

Opportunities and Challenges of Building an International Tourism Consumption Centre in Hainan Province from a Carbon Neutral Economy Perspective

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Abstract: *With the increasing awareness of global climate change and sustainable development, the tourism industry, as one of the major sources of greenhouse gas emissions, is facing a major challenge of low-carbon transformation. This paper analyzes the current situation of tourism consumption center construction in Hainan Province, the current situation and trend of carbon emissions, the opportunities for tourism industry development in the context of carbon neutrality, and the challenges it faces, and puts forward coping strategies and suggestions. It aims to promote the sustainable development of Hainan's tourism industry through policy guidance, technological innovation and international cooperation, so as to achieve the goal of carbon neutrality while building a tourism consumption center with international influence.*

Keywords: *Carbon neutral economy; Hainan Province; International tourism consumption center; Sustainable development*

1. Introduction

Carbon emissions from tourism activities have become one of the major contributors to climate change, which poses a threat to the long-term development of the tourism industry. To achieve sustainable development, the development model of a carbon-neutral economy is being actively promoted globally with a view to mitigating climate change by reducing greenhouse gas emissions and increasing carbon sinks. Hainan Province, with its unique tropical island scenery and rich tourism resources, has always been a desired tourist destination for domestic and foreign tourists. Against this background, the transformation and development of its tourism industry is facing new opportunities and challenges.

2. Analysis of the Current Situation of Tourism in Hainan Province

2.1. Overview of tourism development

As a famous tropical seaside tourist destination in China, Hainan Province made remarkable achievements in tourism development in 2024. According to the data released by the Department of Tourism and Culture, Radio, Television and Sports of Hainan Province, Hainan Province received 90,062,000 domestic and foreign tourists in 2023, and the total tourism revenue was 181,309,000,000 yuan, up 49.9% and 71.9% year-on-year, respectively, comparing with an increase of 8.3% and 71.4% in 2019. During the Spring Festival holiday in 2024, Hainan Province received 9,514,500 tourists, and Realized total tourism revenue of 15.127 billion yuan, up 48.8% and 62.7% year-on-year, respectively. Meanwhile, Hainan Province has formulated a series of development goals, policies and strategies to further promote the high-quality development of tourism in 2024.^[1]

2.2. Current status and trend of carbon emissions

The Hainan Provincial People's Government 2022 issued the "Implementation Plan for Carbon Peak in Hainan Province"^[2], which puts forward a clear target for carbon peak, by 2025, initially establish a green, low-carbon and recycling development of the economic system and a clean, low-carbon, safe and efficient energy system, to ensure that the intensity of carbon emissions is reasonably controlled. By 2030, Hainan plans to achieve the proportion of non-fossil energy consumption to reach about 54%, and carbon dioxide emissions per unit of GDP will drop by more than 65% compared with 2005, successfully realizing the goal of carbon peaking.

At this stage, the energy structure of Hainan Province's carbon emissions is dominated by coal and oil, but it is undergoing an active transformation.²⁰²² The Communique on the Ecological and Environmental Status of Hainan Province^[3] (hereinafter referred to as the Communique) released in 2022 shows that Hainan Province's comprehensive energy consumption of industries above the large-scale has decreased by 3.6% year-on-year, while the consumption of crude oil has decreased by 20.4%, and the consumption of raw coal has increased slightly, while the consumption of electric power and natural gas have risen. This shows that Hainan Province is gradually reducing its dependence on traditional fossil energy sources in terms of energy consumption.²⁰²³ The Communique^[4] shows that Hainan Province has developed the province's first mangrove carbon sink methodology, successfully organized the International Conference on Coastal Blue Carbon Science and Application, and achieved 100% "green power" security for the Boao Forum for Asia Annual Meeting and the Third Consumer Expo. The Boao Forum for Asia and the Third Consumer Fair venues have realized 100% "green power" guarantee. The "4+3" three-dimensional industrial pattern has become a strong support for the province's economic development. The clean and low-carbon transformation of energy has been accelerated, and the total installed capacity of clean energy has reached 13.1 million kilowatts.

In promoting carbon peaking, Hainan Province is focusing on the development of clean energy, such as wind, solar and biomass, while actively promoting the development of nuclear power. Hainan Province also plans to innovate a new model for low-carbon tourism development, create pilot zero-carbon and low-carbon tourist attractions, promote low-carbon tourism transportation and develop low-carbon tourist hotels.

2.3. Current Status of the Construction of International Tourism Consumption Center

Hainan Province is actively promoting the construction of an international tourism consumption center and is committed to becoming an internationally renowned tourist destination through a series of policies and activities. The Three-Year Action Plan for the High-Quality Development of Hainan's Tourism Industry (2024-2026) has clearly defined the objectives and measures, including optimizing spatial layout, enriching product supply, shaping brand image, developing tourism market, and improving service capacity.

Taking advantage of its natural and policy advantages, Hainan is deeply cultivating the development mode of "Tourism +", continuously enriching the supply of tourism products, such as promoting the deep integration of tourism with culture, sports, science and technology, low-altitude economy, and actively attracting the return of offshore consumption in the fields of shopping, medical care, education, and so on. At the same time, Hainan is also strengthening market development, attracting domestic and foreign tourists through publicity and promotion, thematic activities, large-scale festivals and events to enhance the internationalization of tourism. In addition, Hainan is also focusing on improving the quality of tourism services, such as improving multilingual tourism signs, consulting services, tour guide teams, etc., establishing and improving the mechanism for incentive's favorable comments on tourism services and supervising the handling of poor comments, and improving the mechanism for first payment of tourism complaints, so as to improve the satisfaction of tourists and the competitiveness of Hainan's tourism.

3. Opportunities for Building an International Tourism Consumption Center in Hainan Province under a Carbon Neutral Economy

3.1. Exploration of Low-Carbon Tourism Development Model

The introduction of the "dual-carbon" goal has prompted Hainan's tourism industry to transform

into a green and sustainable industry. Enterprises and government agencies need to integrate environmental protection and low-carbon concepts into the design, construction and operation of tourism projects when planning and implementing them, and promote the development of green tourism models such as Eco-tourism, cultural tourism and health tourism. As consumers become more aware of environmental protection, more and more tourists tend to choose low-carbon and environmentally friendly tourism products. Hainan's tourism industry needs to respond to this demand by developing eco-friendly tourism projects, such as Eco-lodging, green transportation and sustainable tourism activities, and innovating low-carbon tourism products and services to attract more domestic and international tourists who seek environmentally friendly and sustainable tourism, and a positive image of environmental protection can also attract more international investment and cooperation opportunities for Hainan.

3.2. Optimization of energy structure

Hainan Province is promoting the transformation of the existing manufacturing industry into an intelligent, green and service-oriented one through the implementation of comprehensive utilization and graded utilization of energy resources. Energy restructuring in the tourism industry includes advocating the use of new energy vehicles in tourism transportation, reducing the use of fossil fuel transportation, and promoting electric vehicles, bicycles and walking in scenic spots to reduce the total carbon emissions of the tourism transportation industry. In addition, Hainan Province is promoting technological innovation in the construction of tourist accommodations, using low-carbon and zero-carbon materials for erection, and utilizing solar and wind energy for lighting and power generation to increase energy utilization.

3.3. Carbon sink capacity enhancement

As a large marine province, Hainan's blue carbon ecosystem has a strong carbon storage capacity and huge potential for sink enhancement. Hainan Province is also actively utilizing its rich marine and forest resources to enhance its carbon offsetting capacity, such as exploring ways to realize the value of ecological products after marine ecological restoration through the implementation of pilot projects on carbon sinks in marine ecosystems, and establishing an ecological compensation mechanism and a community co-construction and co-management mechanism. In addition, Hainan Province plans to increase its carbon sinks by planting trees and protecting and restoring ecosystems such as mangroves, seagrass beds and coral reefs.

4. Challenges facing the construction of an international tourism consumption center in Hainan Province

4.1. Inadequate economic development and shortage of tourism talents

The economic development of Hainan Province is still insufficient compared to other provinces, especially in the layout of high-end tourism industry. Although tourism is an important economic pillar of Hainan, the overall industrial chain is still incomplete, and there is a lack of high value-added tourism products. This insufficient economic development makes Hainan face difficulties in attracting foreign investment and upgrading service levels. In addition, the shortage of tourism talents is also an important issue. Because of Hainan Province, tourism off-peak season is obvious, resulting in the tourism industry, there is a talent "tide" phenomenon, personnel mobility and prone to labor shortage. At present, Hainan Province in tourism management, hotel services, ecological protection and other areas of talent reserves are insufficient, especially the lack of high-end composite talents. This leads to the professionalism and quality of tourism services cannot be effectively guaranteed, and cannot meet the growing demand of tourists.

4.2. Decoupling of carbon emissions from economic growth in the tourism industry

As a high-energy and high-emission industry, tourism has an increasing carbon footprint, especially in transportation, accommodation and catering. How to effectively reduce carbon emissions while promoting economic growth has become a major challenge for Hainan. Although the government has proposed carbon peaking and carbon neutrality targets, in practice, the rapid expansion of the tourism industry has often led to a rise in carbon emissions, creating a contradiction between economic growth

and environmental protection. This decoupling problem not only affects Hainan's ecological environment, but also undermines the sustainable development of the tourism industry.

4.3. Difficulties in brand building under intensified international competition

In the global tourism market, various countries and regions are also actively laying out and building tourism consumption centers to compete for international tourists. How to stand out in the competition and create a unique brand image is a major challenge for Hainan to build an international tourism consumption center. Hainan's brand building is still in its infancy, lacking sufficient international influence and visibility. Currently, Hainan's tourism brand is mostly focused on traditional elements such as beaches and sunshine, lacking depth and breadth, making it difficult to attract high-end consumer groups. At the same time, Hainan's tourism products are seriously homogenized and lack of characteristics, making it difficult to form a unique competitive advantage.

5. Countermeasures and suggestions

5.1. Strengthen policy support and guidance to promote the development of low-carbon tourism

The Hainan Provincial Government should further strengthen policy support and formulate special policies for the development of low-carbon tourism. First, it can encourage enterprises and social capital to invest in green projects, such as the development of renewable energy, the promotion of green transportation and the construction of Eco-protection facilities, by setting up a special fund for low-carbon tourism. These funds can be used to subsidize enterprises adopting low-carbon technologies, reducing their costs and increasing their motivation. Secondly, Hainan can promote the formulation and implementation of low-carbon tourism standards through legislative means. For example, a low-carbon tourism certification system should be set up to provide tax breaks and publicity and promotion support to tourism enterprises that meet the standards. In addition, the government should also increase its efforts to publicize environmental protection, enhance public awareness and participation in low-carbon tourism, and encourage tourists to choose green tourism products.

5.2. Innovating tourism products and services to enhance international competitiveness

In order to enhance the international competitiveness of Hainan Province, it is necessary to strengthen the innovation of tourism products and services. First, Hainan should develop unique tourism products, such as Eco-adventure, cultural experience and health and wellness, by combining the rich local natural resources and cultural heritage. By providing diversified tourism experiences, it can meet the needs of different tourists and thus attract more domestic and foreign tourists. Secondly, innovative service models are also crucial. Hainan can improve the intelligence of tourism services with the help of digital technology. For example, the development of intelligent guide APP to provide personalized tourism recommendations and real-time information services. At the same time, use big data to analyze tourists' behavior, optimize resource allocation and service processes, and enhance the overall experience of tourists.

5.3. Strengthen international cooperation and share experiences in low-carbon tourism

Hainan should actively seek cooperation with international tourism organizations and other countries to share successful experiences and best practices in low-carbon tourism. By participating in international tourism exhibitions and forums, Hainan can showcase its low-carbon tourism concepts and achievements and attract more attention from international tourists. In addition, Hainan can establish an international cooperation platform to exchange and cooperate with other regions with mature low-carbon tourism development and learn from their successful experiences in green tourism. For example, learn from the practices of some European countries in sustainable tourism management, and introduce advanced management concepts and technologies to enhance the development of low-carbon tourism in Hainan.

5.4. Cultivating tourism talents and improving service quality

The cultivation of tourism talents is an important foundation for improving the quality of tourism services in Hainan Province. First of all, Hainan Province should encourage colleges and universities

and vocational training institutions to offer courses related to low-carbon tourism and cultivate professionals. At the same time, the government can cooperate with enterprises to carry out order-type talent training to ensure that the trained talents can meet the market demand. Secondly, Hainan should also strengthen the training and continuing education of the staff, and organize regular training courses and seminars to improve practitioners' understanding of the concept of low-carbon tourism and their practical ability to improve the overall service level.

6. Conclusions

As the global emphasis on sustainable development continues to deepen, Hainan Province, as a tropical island province in China, has great prospects for building an international tourism consumption center, but it also needs to be fully aware of the potential challenges. Only through sustained efforts and the implementation of effective strategies will Hainan Province be able to occupy a place in the global tourism market and realize win-win development in terms of economy and ecology.

References

- [1] Yu Chengqing. *Reflections on the Construction of International Tourism Consumption Center in Hainan Free Trade Port*[J]. *National Circulation Economy*,2024,(15):28-31.
- [2] Gao Jinlu. *Implementing the Peak Carbon Implementation Programme and providing full support to Hainan Province in its bid to become a top performer in 'double carbon' work* [J]. *Hainan Today*, 2023,(06):17-18.
- [3] *Bulletin on the ecological environment status of Hainan Province in 2022*[N]. *Hainan Daily*, 2023-06-05(A08).
- [4] *Bulletin on the ecological environment status of Hainan Province in 2023*[N]. *Hainan Daily*, 2024-06-05(A06).