Circular Economy of Tourism in Delhi

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Abstract

The global biodiversity loss and CO_2 emissions are primarily attributed to the increasing use of natural resources and the existing "take-make-waste" development process. Such practices conflicted with the globally agreed sustainability moves toward achieving sustainable development goals, pollution mitigation missions, and green greenhouse gas emissions. Hence, the circular economy model was becoming widely popular. Tourism is indisputably the leading industry and has suffered heavily due to the COVID-19 pandemic. There was an opportunity to rebuild safe, equitable, sustainable, and climate-friendly tourism. This study utilized Delhi as a case study to investigate the relationship between circulatory economic systems and travel and tourism. In 2021, 6.1 lakh foreign tourists went through Delhi, the capital of India, which is home to three World Heritage Sites and functions as a center for international crossings. Delhi is unquestionably a fascinating travel destination, but it also has a serious pollution issue, which poses a major "urban challenge" and has a huge "congestion cost." Thus, there are a plethora of opportunities to implement a circular economy within the tourism industry. This study examined the wide range of actions and policies implemented by the State Government to encourage sustainable tourism and raise the standard of living for both residents and tourists. This study showed that Delhi's tourism industry has a lot of room for the circular economy and that even with the State Government's many initiatives, much work needs to be done to improve the ecosystem and its managerial capacity. The main goals should be the separation of hazardous products, water, food, and electronics waste, and the implementation of energy-efficient technology.

Keywords : **circular economy, climate change, GNCTD, Delhi, sustainable development goals, travel, tourism**

JEL Classification Codes : A12, Q56, R5, Z32

Paper Submission Date : July 29, 2023 ; Paper sent back for Revision : September 25, 2023 ; Paper Acceptance Date : October 10, 2023 ; Paper Published Online : December 15, 2023

The world has witnessed a massive use of materials and natural resources – faster than replacement (Batham, 2013), which, along with demographic pressures, infrastructural requirements, consumerism, etc., has led to resource depletion, large-scale waste, land-fill requirements, and widespread pollution. According to Beitzel (2021), such extensive resource utilization worldwide is to blame for 90% of biodiversity losses and about half of global CO_2 emissions. The implementation of circular economy principles (CEPs) in all economic sectors, particularly travel and tourism (TT), which is one of the most dynamic and significant sectors for global socioeconomic development, became necessary as a result. This required separating population growth and resource use from economic growth and completely reshaping the current growth process based on the

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DOI : https://doi.org/10.17010/pijom/2023/v16i12/173246

"take-make-use/waste" paradigm (One Planet Network, 2021; UNWTO, 2022a,b; World Tourism Organization, 2021; World Economic Forum 2022a,b). Interestingly, India has several unique tourism destinations with historical, geographical, and religious value. Furthermore, the difficulties presented by COVID-19 have allowed for a thorough and systemic reconstruction of TT (Gössling et al., 2021).

The argument posits that the integration of CEPs into TT and value chain business models will foster sustainable tourism and visitation, thereby ensuring that visitors feel secure, tourism practices adhere to environmental guidelines, and existing assets, business competencies, and resources are utilized in a way that aligns with local needs (Rodriguez et al., 2020). The application of CEPs in the production process to further transition to the circular economy (CE) can raise the global output levels to the extent of US$ 4.5 trillion by 2030, and in the case of India, an annual value can be about US$ 218 billion (₹ 14 lakh crores) by 2030 (India Brand Equity Foundation, 2023). It can support resilient ecosystems, sustainable frameworks, and environmental benefits in addition to boosting the nation's economic growth (Lindell et al., 2019). India, a country of 1.4 billion people and still growing, is a vibrant, fast-evolving nation. By 2030, it is projected to have the third-biggest economy in the world, contributing approximately 8.5% of the global GDP. There have been socioeconomic advancements along with shortages, political upheaval, environmental stressors, climate change, etc. India produces about 55 million tons of municipal solid waste, which is estimated to rise to 125 million tons annually during the next few years. India consumes about 11 kg of plastic per capita, which is far below the global average of 28 kg (Government of NCT of Delhi, 2023; Saarangapani & Sripathi, 2015).

Delhi, despite being the focus of most of the studies, continues to suffer from serious pollution of the air, water, and land in addition to facing the health issues caused by dust from roads and construction, vehicle exhaust, heating and cooking appliances, industries, and open garbage burning (Guttikunda et al., 2023). The sustainable development goals (SDGs) are being continuously worked upon by producing "green guidelines" and changing environmental policy actions. By using an environmentally sustainable approach to growth and development, waste processing has increased from 18% in 2014 to 70% in 2021 (India Brand Equity Foundation, 2023).

Circular Economy : A Conceptual Framework

The CE has gained worldwide attention, given its vast potential to contribute toward sustainability, particularly as a means to check ever-increasing dependence on energy and primary materials. In addition to creating multi-cycle circular value chains across all business models and economic sectors, it seeks to eliminate "wasted resources," "wasted capacities," "wasted lifetimes," and "wasted embedded values" (India Brand Equity Foundation, 2023). By including the 5Rs — Refusal, Reduction, Repair/Refurbish, Reuse, Recycle/Recovery of materials and energy—CE aims to alter the product lifespan. SDGs 6 and 7 on clean energy, SDG 8 on decent work and economic growth, SDG 12 on responsible production and consumption, SDG 15 on life on land, and SDG 15 on water and sanitation are all closely related to it (Pratap Singh et al., 2023). Its fundamental principles are regenerative resource prioritizing through the 3Rs (reduce, reuse, and recycle), considering waste as a resource, life extension, and preservation of the existing resources through enhanced collaborations in product design, technologies, business models, etc. (GASCONews, 2022). It works on a multi-pronged strategy for multi-dimensional chains of supplies, flows, formats, and recovery loops for materials and products.

There are five distinct but connected scenarios where CEPs can be used:

- By co-accessing and sharing platforms, renting, lending, trading, and even bartering unwanted products, businesses, organizations, and firms can increase asset utilization levels and open up new and expanded business prospects.

↳ Companies and enterprises that use biodegradable, renewable, and recyclable commodities (such as metals, minerals, and energy) can establish supply chains for their operations on their own or through their upstream or downstream partners.

↳ By implementing initiatives like refurbishing, up-cycling (converting a product into enhanced value), sharing waste materials as inputs for other industries, recycling into new designs, and further reprocessing to prevent resource loss, organizations can figure out "reverse supply chains" (for waste by-products/products, end-of-life products, etc.).

↳ Suppliers might provide "access-over-ownership" to customers in lieu of down-cycling, which is the process of converting a product into a less valuable form.

↳ Businesses that extend the life of their products by enhancements, remarketing, prompt and appropriate repairs, maintenance, etc., should be commended.

NITI Aayog (2023) has created a CE action plan with Extended Producers Responsibility (EPR) rules for tires, batteries, plastics, and e-waste in order to solve issues with spent water, organic and dry waste, and particular category waste in 10 industries. Additionally, India has already taken the lead during the G20 Presidency in focusing on knowledge exchange regarding circularity in the steel sector, the formation of resource efficiency, the CE transition, and the CE industry coalition, among other topics. By lowering the consequences of climate change and greenhouse gas emissions, safeguarding the environment, and maintaining "planet boundaries," this type of future vision will assist in preventing "ecological misconducts and planet disruptions."

Circular Economy and Travel & Tourism

The tourism sector has grown to be one of the biggest and fastest-growing economic sectors throughout the previous 60 years or more (World Tourism Organization, 2021). This also holds for India, where the government has taken the lead in advancing technology, trade, and domestic travel around the nation's highlands and islands through Indian missions as well as abroad via reasonably priced, sustainable, and eco-friendly means. It is constantly growing with the rise of tourists, which also finds a prominent place in linkages with SDGs. Without a doubt, the clean environment helps to promote TT further, but it is also negatively impacted by this industry due to its waste production and resource usage patterns, high water demands, high energy consumption, air and noise pollution, overuse of plastics, and other factors. In addition to having an impact on local cultures, these factors also put pressure on local resources and materials. In addition, this industry is closely associated with construction and infrastructure, food and textiles, and so on, and therefore, their products require design processes that are amenable to repair, reuse, and recycling. Therefore, the circular tourism model becomes crucial in order to ensure that the linear tourism model of today, with its current harmful activities, does not go beyond the "ecological ceiling."

Introduced circularity in the tourism sector can have a significant impact on the entire economy because of its many connections, interconnectivity multiplier effects, and subsequent catalytic effects (Gateira, 2022). However, the sector needs to take several steps. It is necessary to renovate tourist facilities with circular recovery, circular design, and circular use in mind. Innovation in technology, energy-efficient production models, engineering designs, and product development are abundant, especially in the hotel, building, construction, and infrastructure development industries, as well as the transportation sector. It is impossible to overlook the importance of visitors, locals, NGOs, civil society, and the government, especially when it comes to bolstering the sectors that deal with energy supply, transportation, waste management, demolition and recycling, cleaning and

laundry, equipment leasing, digital services, etc. (United Nations, 2015; United Nations Environment Programme, 2021).

Travel and Tourism in Delhi

Delhi, the capital of India, has the second-highest population in the world. It's a thriving metropolis that's rapidly growing and attracting tourists from both domestic and international travel. With 6.1 lakh foreign tourists in 2021, it ranked third out of all countries with 3.6 crore domestic tourists in 2019. With 22.8 lakh departures from citizens of India or about 27% of all departures, Delhi Airport is ranked #1 for international check posts. With a percentage of about 10%, Delhi came in third place in terms of foreign tourist arrivals (FTAs) in 2021. In 2021, around 49% of foreign travelers used an e-visa, with Mumbai Airport ranking second with 19% (Government of NCT of Delhi, 2023).

The socioeconomic development indices that measure women's status, female labor participation, general education and health, social mobility, public service delivery, transportation, etc., have performed far better than they did in many other states. It is the seventh busiest metro train network in the world. The Delhi region was made even more glamorous by India's G20 Presidency, which ran from December 1, 2022, to November 30, 2023, in New Delhi under the theme, "One Earth, One Family, One Future." Delhi is a fantastic place to visit, too, with its own social, cultural, and architectural heritage, as well as its strategic location and excellent connectivity, all of which combine to perfectly represent India's pan-Indian identity and its extensive, 5,000-year-old civilizational history. The capital city of Delhi is home to three of India's 40 World Heritage Sites, with six more located nearby. There are also 70 state-protected monuments and 295 centrally protected sites. It's interesting to note that, even if they stay for 15 days, 12 million international visitors (or 65% of all visitors to India) make sure to see Qutab Minar and Red Fort. A wide variety of attractions can be found in Delhi, such as historical sites, museums, art galleries, memorials (like the Guru Tegh Bahadur Memorial and the Kalam Memorial), vibrant gardens (like the Garden of Five Senses and the Mughal Gardens), modern buildings (like the Parliament House and Rashtrapati House) of international significance, retail malls, Dilli Haats, sanctuaries, entertainment areas, water sports, and rural tourism (GNCTD, Planning Dept., Economic Survey of Delhi, 2022–23, Chapter 10, and Govt of India, MoHUA (2021), Draft Regional Plan – 2041, National Capital Region).

GNCTD is working on transforming Delhi into a "Smart Tourism Hub" [1] by focusing on "conservation," "conversion," and "creation" to promote eco-friendly and nature-loving tourism and integrating heritage, tourism, and culture on the one hand and digital technology and tourism support infrastructure on the other. Policies, such as meetings, incentives, conferences, and exhibitions (MICE), niche tourism like polo, golf, wellness, theme parks, film tourism, traditional crafts and sports, Havelis, culture shows, food streets, and so forth, are in place to support agro-tourism, specific interest tourism (SIT) [2], and alternative tourism. In addition, efforts are made to encourage specialized tourist activities related to pilgrimage, balloon safari, water sports, souvenir shops, nightlife, walking tours, night aerial tours, and so on. Thus, GNCTD is expanding, promoting, and safeguarding tourism in addition to India's arts, culture, spirituality, and legacy while keeping the central policy in mind (NITI Aayog, 2023).

Delhi's demographic geography is quite typical, with landlocked qualities, non-expanding resources (a fixed area of around 1,483 sq. km.), and rising population demand. Delhi's unplanned growth, with 1,799 illegal colonies and population increase from about 205 lakhs in 2021 to 245 lakhs in 2031, all contribute to the city's heightened environmental complexity (Directorate of Economics & Statistics, 2021). Due to the crop residue (parali) burning by nearby areas in the winter and dust storms in the summer, controlling it becomes a complicated operation. There are 6,000 TPDs of garbage from construction and demolition, and around 25.828 TPDs of biomedical waste were produced in 2021. About 11,335 TPD (about 70%, excluding MRFs) of the total

generation of municipal solid waste (MSW) is processed. The pollution load in terms of BOD is around 264 TPD (Government of NCT of Delhi, 2023). In addition to the 4,010 buses run by DTC, there were 79.18 lakh motor vehicles on Delhi's roadways in 2021–2022. With nearly 21% of its land covered in greenery, Delhi is undoubtedly one of the greenest cities in the nation. The uncontrolled rise of low-income settlements, slum regions, and commercial activity has occurred at a rapid rate, resulting in a reduction of places for carbon sinks and pollution. Consequently, Delhi's "urban challenge" is getting worse due to rising "congestion costs" and environmental issues, which makes management and governance more challenging [3].

The GNCTD's budgeting and tourism marketing strategies reflect the numerous actions and measures it has implemented. The re-development of Dilli food hubs, Dilli bazaar platform, retail markets, cloud kitchen cluster, international film festival, students-centered entrepreneurship development program, garment hub of Delhi (Gandhi Nagar), shopping festivals, food truck policy, and so on is mentioned explicitly in the budgetary policy 2022–2023. Furthermore, the government is also focusing on heritage and monuments, fairs and festivals, cultural events, the "Garden of Five Senses," and the development of tourist and culturally friendly destinations both for foreign and domestic travelers and the locals.

Approximately 504 shooting sites have been located by the authorities. There are now 1,854 recognized plastic recycling and production units. Three "Waste-to-Energy" plants (Ghazipur, Narela, and Okhla) can create 52 MW of power, and other waste-to-energy plants are being planned, built, or both in Tehkhand and other places. There will be about 6,864 locations with 244 MW of installed solar system capacity through September 2022. There are plans to employ solar energy to provide 25% of the world's electrical demands. According to the electric vehicle strategy, the Delhi Government intends to increase the number of transport buses in its fleet from the current approximate number of 7,000 to 10,000 in 2025, with 80% of those buses being electric. By December 2022, about 300 hundred buses will be part of the DTC fleet. Delhi Electric Policy 2020 seeks to promote the rapid adoption of battery electric vehicles (BEVs) with 25% of all new vehicle registrations by 2024. To further improve Delhi's air quality, there should be a complete ban on the production, storage, use, and sale of polypropylene carry bags, plastic films, etc. (Talwar et al., 2021). Other crucial measures include the use of firecrackers, bolstering water quality monitoring systems, and introducing an electric scooter-sharing service in select areas of the city.

These steps might not be sufficient, though, considering Delhi's "urban challenge" of administration and management, as well as the "congestion cos" and the city's rapidly growing population. This makes the introduction of CEPs in Delhi necessary, especially in the TT industry. Given the rapidly advancing technology, the creative youth and their talent, the "Make in India" policies and "start-up" culture that are spreading, the repair and reuse values ingrained in Indian culture, and the shared platforms for emerging consumer services, Delhi has enormous potential to generate benefits from circular economy practices (India Brand Equity Foundation, 2023).

Potential of Circular Economy in Tourism in Delhi

The natural environment, its ecology, and the changes brought about by human activity and anthropogenic practices are all impacted by humans (Bherwani et al., 2022). However, production is made possible by integrating labor, capital, and land with technology, and energy use leads to waste release, pollution, and impacts on the biosphere. To this is added human consumption, which is considered to be the main producer of greenhouse gasses (GHGs). It will also be exacerbated by increased tourism (Einarsson & Sorin, 2020). In the end, this entire cycle has effects on human health. The GHG emissions in India in per capita terms are estimated to be around 1.7 tons in India. According to Bherwani et al. (2022), for Delhi, the city's total carbon and material footprints in 2007–2008 were 16 t/capita and 19 t/capita, respectively. While industry and transportation account for roughly 40% of the total carbon footprint, the construction sector alone contributes close to 50%. Delhi has a material footprint of about 15% for building, 40% for industry, and 30% for transportation, according to Bherwani et al.

(2022). In a different study, Ramachandra et al. (2015) discovered that Delhi had an even higher level of aggregate carbon dioxide equivalent emissions of GHG footprint (38,633 gigagrams/Gg) than Greater Mumbai (22,783 Gg), Chennai (22,090 Gg), Kolkata (14,812 Gg), Greater Bangalore (19,796 Gg), Hyderabad (13,735 Gg), and Ahmedabad (9,124 Gg). Our daily lives will surely be impacted as we transition to a net zero-emission future in order to contribute to a more sustainable planet (India Brand Equity Foundation, 2023).

The "lineup" linear process/production structure, which is defined by "extraction-manufacturing-use-disposal," must be modified in such a scenario. According to WEF estimates, supply chain risk, costs, and carbon emission levels can all be reduced by up to $1 trillion annually with the use of CE. This will also be true for India and can generate an annual value of ₹14 trillion by 2030 and 40 trillion by 2050. The FICCI Circular Economy Symposium Report highlighted that recycling 5% to 20% of waste from the industry, construction, and transportation sectors in the FY 2007–2008 can reduce the use of fossil fuels and related emissions rate to 30–35% by 2030, while also taking the Construction and Demolition Waste Management Rules (GoI Notification No. G.S.R 445 (E), 29th March 2016 published in Gazette of India Ext. Pt II S.3(ii) on 27th April 2016) into consideration (FICCI 2022 a, b).

Delhi has three main hotspot industries that contribute significantly to the city's material and carbon footprints: construction, industry, and transportation. Because these sectors are closely related to TT, the adoption of CEPs in them has great promise and potential. Therefore, the Delhi government's primary areas of attention are issues pertaining to the management of waste from construction and demolition, the use of water, chemicals, wood, and energy, transportation, and industrial operations associated with TT. However, making the switch to a CE necessitates a carefully considered and methodically outlined roadmap as well as an "enabling system" that covers everything from extraction and production to consumption to technology and innovations for waste reduction, reuse, and refurbishing. Adopting circular business models through partnerships, collaborations, platform sharing, and other means is a shared strategy. There will be many opportunities to work on advancing ideas and technology in waste treatment, product designs, production systems and their chains, and other areas. Therefore, there are countless opportunities for the government and start-up companies in areas like waste-to-energy projects and plants, solar energy, biomass-based materials (bioenergy, charcoal, etc.), after-life natural or renewable wood, bread and breakfast initiatives, electric vehicles, carbon emission monitors, battery technologies, and so on. The increasing number of Air BNB and Bed and Breakfast units, as well as the usage of Ola-Uber taxis, which mix ownership with the renting of the same as a service, are examples of growing circularity at the ground level. It is important to emphasize how quickly Delhi's tourism sector is evolving. Delhi can gain a competitive edge and act as a role model for other states aiming to swiftly construct resilient and sustainable development with the CE measures proposed and extra stakeholder involvement. However, it also mandates that human circular tourism is at the center of all policies (Bosone & Nocca, 2022; Nocca et al., 2023). It is still necessary to develop a strategy that demonstrates policies pertaining to rejecting, rethinking, reducing, reusing, repairing, refurbishing, remanufacturing, recycling, and recovering (Talwar et al., 2021).

Summary, Conclusions, and Outlook

Large-scale unprocessed waste, ecological misdeeds, environmental damage, and greenhouse gas emissions are the results of the ever-increasing usage of resources and materials, as well as demographic pressures, consumerism, and infrastructural expansion. Therefore, in order to assure a sustainable future for the earth, people, and prosperity, the world is carefully investigating ways and means, creating plans and policies, and developing strategies and activities for transitioning into CE. With all of its interconnections and complexly interwoven economic multiplier effects, TT is acknowledged as the main actor in the framework for development and as the foundation of society. The CE will improve urban living, boost water security, boost biodiversity, and

create jobs by promoting durability, reparability, biodegradability, and recycling. Additionally, they will help lessen the consequences of climate change. The national government has initiated many steps to contribute toward sustainable and responsible tourism and is working on 11 areas to promote the transition to CE and achieve net-zero emissions in the energy system. The same is further reinforced in different themes taken up in India's G20 Presidency underlying "One Earth, One Family, One Future."

Delhi, the world's second-most populous city, is a bustling metropolis that draws a sizable influx of both domestic and foreign visitors. With three UNESCO World Heritage Sites, 295 centrally protected, and 70 state-protected monuments demonstrating unique social, cultural, and architectural legacy and interconnectedness, it is also an intriguing tourism destination. The goal of the State government is to make Delhi a hub for smart tourism. However, Delhi's pollution levels have reached alarming levels due to growing population pressure, uncontrolled growth (including 1,799 illegal colonies), burning of winter wheat harvest residue (parali) by neighboring districts, and summer dust storms. Moreover, the generation of municipal solid waste, biomedical waste, construction and demolition waste, and pollution from road dust, construction, and vehicle exhaust have created a problematic "urban challenge" with rising "congestion costs," complicating governance and management.

Through its environmentally friendly policies, such as Delhi Electric Policy 2020, which promotes culturally-friendly travel, waste-to-energy plants, higher waste management standards, etc., the GNCTD has also started a number of initiatives to use CEPs. However, the transition to CE and associated obstacles and risks requires studying feasibilities, prioritizing, financing, technological intervention, government /institutional support policies, etc. All policies must have human-circular tourism at the center. All stakeholders' efforts are required to move toward CE in tourism. The government's role in promoting research and development by evolving inter-sectoral policies through collaborative efforts from an interdisciplinary perspective, designing strategies and supporting entrepreneurship, and public–private partnerships in developing circular cities/towns/urban local bodies/municipalities/villages, all waste utilization, creating regulatory frameworks, raising capacities of locals, is going to be indispensable.

Along with monitoring "ecological misconduct," the traditional culture of Rs (reduces, repairs, recycles) that has been fading should be strengthened. To encourage circular tourism, NGOs involved in TT should support exchange programs, correspondence, discussions, and cooperation between business, government, and tourism organizations at all levels. The national and state governments are crucial in promoting infrastructure, technologies, and innovations and further incentivizing the private sector and consumer preferences so that consumer demand patterns shift to adopt recycling and CEPs not only in TT but also in other sectors. The remainder of the economy will be affected by this in a "ripple effect." In order to embrace, create, and advance CE business models in the tourism industry and its value chains, the private sector must adapt. Even international entities and organizations are required to support technical projects, collaborations, networking, and capacity building in order to promote circularity.

Theoretical and Managerial Implications

From a sustainability perspective, this study raises serious questions for companies, management, and all stakeholders. Creating awareness and motivating their team to take action to bridge the circularity gap and ensure TT's transition to the CE is a challenging undertaking for managers at work. Still, the more significant challenge is to manage limited resources sustainably and cost-effectively without compromising on profit maximization and business opportunities. The top management is supposed to initiate measures to bring a change in the organizational behavior to create a work culture and mindset changes for adopting CEPs in all sub-sectors. This brings in the need for a new breed of managers who are known for their managerial productivity (Vivek, 2016).

Policymakers must create policy frameworks and promote collaborations and partnerships across all levels of government to guarantee the replacement of the "take-make-waste" model with an alternative production method that minimizes the material consumption and resource intensity of products. To promote more environmentally friendly and cost-effective circular tourism projects, our focus needs to shift to new ideas and technologies needed for reducing, reusing, and recycling, as well as stretching the product development life cycles. In order for the circular strategy to remain effective, the government must play a critical role in implementing circularity initiatives and developing institutional, economic, and legal frameworks that provide incentives for circularity in the tourism industry's markets for goods and services. It must also support circular partnerships and projects pertaining to systems of reuse and recycling.

Limitations of the Study and Scope for Future Research

This work unquestionably increases theoretical understanding and generates a wealth of research ideas on the topic of circular tourism, particularly considering the lack of social science-based scientific research in this area. The study, while scanning through the available literature, brings out that the scope of CE in travel and tourism in Delhi is massive, given the wide range of socioeconomic and cultural linkages and multiplier effects of TT. However, this study does not figure out the extent of circularity in tourism in Delhi, talk about the other related sectors and sub-sectors, or deal with the limitations related to technology, finance, skill sets, manpower, and so on. The present study proposes a number of avenues for future investigation, including business models for the many stages, elements, and approaches necessary to incorporate circularity into tourism and enhance its value systems and value chains to promote circular goods and services.

Authors' Contribution

Sheo Pratap Singh was CEO of Delhi Tourism and Transportation Development Corporation from 2016 to 2017 and Secretary of Tourism for the Government of Goa from 2017 to 2019. He first became aware of CE when he was taking part in thought-provoking discussions about green and sustainable tourism in academic settings as well as at the ministerial and federal levels. While serving as Secretary of Finance, this idea gathered popularity, and he considered conducting additional research in this field. He found relatively little literature on the CE of tourism in the Delhi region when searching for research materials on the ideas and uses of CE principles in the tourism business. Furthermore, considering that the National Capital Region (NCR) of Delhi's primary economic activity and growth engine is tourism, it was discovered that there are several job opportunities in this sector. Prof. Manohar Sajnani has more than 30 years of teaching experience and industry knowledge, making him a respected authority in destination marketing and tourism management. Being a part of PATA and the Think Tank World Tourism Forum in Lucerne, Switzerland, he made a positive contribution to the paper. Dr. G. K. Arora gave constructive comments on the paper and edited the final manuscript.

Conflict of Interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.

Funding Acknowledgment

The authors received no financial support for the research, authorship, and/or for publication of this paper.

Notes

(1) A smart tourism hub is an innovative idea that derives its scope from the notion of a smart city, wherein the local economy, environment, community, and its living, mobility, and governance are incorporated together (Giffinger et al., 2007). It is created with "state-of-the-art technology," which is meant to improve residents' quality of life and promote sustainable tourism, and also co-creates a tourism experience (Hedlund, 2012).

(2) Alternative or specific interest tourism (SIT) is generally meant to promote interactions with locals and the local government as some tourists want to contribute towards preserving local cultures and nature and so on.

(3) This brings out a severe need for initiating measures for building up eco-friendly infrastructure, information and communication technologies, and digitalized services that lay down and promote a CE ecosystem.

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