



Does good governance promote sustainable tourism? A systematic review of PESTEL analysis

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Abstract

This paper aims to analyze the articles regarding the role of good governance in sustainable tourism for China. Following the PRISMA guidelines, a systematic literature review approach has been conducted in this paper. A total number of 100 peer-reviewed journal papers have been critically evaluated. Our review analysis shows that taking necessary steps under good governance can promote sustainable tourism development in China. Few policy recommendations and future research aspects have also been included in the paper.

Keywords Sustainable tourism development · China · Good governance · PESTEL analysis

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Introduction

Governance is the process by which groups of people make decisions (Graham et al. 2003). Debates on governance focus on how the diverse activities of the state are conducted. Sustainable tourism development and governance refer to the process and institutions that make tourism decisions. Public and private sector agencies, chambers of commerce, development bureaus, and community or resident groups can all play a role (Hall 2005). In other words, good governance means society has the political, legal, and administrative institutions to enact and implement public goods policies. To achieve public policy goals efficiently, fairly, and transparently, the state must have good governance. In other words, it relates to state governance (Paavola et al. 2009). It is suggested that while good governance can be produced by the government alone, it is often necessary to collaborate with tourism-related businesses and/or non-profit organizations.

It is difficult to sum up sustainable tourism in a few words. Sustainable tourism considers long-term economic viability, social justice, ecology, and other factors. Sustainability tourism is, thus, intertwined with the larger debate on sustainable development. Most researchers agree that sustainable tourism includes social, economic, and environmental aspects (Romagosa et al. 2011). The main responsibilities of sustainable tourism should include: (1) protecting and saving the environment, natural resources, and wildlife, (2) creating authentic tourist experiences and conserving cultural heritage, (3) providing socio-economic benefits for communities who live in tourist destinations, (4) creating inclusive and accessible tourist opportunities, and (5) bringing tourists and local communities together for mutual benefit. Thus, introducing and implementing sustainable tourism is a demand for nature and human welfare.

In recent years, the concept of sustainable tourism has been prevalent among researchers, students, teachers, policymakers, government officials, private tourism organizers, and so on that one can easily think that there is nothing left to say on this subject. However, in the words, there are still relatively only a few examples of successful sustainable tourism initiatives implemented. Even though numerous attempts have been made to turn theoretical terms into action, the outcome or results have generally been very limited or not very satisfactory. The scenario is somewhat similar for China as well. Chinese domestic tourism is mainly driven by price competition in the volume market, while sustainable tourism services are rarely offered or implemented. The current tourism growth pattern poses substantial challenges for China's existing natural and cultural tourism resources (WTTC 2006), e.g., as it threatens ecologically sensitive areas (Wen 2001; Nianyong and Zhuge 2001). These issues are particularly crucial in southwestern China, which harbors one of 25 global biodiversity hotspots (Myers et al. 2000) and is an officially designated tourism development area (Ge 2002). In addition, Chinese tourist attitudes toward sustainable tourism services received little attention; however, most work on Chinese tourism is conducted from a supply-side perspective (Yan et al. 2010).

The above discussion shows the importance of implementing sustainable tourism development in various countries, including China. A joint treatise on trust

and other key governance concepts like power and social capital will benefit both research fields. (Nunkoo 2017). Bramwell (2010) also suggested that we should devote more research attention to the broad range of contexts and activities of tourism governance. Researchers like Zhang et al. (2021a, b) scientifically analyzed and investigated potential national park construction areas. They urged the need for national parks for recreational sustainability management evaluation indicators and applying China's global sustainable tourism destination standard. Many studies have been done on sustainable tourism development in China, but few have addressed the role of good governance. Moreover, most related research is quite old, and no significant peer-reviewed article has been published recently. It aimed to fill the gap by collecting and analyzing relevant literature reviews. Our review collection is relatively new (51 out of 100 articles published in 2020–2021). We analyzed the articles critically and made policy recommendations, which previous researchers did not.

Three main parts construct this paper. The first part introduces the systematic review's importance, related literature review, and methodology. The next part is the article's main body, consisting of PESTEL (political, economic, social, technological, environmental, and legal). The last part is the final part, which analyzes the results and conclusion. In conclusion, we have put forward some suggestions and policy recommendations for sustainable tourism development in China from a good governance point of view.

Related literature review

There are some related review works done by the researcher. However, most review works are done by local (Chinese) authors. Such as, Li and Qi (2007) put forward some problems of China's sustainable tourism industry theory from the reality of China and studied China's sustainable tourism industry and its development strategy as a subsystem of the sustainable development system. Li and Yin (2011) started with the particularity of mountain resources in the Gongga mountain area and expounded on the urgency of developing tourism in that region. They finally put forward the "space-time three-dimensional development model" of "plane zoning, vertical zoning and sustainable development in the direction of time continuation" to actively develop tourism and realize the sustainable development of the economy, society, and environment.

From the perspective of resource, economic, social, and technological systems, Zhang and Liu (2019) refined the tourism poverty alleviation that takes the resource element system as the attraction, the economic element system as the driving force, the social element system as the promotion force, and the technological element system as the catalytic force. The authors suggested developing the REST drive mechanism for sustainable tourism poverty alleviation. Zhang and Zhong (2017) investigated the need for good governance and management in national park management. They think good vertical governance can help promote sustainable tourism. The system then configures power distribution and power realization institutions. Increasing local, sustainable tourism requires local governments to invest in

tourist infrastructure, develop comprehensive urban management capabilities, and foster citizen identity through government governance (Tian 2013). Chen and Shi (2013) assessed the economic, social, and environmental performance of the Phoenix Ancient Town government governance in western Hunan. They thought Phoenix Ancient Town's government governance was not ideal, the main tourism department's authority was unclear, and tourism policy implementation was inefficient. So, sustainable tourism improves government governance.

Apart from the Chinese context, some other research also has been done on this topic. For example, Nunkoo (2017) introduces the concept of governance and its contributions to tourism governance and sustainable tourism. He contends that good governance and sustainable tourism research favor power over trust. Farmaki (2015) evaluated the effectiveness of regional tourism governance in Cyprus by considering regional tourism organizations' (RTOs) public–private networks. Their findings reveal that network governance-related challenges interact with region-specific characteristics, inhibiting the effectiveness of regional tourism governance in implementing sustainable tourism. Bramwell (2010) described how research on local participation in tourism planning has aided in understanding sustainable tourism governance. Participatory planning, he argued, should be examined critically as a reflection of our current economic, social, and ideological circumstances. Taliouris and Trihas (2017) tested Greece's complex and non-linear policy challenges of tourism sustainability, environmental modernization, competitiveness, and social welfare. The authors provided an overview of EU CSR and SD research. They believe that sustainable tourism development in Greece requires job creation, business innovation, environmental sustainability, and good governance. On the Dutch national level, Valentina (2009) studied public authorities' role in tourism governance. She examines whether international recommendations are reflected in how public authorities influence domestic tourism in the Netherlands. There is no international recommendation for horizontal and vertical policy coordination. This is due to neoliberal governance principles rather than the Dutch tourism sector's sustainability.

Methodology

This paper uses the PESTEL model to analyze sustainable tourism development in China. Previous studies like community-based sustainable tourism development in Vietnam by Ngoc et al. (2021) used a similar method. Gregoric (2014) used the PESTEL analysis of tourism destinations from the perspective of business tourism for Croatia and Qatar. Kara (2018) studied the scope of estimating the influence of the PESTEL dimension on the tourism sector in Turkey. After analyzing related studies, we have decided to conduct the PESTEL analysis for China's sustainable tourism implementation. However, motivated by Loizia et al. (2021), using the PESTEL model, this paper discusses (Fig. 1) China's tourism industry from the SWOT (strength, weakness, threats, opportunities) perspective. Researchers like Sansa et al. (2021) also have designed sustainable development based on LCA (life cycle assessment) and operation management methods. They have SWOT, PESTEL, and 7S (systems, strategy, structure, share values, staff, style) analysis.

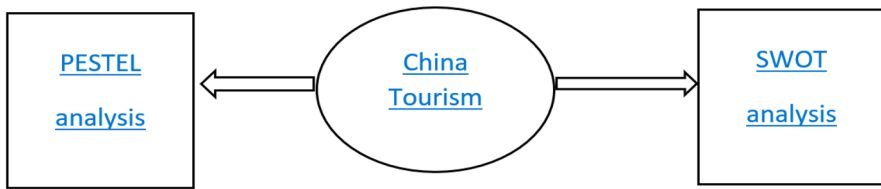


Fig. 1 Method—SWOT and PESTEL analysis

Although PESTEL (political, economic, socio-cultural, technological, environment, and legal) analysis’s conceptual structure and nature need an integrated approach to study, the technological foundation of PESTEL does not sufficiently enable such an approach. However, PESTEL analysis now only offers a general overview of general understanding of a company’s macroenvironmental circumstances, but we have tried to analyze this approach from broader perspectives. Some researchers have used the PESTEL analysis in the tourism sector but on a short scale. For example, Gregoric (2014) used the PESTEL analysis of tourism destinations from the perspective of business tourism. In addition, Nicula and Spanu (2019) used PESTEL analysis applied in tourism evaluation in Braila county.

Our list of articles table has five columns: authors, year, keywords, content, and mechanism/comments. We have mainly considered the articles that were published in the year 2000–2021. Among the final 100 papers, we have selected 51 articles that were published in the last 2 years (2020–2021). Each of the PESTEL factors contain 20–25 pieces of articles approximately. Our research is significant because COVID-19 has affected the Chinese tourism industry. Less tourism means less pressure to manage and implement good governance in tourist destinations.

We used Google Scholar, Scopus, Science Direct, and PubMed for foreign articles. We used Baidu, Wenku, Baike, CNKI, etc., for Chinese articles. We translated the articles from simplified Mandarin into English. Initially, we searched the articles using the keywords “sustainable tourism” and “Good governance”. Eight hundred and eighty-nine articles on good governance and sustainable tourism are mentioned in the paper’s title. We had to remove 15 duplicate articles. We removed non-China articles (478). After eliminating irrelevant articles, we had 132 full-text eligible articles. We chose 100 articles from 132 for review (Fig. 2).

In Fig. 3, we have created a framework for PESTEL analysis. This conceptual framework is adapted from Steward and Kuska (2010). The percentage (%) shows the covered literature of each area.

Political (public) policies toward sustainable tourism

The central government dominates policy making, legitimation, and agenda setting in China’s immediate social and tourism development plans. Mimi et al. (2020) examined China’s political–economic governance of sustainable tourism. Their research shows that the 5-year guideline mirrors China’s macro-political and economic structures and mainstream policy. Li and Zhen (2014) built an integrated model of intergovernmental

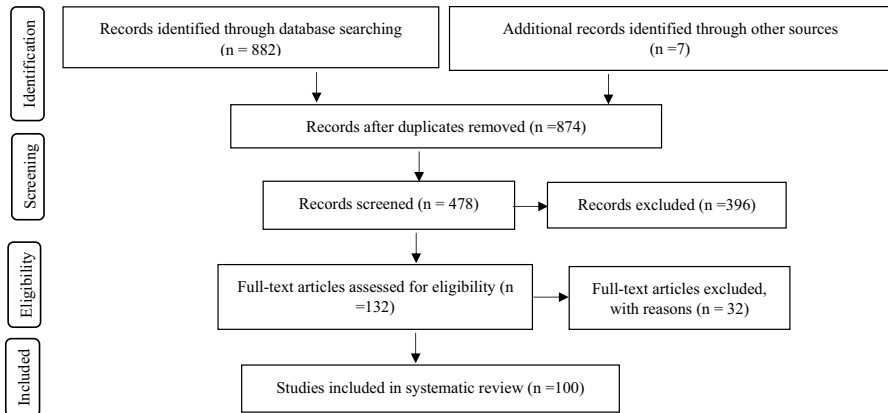


Fig. 2 PRISMA flow diagram

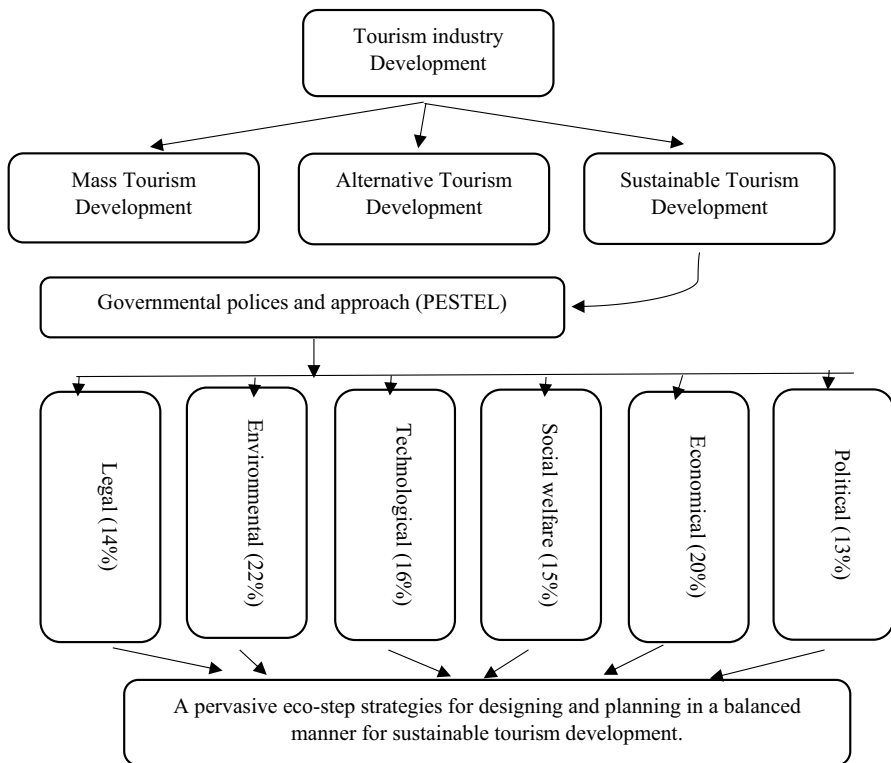
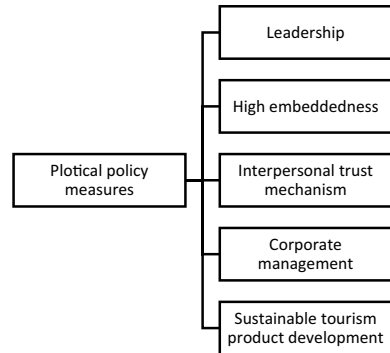


Fig. 3 Framework—governance role in sustainable tourism development (concept adapted from Steward and Kuska 2010)

cooperation and regional tourism development. They believe that intergovernmental collaboration has a direct and vital impact on the sustainable development of sustainable regional tourism. Shen and Qiu (2011) summarized the crucial role of the government in the development of urban or regional tourism, discussed the primary path of tourism in sustainable urban development, and provided the reference for the sustainable development of domestic tourism destinations. Zha et al. (2021) used the Tapio decoupling index model in Chengdu, China, and believed that keeping synergy between different tourism decoupling strategies should prioritize government departments to keep tourism decoupling strategies synergistic. Wang (2014) actively creates a platform for mutual visits and cooperative actions at the leadership level. These cooperative actions should be coordinated among node enterprises to promote sustainable tourism development. For example, high embeddedness can lead to a more stable community development model and more equitable benefit distribution (Liu et al. 2020). Aside from that, it promotes sustainable tourism development in ancient villages. Zhou (2005) used Delphi and factor analysis to construct the eco-tourism certification index system, summarized the current situation and main problems of eco-tourism management by local governments in the respective province, and expounded on the government's behavior. Specific management means the process of promoting eco-tourism certification standards. Feng and Ma (2006) examined the theory of sustainable tourism development in the PingKun mountain tourist areas. They believed that the government should lead tourism development and that tourist attractions should be run like corporations. Ma (2020) believes that the regional allocation difference of government governance capability significantly impacts regional industrial growth and individual entrepreneurship choice. How the diversified, sustainable rural tourism model could help achieve rural revitalization was examined by Liu and Wang (2018). According to them, rural tourism can fully utilize local resources, revitalize local economies, and help to restore rural areas. Wang and Wang (2015) built a system network of social governance in China's tourism community based on constructing an innovative ecosystem, promoting the integration of social resources for good governance in the community with creative viewpoints, and realizing the social construction project of multi-party interaction between tourism development subjects. Hu (2013) examined sustainable tourism public information, security, administration, and facilities in Zhejiang. He believes that restructuring tourism governance and involving social organizations in providing sustainable tourism public services are required. Findings show that despite criticism of their lack of participation in decision-making, stakeholders react less to the drastic policy change. Thus, structuring or restructuring the user and stakeholder-friendly policies would be welcomed and helpful for building sustainable tourism. Key findings regarding public policy measures toward sustainable tourism development are listed in Fig. 4.

Economic policy toward sustainable tourism

Regarding economic policies issued by the government to promote sustainable tourism development, Hong et al. (2016) believe that China's government-led natural development model of mass tourism may fall into a potential path dependence trap, creating obstacles to the comprehensive development of resources and communities.

Fig. 4 Public policy measures

Cheng (2008) compared the background, conceptual connotation, and relationship between eco-tourism and sustainable tourism and believed that eco-tourism could only be developed as a special form and way of sustainable tourism under specific conditions. Wang (2020b, a) believes that large-scale eco-tourism development and tourism bring economic benefits and problems to nature reserves. In this context, the nature reserve must develop sustainable tourism, manage the environment, and reconcile the interests of all stakeholders. Xiong and Zhang (2010) believe that an environmental protection tax could be levied on scenic spots based on the evaluation index system of sustainable tourism development. He proposed higher taxes on polluted areas. In practice, Gordana et al. (2020) confirmed that financial resources significantly limit sustainable rural tourism development. To develop sustainable rural tourism, financial investment is needed. Zhang et al. (2016) defined the context of ecological civilization tourism from four angles and proposed a medium positioning development strategy for industrializing ecological civilization tourism. Wang (2020b, a) proposes targeted promotion strategies to realize the “ecology economy recreation” co-existence and co-promotion of the tourism development model in Qiandao Lake scenic spot. Michelle et al. (2021) stressed that the increasing growth is unsustainable, and the road of sustainable tourism production and consumption can maximize the role of promoting economic growth only with adequate supervision. Tan (2012) believes that the tourism circular economy has enriched the theoretical achievements and practical system of sustainable tourism with the core of material circulation flow, sustainable use of resources, and environment-friendly utilization. The “ternary needs theory” was the logical starting point for the innovation of tourism consumption theory, and Mao (2006) proposed the preliminary framework of the “ternary structure of sustainable tourism consumption”, including material, spiritual, and ecological consumption. Xu (2006) believes that the main obstacles restricting tourists’ green consumption mainly come from the indifference to tourists’ green consumption concept, and the deviation of tourism management and service. Guiding and managing tourists’ green consumption in sustainable tourism mainly depends on tourists’ self-education and restraint. Wang and Ma (2007) noted a noticeable consumerism trend in China’s hot tourism consumption, manifested in mass tourism compliance and high-end tourism flaunting. They suggest on how to build sustainable tourism consumption. Zhang (2021a, 2021b) conducted

policy diversification and comprehensive research on emission trading plans or carbon tax to enhance the computable general equilibrium model, dynamic stochastic general equilibrium model, difference method, regression discontinuity method, and consider the overall or sectoral impact on different tourism economic and environmental variables. Ma and Lu (2016) constructed a new heritage tourism development model according to the unique situation of the cross-provincial distribution of chieftain heritage and innovatively combined heritage tourism development with regional poverty alleviation. Zheng and Tang (2019) built sustainable development and protection of Chinese chieftain heritage. The perspectives of poverty alleviation are vital for constructing a new tourism development model. They did specific research and provided practical guidance for the coordinated development of the regional economy and culture. A new eco-tourism model that combines economic development and eco-friendliness was developed by Wu et al. (2021) to realize rapid eco-tourism development in Tibetan areas. From the perspective of sustainable development theory, Wang (2017) explained sustainable tourism and the relationship between sustainable tourism and tourism poverty reduction. He discovered that good governance is mutually causal to tourism and poverty reduction. Sustainable tourism development must be a prerequisite for tourism poverty reduction policies. Economic policy changes are not limited to effect income tourism and creating jobs instead. It dramatically impacts alternative macro-economic contexts (trade liberalization, with direct effects on distribution, the pressure drop of the taxes on families, with impact on their welfare, etc). Thus, to attain sustainable tourism, the right economic policy is crucial (Marin 2015). Key findings regarding monetary policy measures toward sustainable tourism development are listed in Fig. 5.

Social welfare policies toward sustainable tourism

Some sustainable tourism theories led to social welfare. Tang et al. (2006) explained the link between eco-tourism and sustainable tourism. Sustainability in tourism is the only way to address growing environmental, social, and economic crises. Zhang (2021a, 2021b) examined the Shennongjia National Park system pilot area in Hubei Province. They used the mixed research method to explore residents' perceptions of sustainable tourism and its impact on the economy. Swarbrooke (1999) reviewed recent research on housing, cultural relics protection, and Hutong tourism value in Beijing. He discussed the problems and solutions of the tourism governance system. According to Zheng (2013), describing Huizhou ancient buildings' current state allows researchers to understand better the issues surrounding Huizhou ancient

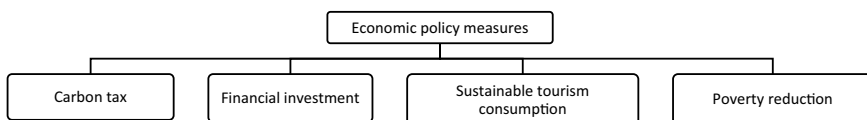


Fig. 5 Economic policy measures

buildings' protection and utilization. Using the case study method, Lu et al. (2021) analyzed the rural tourism development experience of Zhaoqing City, Guangdong Province, and the contribution of various tourism forms to local, sustainable development. Under the influence of coronavirus pneumonia, Florencio et al. (2021) believe tourism is one of the most influential industries affected by COVID-19. They used structural equation modeling to think sustainable tourism can stimulate tourism flow and help tourism revival. Sun et al. (2021) evaluated 15 GIAHS projects in China and proposed a framework for agricultural and cultural heritage sustainable tourism. The framework's core goal is to develop sustainable tourism strategies based on global and local experiences for different heritage sites. However, Mohammadi et al. (2021) find that sustainable tourism efforts will not produce good results without paying attention to tourists' and tourism activists' details and responsible behavior. Sustainable tourism also plays a vital role in promoting social welfare and livelihood. However, there are issues with tourism poverty alleviation, such as uneven benefits, tourism leakage, and severe product imitation (Li and Xu 2006). These issues erode the benefits of sustainable tourism for the poor. Chi and Han (2021) believe that the practice of the rural sustainable tourism industry should deepen the maintenance of tourist expectations, rural tourism performance, destination image, tourist satisfaction, and loyalty. Yuan et al. (2021) chose Shuixiang's east town of Xuanzhou City as the research area. They analyzed the advantages, disadvantages, and opportunities of Shuixiang East Town using the SWOT method and proposed ways to promote sustainable tourism development. Based on the DSR model and the Rural Revitalization Strategy, Li (2020a, b) established an evaluation index system for rural tourism sustainable development in Jinan. Shu et al. (2019) proposed Sustainable Development Countermeasures for Tianmu Lake Tourist resorts as part of the Rural Revitalization Strategy. Key findings regarding social policy measures toward sustainable tourism development are listed in Fig. 6.

Technological strategies toward sustainable tourism

Using technology to develop sustainable tourism is also a priority for the government. As of now, Wang et al. (2021) consider bioremediation as a prerequisite for sustainable tourism practice based on combining and using various technical means. For example, cultivating new tourism operators and integrating tourism science and technology should be strengthened (Xi and Li 2021). Li (2017) believes that tourism communities will become more data driven and collaborative in the information age.

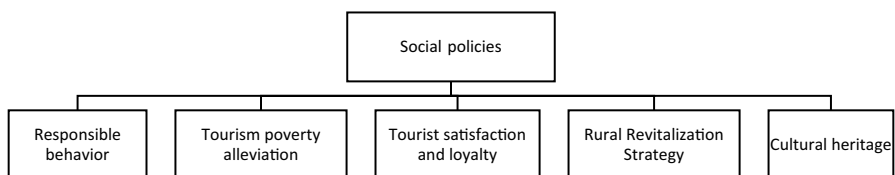


Fig. 6 Social policy measures

Data transparency and openness will help distribute and coordinate public power and interests, promoting pluralistic cooperative co-governance and good governance. The tourism innovation model of “Internet + Tourism” and “Smart + Tourism” (Wan and Du 2021) used digital technology to empower the development of industrial tourism. They believe it would promote the transformation of industrial tourism to sustainable tourism and helping the sustainable development of urban industrial sustainable tourism innovation.

To build a solid user base for sustainable tourism development, Beata et al. (2021) investigated the frequency of social media use by different generations and the scope of use in travel planning. For example, Xue (2014) believes that as a product of human progress, tourism has the inherent advantages of responding to ecological-economic models, using ecological technology, promoting ecological mechanisms, and advocating environmental consumption methods. Some scholars disagree on specific tourism areas. It is recommended that low-carbon tourism be guided by green thinking, new products like eco-tourism and alternative tourism are developed, emission reduction is advocated and compensated, a carbon economy is created with emission standards, and new oil-saving and energy-saving technologies are encouraged (Wang and Zhu 2012). Using GIS software, Zhang (2006) evaluated and analyzed the sustainable tourism development status of nine provinces and regions in the Pan-Pearl River Delta from 1998 to 2003. Sustainable tourism may help coordinate tourism and other economic sectors. Chen (2021a, b) discussed data mining technology in Tibet’s sustainable tourism e-commerce, expounded on applying data mining technology in tourism e-commerce effectively, and studied how to complete effective digital mining in Tibet’s tourism e-commerce reasonably and effectively. Li (2020a, b) considers red tourism a form of sustainable tourism. Its findings contribute to China’s theoretical and practical digital red sustainable tourism resource protection framework.

Guan (2021) first analyzes the current situation and problems of building an integrity culture in some sustainable tourist attractions in Sanya, then analyzes the causes of problems, and finally presents the benefits of applying blockchain technology to solve relevant issues, as well as the specific application scheme of blockchain technology in Sanya’s development. Huang (2021) proposed to design the application system solution of virtual reality MR technology scenic spots suitable for local tourism characteristics and cultural heritage. He designed the MR intelligent cultural tourism system based on the cultural tourism characteristics of Wuzhou City. Liu et al. (2021a, b) used a four-rotor UAV to collect images of Huajiang Canyon in Guanling, Guizhou, built a three-dimensional model using tilt photography modeling technology, and optimized the scene using unity three-dimensional software to promote geological culture and sustainable tourism in Huajiang Canyon. Liu et al. (2021a, b) used ArcGIS technology to classify and spatially distribute 182 rural tourism POI points in Xiyang Town, Meizhou City. They argue that a more sustainable tourism development model will improve quality and efficiency. Using ArcGIS-related analysis tools, Chen and Liu (2021) studied the spatial characteristics of tourist attractions in Ningguo City and proposed targeted overall development strategies to build a global sustainable tourism model. Rural tourism is a new sustainable tourism model. Li (2021) explores the application path of BIM technology in realizing

traditional village information management, which is of guiding significance to traditional village tourism resource information management. Zhu (2021) asserts that urban residents are adopting rural tourism as a new sustainable tourism option. We should improve the rural tourism network's security and make recommendations for long-term tourism security. Key findings regarding technological policy measures toward sustainable tourism development are listed in Fig. 7.

Environmental policy toward sustainable tourism

Sustainable tourism protects natural and cultural resources while benefiting locals. Specifically, it raises awareness of eco-environmental protection and safeguards the ecological environment to support future social tourism and industrial development. With the rise of sustainable economic development forms like green, ecological, and low-carbon economies, Tang (2014) believes that green tourism has become an essential form of sustainable tourism. Shu and Huang (2015) proposed the Scell tourism development model. They believe sustainable tourism is the macro-level development director, promoting LOHAS consumption mode for tourists and residents and implementing ecological and low-carbon design for tourism-related enterprises. Milioti et al. (2021) believe that adopting the principle of sustainable development is very important for tourism.

Environmental management systems and eco-label scanning help businesses reduce their environmental impact while growing sustainable tourism. The international community has paid close attention to the ecological and sustainable development issues caused by the rapid loss of biodiversity Yao et al. (2011). Using Jiuzhaigou as a case, Liu (2010) conducted an exploratory study on tourists' environmentally friendly behavior and its influencing factors, providing a theoretical basis for selective marketing of scenic spots and suggestions for sustainable tourism environmental protection. Yuan et al. (2019) contend that national parks should be managed and controlled like ecological spaces. To effectively use national parks to promote sustainable tourism, they should reflect the concept of primary functional areas. Gao and Liu (2007) established the basic framework and content of tourism destination environmental management aiming at sustainable tourism. Yuan and Peng (2019) believe national parks should control ecological space to develop sustainable tourism. Quan and Yang (2002) proposed a scale tolerance measurement model for sustainable tourism construction. This model can analyze environmental

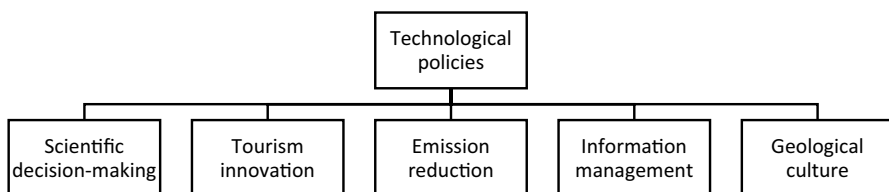


Fig. 7 Technological policy measures

change and sustainable development of eco-tourism areas at various construction scales. Jia et al. (2021) tested the structural equation model's hypothesis. They found a link between residents' environmental stewardship and tourists' green consumption, mediated by environmental issues and destination identification. Yang and Wang (2020) proposed using ecological carrying capacity as a rigid constraint to reduce tourism overcrowding to protect the environment, improve infrastructure, upgrade scenic spots, preserve the environment, eliminate overdevelopment, and fully exploit the important role of sustainable development tourism in Mount Emei. Shu and Huang (2013) proposed a circular eco-tourism development model in Guizhou Province. Achieving an ecological civilization in China's underdeveloped areas requires driving operation mechanisms guided by the government and led by the market.

The regulations proposed by Song (2018) are based on ecological civilization-building goals and appropriate institutional arrangements. Promoting the creation of national parks, legislative research, and a sustainable tourism development account is important to them. Zhang et al. (2006) proposed a new classification system for tourism carrying capacity. Tourism environmental carrying capacity, environmental impact, evaluation index system, and tourism ecological footprint analysis were studied by Tang et al. (2013). Peng and Zhu (2021) stressed the need for eco-tourism destinations to be developed sustainably. They suggested planning objectives, principles, and methods for planning eco-tourism to help guide the development of eco-tourism destinations. Chen (2021a, b) proposed the joint development of rural tourism and environmental protection to promote rural tourism and protect the environment. While researching rural tourism, he realized how rural tourism and the environment could coexist. However, there is a significant relationship between environmental effects and tourism (Ghobadi et al. 2016). Thus, tourism should be developed in a way that, while responding to tourists' leisure needs and improving their quality of experience, it contributes to improving the quality of the environment. Key findings regarding environmental policy measures toward sustainable tourism development are listed in Fig. 8.

Legal strategies toward sustainable tourism

Legal means are indispensable if the government wants to promote sustainable tourism. Zhang (2020) believes that eco-tourism resource circulation and protection are essential for China's eco-tourism development. Strengthening eco-tourism legal systems can support sustainable tourism development and promote China's ecological civilization. Dong and Su (2021) believe that strictly protected areas such as natural and cultural heritage sites require collaborative innovation of development mode and governance structure. Fan (2020) proposes standardizing planning, environmental assessment, monitoring, special area protection, and public participation. With all this, coordinating the relationship between tourism resource development and protection is required for more sustainable tourism development. Zhang et al. (2020) identified sustainable tourism destination evaluation indicators that could be used in the National Park. They suggested gradually establishing and improving the

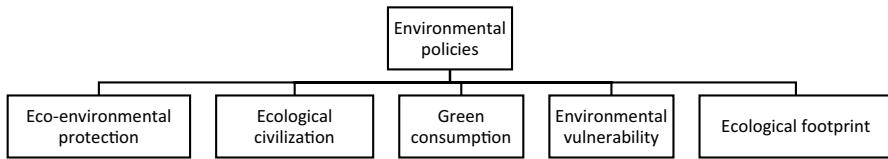


Fig. 8 Environmental policy measures

management evaluation index monitoring and statistics system. Yu (2009) contends that many scenic areas have historically pursued economic gains at the expense of their ecology. The general public and local tourists must be guided to form scientific and environmental protection living habits and consumer behavior, and an eco-tourism legal system must be strengthened. Zeng (2004) also proposed revising and improving current normative documents based on analyzing and studying a series of problems in China's tourism resource protection law.

In terms of improving relevant laws and regulations, Sun (2006) adopts the methods of comparative and empirical analysis, draws lessons from successful foreign experiences and successful cases, and discusses how to improve China's eco-tourism legal system. It was shown that introducing the legal system of the Economic Development Zone into the Global Sustainable Tourism Zone was rational (Li et al. 2021a, b). To understand the current state of sustainable tourism empowerment in Yubeng and the legal logic of system empowerment, Wang et al. (2021) used typical cases, field research, and embedded easement analysis. They ran a tourism Easement System Empowerment pilot. Gu (2020) argues that China's tourism laws are still outdated. A new sustainable tourism model of harmony between man and nature must be established. A resource protection system for sustainable tourism should be built on these principles (Li 2003). He determined the main contents of the sustainable tourism resource protection system, forming a coordinated legal whole.

Based on the substantial negative impact of tourism on the economy, environment, and culture, Liu and Gan (2021) commented on several important international conventions on sustainable tourism to a certain extent. They put forward some suggestions on the development path of China's sustainable tourism laws and regulations. Qiu (2021) believes that eco-sustainable tourism development in China varies by region. Ecological civilization development requires extensive economic and legal means. Incorporating multiple development paths, eco-sustainable tourism effectively promotes sustainable and coordinated growth. Xie (2020) believes that legal issues are the main factors impeding the development of the rural tourism industry. Rural tourism legal issues and systems are critical to creating a modern new countryside while maintaining environmental ecology.

A set of effective methods to protect green sustainable eco-tourism areas from the legal level was given by Cong (2021) based on the specific analysis of the particular situation. In addition, Li et al. (2021a, b) believe that standardizing the construction land of the farmhouse, strengthening environmental management, ensuring food safety, and improving dispute resolution should be enhanced in rural tourism in China. Qiu (2020) noted the rapid growth of leisure agriculture and rural tourism.

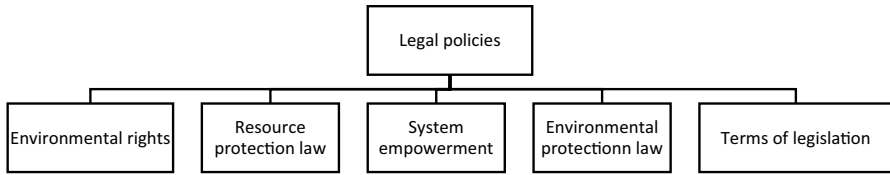


Fig. 9 Legal policy measures

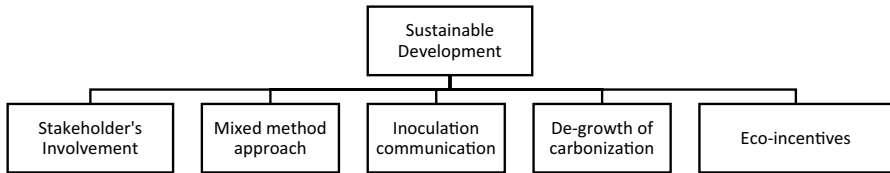


Fig. 10 Few recommendations for developing sustainable tourism in China

However, there are issues such as rural pollution and agricultural and rural ecological damage due to China’s insufficient leisure agriculture and rural tourism laws and regulations. Sustainable tourism development requires better rules and regulations. After analyzing the problems in sustainable tourism, Dong (2020) believes it is necessary to make practical suggestions on the legal protection system of tourism resources in Ganzi Prefecture in conjunction with the state situation. Zhang and Zheng (2020) contend that the natural environment in Guizhou’s rural areas is under severe threat. They analyze the current rural tourism environmental protection and laws in Guizhou Province and make valuable suggestions for improving them. Key findings regarding legal policy measures toward sustainable tourism development are listed in Fig. 9.

Conclusion and policy recommendations

There is a scope for future tourism research on sustainability that should focus on the alternative tourism sector (Knowles 2019). However, from the above discussion and previous literature, we have gathered recommendations for developing a sustainable tourism sector in China (Fig. 10).

Stakeholders can play an essential role in developing sustainable tourism industry. There is an increasing acknowledgment and recommendation trend to involve various stakeholders in building ecological and sustainable tourism. To better include stakeholders in sustainable tourism, Waligo et al. (2015) developed TLRF (a traffic light analogy, green, amber, and red). Stakeholders should be used to achieve ST goals. Management need not approve ST policies, benefits, or outcomes. The red route concept suggests ignoring stakeholder involvement in ST to avoid failure.

It is crucial to identify the social value of heritage concerning sustainable tourism. Sustainable tourism development requires combining heritage management and sustainable tourism (Parga Dans and Alonso González 2019). Thus, multiple factors determining the social value of heritage, namely existential, aesthetic, economic, and legacy values, should be considered. Encouraging sustainable tourism in China's natural and other World Heritage Sites could be crucial. Using inoculation messages to protect potential tourists' pro-destination attitudes is also essential. Multi-dimensional consumer knowledge sharing across social media platforms should be used in individual studies. The current study examined the impact of different communication message strategies on tourist pro-destination attitudes.

Figure 10 draws a few suggestions regarding promoting sustainable tourism development in China.

Stakeholder involvement is crucial as many private and public partnerships work together and organize and maintain bodies. The mixed-method approach refers to the P2P (public and private) partnership, Human-machine combination, TGLC operating system, etc. Inoculation and the protective approach are crucial for China's inbound tourism development. The Chinese government has tightened the protective measures and implemented zero COVID-19. Thus, to foster sustainable tourism development, the related bodies need to ensure the inoculation system. Another important issue is the de-growth of carbonization. As the global climate changes, it is a real challenge for the countries to cope with the situation and maintain the original tourist attractions. Many tourist places, activities, and severe floods are shrinking tourism activities. It is suggested to take immediate action to do the de-carbonizations, at least in large tourist areas. Last but not least, an eco-incentive program should be promoted. A similar concept of ETS (emission trading scheme) can be taken as an example in tourist areas.

Certainly, carbon reduction strategies are an overdue tourism industry imperative (Sun et al. 2020). Visitor behavior must change to be more sustainable. Overall, China's carbon footprint is too high. Combining "de-growth" and "optimization" strategies will build a long-term tourist portfolio. Demand intervention can help promote low-carbon travel markets. The value of natural capital and local cultures in tropical countries should be promoted, say experts. A new payment for ecosystem services scheme tailored to sustainable tourism projects could be considered financially (Grilli et al. 2021). For example, creating new sustainable entrance tickets (e.g., limited in number and per season) to communities or marine protected areas.

From the above discussion and literature, we can conclude that good governance can promote sustainable tourism development in China. Even though it is not harmonized, necessary steps should be taken to make tourism development sustainable. Countries like China can create challenges with a vast population and high demand for internal-external tourists. Proper uses of technology under proper good governance can give the policy some hope.

This review study is limited because it mainly focuses on PESTEL components of sustainable tourism development. Few study participants raised other aspects of sustainability that they also perceived not to align with their attitudes, cultural impacts on local communities, short-term damage, etc. Thus, it would be interesting to conduct another review study focusing on other components of sustainable

tourism development. SWOT/TWOS analysis could be another approach for future research in this regard.

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Author’s contribution MAB—conceptualization; QZ—editing; WX—draft; MKR—supervision; VK—draft.

Data availability Supplementary data can be downloaded from the system. All data are available on request.

Declarations

Conflict of interest The authors declare that there is no conflict of interest.

Ethical approval No unethical activities were performed to conduct this research work.

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References

- Beata H, Aneta K, Iwona Z (2021) Social media usage by different generations as a tool for sustainable tourism marketing in society 5.0 idea. *Sustainability* 13(3):2
- Bramwell B (2010) Participative planning and governance for sustainable tourism. *Tour Recreat Res* 35(3239):249. <https://doi.org/10.1080/02508281.2010.11081640>
- Charles SJ (2014) Towards a theory of sustainability, sustainable development and sustainable tourism: Beijing’s hutong neighbourhoods and sustainable tourism. *J Sustain Tour* 22(2):2
- Chen H (2021a) Research on the application of data mining technology in Tibet tourism e-commerce. *China Bus Rev* 21:60–62
- Chen Z (2021b) Research on ecological rural tourism development based on green environmental protection model. *IOP Conf Ser Earth Environ Sci* 769:2
- Chen X, Liu J (2021) Spatial characteristics and overall development strategies of tourist attractions in Ningguo City—based on big data mining and application of geographic information technology. *J Hefei Univ* 38(04):33–39
- Chen Q, Shi S (2013) Research on government governance performance evaluation of tourism in ancient towns in China—Taking Phoenix Ancient Town in Xiangxi as an example. *J Central South Univ for Technol* 7(05):22–25
- Li C, Qi K (2007) Discussion on the development of sustainable tourism industry in China. *Shandong Sci Technol* 01:92–94
- Cheng K, Zhou X, Li J (2008) Comparative analysis of eco-tourism and sustainable tourism. *J Anhui Agric Sci* 28:12427–12429
- Chi X, Han H (2021) Emerging rural tourism in China’s current tourism industry and tourist behaviors: the case of Anji County. *J Travel Tour Market* 38(1):2

- Cong Longchenf (2021) Research on the status of ecotourism development and legal policy guarantee in rural areas. *Legal Syst Soc* 17:119–126
- Dong Z (2020) Research on the legal protection system of tourism resources in Ganzi prefecture. *J Sichuan Univ Nationalities* 29(04):84–87
- Dong Q, Su Y (2021) The interdependence between diversity and sustainable tourism and the ways of mutual promotion: concept, practice and governance in China. *Tourism Tribune* 36(05):1–4
- Farmaki A (2015) Regional network governance and sustainable tourism. *Tour Geogr* 17(3):385–407. <https://doi.org/10.1080/14616688.2015.1036915>
- Feng C, Ma Y (2006) Research on the sustainable tourism development model of poverty mountain tourist area. *Ecol Econ* 1:94–100
- Florencio BP, Luna S-R, Juan MB-P, Ana MC-C (2021) Sustainable Tourism as a driving force of the tourism industry in a post-COVID-19 scenario. *Social Indicators Research*
- Gao J, Liu S (2007) Sustainable tourism and environmental management. *Ecol Econ* 10:114–121
- Ge QS (2002) Strategy of exploring tourism in Western China. Chinese Tourism Press, Beijing
- Ghobadi GJ, Verdian MS (2016) The environmental effects of tourism development in Noushahr. *Open J Ecol* 6(9):529–536
- Gordana R, Marko PD, Dunja DB, Milan R, Natalia V (2020) Can proper funding enhance sustainable tourism in rural settings? Evidence from a developing country. *Sustainability* 12:18
- Graham J, Amos B, Plumtre T (2003) Principles for good governance in the 21st century. Policy Brief No. 15. Institute on Governance, Ottawa
- Gregoric M (2014) PESTEL analysis of tourism destinations in the perspective of business tourism (MICE). In: Faculty of Tourism and Hospitality Management in Opatija. Biennial International Congress. Tourism & Hospitality Industry. University of Rijeka, Faculty of Tourism & Hospitality Management, Rijeka, p 551
- Grilli G, Tyllianakis E, Luisetti T, Ferrini S, Kerry Turner R (2021) Prospective tourist preferences for sustainable tourism development in small island developing states. *Tour Manag* 82:104178. <https://doi.org/10.1016/j.tourman.2020.104178>
- Gu Q (2020) Research on the construction of legal guarantee for the development of tourism resources based on sustainable development. *Contemp Tour* 18(33):63–64
- Guan Y (2021) Research on the construction of sanya tourism honesty culture based on blockchain technology. *Comparat Res Cult Innov* 5(28):150–153
- Guodong W, Xinyou Z, Yi D, Hongguo W (2021) The application of ecological restoration and environmental protection technology in the development of tourist attractions. *Environ Eng* 39(07):248–250
- Hall CM (2005) *Tourism: rethinking the social science of mobility*. Pearson, Harlow
- Hong X, Dan Z, Jigang B (2016) Sustainability and nature-based mass tourism: lessons from China's approach to the Huangshan Scenic Park. *J Sustain Tour* 24(2):182–202
- Hu H (2013) Research on the improvement strategy of tourism public service based on the perspective of tourists' perception—Taking Zhejiang Province as an example. *J Changchun Univ* 23(01):10–13
- Huang X, Gong H, Di Z (2021) Research on the application of smart tourism system in urban scenic spots based on MR technology. *Inf Record Mater* 22(10):180–181
- Jia H, Lin X, Xingyang L, Bo P (2021) Sustainable rural tourism: linking residents' environmentally responsible behaviour to tourists' green consumption. *Asia Pac J Tour Res* 26(8):2
- Swarbrooke J (1999) *Sustainable tourism management*, CABI. The Three Dimensions of Sustainable Tourism, pp 47–69
- Kara E (2018) A contemporary approach for strategic management in tourism sector: pestel analysis on the city Muğla, Turkey. *İşletme Araştırmaları Dergisi* 10(2):598–608
- Knowles NLB (2019) Targeting sustainable outcomes with adventure tourism: a political ecology approach. *Ann Tour Res* 79:102809. <https://doi.org/10.1016/j.annals.2019.102809>
- Li X (2003) Research on the construction of sustainable tourism resources protection system. Central South Forestry College, Changsha
- Li J (2017) Research on tourism community participation and governance driven by big data. *China Manag Inf Technol* 20(07):199–201
- Li F (2020a) Legal guarantee for the development of tourism resources from the perspective of sustainable development. *Legal System and Society* 12:84–86
- Li C (2020b) Research on the evaluation of sustainable development of rural tourism in Jinan City under the background of rural revitalization strategy. Shandong University, Shandong

- Li C (2021) The application of BIM technology in traditional village tourism resource information management. *Contemp Tour* 19(27):54–56
- Li G, Xu H (2006) Analysis of factors affecting the effectiveness of sustainable tourism in poverty alleviation in China. *Tourism Tribune* 09:64–69
- Li X, Yin J (2011) Discussion on the sustainable tourism development model of mountainous areas: Taking the Gongga Mountain area in western Sichuan as an example. *Tourism Forum* 4(01):33–65
- Li C, Zheng Y (2014) Intergovernmental cooperation and sustainable development of regional tourism—taking dabie mountain as an example. *Resour Dev Market* 30(03):361–365
- Li B, Tan H, Yang F, Liu X, Chen X (2021) Digital protection of red tourism resources: theoretical cognition and technical path. *Resour Dev Market* 2:1–11
- Li Z, Li Q, Xue A, Hou Y, Xiao M (2021a) Legal regulations on the development of rural tourist farmhouses. Taking Jinsixia scenic area in Shangnan County, Shaanxi Province as an Example. *Jiangsu Agric Sci* 49(07):8–14
- Li H, Wang H, Zhang M, Jin L (2021b) A preliminary study on the model of global tourism collaborative innovation—analysis of the feasibility of constructing the legal system of economic development zones by analogy. *China Collect Econ* 30:60–61
- Liu R (2010) Tourist environmental behavior analysis and its enlightenment on selective marketing of sustainable tourism: taking Jiuzhaigou as an example. *Hum Geogr* 25(06):114–119
- Liu Y, Gan K (2021) Research on international conventions and sustainable tourism development on the path of sustainable tourism development in China. *Inquiry Econ Issues* 01:155–159
- Liu S, Wang J (2018) Research on the path of diversified tourism models to promote rural revitalization. *Manag Observ* 23:59–61
- Liu Y, Huang K, Bao J, Qin Y (2020) Research on the impact mechanism of embeddedness on the sustainable economic development of ancient village tourist destinations. Taking Xidi and Hongcun as examples. *Geogr Sci* 40(01):128–136
- Liu G, Chen Y, Huang L, Lin W (2021a) GIS-based analysis of current characteristics of tourism resources in Xiyang Town Meizhou City. *Sci Technol Inf* 19(19):1–6
- Liu Y, Shu M, Hu L, Qin Q, Liu H, Mao K (2021b) Research on the construction of mountain tourism resources based on virtual reality technology. A case study of Huajiang Canyon in Guizhou. *Sci Technol Innov* 24:47–48
- Loizias P, Voukkali I, Zorpas AA, Pedreno JN, Chatziparaskeva G, Inglezakis VJ, Doula M (2021) Measuring the level of environmental performance in insular areas, through key performed indicators, in the framework of waste strategy development. *Sci Total Environ* 753:141974
- Lu D, Chen D, Chen J (2021) The sustainable development model of rural tourism in Guangdong from the perspective of the Guangdong-Hong Kong-Macao Greater Bay area: taking Zhaoqing as an example. *J Guangdong Open Univ* 30(02):16–22
- Ma Z (2020) Good governance and business development: a study on the impact of local government governance capabilities on entrepreneurship. *Contemp Econ Manag* 2:1–15
- Ma B, Lu X (2016) Research on sustainable tourism development and protection of Chinese tusi heritage based on the perspective of poverty alleviation. *Guangxi Ethnic Stud* 03:166–172
- Mao F (2006) Theoretical innovation of sustainable tourism consumption. *J Guyuan Teachers Coll* 01:81–85
- Marin D (2015) Study on the economic impact of tourism and of agrotourism on local communities. *Res J Agric Sci* 47(4):160–163
- Michelle D, Caroline S, Tim E, Gordon W, Adrian F, Richard S (2021) On the need for sustainable tourism consumption. *Tour Stud* 21(1):1
- Milioti C, Antreas F, Eleni D, Dimitrios G (2021) An initial approach: eco-certification as a tool for sustainable tourism. *Int J Environ Res* 2(12):2
- Mimi L, Ting L, Shangzhi Q (2020) Governance of sustainable tourism development in China. *J China Tour Res* 16(2):261–278. <https://doi.org/10.1080/19388160.2019.1637317>
- Mohamadi S, Abbasi A, Kordshouli HR, Askarifar K (2021) Conceptualizing sustainable–responsible tourism indicators: an interpretive structural modeling approach. *Environ Dev Sustain*
- Myers N, Mittermeier RA, Mittermeier CG, da Fonseca GAB, Kent J (2000) Biodiversity hotspots for conservation priorities. *Nature* 403:853–858
- Ngoc PB, Tien NH, Trang TTT (2021) Current path to community based sustainable tourism development of Khanh Hoa Province in Vietnam. *PalArch's J Archaeol Egypt/egyptol* 18(09):508–525
- Nianyong H, Zhuge R (2001) Eco-tourism in China's nature reserves: opportunities and challenges. *J Sustain Tour* 9(3):228–242

- Nicula V, Spanu S (2019) PESTEL analysis applied in tourism evaluation in Braila County. *Rev Econ* 71:3
- Nunkoo R (2017) Governance and sustainable tourism: What is the role of trust, power and social capital? *J Destin Mark Manag* 6(4):277–285
- Nusantara AC, Volgger M, Pforr C (2021) Evaluating the complex impact of policy changes on tourism development: the case of Surakarta, Indonesia. *J Glob Scholars Market Sci* 31(4):614–623
- Paavola J, Gouldson A, Kluvánková-Oravská T (2009) Interplay of actors, scales, frameworks and regimes in the governance of biodiversity. *Environ Policy Gov* 19:148–158
- Parga D, Eva, Pablo Alonso González PG (2019) Sustainable tourism and social value at world heritage sites: towards a conservation plan for Altamira, Spain. *Ann Tour Res* 74:68–80. <https://doi.org/10.1016/j.annals.2018.10.011>
- Peng B, Zhu J (2021) Research on sustainable tourism development planning methods of eco-tourism destinations. *Tour Overview* 17:56–58
- Qiu Y (2020) The legal guarantee mechanism for the sustainable development of leisure agriculture—"Leisure Agriculture and Rural Tourism". *Chin Melon* 33(12):134
- Qiu C (2021) The legal guarantee of ecological protection in the development of eco-tourism. *Tourism Tribune* 36(09):10–12
- Quan H, Yang Z (2002) Environmental changes in eco-tourism areas and sustainable tourism development: taking Zhangjiajie as an example. *China Popul Resour Environ* 2002(03):97–100
- Romagosa F, Priestley G, y Llundés, Joan Carles. (2011) El Turismo En El Marco de Una Estrategia de Planificación Sostenible General En Cataluña. *Boletín De La Asociación De Geógrafos Españoles*. 57:267–293
- Sansa M, Badreddine A, Romdhane TB (2021) Sustainable design based on LCA and operations management methods: SWOT, PESTEL, and 7S. *Methods in sustainability science*. Elsevier, Amsterdam, pp 345–364
- Shen J, Qiu C (2011) Discussion on sustainable tourism and its development path—taking Zhujiajie as an example. *Econ Forum* 10:164–167
- Shu X, Huang M (2013) Research on the development model and driving mechanism of eco-tourism in underdeveloped areas from the perspective of ecological civilization: taking Guizhou Province as an example. *Ecol Econ* 11:99–105
- Shu X, Huang M (2015) Research on the selection of tourism development mode based on the concept of ecological civilization. *Ecol Econ* 31(06):133–138
- Shu H, Guan Z, Xu Y (2019) Research on the sustainable development of tourist resorts under the strategy of rural revitalization. Take tianmu lake tourist resort as an example. *Northeast Agric Sci* 44(04):81–120
- Song R (2018) Research on sustainable tourism development under the background of ecological civilization system construction. *Ecol Econ* 34(09):134–138
- Steward WC, Kuska S (2010) Developing and sustaining creative cities: a sustainability tool for designers, planners, and public administrators. *Int J Sustain Dev* 13(1–2):6–16. <https://doi.org/10.1504/IJSD.2010.035095>
- Sun H (2006) Research on ecotourism legal system. Chongqing University, Chongqing
- Sun Y, Pei L, Higham J (2020) Managing tourism emissions through optimizing the tourism demand mix: concept and analysis. *Tour Manag* 81:104161. <https://doi.org/10.1016/j.tourman.2020.104161>
- Sun Y, Song Y, Chen Y, Yao C, Li W (2021) Is it sustainable? Exploration on the road of tourism development in agricultural cultural heritage sites (english). *J Resour Ecol* 12(04):543–554
- Taliouris E, Nikolaos T (2017) Public policy for corporate social responsibility and governance for sustainable tourism development in Greece
- Tan Y (2012) A comparative study on tourism circular economy and sustainable tourism. *Econ Aspects* 09:62–65
- Tang C (2014) Low-carbon tourism: a sustainable tourism form that promotes the construction of ecological civilization and energy conservation and emission reduction. *Tour Tribune* 29(03):10–12
- Tang Y, Liu Y, Liu N (2006) On China's sustainable tourism and strategic countermeasures. *J Southwest Univ Sci Technol* 01:65–68
- Tang C, Zhong L, Cheng S (2013) A review of studies on sustainable development of tourist destinations. *Adv Geogr Sci* 32(06):984–992
- Tian Y (2013) Several problems and countermeasures in urban management faced by the development of tourist cities: taking the reconstruction of Gulou Scenic Area in Kaifeng, Henan Province as an example. *Oriental Corporate Cult* 19:261

- Valentina D (2009) Governance for sustainable tourism: a comparison of international and Dutch visions. *J Sustain Tour* 17(5):583–603
- Waligo V, Clarke J, Hawkins R (2015) Embedding stakeholders in sustainable tourism strategies. *Ann Tour Res* 55:90–93. <https://doi.org/10.1016/j.annals.2015.09.002>
- Wan C, Du Y (2021) Research on the innovation and development of industrial tourism empowered by digital technology. Taking Jinwan district of Zhuhai City as an example. *J Jinan Vocat College* 04:98–100
- Wang Y (2014) Trust governance in regional industrial chains: a study of tourism industry in Qinghai-Tibet region. *Econ Manag* 36(03):29–39
- Wang Y (2017) Research on the path of tourism poverty reduction based on the theory of sustainable development. *J Yanshan Univ* 18(03):80–87
- Wang C (2020a) The comprehensive development status and promotion strategy of Zhejiang Qiandao Lake scenic area tourism under the background of sustainable development. *Tour Overview* 12:56–58
- Wang M (2020b) Sustainable tourism development and ecological management of nature reserves, comment on “research on stakeholder management of nature reserves based on co-creation of ecological values.” *World for Res* 33(02):119
- Wang J, Ma Y (2007) Consumerism and the alienation of tourism consumption in China. *Ecol Econ* 02:73–78
- Wang C, Wang Z (2015) Research on the social governance model of tourism communities in China. Based on the perspective of innovation ecosystem. *J Sichuan Univ Sci Technol* 30(01):1–11
- Wang F, Zhu D (2012) Sustainable development and management of coastal tourism resources under the background of global change. *J Nat Resour* 27(01):1–16
- Wang W, Hu W, Xu F (2021) Legal thinking of empowerment of rural community system under the influence of tourism development—a case study of Yubeng community from the perspective of easement. *Yunnan Geogr Environ Res* 33(03):1–6
- Wen J (2001) *Tourism and China’s development—policies, regional economic growth and eco-tourism*. World Scientific, Singapore
- WTTC (World Travel and Tourism Council) (2006) *China, China Hongkong SAR and China Macau SAR: the impact of travel and tourism on jobs and the economy*, online document at URL: http://www.wttc.org/publications/pdf/FINAL%20WTTC_China%20English.pdf, accessed December 20, 2006.
- Wu J, Chen Y, Zhong Z (2021) Research on the construction of ecotourism development model based on the perspective of sustainable development. A case study of ecotourism on the Qinghai-Tibet plateau in China. *Tour Overview* 11:71–73
- Xi W, Li H, Xie M (2021) Research progress on sustainable development of tourism in China, based on citespace visualization analysis. *Econ Res Guid* 21:133–136
- Xie Y (2020) Ecological agriculture and rural tourism legal issues—comment on “ecological agriculture tourism.” *Edible Fungus China* 39(10):281
- Xiong Y, Zhang W (2010) The characteristics of the sustainable development of tourism in developed countries and its enlightenment to China. *Ecol Econ* 04:100–103
- Xu S (2006) Discussion on sustainable tourism tourists’ green consumption incentives. *Shopping Mall Modern* 12:151–152
- Xue M (2014) On the role of eco-tourism in the sustainable development of tourist attractions: taking China as the research object. *Sci Popular* 12:166–167
- Yan J, Zschiegner A-K, Xi J, Barkmann J, Marggraf R (2010) Is the Chinese tourist ready for sustainable tourism? Attitudes and preferences for sustainable tourism services. *Int J Chin Cult Manag* 3:86–106. <https://doi.org/10.1504/IJCCM.2010.033738>
- Yang J, Wang P (2020) Research on the sustainable development and promotion path of world heritage tourism. Taking Emei mountain scenic area as an example. *Modern Bus Trade Ind* 41(20):39–41
- Yao J, Xu N, Zhu N, Zhong Y, Li J, Jing M, Luo K (2011) Biodiversity monitoring and forest sustainable tourism countermeasures in Zhangjiajie National Forest Park. *J Central South Univ for Technol* 31(03):191–196
- Yu J (2009) The enlightenment of thailand’s sustainable tourism law to China: taking the development of ecotourism on the Lijiang river as an example. *Southeast Asia* 09:70–74
- Yuan H, Peng F (2019) Strategic choices for sustainable tourism development in national parks. *J Beijing for Univ* 18(01):22–25

- Yuan Z, Jia J, Liu Z, Liu C, Zhang F (2021) The sustainable development of rural tourism services under the background of rural revitalization. *Sustain Dev* 11:1
- Zeng C (2004) On the legal issues of the protection of tourism resources in China. Northeast Forestry University, Harbin
- Zha J, Dai J, Ma S, Chen Y, Wang X (2021) How to decouple tourism growth from carbon emissions? A case study of Chengdu, China. *Tour Manag Perspect* 39:2
- Zhang M (2006) Sustainable development of regional tourism and its evaluation. Graduate University of Chinese Academy of Sciences, Guangzhou
- Zhang H (2020) Legal issues concerning the recycling and protection of eco-tourism resources guided by the green development concept. *Soc Sci* 12:43–48
- Zhang J (2021) Impacts of the emissions policies on tourism: an important but neglected aspect of sustainable tourism. *J Hosp Tour Manag* 47:2
- Zhang Q, Liu J (2019) Sustainable tourism poverty alleviation and driving mechanism in ethnic minority areas: a case study of Yongshun County, Hunan. *J Central South Univ Forest Technol* 13(05):107–114
- Zhang L, Zheng K (2020) Research on the legal issues of rural tourism environmental protection in Guizhou Province. *Western Tour* 10:70–72
- Zhang H, Zhong L (2017) Research on the system logic and model selection of national park management organization construction. *Resour Sci* 39(01):11–19
- Zhang Y, Zhang W, Chen H, Chen L (2006) Theoretical research on sustainable tourism environmental carrying capacity. *J Yunnan Normal Univ Nat Sci Edn* 04:70–73
- Zhang X, Wang Y, Yang G, Li P (2016) The definition of ecological civilization tourism and its industrialization. *Ecol Econ* 32(06):209–213
- Zhang C, Chen W, Huang B, Zhang H, Zheng S, Deng R (2020) National park tourism sustainability management evaluation index system. Taking Tibet's Selincuo-Pruogangri glacier national park as an example. *Acta Ecol Sin* 40(20):7299–7311
- Zhang C, Chu M, Zhang H, Qiao H, Huang B (2021a) Evaluation index system for the sustainable management of recreation in the Qinghai-Tibet Plateau National Parks. *Biodiversity* 29(06):780–789
- Zhang S, Luo X, Gong J (2021b) A comparative study of residents' perceptions and attitudes to sustainable tourism based on differences in livelihoods. A case study of shennongjia national park system. *Ecol Econ* 37(08):132–140
- Zheng H (2013) Research on ancient architecture protection and sustainable tourism development. Anhui University, Anhui
- Zheng S, Tang Q (2019) Analysis on the sustainable tourism development and protection of Chinese Tusi heritage from the perspective of poverty alleviation. *Zhifu times* 03:34
- Zhou L (2005) Eco-tourism area certification standards and government behavior research in the promotion process. Zhejiang University, Zhejiang
- Zhu X (2021) Thoughts on the information security construction of rural tourism network comment on "tourism security risk comprehensive evaluation technology and application." *Chin Saf Sci J* 31(09):200

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