

**Monitoring Report on the Sustainable Tourism
Development of Yangshuo, Guilin
(2020)**

Culture, Radio, Television and Tourism Bureau of Guilin

Monitoring Centre for UNWTO Sustainable Tourism Observatories

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1 Foreword

1.1 Origin of the monitoring

In 2004, a cooperation agreement between Guilin and the United Nations World Tourism Organisation proposed the inclusion of Yangshuo's tourism data in the World Tourism Organisation (2012), Indicators of Sustainable Development (Tourism Destination - A Guidebook, UNWTO, Madrid). On 26 July 2005, the world's first Tourism Sustainable Development Observatory was officially established in Yangshuo and inaugurated in October 2009, marking the official launch of long-term sustainable development monitoring in Yangshuo. In September 2010, the United Nations World Tourism Organisation (UNWTO) and Sun Yat-sen University signed a cooperation agreement to establish the UNWTO Monitoring Centre for the Sustainable Tourism Observatories (UNWTO MCSTO), which will be responsible for the management and monitoring of tourism sustainable development observatories in China and the Asia-Pacific region in the future, ensuring the monitoring work is carried out in a sustainable, comprehensive and effective way. This marks the official inauguration of the Monitoring Centre, and marks its formal entry into a substantive phase of cooperation between Sun Yat-sen University and UNWTO in promoting sustainable tourism worldwide. From August 2006 to 2020, the Research Centre for Tourism Development and Management at Sun Yat-sen University has successfully completed the monitoring of sustainable tourism development in Yangshuo from 2006-2019 based on the indicators and methods of the UNWTO GOST project, focusing on indicators of the impact of tourism development on Yangshuo's natural resources, ecological environment and social and cultural aspects, analysing and assessing the state of tourism development. The project has received full recognition from the World Tourism

Organisation and has promoted the sustainable development of Yangshuo's tourism.

1.2 Process of the monitoring

The outbreak of COVID-19 in 2020 had a huge impact on tourism in Yangshuo, while the sudden floods in summer also hit tourism in Yangshuo, which had just recovered after the May Day holiday. The monitoring period was from 10 November to 15 November 2020, a total of six days, with a team of 12 members, including a professor, three PhD students, four master students and four undergraduate students from the Research Centre for Tourism Development and Planning of Sun Yat-sen University. The team visited the West Street of Yangshuo, the Ten-Mile Gallery (Moon Mountain and Banyan Tree), the Yulong River, the Stone Town, the Old County, Shiwaitaoyuan and Xingping Ancient Town, and conducted questionnaires and random interviews with domestic tourists, community residents, small tourism business owners, employees and foreign workers. The research was mainly thematic and in-depth topics including "Rural Revitalisation", "Tourist Satisfaction", "Health, Safety and Resilience", "Management and Control", and "Tourism and Resource Conservation". They analyse the development of tourism in Yangshuo in the light of the different kind of crisis.

The report is based on the indicators in a guidebook by UNWTO. The report is based on a comprehensive analysis of fieldwork data, interviews, questionnaire data and secondary sources. The report is presented in a thematic format and draws on the basic indicators of sustainable tourism development in Yangshuo, which were previously developed in conjunction with the United Nations World Tourism Organization (UNWTO) methodology and the actual tourism development in Yangshuo.

2 Rural Revitalization

The rural revitalisation will be carried out as a study of the villages surrounding the Stone Town in Yangshuo County's Putao Town. The Stone Town is located in Yangmeiling Village, bounded by the Li River to the northwest. It has a total area of nearly 10 square kilometres, with four gates in the east, west, north and south of the city. The architectural style is similar to that of the Ming Dynasty's Jingjiang Kingdom, with the ruins of the Pointing General Terrace, the Zhongjun Fortress and the ancient temples. There are six natural villages in Yangmei Mountain, including Dachong Village, Xiaochonghan, Dayantou, Xiaoyaomen, Mujiaping and Baimiandi.

According to local people, their ancestors moved here from Yangshuo Xingping during the Ming Dynasty, which was estimated to be more than 400 years ago. The inhabitants of the natural villages in the Stone Town are mainly from the Liao clan, which has been in existence for 20 generations. According to the statistics of the field survey, there are 44 households in Xiaochonghan Village, 24 households in Dayantou Village, 78 households in Xiaoyomen Village and 34 households in Mujiaping Village. Kumquat plantation is currently the main industry and source of income for villagers in the natural villages of Stone Town; in recent years, the profitability of the kumquat industry has gradually contracted as the cost of plantation has risen and supply has increased leading to a decline in the purchase price.

Overall, although the area has achieved the task of poverty alleviation, there is still an urgent need for industrial transformation and upgrading, developing diversified livelihoods, tapping its unique tourism resources and relying on its location to develop rural cultural and tourism industries, so as to realise the general requirement of "prosperous industry, ecological livability, civilised countryside, effective governance and prosperous living" for rural revitalisation.

2.1 Policy context

At the national level, the target of poverty alleviation in the new era has been completed as scheduled, but the results of poverty eradication still need to be further consolidated. The transition and articulation from poverty alleviation to rural revitalisation has become a new goal. The "baton" of poverty alleviation and rural revitalisation needs to be handed over properly. The quality of the development of poverty alleviation industries and the self-development of the poor need to be improved.

After completing the task of poverty eradication on schedule, Guangxi Province has continued to promote the effective connection between poverty eradication and rural revitalization. The method has changed from industry "assisting" the poor to industry "guiding" the poor. Support has changed from production to agricultural products processing, marketing, and integration of first, second and third industries. The direction of industrial integration has changed. In the context of deepening the structural reform of the tourism supply side, the development of rural tourism in the autonomous region has been continuously improved, with the introduction of policies and measures related to the integrated development of rural tourism, brand building, cultural connotations, project construction, marketing systems, and the development of B&Bs.

In recent years, Yangshuo has actively implemented the rural revitalisation strategy, introducing a series of policies to encourage the development of modern agriculture, improve the rural living environment, improve infrastructure construction and support the development of the cultural and tourism industry. It has actively promoted the standardisation of the national beautiful countryside, and has carried out a comprehensive upgrade of rural tourism and whole-area tourism, such as building tourism resorts, field complexes and other cultural and tourism projects with potential. In 2019, Yangshuo was approved as one of the first national tourism model zones, making it a national "testing ground" for the in-depth integration of culture, sports and

tourism. In the future, Yangshuo will continue to put into practice the concept that green water and green mountains are the silver mountain of gold, dig deep into folk art and rural culture, further improve the layout of all-area tourism in the countryside, and continue to provide a "Yangshuo model" for the revitalisation of the countryside.

2.2 Tourism Resources Analysis

The Stone Town, with its historical sites, distinctive stone houses and residential architecture, as well as its natural ecology and humanistic environment, is an important tourism resource for Stone Town. Firstly, the ancient stone buildings, which concentrate the building skills and wisdom of the villagers, are of high ornamental value, allowing people to walk into the landscape of Yangshuo and see how 'man' lived with nature in a difficult environment, showing the spirit of hardship and hard work and the skills and wisdom condensed in the buildings. Secondly, the excellent natural landscape resources form the basis of an excellent environment, with the typical karst landscape creating a dangerous terrain surrounded by mountains and a natural landscape of rocky peaks, and the rich surface vegetation resources interspersed with stone buildings, which have a unique landscape value. In addition, the local people are simple and natural, retaining a relatively primitive rural appearance. The harmonious relationship between people and land maintains a good ecological environment, making it a rare "paradise" of peace and tranquillity in the context of the current tourism development in Yangshuo. In terms of geographical location, the town of Grapevine, where Stone Town is located, is well connected externally and is currently being upgraded internally.

2.3 Analysis of potential source markets

The human and historical resources of Stone Town can improve the current resource supply of Yangshuo's tourism products to a certain extent. In terms of the combination of tourism resources, Stone Town is adjacent to the core area of the karst peaks and forests landscape of Grapevine Town, including the unique natural

landscapes of Xianggong Mountain, Wulong Spring Sunset and Hanging Pong Mountain. The natural and humanistic tourism resources echo each other in the treacherous and majestic ancient Stone Town paired with the beautiful mountain scenery among the mountains, enriching and expanding the tourism product supply of Yangshuo County.

Currently, the Stone Town is still in its beginning of tourism development and is highly dependent on Yangshuo's current relatively mature tourism market. The type of tourists is mainly casual, lacking perfect tourism supporting services and facilities and tourism experience products. Visitors usually stay for a shorter period of time and spend less time on tourism. In the future, based on its unique tourism resources, with the unique landscape resources of Yangshuo as the core attraction, complemented by the unique architectural site landscape of Stone Town, and complementary connections with the tourism resources of the surrounding scenic spots such as Wulong Spring Sunset, Xianggong Mountain and Nine Horses Mountain, Stone Town has full potential to drive rural revitalisation through tourism development and strive to become a typical representative of cultural tourism development in Yangshuo County and even Guilin City.

2.4 The significance of tourism development in Stone Town for rural revitalisation

The development of cultural tourism and rural eco-tourism in Stone Town can play an important role in driving the social and economic development of the area, thus promoting the revitalisation of the local countryside.

The development of the rural cultural tourism can promote the "industrial prosperity" of the countryside and the "affluence" of the residents. On the one hand, it can promote the transformation and upgrading of the rural industrial structure. On the other hand, it can also promote the quality and efficiency of agricultural development,

and develop high-end ecological agriculture and agricultural product brands through the market channels of tourists. At the same time, the Stone Town community will participate in tourism through the establishment of tourism cooperatives, collective management, shareholding cooperation and other business methods to promote community residents in the development of tourism to benefit effectively, improve the living standards of residents and promote social and economic development.

The development of cultural tourism in the countryside can also effectively lead to the construction of a countryside that is "ecologically livable", "civilised" and "effectively governed". On the one hand, tourism requires a clean and tidy village, with improved infrastructure such as water, electricity and roads, as well as the control of rural environmental pollution and the protection of the rural ecosystem; at the same time, tourism development can effectively explore the history and culture of rural society, preserve the local atmosphere and the rural landscape, and through the effective guidance of community residents' ideology and values and the effective formulation of rules, avoid the possible disorderly participation in tourism. The development of tourism can also avoid the disorderly participation and vicious competition that may exist in tourism participation, and promote the development of better rural customs such as mutual assistance and honesty and trustworthiness among neighbours.

3 Tourists' Satisfaction

3.1 General description

The aim of the study of tourist satisfaction is to predict the response of tourists and the competitiveness of tourist attractions. In 2020, global tourism industry was hit by the COVID-19. China has experienced a significant decline in passenger traffic, both for domestic and outbound travel. The current tourism sustainability monitoring for Yangshuo in 2020 focuses on a questionnaire survey to test Yangshuo's tourist satisfaction, selecting perceptual indicators such as tourists' travel expectations, travel experiences, preference of tourist attractions, travel impressions, evaluation of tourism resources, evaluation of the overall environment and evaluation of folklore products. Indicators of tourists' behavioural changes in the context of the epidemic were also added, supplemented by online users' comments, to comprehensively assess Yangshuo's tourist satisfaction under the impact of the pandemic in 2020.

3.2 Visitor behavioural traits

In previous years, self-guided travel has been the dominant mode of travel for both domestic and foreign tourists. Under the influence of the epidemic, the proportion of domestic tourists travelling on their own and with a group has decreased to varying degrees, with the most significant decrease in the proportion of individuals travelling with a group due to the request to be in close contact with unfamiliar tourists. In contrast, the proportion of people travelling to Yangshuo for organised meetings and conferences has increased rapidly. In terms of information access channels, the proportion of the internet as the main channel for obtaining information continues to rise, with recommendations from friends and relatives becoming the number One channel. The proportion of travel agents as the main source of information continues to rise, with recommendations from friends and family becoming the number one source of

information. In the aftermath of the epidemic, tourists' concerns about travel information have become more diverse. In addition to the important information on transport, accommodation and food, the proportion of tourists concerned with the introduction of scenic spots and local culture has increased significantly, but the concern for security and hygiene has remained low. The post-epidemic era has also seen a richer balance of travel motivations for visitors to Yangshuo. While the main motivations for visiting Yangshuo remain sightseeing and leisure, the proportion of visitors motivated by experiencing local cuisine and culture and business meetings has increased, with promotional offers and off-season travel experiences becoming new motivations for visiting.

In terms of transport modes, domestic tourists travelled mainly by train, self-drive and plane, with the proportion of train trips increases significantly compared to last year. Aeroplanes have risen somewhat compared to that in 2019, while self-driving and coaches have both declined. In 2020, visitors' main modes of transport within Yangshuo County are bicycles, walking, taxis and self-driving, with bicycles becoming the main mode of travel, and balance bikes and electric bikes increasingly, as domestic visitors become more environmentally friendly.

In terms of length of residence, Yangshuo is still predominantly a short-term destination, with around 50% of domestic visitors choosing to stay for 1-3 days for pleasure. However, the proportion of short-term stays is continuing to decline, the proportion of medium-term visitors is growing rapidly, and a trend has developed for long-term visitors to continue to increase. In terms of choice of accommodation facilities, the proportion of domestic tourists choosing youth hostels has declined, while the proportion of domestic tourists choosing homestays, star hotels and other accommodation types has increased. In terms of visitor spending levels, RMB 500-1500 remained the main spending range for domestic visitors, with the proportion increasing compared to last year; the proportion of high spending groups (spending over RMB 2000) increased slightly and the proportion of medium spending groups

decreased significantly. This may indicate that post-epidemic visitors to Yangshuo are dominated by two groups of people, one attracted by the discounted prices of hotels and B&Bs, and the other group wanting to take advantage of the off season to get a better travel experience. Thus showing a coexistence of behavioural characteristics in terms of the proportion of medium to long-term stays, the proportion of low and high spending, and the rising proportion of homestays, star hotels and other accommodation types.

3.3 Visitor satisfaction level

Yangshuo is blessed with world-class natural mountain and water resources. The image of "Guilin's mountains and waters are the best in the world" is well known. The beauty of the landscape, the clarity of the rivers and the cultural landscape with its local flavour continue to be recognised. The natural ecology has been given the opportunity to recuperate from the significant reduction in visitor numbers under the impact of the pandemic. Compared to the findings of the 2019 peak season, domestic tourists were more satisfied with all aspects of Yangshuo's tourism resources, and the river water quality was well received, which is closely related to tourists' understanding, the natural recovery of water quality and the effect of Guilin's environmental remediation in recent years. The natural landscape and ethnic minority characteristics are Yangshuo's brightest images and a world-class tourism resource. The folk art culture should continue to be protected and promoted in the future, while water quality remains a key concern and should be improved and cleaned up more to continue to present a good water quality condition.

Tourist satisfaction with Yangshuo's tourism services has improved significantly, probably due to (1) the refurbishment, renovation and innovative renovations carried out during the pandemic due to the closure of various scenic spots and industries; (2) tourism enterprises have also undertaken additional training; (3) tourism practitioners have also become more appreciative of their work in the tourism industry. As a result, ticket prices have been adjusted. Staff services have become more attentive. Complaints

have been handled more efficiently. All facilities have been well supplied during the off season. The next step is to look for opportunities in the midst of the "crisis", to enhance training and job security for the grassroots staff, and to improve and continue the overall quality of services. Consideration could be given to diversifying the price levels of the food and accommodation offerings to meet the needs of different tourists. The level of regulation and innovation of tourism merchandise should also be improved to accelerate the launch of products that truly reflect Yangshuo's cultural characteristics. In addition, the opening of traffic control along the Ten Mile Gallery - Encounter Dragon River scenic area, which was maintained for three years following the land-based tourism industry in March 2020, coupled with a reduction in tourists and other reasons, has now made the core Yangshuo scenic area more accessible than in previous years, with a more substantial increase in traffic satisfaction.

In terms of the tourism environment, the scenic environment has improved and the humanity environment has been greatly affected by the pandemic. In the future post-epidemic period, when this prevention and control will be normalised, people's psychological tolerance for environmental capacity will be further reduced, with a higher demand for safe distances and environmental comfort. Therefore, crowd diversion and control, and environmental management will remain critical aspects for improvement. The level of recognition of the 'overly commercial atmosphere' is higher than last year. While boosting the confidence of tourism businesses, Yangshuo still needs to regulate the development of small and medium-sized enterprises to avoid going 'vulgar', 'too dense' and 'over-marketing'. The tourism industry should also set reasonable fees to create a comfortable and safe tourism environment. In addition, the folklore experience for tourists is inadequate. There are many suggestions in tourist reviews for 'more experience programs' and 'back to the original ecology'. This is partly due to the fact that there are fewer and more scattered ethnic minority activities in Yangshuo, which means that visitors have less opportunity to engage with minority cultural activities in a comprehensive manner. In the context of cultural tourism

integration, how to develop folklore activities with heritage, connotation and experience, and to tell the cultural story of Yangshuo, is a question that needs to be seriously considered to create future cultural tourism products.

Overall, the government-led recovery of tourism in Yangshuo was good and orderly, resulting in an increasing number of visitors to Yangshuo compared to other World Heritage sites, and a longer stay and more satisfaction of visitors than in previous years, making it one of the best examples of destination recovery under the pandemic. During the pandemic, the internet became the most important way for potential tourists to access tourism information. Media marketing and word-of-mouth communication greatly influenced tourists' destination choices. Marketing channels such as online live streaming, platform reviews and word-of-mouth in acquaintance social networking therefore deserve major attention. In the future, tourism marketing needs to strengthen training in various aspects of new media and technology, make full use of new forms such as short videos and public number pushing to attract traffic, and introduce artificial intelligence to optimise the service experience.

4 Health, Safety and Resilience

4.1 Overview

Health and safety is about visitors' safety and experience, but also about residents' lives and productive development, and is an important criterion for the sustainable development of tourism destinations and the guarantee for the development of tourist attractions. Health and safety is a hard threshold for tourist destinations to attract visitors and can only be high rather than be low. In order to achieve the monitoring of health and safety development in Yangshuo, this health and safety monitoring relies on questionnaires, interview data and combined with official information from the Yangshuo Government. In addition, this monitoring also tested the resilience of tourism enterprises in Yangshuo after the pandemic with information obtained from the materials of Yangshuo, as well as the work of the Emergency Management Bureau on river water monitoring and analysis services, emergency relief plans for natural disasters during the flood season, and flood control and relief work.

4.2 Health and safety perceptions of visitors and residents

In recent years, the Yangshuo Government has made many efforts to safeguard food safety and dining environment hygiene, through issuing relevant work programmes, organising promotional activities and conducting random checks on the food safety and hygiene conditions of dining establishments to safeguard food safety and dining hygiene and raise public awareness of food safety. The quality of food safety and environmental hygiene continued to improve. In order to implement work on strengthening the supervision of cold chain food safety and to effectively monitor the risk of frozen and refrigerated food production and operation premises, the Market Supervision Office of the Yangshuo County Market Supervision Bureau carried out special inspections of cold chain food in November 2020, conducting comprehensive

checks on freezers, large and medium-sized catering units and large supermarkets in the district, strictly keeping food procurement in check to ensure traceability of cold chain food, and always keeping attaching importance to food safety and epidemic prevention and control.

The majority of domestic and international visitors were neutral or above in their satisfaction with the hygienic state of Yangshuo's food and beverage. Of these, 38.1% and 9.52% of visitors agreed or strongly agreed respectively, while only 3.17% disagreed and no visitors showed strong disagreement with the hygienic condition of Yangshuo's food and beverage. This indicates that visitors are more focused and satisfied with the hygiene of Yangshuo's food and drink. Visitors mostly focus on Yangshuo's speciality restaurants, such as beer fish and Guilin rice noodles, as well as some foreign restaurants, and are very satisfied with Yangshuo's lively and accommodating tourist atmosphere, so they may not be as concerned with food and beverage safety; whereas domestic visitors, who may be more familiar with Chinese food and beverage flavours and the domestic tourist environment than foreign visitors, and travel mostly with families on parent-child tours, they will pay more attention to perceiving the shortcomings of food and beverage hygiene. They are less satisfied with the condition. However, the government's efforts have resulted in a moderate high level of hygiene in Yangshuo, but there is still a need to continue to strengthen the management of restaurant hygiene, to conduct multiple inspections in key streets and alleys with a high flow of tourists, to make restaurant hygiene test result available to the public, and to make information transparent so that tourists can feel more secure and trustworthy, and improve their satisfaction with Yangshuo's restaurant hygiene. satisfaction. Overall, the sanitary conditions of Yangshuo's tourist restaurants are good, but there is still a need to continue to strengthen the management of restaurant hygiene so that visitors can have a better dining experience and increase their satisfaction with Yangshuo's restaurant hygiene.

4.3 The COVID-19 Prevention and Control

The impact of the COVID-19 on the tourism industry in Yangshuo was severe, far exceeding the impact of the SARS epidemic in 2003. The impact on the tourism industry was not only due to the ongoing uncertainty of the outbreak, but also due to the changing structure of China's economy over the past 17 years, with consumption, particularly tourism, taking up a higher proportion and the economic cycle being at a different place. Therefore, the impact on the tourism industry was not comparable to that during SARS.

More than half (56.25%) of visitors to Yangshuo spent the same amount of money on all items of travel after the pandemic compared to before the pandemic, but a significant number (21.88%) still felt that their total spending on travel was slightly less than before. In terms of specific categories of spending, most visitors remained largely flat in all items, but nearly half (48.44%) spent less on entrance fees to attractions and a certain number (29.69%) spent more on food, which was somewhat related to the reduction in the price of entrance fees to tourist attractions. In terms of post-epidemic trips to Yangshuo, the vast majority of visitors (75%) felt that their trip to Yangshuo met their expectations. A certain number of visitors felt that their trip to Yangshuo was above their expectations. The majority of visitors also expressed a desire to revisit (67.19%) and would recommend it to their friends and relatives (78.13%), and overall the majority of visitors had a high level of satisfaction with their trip. This is in part due to the high level of safety in Yangshuo and the low risk of an outbreak. (No confirmed cases in Yangshuo)

5 Tourism Management and Control

5.1 Overview

Tourism management and control is an important part of the monitoring of sustainable tourism development in Yangshuo. Three aspects of tourism transport planning and control, tourism resources planning and control, and tourism land use are monitored. Relevant adjustments are made in the context of the actual tourism development in Yangshuo.

5.2 Tourism traffic and passenger flow management

Overall, tourists rated the Yangshuo tourism experience high and were satisfied with the transportation. Part of visitors who think the transport in Yangshuo convenient and the transport signage system clear is increasing compared to 2019, but the proportion of visitors who think the transport in Yangshuo County reasonably priced is decreased. The amount of data in this questionnaire is small, so there may be some errors. In interviews with government staff, we learned that the proportion of visitors who chose to travel by car for protective purposes and the principle of gathering less and having less contact with others has increased due to the epidemic. The highest proportion of tourists chose to travel by bicycle, but the road system within Yangshuo still needs further improvement, with no clear distinction between motorised and non-motorised lanes in some areas. The government and relevant departments should strengthen the construction of special bicycle lanes and further regulate the bicycle and electric bicycle rental industry, and guide tourists and citizens to travel in a civilised manner through a series of rules and regulations.

Compared with 2019, it can be seen that the distribution of crowds at the various attractions in Yangshuo has remained largely stable, with visitors still mainly concentrated at the three attractions of West Street, Encounter Dragon River and Li

River Rafting. In addition to the regular and targeted crowd control at the tourist-focused attractions, it is also necessary to strengthen the maintenance of the scenic spots and the prevention of crisis events during the peak flow period. In addition, it is important to continue to improve the construction of the Internet+Tourism and intelligent tourism systems, using them to increase publicity for other attractions in Yangshuo in order to divert traffic away from popular attractions. At the same time, it is important to speed up the improvement of the infrastructure and public service system for each attraction.

5.3 Integrated development of tourism resources

The current tourism development in Yangshuo still has to focus on its unique natural tourism resources, follow the strategy of sustainable tourism development and adopt protective development measures to avoid the destruction and over-exploitation of natural resources. In terms of the focus of tourists' needs, the leisure atmosphere can be enhanced by increasing the facilities related to relaxing holidays and increasing the participation, experience and interaction of tourists; in terms of community residents, the hospitality of local residents and the originality of community life is the greatest attraction. Focusing on the development of community tourism and the development of rural leisure tourism with Yangshuo characteristics will help to further develop the rural tourism market for domestic tourists, while promoting the revitalisation of the countryside in the current situation of self-guided tourism in Yangshuo.

In addition, Yangshuo is becoming less attractive to tourists in terms of its humanistic culture, and should be explored in greater depth to increase its attractiveness to tourists by organising traditional folk culture festivals. Yangshuo is rich in traditional folk culture. There are currently twelve traditional folk culture festivals in Yangshuo. By exploring Yangshuo's folk culture at a deeper level and developing tourism products with unique regional characteristics of northern Guizhou, the core element of tourism, humanistic style, can be made more attractive to tourists.

5.4 Tourism land use planning

In the entire land use of Yangshuo, the highest proportion of land is for scenic spots and natural and humanistic conservation. The direction of land use is to secure urban development and the construction of infrastructure and tourism services. The rapid development of tourism has brought economic benefits to the local area, resulting in an increasing amount of land being converted into tourism land. To avoid damage to the ecological environment due to the over conversion of land into tourism land, the economic benefits created by tourism as a major industry in Yangshuo must be based on a rational tourism plan, which needs to be developed with a sustainable perspective to make a practical plan and to make strict controls and requirements for its implementation. The planning and control process should take into account not only tourism traffic, but also the endowment of tourism resources, land use and the city's architectural and landscape features and humanistic concerns in an integrated manner to control the impact of negative factors and to ensure its scientific and rational nature in the planning process so that Yangshuo's tourism industry moves in the direction of sustainable development.

6 Tourism and Resource and Environment Conservation

The Yangshuo government has attached importance to the protection of resources and the environment, and has introduced a number of management programmes in recent years, such as ecological restoration projects and energy saving target assessments for enterprises. Despite the prolonged existence of resource and environmental issues arising from tourism development, in particular excessive noise from West Street, the management of tourism and resource and environmental aspects has generally been taken seriously and marginally effective. In order to monitor the tourism and resource environment protection situation in Yangshuo, the monitoring team obtained information through secondary data collection and field research, as well as through questionnaires and interviews with domestic and international tourists, residents, business owners and employees to understand the subjective perceptions of different subjects.

In general, the government of Yangshuo has been quite effective in its environmental politics. Although residents perceive the air and water quality in Yangshuo to be poor and the noise pollution to be serious, most residents believe that Yangshuo is more timely and effective in the disposal of solid waste, while residents' awareness of environmental protection has increased; in contrast, tourists have a more positive perception of Yangshuo, believing that the scenic area is clean. Foreign tourists generally believe that the air in Yangshuo is clean but noisy. Domestic tourists have a higher perception of water quality than foreign tourists. In terms of owners' awareness of energy conservation, the majority of owners did not adopt conservation measures. Owners' awareness of conservation needs to be improved.

6.1 The effectiveness of government environmental

remediation

The 2019 Government Work Report focuses on increasing ecological governance, firmly establishing the development concept of "green water and green mountains are the silver mountain of gold", developing the ecological economy and following the development of production development, affluent living and ecological path.

In 2019, Yangshuo strengthened the management of open burning, consolidated the results of the "clean countryside", carried out special rectification actions on rivers, lakes and reservoirs to clean up the four kinds of disorders and sand mining in rivers and lakes, and protected the water ecological environment. The first phase of the village soil pollution prevention and remediation project in Xingping Town was completed. In addition, the second national census of pollution sources was carried out comprehensively. Ecological and environmental protection issues were vigorously rectified, and the ecological restoration results of the quarries that had been shut down were fully consolidated. The area and boundary plans of the Jiaqiaoling Nature Reserve and Ocean Mountain Nature Reserve passed the autonomous region's evaluation. Yangshuo continues to promote the improvement of the rural environment, with more than 10 million yuan invested to build up the rural domestic sewage facilities, sewage pipe network rectification work. Sewage treatment facilities in Baisha, Xingping, Fuli, Gaotian and Putao have been operating normally. The conversion of rural kitchen and toilet to 6,000 households is completed. A series of special operations to combat forest-related crimes, including "Green Sword 2018", were carried out. 139 forest-related cases were handled throughout the year, of which 25 criminal cases were filed, 24 were solved and 24 people were arrested (including direct prosecution). The government also strengthened the enforcement of fisheries laws, seizing 11 electric fishing machines and destroying 1.18 kilometres of cages. 245 illegal and unauthorised structures are investigated. 12,700 square metres of unauthorised building area are demolished. Multi-departmental joint law enforcement dealt with 184 cases of dirt violations,

effectively addressing construction waste pollution of the environment such as site mud polluting the road and transport vehicles spilling and dripping. The compulsory dismantling of abandoned vessels on the Li River and the special rectification of the Li River's messes and dirty were carried out, and 180 houses on both sides of the Li River were renovated, achieving obvious results.

6.2 Residents' and visitors' perceptions of environmental quality

In terms of air quality, Yangshuo residents perceive that tourism activities have a little impact on local air quality, with nearly half of residents believing that there is no direct impact between tourism activities and air quality, while those who believe that tourism activities have an impact on air quality account for a quarter of the total number of residents interviewed.

In terms of water quality, residents generally perceive the water quality to be better. Visitors perceive the water quality to be significantly better than in previous years, reflecting the significant improvement in water quality in Yangshuo and the good results of the ongoing ecological management by the Yangshuo Government. However, some visitors were less satisfied with the water quality of the Li River and the Encounter River, indicating that the water quality varies between different geographical environments. The main reason for the difference in the perception of water quality between residents and tourists may be due to the length of time they have been aware of the water bodies. As residents, they have been in contact with local water for a long time and are more sensitive to changes in their perceptions, whereas tourists are less aware of the longitudinal changes in water in Yangshuo over time. Their only reference point is the quality of the water in the place they live in, which is more likely to produce subjective differences.

In terms of noise pollution, nearly 40% of the residents surveyed believe that

tourism activities have increased noise pollution in the area, with 7.14% strongly agree and 35.71% agree. However, 32.14% of residents said that tourism has no impact on noise, while others also held a negative position on "tourism will increase noise pollution".

In terms of solid waste, nearly 60% of residents surveyed believe that tourism has increased solid waste emissions, while nearly 60% believe that tourism has also led to more effective and timely waste disposal, indicating a better breakthrough in waste disposal as a measure across the county; visitors' perspective sees only the presented results of waste disposal and perceptions of cleanliness and hygiene, with no long-term comparisons with the past, but more than 80% of visitors consider the scenic sanitation in Yangshuo County to be very good, which is inevitably linked to the local government's solid waste remediation measures.

6.3 Energy saving and environmental awareness in enterprises

Enterprises do not understand the importance of energy and measures to save water and electricity, as well as the lack of funds and equipment to implement energy conservation. The government should increase publicity on the concept and specific measures to protect energy, save energy and reduce emissions. At the same time, the government should take certain measures to encourage small enterprises to implement energy conservation, such as providing grants and subsidies on energy conservation and emission reduction, in order to promote the implementation of energy management and achieve sustainable development.

