THE EMERGENCE OF ENVIRONMENTALLY SUSTAINABLE CONSUMER BEHAVIOUR IN THE DOMESTIC TOURISM IN INDIA

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Abstract

Domestic tourists account for the majority of India's carbon footprint. Environmentally sustainable consumer behaviour is a means to address environmental issues, resulting in a reduction of carbon footprints generated by the tourism sector. This study shed light on the importance of environmentally sustainable consumer behaviour in domestic tourism in India and the strategies that must be implemented to reduce carbon emissions. The Scopus database was used in the literature search and a total of 1250 articles were obtained. The findings of the study emphasized that there is a need to educate consumers about sustainable consumption which is quite critical in nature in the changing scenario of the tourism industry. Additionally, strategies should be developed, and the primary focus should be on transport, shopping, accommodation, and food while developing strategies. To mitigate the carbon footprint of the tourism sector, it is essential to educate consumers engaged in domestic tourism about sustainable consumption practices. This includes using public or shared transportation, opting for fuel-efficient vehicle rentals, cycling and walking, switching off appliances in hotel rooms, dining at restaurants that offer local and/or organic food, and supporting environmentally responsible businesses. Additionally, raising awareness about the detrimental effects of individual actions on the environment is crucial. It contributes to developing environmentally sustainable consumer behaviour framework that can reduce the carbon footprint of the tourism sector in India, which is the need of the hour. Marketers should develop awareness programs by designing marketing material, like as advertisements, brochures, and websites, that integrate messages about visitor responsibility and sustainable practices. These initiatives will foster a greater sense of environmental responsibility among tourists.

Keywords: Tourism, Environmentally Sustainable Tourism, Consumer Behaviour, India

1. INTRODUCTION

The growth of tourism since the mid-1900s has been substantial, establishing it as a key economic sector . In 2019, while the global economy grew at a rate of 2.5%, the tourism sector grew at a rate of 3.5%, outpacing the overall GDP growth in the past nine years from 2011 to 2019. The tourism sector has been a substantial generator of new jobs and an active force in improving employment prospects over the past decade (World Travel and Tourism Council (WTTC), 2021). A growing body of evidence points to the tourism sector's ability to boost economies, particularly in developing nations like India (Thommandru et al., 2021). The most recent report from WTTC (2024) indicates that the tourism sector's contribution to India's GDP has reached INR 19.13 trillion, with employment rising to 43 million in 2023. A report by the IBEF indicates that the tourism sector anticipates a direct contribution to India's GDP will rise by 10.35% between 2019 and 2028. The Indian tourism sector has made significant progress in terms of worldwide tourism rankings, but these achievements must be sustained over time. While tourism is a significant source of revenue in India, it also contributes to environmental damage (Katta and Patro, 2019). Tourism growth brings environmental costs along with economic benefits as it poses a significant threat to the natural environment and puts pressure on natural resource consumption (Ahmad et al., 2018; Kitamura et al., 2020).

A widely recognized measure for assessing the environmental consequences of the tourism sector is amount of carbon dioxide emissions it produces (Mishra et al., 2022). Climate change and environmental pollution caused by carbon emissions are major global concerns for countries, with significant consequences for economic development, human health, and well-being. Given India's rapidly growing economy, population, and popularity as a tourist destination, carbon emissions continue to be a significant issue (Jayasinghe and Selvanathan, 2021). Consequently, the necessity for environmentally sustainable tourism has become a significant issue for global leaders, and policymakers in recent decades (Hamid et al., 2023). Compared to 2018, domestic tourist visits in India rose by 25.3% in 2019, while foreign tourist visits rose by 8.9% (Ministry of Tourism, Government of India, 2021). The majority of carbon footprints in the tourism sector are caused by domestic travel (Lenzen et al., 2018). The responsibility of consumers has been found to be significant in minimizing the environmental impact of tourism on the environment (Robaina and Madaleno, 2019). Because of the ongoing environmental crisis and how it affects the world's tourism sector, it is more important than ever to know and promote environmentally sustainable consumer behaviour (Han, 2021). Travellers must choose items and services that have a low environmental impact to help alleviate the environmental burden (Kitamura et al., 2020). The study of sustainable tourist behavior is an emerging subject of research within the wider discipline of sustainable tourism (Li et al., 2024).

have paid less attention to the link between carbon emissions (CO2) and tourism (Selvanathan et al., 2021). The environmental difficulties and concerns that have evolved as a result of tourism have been the focus of studies and investigations by researchers and scholars for the past few years (Nazneen et al., 2021; Mahadew & Appadoo, 2019; Liu et al., 2019; Thongdejsri & Nitivattananon, 2019; S. Wang et al., 2021). The study shed light on the importance of environmentally sustainable consumer behaviour in domestic tourism in India and the strategies that must be implemented to reduce carbon emissions.

The increasing population, economic development, and rising tourism in India make carbon emissions a significant and ongoing issue (Jayasinghe and Selvanathan, 2021). High-income countries account for the majority of carbon footprints; however, India ranks fourth globally in tourism-related carbon emissions (Jayasinghe and Selvanathan, 2021). The predominant sources of carbon footprints include domestic travel, shopping, transportation, and food. The carbon emissions associated with tourism encompass both the direct emissions from activities such as vehicle fuel combustion and the carbon embedded in the goods purchased by tourists, including transportation, shopping, food, fuel, and lodging (Lenzen et al., 2018).

In 2019, India advanced to 34th place in the World Tourism and Travel Competitiveness Ranking; however, it ranked 139th, 134th, and 128th in environmental sustainability in 2015, 2017, and 2019, respectively (Ministry of Tourism, Government of India, 2021). This indicates that India has a poor record regarding environmentally sustainable tourism. Hence, there is a need to design strategies that can promote environmentally sustainable tourism. Since Domestic travellers are the major contributors to the carbon footprint. It is a necessity to identify the practices that can contribute to Environmentally sustainable consumer behaviour.

The research questions that will be addressed by this study are listed below:

RQ1. What strategies can be implemented to decrease the carbon footprint of tourism and foster environmentally sustainable practices in domestic tourism?

RQ2. What practices contribute to environmentally sustainable consumer behavior in domestic tourism?

This study contributes to the idea that there is a need for environmentally sustainable consumer behaviour that can reduce the carbon footprint of the tourism sector in India. The study will also assist policymakers in identifying the major contributors to carbon emissions and focusing their attention on these areas. Overall, this article supports the UN Agenda for Sustainable Development and its goals (SDGs).

The study has been divided into four sections. Section 1 covers the introduction including the rationale and objectives of the study; followed by an extensive literature review in section 2. Section 3 discusses

the methodology and data description. Section 4 depicts the results, discussion, and suggestions. In Section 5, the conclusion provides an overview of the important findings derived from the study.

2. LITERATURE REVIEW

One of the pillars of sustainable tourism is environmentally sustainable tourism, which eventually contributes to the reduction of tourism's carbon impact. In the context of environmentally sustainable tourism, frequent research has been conducted on green hotels and green restaurants (Han, 2020; Moon, 2021), sustainable cruises (Paiano et al., 2020), and travellers' environmentally responsible behaviour (Kiatkawsin and Han, 2017), sustainable destination development (Werner et al., 2021) pro-environmental behaviour among museum visitors (Han and Hyun, 2017), convention travellers' pro-environmental decision formations (Han, Hwang, and L, 2017), and sustainable tourism-transport (Hopkins, 2020). Over the past decade, the number of domestic tourists has been going up faster and faster, which is a significant contributor to India's carbon footprint (Ministry of Tourism, Government of India, 2021). However, consumers' activities in domestic tourism receive very little attention.

2.1 CO, emissions and tourism

Tourism-related activities have both beneficial and harmful consequences on the areas in which they take place. From an environmental standpoint, such an impact is related to the overexploitation of natural resources and detrimental environmental repercussions (Pérez et al., 2020). Global warming is a result of increased levels of greenhouse gases in the atmosphere. The emission of carbon dioxide into the atmosphere is a contributor to global warming. As most tourism activities rely on fossil fuels for their energy needs, tourism inevitably has negative environmental consequences (Lin, 2010; Paramati et al., 2017). The tourism sector has been supported by many industries, including tours and travel, food and beverage, transport, lodging, souvenirs, and amusement, all of which generate carbon emissions as a result of their operations and products (Kitamura et al., 2020). The percentage of global greenhouse gas emissions attributable to tourism in 2013 was 8%, which is four times higher than the previous estimate. The global carbon footprint of tourism has increased fourfold from 3.9 to 4.5 GtCO2e between 2009 to 2013 and is expected to reach 6.5 GtCO2e by 2025 (Lenzen et al., 2018). According to studies, the tourism sector negatively impacts the environment and natural resources (Tang and Ge, 2018; Ahmad et al., 2018; Huang et al., 2021; Saha and Paul, 2021). Energy use and CO2 emissions are positively correlated (Ahmad et al., 2018). Tourism and CO2 emissions are also inextricably linked (Ahmad et al., 2018). Tourism emits greenhouse gases and so contributes to environmental pollution (Ahmad et al., 2018).

According to a report, the majority of OECD (Organization for Economic Cooperation and Development) countries consume fossil fuels, which contributes to this outcome (Wang and Wang,

2018). From 1991 to 2016, the impact on the environment by tourism in five provinces of the OBOR (One Belt One Road) was studied and found to be detrimental to the environment in Gansu, Shanxi, Ningxia, and Qinghai (Ahmad et al., 2018). Several studies that emphasized tourism-related carbon emissions reported similar results in Japan (Kitamura et al., 2020), Shanghai (Tang and Ge, 2018), and Austria (Neger et al., 2021). Hence, the environmental impact of tourism is two-fold: first, it consumes resources, especially energy; and second, it pollutes the environment in other ways, such as through the release of greenhouse gases and the production of unnecessary waste (Robaina and Madaleno, 2019).

Tourists as consumers have shaped or responded to competing global forces for various reasons, which include the negative impact of tourism on global carbon emissions (Font and McCabe, 2017). Climate change has piqued the interest of tourists in the last decade, owing to the fact that both climate change and the policies put in place to address it are expected to influence tourism (van der Bank and van der Bank, 2018). When it comes to the sources of GHG emissions, the main contributors are arrival and departure transportation, followed by the lodging, leisure, and professional activities of visitors (Rico et al., 2019). A study conducted in Japan identifies the top contributors to Green House Gas (GHG) emissions for each type of travel and the ranking of the items contributing to GHG emissions based on tourist consumption. Travel by air, lodging, cosmetics, food and beverages, and food items are the top five categories in inbound tourism. Domestic tourism with regards to overnight stays impacts most through petrol (direct emissions), air travel, lodging, food, and beverage and with regards to the day visits impact most through petrol (direct emissions), food and beverage, confectionery, and food items (Kitamura et al., 2020). Tourists and travel activities were the most significant contributors to the total amount of emissions produced by the tourism sector, which accounts for nearly 80% of the total carbon footprint produced (Cooper and McCullough, 2021). Researchers agree that the sharp rise in CO2 emissions that has happened over the past fifty years is the most significant contributor to global warming and climate change (Mossler et al., 2017; Anderson et al., 2016).

2.2 CO₂ emission, Domestic tourism, and the need for environmentally sustainable tourism in India Several studies have been conducted to investigate the possible connections between tourism and the degradation of the environment (Baalamurugan et al., 2022; Becken, 2002; Bakhat & Rosselló, 2011; Dubois & Ceron, 2006; Dubois et al., 2011; Gössling, 2002; Gössling et al., 2012; Kent et al., 2002). An accepted metric for gauging the environmental impact of the tourism industry is the amount of carbon dioxide emissions it generates (Mishra et al., 2022). While high-income countries generate the majority of carbon footprints, India has the world's fourth-greatest tourism carbon footprint (Jayasinghe and Selvanathan, 2021). The majority of these carbon footprints are attributable to

domestic travel, followed by shopping, transportation, and food. Both the carbon that is directly released during tourism activities (like when cars burn petrol), as well as the carbon that is present in the products that tourists buy, should be included in the measurement of tourism's carbon footprint (like transportation, shopping, food, fuel, and lodging) (Lenzen et al., 2018).

Tourists are the tourism sector's consumers, and they are broadly classified as domestic and international tourists (Bandaru and Venkateshwarlu, 2020). A large number of tourists from all over the world, as well as a large number of domestic tourists, travel to India each year because of the country's numerous attractions and geographic location (Dixit, 2020). Even though international tourism receives the most attention, domestic tourism accounts for the vast bulk of all tourism, accounting for approximately 85% of all travel worldwide (Rasoolimanesh et al., 2020). CO2 emissions in India are significantly and positively affected by tourists' arrival (Selvanathan et al., 2021).

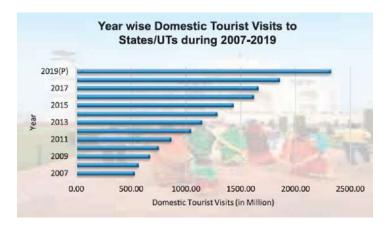


Figure 1: Domestic Tourist Visits

Source: India Tourism Statistics, 2020 (Ministry of Tourism, Government of India)

As shown in figure 1, an accelerated uptrend of domestic tourist visits has been witnessed over the past 13 years, which is a significant contributor to the carbon footprint in India. Domestic tourist visits have been increasing steadily since 1991, with a CAGR (compound annual growth rate) of 13.52 percent for all states and UTs between 1991 and 2019. In 2019, India received 2321 million domestic tourist visits, up from 1853 million in 2018, a 25.3 percent increase. Demand for luxury accommodations continues to grow among Indian tourism consumers as consumer spending increases and as a result, significant players are extending their footprint to meet this demand (Ministry of Tourism, Government, 2021). Domestic tourists should be conscious of the adverse environmental effects of their actions and engage in sustainable consumption (Geng et al., 2017). If domestic tourists (those who stay overnight or go on day trips) demonstrate environmentally

sustainable consumer behaviour, the carbon footprint of the Indian tourism sector can be significantly reduced. When tourists drive to or from their destination, their driving behaviour has a significant impact on fuel efficiency and emissions (WTO, 2008).

According to a study conducted in Himachal Pradesh, the greater the environmental understanding of environmentally friendly products, the more favourable attitude was seen toward environmentally friendly products, and international tourists regarded them significantly more positively than domestic tourists (Gautam, 2020). A decade of rapid tourism development in the Kullu District of Himachal Pradesh in the Himalayas has depleted the region's natural resources to a large extent (Gardner et al., 2002). Due to an increase in tourists, water has become scarce in the city of Darjeeling (Koner & Samanta, 2021). Tourists play an essential part in facilitating the shift towards a tourism industry that is more environmentally sustainable by selecting vacation spots that are located within a reasonable driving distance of their homes; using modes of transportation that are less harmful to the environment; pressing for the construction of infrastructure that is less harmful to the environment; favouring vacation spots that make an effort to be sustainable; staying in lodgings that have been certified as environmentally friendly; and dining at restaurants that provide local and/or organic food (WTO, 2008). To ease the environmental burden, tourists must choose products and services with a low environmental impact (Kitamura et al., 2020). It is critical to understand how to persuade consumers to make more sustainable choices without jeopardizing their prime motive (Font and McCabe, 2017).

Environmental sustainability entails the protection and management of resources, particularly those that are finite or essential to life support. It necessitates the reduction of water, land, and air pollution as well as biological diversity conservation and natural heritage protection (UNEP & WTO, 2015). Environmental sustainability has a substantial and beneficial effect on the growth of tourism (Pulido-Fernández et al., 2019). India improved its overall ranking to 34th in the World Tourism and Travel Competitiveness Ranking in 2019 but fell to 139th, 134th, and 128th in the category of environmental sustainability in 2015, 2017, and 2019 (Ministry of Tourism, Government of India, 2021). This shows that India has a dismal record when it comes to environmentally sustainable tourism. In South Asia, India is the most prominent tourist destination, and tourism is one of the highest energy-intensive industries (Jayasinghe and Selvanathan, 2021). India constitutes nearly 6.65% of total global carbon emissions, ranking fourth behind China (26.83%), the European Union (9.66%), and the United States (14.36%) when global carbon emissions data are considered (Kumar & Majid, 2020). According to the report of International Energy Agency (2019), the United States, India, and China accounted for 85% of the net increase in emissions in 2018. India's CO2 emissions grew by 4.8% in 2018. This growth was split evenly between the transportation sector, power sector, and other industries. Among

the world's major economies, India is expected to have the fastest-growing need for energy by 2040 (Kumar and Majid, 2020). Environmental pollution is a significant challenge facing the tourism sector today, and the majority of the pollution is caused by visitors and locals who, as a result of their apathy, lack of civic sense, and negligence, litter the environment with a variety of biodegradable and non-biodegradable materials (Katta and Patro, 2019). Even though the Indian tourism sector witnessed substantial growth between 2000 and 2016, the country's resource efficiency remained among the lowest worldwide. This contrast indicates that India's huge potential remains untapped, despite its effectiveness in promoting tourism by utilizing the country's existing infrastructure (Hosseini et al., 2021). The central government developed policies and standards to address these issues in the 12th five-year plan, which contains numerous action plans for the development of sustainable tourism. As a result, many organizations have been established in the country's Protected Areas (PAs) to promote sustainable tourism (Cabral and Dhar, 2020).

2.3 Current scenario of environmentally sustainable tourism in India

The Sustainable Tourism Criteria for India (STCI) was introduced in 2016 by the Ministry of Tourism of India, with the express objective of supporting environmentally sustainable practices in the tourism sector. At the moment, the criteria apply only to tour operators and the accommodation sector (Ministry of Tourism, 2014). Many state governments have also made commendable efforts to promote it (Ministry of Tourism, Government of India, 2021). The Kerala government launched the Responsible Tourism project in four trial destinations: Kovalam, Kumarakom, Thekkady, and Wayanad. In 2011, the concept was expanded to three additional locations: Ambalavayal, Kumbalangi, and Bekal. Muziris was included in the list of responsible tourism destinations later in 2014. At these locations, activities are taking place at various stages. The UNWTO Department of Tourism has recognized the visible outcomes of the programs. In the category of Innovations in Public Policy and Governance, the Government of Kerala was awarded the Ulysses Award for Responsible Tourism Project in Kumarakom (Government of Kerala, 2017). The Andhra Pradesh government took the initiative to discover potential eco-tourism destinations in the state and completed numerous popular eco-tourism projects by revitalizing Borra Caves, incorporating local communities at Belum Caves, and establishing an exotic forest destination (Jungle Bells at Tyda in Visakhapatnam District). The government has adopted new eco-tourism efforts, such as eco-tourism projects, which typically entail nature hikes, wildlife tourism, and jungle stays. Accommodation, guide services, security, and food will be provided by local forest protection committees. The Andhra Pradesh forest department will offer infrastructure as part of Community Forest Management (CFM) and will also assist local forest officials in maintaining eco-camps. APTDC/tourists and Andhra Pradesh Tourism will offer transportation to and from the destination (Tourism Department, Government of Andhra Pradesh).

The Gujarat government has introduced a new Gujarat Tourism Policy 2021-25 aimed at promoting sustainable tourism. The policy encourages and incentivises tourism service providers to adopt evehicles, to obtain sustainability or green building certification through GRIHA, IGBC, LEED, or any other international accreditation/certification specified from time to time by SLEC, to establish Evehicle charging stations, and to obtain GSTC certification through GSTC accredited organizations (Gujarat Tourism Policy 2021-25, Government of Gujarat). All of these activities have been implemented by State Governments to contribute to India's environmentally friendly tourism. In the Darjeeling Himalaya, sustainable homestay tourism has been introduced, resulting in an increasing number of visitors requesting homestays rather than hotels (Basak et al., 2021). Tourism must explore potential avenues for resource protection through environmentally conscious development. Sustainable development decisions must strike a balance between tourism growth and the protection of cultural and natural resources (Badar and Bahadure, 2020). Hence, environmental conservation must be prioritized in India's economic and tourism development agenda (Jayasinghe and Selvanathan, 2021).

2.4 Environmentally sustainable consumer behaviour in the tourism sector

UNWTO and many other stakeholders in the tourism sector have voiced their shared concern about the risks posed by climate change and the sector's non-negligible contribution to climate change as a result of greenhouse gas (GHG) emissions from travel-related activities of tourists, their accommodation, etc. (WTO, 2008). Due to its capacity to address future natural resource shortages and the prevention and mitigation of climate change, sustainable consumption has emerged as a viable choice for social development and economic growth. Consumers play a significant role in this regard, as their consumption habits have a direct environmental impact (Guzmán Rincón et al., 2021). For decades, the debate over environmental (un)sustainability in the tourism sector has produced a plethora of factual evidence of environmental damage caused by human activities associated with tourism (Dolnicar, 2020).

Low-carbon tourism activities use less energy and resources, resulting in lower GHG emissions through sustainable tourism. A low-carbon lifestyle entails using less energy in hotels, traveling in low-emission automobiles, eating low-carbon foods prepared with locally sourced products, and producing less waste (such as plastic water bottles) while participating in tourist activities. Because of climate change, low-carbon tourism appears to be an appealing strategy that can persuade tourists to adopt it (Thongdejsri and Nitivattananon, 2019). Tourists have several alternatives for reducing their carbon footprint. First, they can choose to replace a long-distance vacation with a short-distance vacation. Some countries have intentionally fostered this. Tourists have the option of reducing their transportation emissions at the destination. Using public transportation, renting fuel-efficient

automobiles, cycling, and walking, supporting green businesses, and turning off the equipment in hotel rooms (WTO, 2008). Several studies have reported that consumers who engage in environmentally sustainable consumption patterns and behaviours have a lower environmental impact and result in environmental sustainability (Dong et al., 2020; Singh and Verma, 2017; Minton et al., 2018; Kiatkawsin and Han, 2017; Wang and Wang, 2018). Consumer behaviour is critical for environmentally sustainable tourism because consumers have the autonomy to choose environmentally sustainable tourism products. The ongoing environmental crisis and its consequences result from the global hospitality and tourism industries; it is now more critical than ever to identify and promote environmentally sustainable consumer behaviours. Environmentally sustainable consumer behaviour refers to an individual's behaviour that has a negligible negative impact on the environment or even benefits it when consuming a product or service (Han, 2021). The behaviour of consumers which is sustainable for the environment includes reusing and recycling (Dong et al., 2020). Environmentally sustainable consumer behaviour validates the purchasing of environmentally favourable products (Singh and Verma, 2017; Dong et al. 2020), reusability, recycling (Dong et al., 2020), and reduction, i.e., energy saving (Geng et al., 2017; Garvey and Bolton, 2017; Wang and Wang, 2018). Several studies used terms like green purchase behaviour, proenvironmental behaviour, environment conservation behaviour, and environmentally responsible behaviour to discuss environmentally sustainable behaviour (Garvey and Bolton, 2017; Paswan, Guzmán, and Lewin, 2017; White et al., 2019; Han, 2020; Testa et al., 2021). Studies emphasized environmentally sustainable consumer behaviour reported many aspects benefitting the environment, such as purchasing energy-saving goods (Wang and Wang, 2018; Geng et al., 2017; Garvey and Bolton, 2017), recycling, reducing waste, taking public transit, walking more, conserving water, and eating more locally produced foods (Han and Hyun, 2017). Environmentally sustainable consumption, in both its definition and scope, refers to all consumer behaviours that contribute to the reduction of environmental costs (Han, 2020; Han, 2021). Hence, Tourism sector consumers should be encouraged to adopt environmentally sustainable consumption behaviour. Environmental impacts of consumer behaviour can be mitigated in the tourism context by encouraging consumer behaviour modifications to be environmentally sustainable in a variety of consumption settings (Han, 2021). Sustainable consumption is not only environmentally good but also significantly pushes businesses to manufacture sustainable products. As a result, it is critical to influencing all aspects of sustainable consumption, including the purchase and use of environmentally friendly products, as well as the proper disposal and treatment of generated waste (Geng et al., 2017). Tourists have a degree of discretion in selecting tourist products. Increased awareness of climate change's consequences will almost certainly alter tourists' views and result in changes in travel behaviour (WTO, 2008). If

consumers are concerned about sustainability, this means that their behaviour could be influenced to be more environmentally friendly (Font and McCabe, 2017).

3. METHODOLOGY AND DATA DESCRIPTION

To conduct the literature review of articles, the Scopus database was used as it covers a wide range of research articles from renowned international journals. Due to its extensive journal coverage, Scopus was chosen over other databases such as Web of Science and PubMed (Falagas et al., 2008; Mishra et al., 2021). Articles were searched using the keyword "Environmental sustainability" AND 'Tourist behaviour", "Environmentally sustainable tourism", "Environment" AND "Tourist behaviour", "Tourism" AND "India", and "Sustainable Tourism" AND "India". The term "sustainable tourism" has seen a notable increase in usage compared to related concepts such as "wildlife tourism," "nature-based tourism," "responsible tourism," and (Khanra et al., 2021). The other key words and the combination of keywords were related to the concept of 'Environmentally Sustainable Tourist Behaviour' and 'Environmentally Sustainable Consumer Behaviour'.

Table 1: Search strategy

Steps	Search strategy (Database- Scopus)						
	Search term used within title, abstract, and keywords	Inclusion criteria	Exclusion criteria	Documents obtained after inclusion and exclusion criteria			
Steps 1	Search term- "Environmental Sustainability" AND "Tourist behaviour" Documents obtained- 26	Years- 2000- 2021 Language-English	Language- French Year-2022	Number of documents =21			
Steps 2	Search term- "Environmentally sustainable tourism" Documents obtained- 38	Years-1996- 2021 Language-English Document type-Article	Year-2022 Language- Spanish Document type-Book, Conference Paper, Review, Book chapter	Number of documents =29			
Steps 3	Search term- "Environment" AND "Tourist behaviour" Documents obtained- 544	Years-1989- 2021 Language-English Limit to exact keywords- Tourist Behaviour, Travel Behaviour, Environment, Environmental Impact, Tourist Behaviour, Environmental Protection, Climate Change Consumption Behaviour, India	Year-2022 Language- Spanish Document type-Book, Conference Paper, Review, Book chapter	Number of documents =367			

Steps 4	Search term- "Tourism" AND "India" Documents obtained- 2847	Years- 1976- Ist quarter of 2022 Language-English Subject area- Environmental Science, Social Sciences, Energy, Agricultural and Biological Sciences etc.	Years- IInd quarter of 2022 Language-French, German Russian Polish Spanish, Chinese, Czech, Dutch, Italian, Danish, Finnish, Malay, Portuguese, etc. Document type-Book, Conference Paper, Review, Book chapter, Conference Review, note, Editorial, Letter, etc.	Number of documents =835
Steps 5	Search term- "Sustainable Tourism" AND "India" Documents obtained-111	Year-1999-2021 Language-English	Year-2022 Language-French, Dutch Document type-Book, Conference Paper, Review, Book chapter, Conference Review	Number of documents =60

Total number of documents obtained after inclusion and exclusion criteria=1312

Number of documents obtained after removing duplicates =1250

Table 1 illustrated the search strategy. In total, 3,566 documents were identified. On these documents, inclusion and exclusion criteria was applied as follows:

The search through keyword "Environmental sustainability" AND 'Tourist behaviour" resulted in 26 documents out of which only articles published during the years 2000-2021 and based on "English language" were considered which finally reduced the number of documents from 26 to 21 articles. The search through keyword "Environmentally sustainable tourism" resulted in 38 documents out of which only articles published during the years 1996-2021 and based on "English language" were considered which finally reduced the number of documents from 38 to 29 articles. The search through keyword "Environment" AND "Tourist behaviour" resulted in 544 documents out of which only articles published during the years 1989-2021 and based on "English language" were considered which finally reduced the number of documents from 544 to 367 articles. The search through the keyword "Tourism" AND "India" resulted in 2847 documents out of which only articles published during the years 1976-1st Quarter of 2022 and based on "English language" were considered which finally reduced the number of documents from 2847 to 835 articles and finally, the search through keyword "Sustainable Tourism" AND "India" resulted in 111 documents out of which only articles published during the years 1999-2021 and based on "English language" were considered which finally reduced the number of documents from 111 to 60 articles.

The total number of documents after applying the above inclusion and exclusion criteria based on years, language, and manuscript type finally led to 1312 articles. Out of a total of 1312 articles,

duplicate, irrelevant, and articles with missing information were further removed resulting in a total of 1250 articles, Since environmentally sustainable tourism is a relatively new concept, data from publications published by the World Economic Forum, the United Nations Environment Programme (UNEP) and the United Nations World Tourism Organization (UNWTO) were also obtained. Additionally, the study reviewed and evaluated only articles published in English that were relevant to the current study.

4. RESULTS, DISCUSSION AND SUGGESTIONS

Consumers must make a substantial effort to engage in green purchasing, reusing, recycling, and reducing activities. Tourism and hospitality can benefit from the 3Rs strategy by improving their energy, water, and waste efficiency, which will reduce their emissions and, as a result, enhance their environmental performance (Ioannidis et al., 2021). To reduce tourism's carbon footprint, mitigation measures ranging from low-cost initiatives (e.g., energy-efficient equipment in hotels, continuous monitoring of energy consumption) to those requiring more effort and investment, such as designing a sustainable transportation system at a destination, purchasing more fuel-efficient vehicles, or altering travel modes or patterns, are required. It becomes evident that a mix of initiatives will be necessary to significantly reduce tourism's carbon footprint (WTO, 2008). It is suggested that tourists should be informed about how to use natural resources sustainably (Ali et al., 2021). The habits and behaviour of travellers can be impacted by presenting them with information and data. Minimizing the carbon footprint of tourism can be accomplished by adopting little changes, such as walking or cycling more frequently to nearby locations or increasing the use of public transit (Rico et al., 2019). To reduce the negative environmental impacts of tourism while also encouraging more sustainable tourism, public (or collective) transportation appears to be a critical component of the solution (Romão and Bi, 2021). Energy efficiency is more beneficial to the sustainable development of tourism and the environment than other energy policies (Wang & Wang, 2018). Consumers should be aware of the environmental costs associated with tourism, including those associated with waste production and pollution sources like carbon dioxide emissions, as well as the extraction of natural resources like energy (Robaina & Madaleno, 2019). Habit formation, social influence, the individual self, cognition and feelings, and tangibility all play a role in encouraging consumers to engage in environmentally-friendly behaviour (White et al., 2019). To summarise, Sustainable consumption behaviours can be impacted through education and awareness of sustainable consumption (Geng et al., 2017).

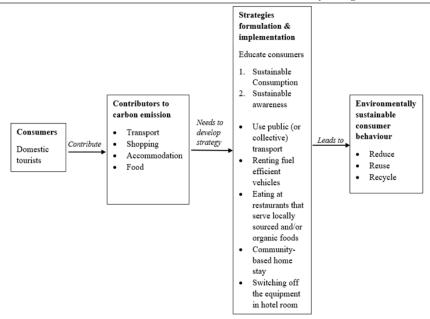


Figure 2: Framework for environmentally sustainable consumer behaviour (Author's analysis based on Literature review)

Based on the above literature review, the following environmentally sustainable consumer behaviour framework is proposed for environmental protection (See Fig. 2). Raising knowledge and understanding of sustainable consumption practices can influence behaviors of individuals (Geng et al., 2017). Domestic tourists account for majority of CO2 emissions in India's tourism sector; hence strategies for them must be developed. While developing strategies, the primary area of focus should be transport, shopping, accommodation, and food. To reduce the tourism sector's carbon footprint, consumers in domestic tourism should be educated about sustainable consumption, which includes using public or collective transportation, renting vehicles that are fuel-efficient, cycling and walking, turning off the equipment in hotel rooms, dining in restaurants that provide local and/or organic food, and supporting environmentally friendly businesses and sustainable awareness, including the harmful effects of their actions on the environment. A number of studies have shown that individuals engaged in environmentally sustainable consumption patterns and behaviors demonstrate a lower environmental impact, thereby aiding in the advancement of overall environmental sustainability .(Singh and Verma, 2017; Kiatkawsin and Han, 2017; Minton et al., 2018; Wang & Wang; Dong et al., 2020).

Marketers could develop awareness programs emphasizing each domestic visitor's obligation to mitigate these consequences. Marketers might also develop marketing materials, like as advertisements, brochures, and websites, that integrate messages about visitor responsibility and sustainable practices. These initiatives will foster a greater sense of environmental responsibility

Marketers could develop awareness programs emphasizing each domestic visitor's obligation to mitigate these consequences. Marketers might also develop marketing materials, like as advertisements, brochures, and websites, that integrate messages about visitor responsibility and sustainable practices. These initiatives will foster a greater sense of environmental responsibility among visitors. The communications should highlight how tourist activities can protect the environment at certain eco-sensitive sites through the use of public transportation, the rental of fuel-efficient vehicles, cycling, and walking. They can also save electricity by shutting off hotel room equipment (WTO, 2008) and buying souvenirs with minimal packing (Ibnou-Laaroussi et al., 2020). Travelers can carry water bottles, shopping bags, toothbrushes, and towels when travelling and residing in hotels (Ibnou-Laaroussi et al., 2020). It is important to educate domestic tourists about the possible long-term harm to the ecosystem that could arise from small-scale damage brought on by careless actions. Environmentally sustainable behavior emphasizes the two R's: reduce and reuse.

5. CONCLUSION

Transport, shopping, accommodation, and food are the main contributors to carbon emissions. Taking stock of the literature, a set of potential solutions for bridging the gap between existing knowledge and debate over the difficulties connected with the adoption of the behaviour of consumers, which is sustainable concerning the environment in the Indian tourism sector, are identified. Condign strategies can contribute significantly to the tourism sector's environmental sustainability. This study addresses the UN Agenda for Sustainable Development and its SDGs 7, 12, and 13, which are related to affordable and clean energy, responsible consumption and production, and Climate action, respectively. Tourism in general, and sustainable tourism in particular, have grown as academic fields to comprehend and address the sector's real-world difficulties and potential (Jones & Walmsley, 2021). The Ministry of Tourism has launched The Sustainable Tourism Criteria for India (STCI) to encourage environmentally sustainable practices in the tourism sector. However, it only applies to tour operators and accommodation providers. Tourists are the tourism sector's consumers. Domestic tourism is widely overlooked by academicians and policymakers in developing nations (Bayih and Singh, 2020). The findings provide important practical insights for the government to formulate intervention policies, products, and service providers aimed at creating environmentally sustainable products and services while enhancing awareness among tourists. Government agencies should educate tourists about the negative impacts of their behavior on the environment, highlight the benefits of adopting environmentally sustainable practices, and emphasize that tourists must take personal responsibility for protecting the environment. The limitation of the study is that it takes an exploratory approach that requires quantitative validation. To gain a deeper understanding of environmentally sustainable behavior among consumers, future studies should examine the various

factors such as green value, connectedness to nature, perceived effectiveness, green product attachment, environmental knowledge, environmental corporate social responsibility, proenvironmental behavior in daily life, descriptive social norm, and green image. These elements play a vital role in shaping environmentally sustainable consumer behavior (Han, 2021).

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