resulted in a reduction in illegal hunting and an increase in wildlife sightings (Wildlife Conservation Society. (2018, March 1) and this also helps in decreasing over exploitation.

- **Sustainable eco-lodges –** Eco lodges focus on using renewable energy sources to provide power to their properties as well as using energy efficient lighting and water preservation. They focus on recycling and often reusing in order to positively impact the environment.

- **Spreads ecological knowledge –**Ecotourism creates knowledge and understanding through interpretation and education of all involved either visitors, staff, tour agents, locals etc. Ecotourism tries to raise environmental consciousness by exploring ecology and ecosystems and by providing environmental type experiences.

How Can Ecotourism help in Mitigating Climate Change?

Sustainable tourism can be adopted and used to mitigate climate change by reducing greenhouse gas emissions and educating the community, industry and tourists to prepare and adapt to changes while protecting and conserving the forest and environment (Simpson et all, 2008). Ecotourism is a highly climate sensitive sector. With recent climate change phenomena, the world has experienced extreme weather threats such as storms, floods, droughts and many other natural disasters. Because of its negative impacts on tourism, policymakers, planners and developers have to take precautionary measures. Governments of many developing countries support ecotourism and view it as an economic strategy that is both socially and environmentally sustainable (Brooks, Franzen, Holmes, Grote, & Mulder, 2006; Kiper, 2013) the definition and principles of ecotourism show its potential to impact climate change. The International Ecotourism Society defines ecotourism as a responsible form of travel to natural areas that conserves the environment, sustains the wellbeing of the local people and involves interpretation and education for staff and guests (The International Ecotourism Society, 2015). This definition supports to the conservation of natural resources, which is one important aspect in climate change adaptation and mitigation.

- Reducing greenhouse gas emissions from the tourism sector by promoting low-carbon modes of transportation, renewable energy sources, energy efficiency, and waste management.

- Enhancing the resilience of natural ecosystems and communities to the impacts of climate change by conserving biodiversity, restoring degraded habitats, and supporting adaptation measures.

- Raising awareness and education among tourists and locals about the causes and consequences of climate change and the actions they can take to reduce their carbon footprint and adapt to changing conditions.

- Generating income and employment opportunities for local people by creating value-added products and services from natural and cultural resources, and by involving them in the planning and management of ecotourism activities.

Some examples of ecotourism initiatives in Uttar Pradesh are:

- The Lucknow Zoo has introduced a night safari that allows visitors to observe nocturnal animals in their natural habitats. The zoo also has a solar power plant that provides clean energy for its operations.

- The Uttar Pradesh government has identified 56 ecotourism sites in the state under its One District, One Destination scheme, which aims to boost ecotourism and provide more employment opportunities.

- The Uttar Pradesh State Action Plan on Climate Change has proposed a Sustainable Agriculture Mission that seeks to promote climate-smart agriculture practices, organic farming, agroforestry, and eco-friendly pest management among farmers.

- The Uttar Pradesh Forest Department has launched a Green UP Mission that aims to increase forest cover, protect wildlife, restore wetlands, and promote ecotourism in the state.

- The Uttar Pradesh Forest Corporation has developed several ecotourism circuits that offer various activities such as wildlife safari, bird watching, trekking, boating, camping, and cultural tours. The corporation also ensures proper waste management and sanitation facilities at the ecotourism sites.

- The Uttar Pradesh State Action Plan on Climate Change has proposed a Sustainable Tourism Mission that seeks to promote low-carbon tourism practices, such as green certification, energy audits, carbon footprint assessment, and climate change awareness among tourists and service providers.

However, ecotourism can also have negative impacts on environmental sustainability and climate change issues by:

- Increasing greenhouse gas emissions by attracting more visitors and creating more demand for energy and resources

- Degrading the environment by causing pollution, waste, noise, erosion, habitat loss and disturbance to wildlife

- Contributing to climate change vulnerability by exposing natural areas and local communities to extreme weather events, diseases, pests and invasive species

- Creating conflicts and inequalities among stakeholders over the access, use and management of natural resources

- Exploiting or commodifying the natural and cultural heritage of the destination and undermining its authenticity and integrity

IMPLICATIONS

Therefore, ecotourism needs to be planned, implemented and monitored carefully to ensure that it is sustainable, responsible and beneficial for both the environment and the society. Some of the challenges and opportunities for ecotourism in Uttar Pradesh are:

- Uttar Pradesh is a large and diverse state with a rich natural and cultural heritage, including several national parks, wildlife sanctuaries, wetlands, rivers, lakes, mountains, forests, monuments, temples, festivals, etc. These offer great potential for ecotourism development and diversification.

- Uttar Pradesh is also one of the most populous and vulnerable states in India, facing various climate change impacts such as rising temperatures, erratic rainfall, floods, droughts, heat waves, crop failures, water scarcity, health risks, etc. These pose serious threats to the environment, livelihoods and well-being of the people.

- Uttar Pradesh has taken some initiatives to address climate change issues, such as preparing a state action plan on climate change, implementing renewable energy projects, organizing large-scale plantation programmes, etc. These can be integrated with ecotourism strategies to enhance mitigation and adaptation outcomes.

- Uttar Pradesh also faces some challenges in promoting ecotourism, such as lack of awareness and capacity among stakeholders, inadequate infrastructure and facilities, poor quality and standards of services, weak governance and regulation, low participation and empowerment of local communities, etc. These need to be overcome by strengthening policy frameworks, institutional mechanisms, stakeholder collaboration, capacity building, quality assurance, community involvement, etc.

Those who implement, participate in, and market ecotourism activities should adopt the following ecotourism principles (The International Ecotourism Society, 2015):

1. Minimize physical, social, behavioral, and psychological impacts.
2. Build environmental and cultural awareness and respect.
3. Provide positive experiences for both visitors and hosts.
4. Produce direct financial benefits for conservation.
5. Generate financial benefits for both local people and private industry.
6. Deliver memorable interpretative experiences to visitors that help raise sensitivity to host countries' political, environmental, and social climates.
7. Design, construct and operate low-impact facilities.
8. Recognize the rights and spiritual beliefs of indigenous people and work in partnership with them to create empowerment.

CONCLUSION

The ecotourism industry contributes positive and negative impacts to destination and local community. Ecotourism is a responsible travel that helps in reducing the bad environmental impacts and also helps in mitigating climate change. Some of the major finding and sustainability challenges provided by the management, employees, and local community are water pollution. The identification of these findings and sustainability challenges provides a better opportunity for further research agenda for green growth. It clear that water pollution is one of the major concerns in the destination. So, there is a wider scope in expanding the green growth concept along with responsible tourism initiatives to maintain the environment sustainability and mitigating climate change. Some suggestions based on the study:

- ❖ Eco-friendly technologies are necessary for maintaining the ecological experiences and natural environment of ecotourism. There is a need for development and implementation of eco-friendly strategies and standards like Environment Impact Assessment, Environmental Audit etc.

- ❖ Ecotourism industry needs to introduce environmental practices that minimize the use of natural resources and prevent the waste and pollution.

- ❖ Ecotourism industry must inculcate enthusiasm for providing insurance facility to the tourists visiting all adventure or waterfalls destinations in the state.

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