
CONTENTS

2016 Monitoring Report on the Sustainable Tourism Development of Yangshuo.....	1
2016 Monitoring Report on the Sustainable Tourism Development of Mt Huangshan.....	20
2016 Monitoring Report on the Sustainable Tourism Development of Hongcun Village.....	48
2016 Monitoring Report on the Sustainable Tourism Development of Xidi Village.....	77
2016 Monitoring Report on the Sustainable Tourism Development of Zhangjiajie.....	102
2016 Monitoring Report on the Sustainable Tourism Development of Kanas.....	118
2016 Monitoring Report on the Sustainable Tourism Development of Chengdu.....	135
2016 Monitoring Report on the Sustainable Tourism Development of Luoyang.....	150
2016 Monitoring Report on the Sustainable Tourism Development of Jiaozuo.....	175
2017 Monitoring Report on the Sustainable Tourism Development of Xishuangbanna.....	202
2016 Monitoring Report on the Sustainable Tourism Development of Changshu.....	228

2016 Monitoring Report on the Sustainable Tourism Development of Yangshuo

Monitoring Centre for UNWTO Sustainable Tourism Observatories

Guilin Municipal Tourism Development Committee

People's Government of Yangshuo County



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1 Preface

1.1 The Origin of the Monitoring

Since 2002, with the vigorous development of tourism in Guilin, Guilin has gradually entered the ranks of the world's top tourist destinations. The Guilin municipal government is also constantly strengthening its contacts and cooperation with international tourism organizations. At that time, the unique and diverse phenomena that emerged in Yangshuo's tourism development attracted international attention. In 2004, Guilin signed a cooperation agreement with the World Tourism Organization to put tourism data of Yangshuo into the "World Tourism Organization (2012), Indicators of Sustainable Development Tourism Destination - A Guidebook, UNWTO, Madrid). On July 26, 2005, the world's first sustainable tourism observatory was formally established in Yangshuo and an inauguration ceremony was held in October 2009, marking the start of Yangshuo's long-term sustainable tourism monitoring. In September 2010, the United Nations The World Tourism Organization signed a cooperation agreement with Sun Yat-sen University to establish UNWTO MCSTO, which is responsible for the management and monitoring of sustainable tourism observing sites in China and even the Asia-Pacific region in the future to ensure the continuous, comprehensive and effective monitoring work. This marks the formal completion of the physical establishment of the monitoring center and marks that the cooperation between Sun Yat-sen University and UNWTO in promoting the sustainable development of global tourism has entered into a substantive phase. Since August 2006, the Tourism Development and Planning Research Center of Sun Yat-sen University has successfully completed the monitoring of the sustainable development of tourism in Yangshuo from 2006 to 2016 according to the indicators and methods of the World Tourism Organization's GOST project and has been fully affirmed by the World Tourism Organization as a examples of monitoring of sustainable development at destination, which have further promoted the sustainable development of Yangshuo.

1.2 The Process of Monitoring

The monitoring period is from June 27 to July 4, 2016. The team consisted of 21 members, including a teacher from the Tourism Development and Planning Research Center of Sun Yat-sen

University, 4 PhD students, 3 master students and 13 undergraduates. The monitoring team conducted on-the-spot visits to West Street and Ten-mile Gallery (Butterfly Spring, Banyan Tree, Moon Hill), Yulong River, Xanadu, Xingping Ancient Town and carried out a questionnaire survey for Chinese and foreign tourists, community residents, small business owners and employees. In total, 978 visitor questionnaires were distributed to tourists. 858 questionnaires were sent out for domestic tourists with 694 questionnaires returned, resulting in a valid rate of 80.88%; 120 questionnaires were for foreign visitor questionnaires, of which 111 were valid, resulting in a valid rate of 92.5%; 450 were for residents questionnaire, including 410 valid questionnaires, the effective rate was 95.3%; 150 questionnaires were for staff with 142 valid ones, and the valid questionnaire rate was 94.7%; 80 copies of the questionnaire were for small business owners with 72 valid questionnaires, and the effective rate was 90%. In addition, the monitoring team conducted census of more than 2000 shops along 26 main and secondary arterial roads in Yangshuo County, and recorded and analyzed the changes of its business operations. This monitoring also added a special survey of Yangshuo's catering, and the research object was the famous specialty beer fish. 210 valid questionnaires were issued, and in-depth interviews with the beer fish restaurant operators were conducted. After the completion of the monitoring activities, the monitoring team completed the Monitoring Report on the Sustainable Tourism Development of Yangshuo of year 2016 based on the contents and indicators contained in the Guidelines for the Use of Sustainable Development Indicators of Tourism Destinations and based on a comprehensive analysis of field investigation data, interview materials, questionnaire data and second-hand materials. The report includes seven major components: tourism and community, tourists' satisfaction, health and safety, tourism planning and control, tourism economic benefits, tourism and resources and environmental protection, tourism products and services.

This monitoring is the continuation and deepening of previous monitoring and reflects the current key problems in the sustainable development of tourism in Yangshuo. Some measures have been put forward in a targeted way to provide guidance to the World Tourism Organization and other organizations that are committed to the sustainable development of tourism. The research institutions provide reference for the application of related indicators.

2 Tourism and Community

In this monitoring, a grand total of 520 questionnaires were sent out for residents with 481 returned, of which 460 valid questionnaires, and the effective rate was 95.3%. The questionnaires were distributed from June 28 to July 2, 2016 for 5 days. Distribution sites included Yangshuo Park, West Street, residential areas, urban markets, gas stations in the vicinity, as well as the surrounding villages and towns like Longtan Guzhai, Xingping ancient town and other regions. The gender ratio in the survey population was more average, with male to female ratio of 3: 5. The age distribution was mainly concentrated in 15-60 years old, accounting for 93.6% of the total. Among them, residents aged 15-24 accounted for 27.6% of the total number of respondents, residents aged 25-44 accounted for 50.7% of the total number of respondents, residents aged 45-60 accounted for 15.2%, while those under 15 and 60 years of age groups only accounted for 6.4% of the total number of respondents. In terms of education, 71.4% of the respondents were junior high school or secondary school graduates. 59.6% of residents surveyed received monthly income of 1000-3000 yuan and monthly income of more than 3000 yuan accounted for 24.8% of the total; 52.8% of respondents lived in Yangshuo for more than 10 years.

2.1 The Analysis of Index Result

(1) Residents' Overall Perception of Tourism Development

Most residents think that the tourism industry is good for local development and thinks that they can profit from it. At the same time, residents are more satisfied with and supportive of the local tourism development. However, nearly one quarter of residents surveyed are not satisfied with the tourism development in Yangshuo. And it is noteworthy that the data are not optimistic, compared with that in 2015. The proportions of "agree" and "strongly agree" all dropped slightly while those of "disagree" and "strongly disagree" all increased slightly except for a slight drop in favor of local development. A possible reason for this phenomenon lies in the survey on the 1st of July in Xingping Ancient Town. The small-scale strike of local villagers may result in the deviation of random samples.

(2) Residents' Perception of the Impact on Tourism Environment

The vast majority of residents think that tourism development has brought more serious air, water, noise and waste gas pollution to the local environment and the traffic becomes more crowded. Residents' negative perception of the impact on the tourism environment is more prominent. The vast majority of residents have a relatively high awareness of environmental protection, but a slight decrease from the same period of last year, indicating that there is still room for improvement in sustainable tourism development in Yangshuo.

(3) Tourism Participation

In terms of the distribution of respondents' occupations, residents' participation in the tourism industry is not very high. Tourism-related occupations are concentrated in catering, bamboo raft staff, tour guides, hotel industry workers and self-employed (mainly for tourists) Etc., the technical content of work is not high, there is still much room for improvement. Residents did not participate deeply in the tourism industry, but residents have a higher willingness to participate in the development of the scenic area. However, in contradistinction to the high willingness to participate, residents' suggestions and decision-making power to participate in decision-making are inadequate. Residents still have a big obstacle in obtaining information on policy guidelines.

2.2 Case Study of Typical Community The Analysis of Index Result

(1) Tourism Development of Longtan Village

Longtan Village is located 1 kilometer west to the Moon Hill and about 9 kilometers southwest to Yangshuo County. Longtan Village consists of two parts. One is that the original inhabitants moved out of the old town to form a new village on both sides of the road, while the other part is the old village inhabited by a few residents. The old village has a large number of ancient buildings in Ming and Qing dynasties, dating back over 500 years of history, covering about 6,000 square meters. The survey distributed 21 questionnaires in Longtan Village, of which 33.3% were men and 66.7% were women.

Economic Impact

Residents of Longtan Village have a positive attitude and understanding of tourism as a driving force for the local macro economy and agree that tourism has a positive economic impact. However, residents' perceptions are relatively low for the benefit of individuals. This was influenced by the fact that the main tourists of Longtan Villiage are group tourists, who have fixed routine and stay for a short time in Longtan, influenced by tourist guides and agencies to a large extent. The economic impact of Longtan Village's tourism is imbalanced. The geographical location of the houses is an important factor for the benefit.

Social and Cultural Impact

Residents do not agree with the improvement of local conditions brought about by tourism. A small proportion of residents agree that tourism promotes local infrastructure and medical facilities. For the development of local culture, residents think that tourism promotes the cultural exchange between the locality and the outland, and tourism makes the local cultural activities or traditional festivals increase. At the same time, tourism promotes the development of local handicrafts. However, conflicts of interests between residents and developers, village committees and other stakeholders also lead to violent incidents.

Environmental Impact

Most residents of Longtan Village think that the development of tourism has brought environmental pollution. A large number of tourists enter into the ancient village, especially a large number of team tourists, making Longtan villiage be full of people, traffic gather in a short period of time, resulting in a lot of garbage, exhaust pollution and other local environment, while a large flow of people and heavy traffic bring great pressure.

Channels of Participation

Residents of Longtan Village strongly support the development of local tourism and actively participate in the development of scenic spots, but the channels for obtaining information are limited. Less than half of the villagers think they have obtained the guidelines and policies implemented by the government and the residents' access to government policies and policies is inadequate.

(2) Tourism Development of Xingping Old Street and New Street

Xingping Town is located in the northeast of Yangshuo county, the upper reaches the Li River, 25 kilometers from the county. Ancient Street still retains all kinds of buildings made of brick and tile, but the original thriving scene of "Crowded people and traffic," has been replaced by visitors. Ancient bricks are everywhere around the old tiles, and they are located next to the shops and coffee shop in New Street and fits well with Nagoya new store. The survey was conducted in Xingping Ancient Street and Xinjie Street, a grand total of 66 questionnaires were distributed, of which 40.9% were male, 48.5% were women, the remaining 10.6% of residents refused to answer.

Economic Impact

Some residents think Xingping Town Street does not exist a fixed source of tourists in recent years, the decline in the number of visitors, resulting in less income than in the past, and they expressed dissatisfaction with the current level of income. More than 80% of the residents think that tourism has led to price increases. More than half of residents think that traveling benefits only a few people.

Social and Cultural Impact

Residents had good feedback on cultural exchange, handicrafts development, traditional festivals and infrastructure, but they did not have relatively negative evaluation on medical improvement. Residents are very confident about the local law and order situation. In terms of infrastructure, residents of Xingping Town appraised the tourism improvement infrastructure more than residents of Longtan Village. However, the residents do not agree with the government's packaging of their ancient dwellings and think that they have lost their original vicissitudes and sense of time. Residents generally show great acceptance of the local folk culture.

Environmental Impact

Xingping residents have a more sensitive environmental awareness, while a strong sense of environmental protection. Residents generally believe that tourism makes the air, water, noise

pollution worse, traffic is more congested. However, residents have a strong awareness of environmental protection.

3 Perception and Satisfaction of Tourists

A grand total of 781 questionnaires were sent out, including 773 valid questionnaires, 98.98% of the questionnaires are effective, and 224 questionnaires were sent out for foreign visitor, of which 221 were valid, with an effective rate of 98.66%.

3.1 Self-help Travel being Dominant, Relatives and Friends Participating Group being Popular

Interviewed tourists in Yangshuo, whether domestic or foreign tourists, prefer self-help travel. However, the proportion of self-help tourists increased last year while that of foreign tourists declined slightly. In the conference inspection, the proportion of domestic tourists and foreign tourists dropped slightly compared with that in last year. With the establishment of high-star hotel, Yangshuo's conference tourism market has begun to enter the initial stage, but the market is unstable, relatively influenced by external environment.

3.2 Strengthen the Reputation and Establish a Good Tourism Image

The recommendation of internet platform and friends and relatives are the two most important sources of information for tourists at home and abroad. Nearly half of domestic and foreign tourists using online channels, relatives and friends recommended the proportion of higher than the same period last year. In the publicity can consider this focus, to create a better reputation environment to attract tourists.

3.3 Diversified Modes of Transportation, Green Travel being Popular

In terms of the transportation to Yangshuo that tourists choose, there are some differences between domestic and foreign tourists. Trains and coaches are still the first choice for domestic tourists to travel to Yangshuo. The proportion of walking and cycling options is increasing year by

year, and domestic and foreign tourists are paying more and more attention to green travel. Yangshuo need to further improve the pedestrian road to meet the needs of tourists walking.

4 Tourism Health and Safety

At present, Yangshuo's health and safety conditions are above average. Visitors expressed their relative satisfaction with Yangshuo's food safety, accommodation safety and public security conditions, and they also held relatively satisfactory attitudes towards local law and order and medical treatment. In addition, the relevant government departments further strengthens the local restaurant and environmental health norms and remediation, and constantly improves the security situation, and creates a safe tourism environment.

5 Tourism Planning and Control

In inter-county traffic, Yangshuo should further improve the traffic signs and greenway construction in the county and improve the tourism level of the public. Infrastructure improvements must be made ahead of tourist growth in order to avoid the negative impact on tourism. After the opening of Yangshuo High Speed Railway Station in 2015, more tourists will choose to travel by rail. However, the connection between Yangshuo High Speed Rail Station and Yangshuo County should be enhanced.

In terms of tourism resource planning and control, the current development of Yangshuo tourism still needs its unique natural tourism resources as the core, trying to avoid the destruction and over-exploitation of natural resources. For domestic tourists, Yangshuo should strengthen the development of the corresponding cultural customs, for foreign tourists, Yangshuo should maintain the original authentic community, focusing on the development of community tourism. With the advent of mass tourists, the number of tourists increased year by year, and other attractions in Yangshuo like West River and the Li River rafting basically do not have the function of the diversion of tourists, some of the attractions is full of tourists, and thus Yangshuo should not only control the flow of tourists in some popular attractions but also strengthen the maintaining of attractions and the precaution of crisis.

In terms of the utilization of tourism land, the proportion of scenic spots and natural and humanistic protection land occupies the highest proportion in the land utilization distribution in Yangshuo County. The key direction of land utilization is to ensure the development of urban areas and the construction of infrastructure facilities and tourist service facilities. However, more and more land will be converted into tourist land, which may affect the local ecological environment and cause unbalanced development. Yangshuo should strictly implement the land use planning.

6 Tourism Economic Benefits

6.1 Economic Benefit of Tourist Destinations

In the first half of Year 2015 (data statistics till June), Yangshuo County received a grand total of 4.96 million tourists, an increase of 3.4% over the same period of previous year; total tourism revenue reached 3.195 billion yuan, an increase of 24.8% over the same period of last year. Tourism's contribution to Yangshuo's GDP is increasing year by year. In 2015, Yangshuo County's tourism revenue accounted for more than 85% of GDP.

6.2 Tourism has Effectively Promoted the Overall Economic Development of Yangshuo

By the end of the first half of 2015, Yangshuo County had implemented 10 investment projects with an investment of 4.571 billion yuan of domestic funds in place, with most of the investment projects starting between 2014 and 2015. At present, 83% of the administrative villages in the whole county are also engaged in the construction and maintenance of cement roads, tourist parking lots, tourist wharves and bridges, and the improvement of transportation makes the investment value of Yangshuo even greater. And Yangshuo will be "the world's best destination for leisure and tourism" as the goal of building, and continue to promote. Scenic management and service quality are standardized further. More investments are conducted in those places where there are rich tourism resources and modest development of tourism. And the program mainly concentrated in the hotel industry, agriculture development level. The amount of investment and the type of investment are all more like high-end consumer level, from which we can see the guidance of the high quality and

high-end orientation of Yang, indicating the position of Yangshuo County in the future tourism market.

6.3 Tourism has Continued to Boost Investment

Large-scale tourism development highlights the industry's driving effect. The development of tourism continued to adjust the proportion of the three major products in Yangshuo County. The driving force for the secondary industry was particularly evident, which led to the continuous growth of the secondary industry from 2008 to 2014 and the decrease of the proportion of the primary industry. Tourism has brought a lot of employment opportunities, but also to some extent promoted the transfer of employed population from the primary industry to the secondary and tertiary industries. To a certain extent, the development of ecotourism and characteristic agriculture can promote the development of the first industry in Yangshuo. With the improvement of technology, the production efficiency of the first industry has greatly increased, which in turn has contributed to the transformation of the agricultural labor force and further provided labor force for secondary and tertiary industry.

6.4 The Diversification of Small Business

Yangshuo's small businesses of tourism has more diversified business, lifestyle-related businesses has relatively reduced while self-sufficiency entrepreneurs gradually stationed in Yangshuo, which had something to do with the changes in the needs of tourists. Small business owners are generally satisfied with the living and investment environment in Yangshuo, but they think the commercialization of West Street is serious. The overall satisfaction of small business employees with their work is also high, but they think that their working conditions should be further improved. Due to the impact of tourism, their English learning ability is better, focusing on the pursuit of lifestyles, thus the willingness to convert work is also greater.

7 The Protection of Tourism and Resources Environment

The overall status of tourism resources and environmental protection in Yangshuo County is getting better. Government departments have done well in environmental protection and resources

work, taking the form of conducting relevant policies and programs to promote environmental protection, and thus it has achieved some good results. In terms of the atmosphere and water environment, residents' perceptions have not changed much from those in 2015 and remained basically at their original level of perception. However, tourists are generally optimistic about the atmosphere and water environment in Yangshuo.

In the control of noise environment, both tourists and residents think that the noise intensity is too large and the noise intensity inside the West Street is too large. The evening bark, radio and bar music make the entire West Street full of ubiquitous noise, which not only interferes with the rest of residents and tourists around, but also reduces the satisfaction of tourists, which is not conducive to the development of West Street, so the need to control the sources of key noise is essential. In terms of solid waste, residents are aware that the increase in the number of tourists visiting Yangshuo every year has caused great damage to the scenic spots in Yangshuo. At the same time, the tourists' satisfaction with the scenic spots has also declined, indicating that there is a need to strengthen the environment protection within the scenic spots. In terms of landscape style, due to the implementation of the measures of the government departments, the style of the scenic spots can be maintained at a certain level, thereby enhancing the residents' and tourists' perceptions. In the area of energy management, energy management is limited by its own capital and propaganda knowledge. Energy-saving measures in enterprises are not implemented in the depths. Enterprises cannot properly value the importance of energy conservation.

8 Tourism Products and Services

(1) Yangshuo is a Tourism and Holiday Distribution Center Integrating Sightseeing and Leisure

Tourists' expense in Yangshuo is mainly reflected in the natural tourism, leisure and other related products, domestic and foreign tourists' expectation on expense share the overall consistency. The motivations of some groups of tourism are more diverse, and there are some differences between domestic and foreign tourists. There is still room for the improvement in the diversification of tourism products and services in Yangshuo. Tourism products such as exploration, rock climbing and photography can serve as new tourism motivating points.

(2)The Attractiveness of the Landmark Products and the Popularity of the Featured Products

The types of shops and tourist routes in Yangshuo are relatively complete, which can better meet the needs of domestic and foreign tourists. In the selection of attractions, the difference between domestic and foreign tourists is smaller. West Street, Li River rafting, Yulong River are still the more attractive tourist spots for both domestic and foreign tourists. The great difference between domestic and foreign tourists is that foreign tourists tend to enjoy the natural beauty of Yangshuo like local folk culture, etc., and also have strong interest in sports, adventure tourism attractions. In the types of shops, shops with local characteristics are attractive and Chinese restaurants are very attractive to foreign tourists. Whether for domestic tourists or foreign tourists, in the choice of tourism products, handicrafts with cultural characteristics, specialty foods are the dominant choices, and the tourists choose to buy them as souvenirs or gifts.

(3)Various Types of Stores within the Scenic Spots with a Trend of Outward Expansion

Yangshuo County, rich in service facilities, can greatly meet the needs of tourists and residents, but the regional distribution is not reasonable. There are too much stores in the area where the climate of business is strong and tourists are highly concentrated. On the contrary, there are not so many shops in the area where residents and tourists live. And this imbalanced distribution of shops is not good for the distribution of the flow of tourists. Although the advantage is that tourism development will not bring too much negative impact on residential life, it will obviously increase the pressure on the operation in the area centered on the West Street. Therefore, it is suggested that shops in all areas of Yangshuo can be more reasonably distributed and diversified.

(4)The Internet and Word of Mouth Spread as the Main Channel of the Dissemination of Information

At present, most domestic and foreign tourists are more satisfied with the tourism in Yangshuo. The tourism image of Yangshuo has been deeply rooted in the hearts of people. The introduction of Yangshuo scenic spot is based on the word of mouth. spread of the Internet has also become the main way of image promotion. The What domestic tourists hope most is to obtain the scenic introduction, accommodation information, and foreign tourists pay more attention to the local

tourism resources and cultural information. In the publicity of the tourist destination image, Yangshuo should pay attention to make good use of these channels and information.

9 Summary

(1) Tourism and Communities: There is a High Willingness of Community Participation, but not Enough Actual Participation

Yangshuo residents' willingness to participate in tourism is high both from questionnaire data and from random interviews, which includes the willingness to participate in tourism management and tourism development. In the "Are you willing to engage in the tourism industry", 64.38% of residents said they are willing to work in the tourism industry, the data also show that 57.28% of residents said they are willing to take the initiative to make recommendations for the development of scenic spots, with a high enthusiasm and willingness to participate. However, contradictory to this is the lack of residents' right to give advice and make decision. Residents still have a big obstacle to getting information about the policy guideline. This requires the government and scenic area managers to further expand the channels for residents to participate and protect the rights of community residents. In addition, community residents also need to continuously improve their own self-quality and enhance their ability to participate in decision-making.

(2) Tourist Satisfaction and Behavior Characteristics: Satisfied with the Natural Environment and Prefer Green Travel

Whether it is for Chinese tourists or foreign tourists, the core attraction of Yangshuo is its beautiful natural scenery. After investigation and study, tourists are found to be more satisfied with the natural environment of Yangshuo. Most of the Yangshuo tourist experiences meet or even exceed their own expectations. Compared with the previous years, these indicators have shown an upward trend, indicating that the protection of the natural environment and human environment is effective and that sustainable development can be carried out.

There are some differences between domestic and foreign tourists in the selection of the transportation to Yangshuo. Compared with 2015, trains and coaches are still the first choice for

domestic tourists to travel to Yangshuo. It is noteworthy that domestic tourists choose to walk up to 35.20% this year, while the proportion of choosing bicycles and sightseeing cars is higher than in 2015. This shows that domestic tourists are also paying more and more attention to green travel. Green travel receiving popularity, the government needs to improve the pedestrian path to meet the needs of tourists' walking.'

(3) Tourism Health and Safety: The Overall Environment is Good and the Environment of Safe Production Still Needs to be Created

At present, Yangshuo's health and safety conditions are above average. Visitors expressed their relative satisfaction with Yangshuo's catering and hygiene, accommodation safety and public security conditions. Among them, the satisfaction level of foreign tourists is slightly higher than that of domestic tourists, and residents are also more satisfied with local law and order and medical treatment. In addition, the relevant government departments further strengthen the local restaurant and environmental health norms and remediation, and continuously improve the security situation, and create a safe tourism environment.

(4) Tourism Planning and Control: The Implementation of HSR (High Speed Rail) Planning and Development Control still Need to be Strengthened

With the high-speed rail Yangshuo station being put into use, Yangshuo traffic opened a new era. However, the traffic from Yangshuo High Speed Rail Station to the county is not convenient (about 1 hour by car), and the fare is not economical. Therefore, in order to maximize the good impact of the Yangshuo high-speed rail to promote the role of tourism, we must standardize the shuttle bus management.

At the same time, with the arrival of mass tourists, the number of tourists increased year by year, and other attractions in Yangshuo like West River and the Li River rafting basically do not have the diversion of tourists, some of the attractions has great flow of people, and thus government should control the flow of tourists in the popular spots and make a precaution of what might happen during the tourism. The economic benefits brought by the rapid development of tourism to the local area lead to the fact that more and more land turn into tourist land. However, if too much land is

converted into tourist land, the local ecological environment may be destroyed and the development of the area will be unbalanced. Due to the scarcity of land, Yangshuo's land use should be strictly implemented.

(5)Economic Benefit of Tourism: The Effect of Economic Pull is Enhanced and the Type of Industry Undergoes Structural Adjustment

Tourism plays an extremely important role in the economic development of Yangshuo and promotes the overall social and economic development of Yangshuo, which is mainly embodied in the great economic income from tourism, the increasing contribution to finance, the development of related industries such as agriculture, commerce and handicrafts, the employment training and employment opportunities for local residents and the improvement of the quality of labor force, and the promotion of local investment attraction . At present, Yangshuo tourism development is still dominated by investment, with relatively abundant tourism resources and relatively modest tourism development. Investment projects in Yangshuo are relatively concentrated, and are mainly concentrated in the hotel industry and agricultural development. Both investment and investment types are biased towards high-end consumer level, indicating the position of Yangshuo County's tourism market in the future. The promotion of tourism to commercial development is especially notable, with the number of tourism-related shops increasing significantly compared with that of last year. The development of ecotourism and characteristic agriculture can promote the development of the first industry in Yangshuo to a certain extent. With the improvement of technology, the production efficiency of the first industry has greatly improved, and to a certain extent, the transformation of agricultural labor force has been promoted, which provides labor force for second and tertiary industry.

(6)Environmental Protection of Tourism Resources: Energy-saving Awareness Needs to be Improved, Solid Waste and Noise Pollution Need to be Controlled

The overall status of tourism resources and environmental protection in Yangshuo County is getting better. Government departments have done well in environmental protection and resources work, taking the form of conducting relevant policies and programs to promote environmental

protection, and thus it has achieved some good results. In terms of the atmosphere and water environment, residents' perceptions of atmospheric water have risen, and local changes can be experienced. However, visitors are generally optimistic about the environmental perception of Yangshuo. In the control of noise, both tourists and residents think that the noise intensity is too large, affecting their life and excursions, especially in West Street. In terms of solid wastes, residents perceive that the increase in the number of tourists visiting Yangshuo each year caused a great damage to the scenic spots in Yangshuo. At the same time, tourists' perception of the scenic spots also declined. This shows that there is a need to strengthen sanitation protection. In terms of landscape style, due to the implementation of the measures and measures of the government departments, the style of the scenic spots can be maintained at a certain level, thereby enhancing the residents' and tourists' perceptions. In the area of energy management, energy management is limited by its own capital and propaganda knowledge. Energy-saving measures in enterprises are not implemented in the depths. Enterprises cannot properly value the importance of energy conservation.

Products and Services: Tourism Products Should be Designed According to Tourists' needs to Avoid Over-concentration of Service Facilities

Tourist's expense in Yangshuo is mainly reflected in the natural tourism, leisure and other related products, there is still plenty of room for improvement in Yangshuo's tourism products and services. For example, tourism products such as exploration, rock climbing and photography can serve as new tourism motives. Yangshuo County, rich in service facilities, can greatly meet the needs of tourists and residents, but the regional distribution is not reasonable. There are too much stores in the area where the climate of business is strong and tourists are highly concentrated. On the contrary, there are not so many shops in the area where residents and tourists live. And this imbalanced distribution of shops is not good for the distribution of the flow of tourists. Although the advantage is that tourism development will not bring too much negative impact on residential life, it will obviously increase the pressure on the operation in the area centered on the West Street. Therefore, it is suggested that shops in all areas of Yangshuo can be more reasonably distributed and diversified.

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Mt. Huangshan Administrative Committee



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1 Monitoring Profile

Mount Huangshan is an outstanding representative of China's mountain tourist destination. As a tourist destination laureate boasting multiple titles at home and abroad including the Top Ten Scenic Spots in China, World Cultural and Natural Heritage, and World Geopark, the sustainable tourism development of Mount Huangshan has received special attention in China and the world. On February 26, 2008, the World Tourism Organization (UNWTO) and United Nations Educational, Scientific and Cultural Organization (UNESCO) formally set up the World Tourism Organization Destination for Sustainable Development of the Mount Huangshan Observatory (GOST) and the World Heritage Site Sustainable Tourism Development (Mount Huangshan) Observatory Area, focusing on exploring a development model of world heritage site tourism with the maximum benefits to economic and community development while the minimum negative effects on environment through collecting a number of indicators of tourist perception and satisfaction and the implications of tourism on community as well as indicators and data of Mount Huangshan's sustainable tourism development. On May 30, 2011, Mount Huangshan Scenic Spot Management Commission of China and Sun Yat-sen University officially signed a cooperation agreement on the construction of observation sites and formally joined the technical assessment system of UNWTO's GOST program. In the strong support and active cooperation of Mount Huangshan Scenic Spot Management Commission, a monitoring group from Sun Yat-sen University conducted the field research in Mount Huangshan scenic spot from June 25th to July 4th 2016. This monitoring practice hoped to summarize and provide the world with some worthwhile management experience of Mount Huangshan tourism development on the basis of researching and analyzing the impacts of Mount Huangshan tourism development on environment, society and economy in an all-round way.

The coverage of this monitoring were the overall planning area of Huangshan scenic spot in 2006 and the buffers, specifically including 160.6 square kilometers in the list and the surrounding five towns – Tangkou town, Tanjiaqiao town, Sankou town, Gengcheng town and Jiaocun town with aggregated area of 490 square kilometers.

Based on the summary of the monitoring results in the past five years, the research group of

total 10 members consisted of one professor of the Center for Tourism Planning and Research of Sun Yat-sen University, two doctoral students, two graduate students and six undergraduate students working together to finish the monitoring from June 25th to July 4th 2016. Seven monitoring tasks were accomplished by the way of questionnaires, field research, government interview and so forth, which were: (1) the assessment of Huangshan tourism and resource and environmental protection; (2) the research on the influences of Huangshan tourism on the environment of five towns in the buffers and society as well as economy; (3) the residents' satisfaction of five towns in the buffers; (4) the general items observation of scenic tourists' perceptions and satisfaction; (5) the research on the living quality perception of community residents in the surrounding of Huangshan; (6) investigation on the time and space behavior of tourists in Huangshan scenic spot; (7) big data analysis of Huangshan travel emotional status.

This monitoring has sent out 400 tourist questionnaires with 370 valid ones returned. As for community resident questionnaires, 400 were sent out with 389 valid ones back. The valid questionnaires were distributed at a ratio of Gengcheng town taking up 15.4%, Jiaocun town 15.2%, Sankou town 16.7%, Tanjiaqiao town 15.7% and Tangkou town 37.0%. Interviews were conducted with village and town government sectors in the buffer zone, small business owners, aged residents and the others. In addition, concerning second-hand materials were gained with the help of Mount Huangshan Scenic Spot Management Commission.

2 Tourism and Resources, Environmental Protection

2.1 Biodiversity conservation assessment

There are 323 species of vertebrates (including 28 species of national protected animals) and 1,805 species of higher plants (37 of which are state-level protected plants) distributed in Mount Huangshan, accounting for 7% of animal and plant species with the merely total land area of 0.13 % of the country. In light of this, Mount Huangshan are praised as Natural Zoo and Botanical Garden and also identified as one of the 108 biodiversity distribution centers in the world by the World Conservation Union (IUCN) as well as one of 35 preferential biodiversity conservation regions by the China Natural Biodiversity Conservation Strategy and Action Plan (2011-2030).

In 2015, the following actions were taken in biodiversity conservation: (1) Establishment of Mount Huangshan Biodiversity Conservation Research Base; (2) Proceed to declare to join "UN World Biosphere Reserve Network". (3) Launched Ecological Environment Monitoring System Construction Project of Mount Huangshan Scenic Spot. (4) Organized special lectures on biodiversity conservation. (5) Carry out publicity on biodiversity.

2.2 Cultural resources assessment

Huangshan cultural relics resources include: ancient cultural sites, ancient buildings, ancient pedaling roads, ancient tombs, cliff stone carving, the important early modern historical sites and representative buildings and other immovable cultural heritage, as well as important historical objects of all ages, works of art, ancient literature, manuscripts, books and information, representative physical objects and other removable ones.

In 2015, a series of cultural heritage protection projects such as the rescue and restoration of cultural relics and historic sites, improvement of sewage treatment and protection and reinvigoration of ancient and famous trees, and renovation of Ciguangge Pavillion Mountain Gate, Pumen Tower, Qiansengzao Stove, Fayanquan Spring, Fangshengchi Pond and Tingtao Residence , Calligraphy Steles, Waterfall-viewing House and Bean Tower and other monuments; the construction of Ciguang Pavilion, lightning protection facilities of Mid-levels Mount Temple ancient buildings and standardized cultural relics warehouses of Mount Huangshan Museum; carrying out the maintenance and management of South Gate Archway and its surroundings, ancient buildings of Pine Valley Nunnery, Hung Bridge Nunnery and their surroundings the excavation and protection of hot springs ancient ruins, Lingxi Spring of Yungu Temple and other sites.

2.3 Environmental protection indicators monitoring

This phase's monitoring showed that the environmental indicators in Mount Huangshan have maintained a good level. In terms of water environment, the quarterly water monitoring has been conducted four times for the outbound surface water and four major reservoirs, namely, Wuliqiao Reservoir, Yungu Reservoir, Tianhai Reservoir and Xihai Reservoir across 2015. The fecal and large intestine liver flora exceeded the standard in the first quarter monitoring, after which, the following

water quality testing indicators compliance rate reached 100%. As for domestic sewage, there are 15 sewage treatment sites in total with the designed daily sewage treatment capacity of more than 6,300 tons. The actual average annual sewage treatment capacity is about 500,000 tons and the length of the competent pipe network is about 11 kilometers. The wastewater collection and centralized processing in fragmentation within the scenic area is basically achieved. In the aspect of air quality, all the major indicators of air quality in the scenic spot were better than the national primary standard in 2015.

In terms of solid waste disposal, in 2015, Mount Huangshan Scenic Spot issued 6 permits in total for construction rubbish discharge. Under the coordination of the Garden Area Management Sector, Scenic Spot Environmental Protection Department engaged in the environmental management of every construction project throughout the year and urged all types of construction rubbish about 1592 tons to go downhill of clearance rate up to 100% while 1270 tons of recycling.

Annual output of household waste is relatively stable, generally 4000-4500 tons per year. Scenic spot has 8 rubbish transfer stations, 17 garbage transfer points, 130 classified dustbins, 1480 garbage pools of all kinds. 30 classified dustbins in the living area have been set and garbage collection facilities gradually improved. Waste plastics, waste paper and waste glass, which taking up more than 20% of domestic waste, were cleaned and removed down mountain by special personages.

3 Community Perception of Tourism Impacts

3.1 Profile

The five surrounding towns in Mount Huangshan Scenic Spot, the other four towns basically depend on agriculture while service industry and modern industry in primary stage apart from Tangkou town orienting towards agriculture and service industry. The investment of infrastructure in Tanjiaqiao Town is relatively high, close to the annual gross output value of agriculture, but there is a certain oversupply situation. The similar economic development of Jiaocun Town is also driven by infrastructure investment. The rapid development of industry in Sankou Town has given preliminary industrial foundation. With the addition of Baiguoshu Village to the ancient Anhui traditional village,

it has provided a new attraction for tourism development and has good development prospects.

In addition to monitoring of routine residents' attitudes and perception, monitoring of public services and environmental sanitation in communities in the buffer zone was conducted during the monitoring period. In recent years, Jiaocun Town has been actively implementing social security system construction, building a social security system focusing on health insurance and subsistence allowance, and implemented many livelihood projects such as medical cooperation, beautiful countryside construction and compulsory education funds security, the establishment of town hospitals, the construction of a small amount of sports facilities and health facilities, such as table tennis, health square and so on. In recent years, Gengcheng Town has focused its social public construction on infrastructure construction including road hardening, renovation of old houses and construction of public facilities such as water purification facilities. A lot of public facilities have been constructed including a number of square with fitness facilities, public churches, stadiums and so forth, all in good public health. In recent years, Sankou Town has mainly carried out infrastructure construction and style renovation work. However, its overall infrastructure is inadequate and its own public health center can meet its basic medical needs. Tanjiaqiao Town has a high level of road coverage, and its sewage collection project, power grid reconstruction project are expected to complete in recent years, along with rural road reconstruction projects and water conservancy projects. The town has a good health situation but lack of public leisure facilities such as public squares and fitness facilities. As for Tangkou Town, it has sufficient public service facilities, good road traffic infrastructure and a high level of medical and health to meet the basic needs of residents.

In respect of residents' attitudes and perceptions, a total of 389 valid questionnaires were returned in this survey, among them, 15.4% of Gengcheng Town, 15.2% of Jiaocun Town, 16.7% of Sankou Town, 15.7% of Tanjiaqiao Town and 37.0% of Tangkou Town. In the buffer zone of Mount Huangshan tourism sustainable development, residents' attitudes and perceptions related to the impacts of Mount Huangshan tourism development on economy, society, culture and environment were concerned by this survey. The questionnaire was mainly targeted at residents of five townships around Mount Huangshan. The questionnaire design adopts Likert Scale, which is five alternative answers given to each question in the scale. The five answers are arranged in ascending order of

agreement. The corresponding assignments are 1, 2, 3, 4 and 5. Finally, the descriptive statistical analysis of questionnaire results was conducted.

Table 3-1 Population characteristics of attitudes and perceptions of community residents around Mount Huangshan Scenic Spot

Variables	Categories	Number of people	Percentage
Gender	Male	206	53
	Female	183	47
Age	≤15 Years old	10	2.6
	15-24 Years old	41	10.5
	25-44 Years old	188	48.3
	More than 45-60 Years old	123	31.6
	≥60 Years old	27	6.9
Education	Junior high school and below	23	5.9
	High school or secondary school	172	44.2
	College	130	33.4
	Undergraduate	64	16.5
	Graduate and above	0	0
Residence time in the local area	< 1 Year	9	2.4
	1-3 Years	16	4.1
	4-6 Years	34	8.8
	7-10 Years	28	7.2
	>10 Years	300	77.5

3.2 The attitudes and perceptions of residents in the buffer zone

3.2.1. Residents' perceptions of tourism impacts on economy, society, culture and environment

Based on the monitoring of residents' perceptions in the buffer zone, the indicators of tourism impact perception are divided into four categories: economy, society, culture and environment.

The five indicators with the highest perceived mean and endorsement rate were "tourism development promotes local popularity", "tourism development enables local residents to realize the value of Mount Huangshan Natural Heritage", "tourism development accelerates local economic development" and "tourism brings job opportunities" and "tourism development has raised the economic income of local residents", showing the perceived mean value reaching higher than 3.90, the approval rate being above 80%.

The seven indicators with the lowest perceived mean and approval rate were "the deterioration of local law and order due to tourism development", "the deterioration of local social culture by tourism development", "the development of tourism caused the local conventions and traditional culture to be destroyed and forgotten," and "tourism development has triggered conflicts between tourists and locals", "tourism development has disturbed the residents' life and caused distress to the residents", "tourism development has changed the local population structure (male-female ratio, ethnic composition, etc.)" and "air is polluted", resulting in the perceived mean below 3, and approval rate less than 24%.

3.2.2 Community residents' perceptions of tourism participation

Overall, the average value of seven indicators of community residents' perceptions of tourism participation is more than 3.6, and the approval rate is above 62%, which means that most of the community residents have a positive attitude towards participating in Mount Huangshan tourism. However, it is noteworthy that the mean and approval rates of "Mount Huangshan Tourism Development has made a lot of contribution to the local community" and "I am satisfied with Mount Huangshan tourism development" are relatively low, while "I will continue to support the

development of tourism in Mount Huangshan", of which the average value and approval rates reach as high as 4.09 and 87.1%.

According to the data collected in the sub-regions, Sankou Town has the highest degree of recognition of the contribution made by Mount Huangshan while the lowest is in Jiaocun Town. Sankou Town boasts the highest recognition of "Huangshan Tourism contributes great to local development" and the highest degree of satisfaction about Huangshan tourism development while the lowest satisfaction in Tangkou Town, is 3.43, followed by Jiaocun Town of 3.5.

3.3 Summary

The monitoring results show that residents are aware of the positive effects brought by Mount Huangshan tourism on economic, social and cultural development such as increasing income, increasing employment opportunities, promoting economic development, enhancing local reputation, making local public security in good condition and promoting cultural exchanges with foreign cultures. At the same time, they also pay attention to the negative impacts on economy and environment brought by tourism development in Mount Huangshan such as increasing cost of living, increasing prices, widening the gap between the rich and the poor, bringing about noise, water and air pollution and increasing rubbish. Therefore, effective measures should be taken to control the negative impacts of Huangshan tourism development so that it can achieve sustainable development and win the broad support of residents. The distinct residents' recognition and satisfaction of Huangshan tourism contribution in the five towns, is concerned with factors such as the geographical location, tourism attraction and the degree of tourism development and so on varying among the five towns.

4 The Perceptions and Satisfaction of Tourists

4.1 Profile

Mount Huangshan Scenic Spot received 3.18 million tourists in 2015.

The three aspects of questionnaire statistics are the demographic characteristics of tourists,

tourists' behavior and tourists' satisfaction. Demographic characteristics of tourists focus on tourists' gender, age, origin, education, income, occupation and other basic information; Tourists' behavior centers on learning about the visiting attractions and corresponding stay time as well as making some supplements to their travel methods, number of visits and stay time through their memories and restatements of the tour routes.

9 evaluation items concerning tourist satisfaction include destination landscape, accessibility, scenic consumption, tourism information, environment and health, security, tourism experience, tourism education and overall satisfaction. There are several evaluation sub-items a total of 40 under each evaluation item. The chart was designed for tourists in the form of Likert Scale, (which is five alternative answers given to each question in the scale. The five answers are arranged in ascending order of agreement. The corresponding assignments are 1, 2, 3, 4 and 5; question items are in a positive tone, the higher the degree of consent, the more active evaluation). 400 questionnaires were sent out within 6 days with 370 valid ones back in the places of Mount Huangshan Scenic Spot, Ciguang Pavillion Tourist Center, Yungu Temple Tourist Center and transfer center terminal. The basic information of interviewees is seen in Table 4-1

Table 4-1 Demographic characteristics of the survey on tourist perceptions and attitude in Mount Huangshan Scenic Spot

Variables	Categories	Number of people	Percentage
Gender	Male	196	57.3
	Female	146	42.7
Age	< 15 Years old	32	9.2
	15-24 Years old	131	37.9
	25-44 Years old	169	48.8
	45-64 Years old	14	4.0
Education	Junior high school and below	44	13.1
	High school and	51	15.2

Variables	Categories	Number of people	Percentage
	secondary school		
	College	54	16.1
	Undergraduate	157	46.7
	Graduate and above	30	8.9
Occupation	Civil servant	14	4.0
	Business staff	102	29.5
	Farmer/worker	8	2.3
	Individual business	21	6.1
	Institutional personnel	36	10.4
	Student	125	36.1
	Soldier	4	1.2
	Retired staff	2	0.6
	Others	34	9.8
Income	1000 RMB and below	83	26.3
	1001-2000 RMB	13	4.1
	2001-3000 RMB	34	10.8
	3001-5000 RMB	83	26.3
	5001-10000 RMB	70	22.2

At the same time, this monitoring analyzed information such as tourists' origin, travel methods, number of visits and days of stay. As for origin, tourists mainly came from Anhui Province, followed by Jiangsu Province, again Shanghai and Zhejiang province, and Guangdong province, Fujian province and Hebei province. In terms of travel methods, 72.4% of the surveyed in Mount Huangshan are self-help tourists more than team tourists of 27.6%. In addition, most tourists came to Mount Huangshan for the first time, accounting for 87.1% of the total. It shows that the re-entry rate among Mount Huangshan tourists is not high. There are 152 tourists, accounting for 43.1% of the

total, staying for 2 days, followed by 108 tourists for 3 days, accounting for 30.6%. There is also a large number of visitors about 79 staying for 1 day, taking up 22.4%.

4.2 Tourist satisfaction

4.2.1. Tourist evaluation of destination landscape

Tourists give a high evaluation of Mount Huangshan Scenic Spot landscape. 83.8% of the tourists favor or strongly agree that it is an example of Chinese landscape and culture. Most tourists recognize the pine and rock of Mount Huangshan Scenic Spot. 83.0% agree or strongly agree that its pine and rocks are very unique but the relative advantages over other attractions are not outstanding.

4.2.2. Tourist evaluation of accessibility and travel information

The information availability of tourism and traffic before and after traveling will greatly affect tourist experience. 66.5% of the tourists agree or strongly agree that external traffic access to the scenic area is convenient, 71.4% of tourists agree or strongly agree that the internal traffic within the scenic area is easy to get, but only 47.3% of the tourists recognize the convenience facilities and tools for various types of people, followed by 42.7 % take an neutral or negative position. In light of above, the scenic spot needs to pay more attention to this.

4.2.3. Visitors' evaluation of the destination environment and experience

In the course of traveling, 63.5% of tourists agree or strongly agree that it is easy to get the information about Mount Huangshan tourism; 67.6% of tourists agree or strongly agree with the clear information in the scenic signposts; 63.2% of tourists agree or strongly agree the introduction of scenic spots is clear. Visitors have a relatively high evaluation of Mount Huangshan Scenic Spot and are basically satisfied with the sanitation in Mount Huangshan, but the evaluation of the tourism experience is not high. Tourists are most dissatisfied with the local cuisine and souvenirs, with the average value only of 3.21 and 3.01 respectively. In terms of hardware facilities, such as the coordination between viewing facilities, public toilets, facilities and nature, visitors are more aware of the harmony of scenic sanitation, and facilities with the natural environment, while the evaluation

of public toilets is lower, only 65.4% of tourists in favor or strong in favor of the high-hygiene of public toilets. In the travel experience, mainly the degree of congestion, food and souvenir result in relatively low evaluation.

4.2.4. Tourists' evaluation of consumption in scenic spot

On the tickets, only 43.2% of tourists agree or strongly agree that scenic tickets are reasonably priced. Only 41.9% of tourists agree or strongly agree that the traffic price in the scenic area is reasonable. Tourists have the most opinions about the catering and souvenirs. Among them, 40.5% of the tourists think the catering price is unreasonable, and 35.1% of the tourists strongly think the scenic souvenir price is unreasonable, but also respectively 32.4% and 44.6% of tourists remain neutral. Overall, 63.2% of tourists agree or strongly agree that they feel safe while visiting. Only 57.8% of tourists agree or strongly agree that the tourist order is in good condition. Only 39.6% of tourists agree or strongly agree with the scenic medical and rescue teams in a timely manner. 47.3% of tourists remained neutral. Only 41.7% of tourists agree or strongly agree that the scenic rescue information is striking, with 38.7% of tourists staying neutral. 64.5% of tourists are in favor or strongly in favor of the security of scenic ropeway, fence and other facilities.

4.2.5. Tourists' evaluation of scenic security

Overall, 63.2% of tourists agree or strongly agree that they feel safe while visiting. Only 57.8% of tourists agree or strongly agree that the tourist order is in good condition. Only 39.6% of tourists agree or strongly agree with the scenic medical and rescue teams in a timely manner. 47.3% of tourists remained neutral. Only 41.7% of tourists agree or strongly agree that the scenic rescue information is striking, with 38.7% of tourists staying neutral. 64.5% of tourists are in favor or strongly in favor of the security of scenic ropeway, fence and other facilities.

4.2.6. Tourists' evaluation of scenic tourist education

Visitors give a relatively high evaluation of the tourist education in Mount Huangshan Scenic Area. 62.4% of tourists agree or strongly agree that they have received cultural heritage education in Mount Huangshan Scenic Area. 70.0% of tourists agree or strongly agree that they have learned a lot

from ecological education in Mount Huangshan Scenic Area. 68.6% of tourists agree or strongly agree that they get knowledge from sustainable development in Mount Huangshan. However, only 53.0% of tourists agree or strongly agree that Mount Huangshan's tourist education function is very good. This shows that tourist education in Mount Huangshan Scenic Area is sufficient in coverage but the depth of education still needs to be strengthened.

4.2.7. The evaluation of overall tourist satisfaction

Overall, 73.5% of tourists are satisfied with the tourism in Mount Huangshan, with only 3.5% in dissatisfaction. 72.7% of tourists are willing to recommend Mount Huangshan to relatives and friends, followed by 63.0% of tourists still willing to come to Mount Huangshan, which is a satisfying result.

4.3. Summary

Overall, the proportion of male and female tourists in Mount Huangshan is in balance, with the young groups as the mainstay and the elderly less; most of them come from Anhui and Jiangsu, Zhejiang and Shanghai as well as the inland neighboring provinces and the coastal provinces such as Guangdong and Fujian. Tourists in Mount Huangshan have a relatively high-level education, most of whom have a bachelor's degree or above. The income level is at a medium and high level, with employees, individual industrial and commercial households and institutions as the mainstay. In addition, student tourists also occupy an important position.

After the tour, tourists are speaking highly of the nature landscape and environment in Mount Huangshan Scenic Area. However, the evaluation of the tourism experience is not as high as its landscape and environment, especially crowdedness, food and souvenirs. In addition, visitors think the scenic accessibility and the corresponding information need to be improved, which also affects their experience. At the same time, most tourists think that the consumption of Mount Huangshan Scenic Area in all aspects is relatively high in urgent need of adjustment. During the tour, most tourists feel safe and recognize the safety of the infrastructure in the area, but there is room for improvement in order, medical care and rescue. After the tour, most tourists have learned about the education of cultural heritage, ecological environment and sustainable development, but many of

them think that the education of Mount Huangshan Scenic Area is not good enough. However, the effect is still good seen in most tourists saying they are more concerned about the ecological environment and the protection of traditional cultural heritage after the tour. On the whole, most of the tourists are very satisfied with the trip to Mount Huangshan and are willing to recommend it to their relatives and friends and expect to come again.

5 Component 1: Study on Time - Space Behavior of Tourists in Mount Huangshan Scenic Spot

5.1 Background

Tourists are the main actors of tourism activities, who are the source of the impacts of tourism economy, environmental impact and social also the objects of tourism industry services. Therefore, the study of tourists is one of the core areas of tourism science. The revealing and better understanding of the laws of tourist behaviors is the basis of the development of tourism theory and the healthy development of tourism industry¹. Studying the tourist traveling behaviors in Mount Huangshan can help to understand the space-time behavior patterns of tourists in the scenic spot and provide scientific theoretical support for the industrial practices including scenic spot management, tourism product renewal and scenic spot marketing²

5.2. Research process

This survey mainly uses the method of questionnaire to survey the tourists who have completed the tour and are ready to leave. At the same time, it collects tourists' travel data in Mount Huangshan Scenic Area aided by handheld GPS.

Based on the related research of tourists' time-space behavior, the questionnaire is designed

¹ Huang Xiaoting, Information Technology Development and Tourist Behavior [J]. Journal of Tourism, 2012 (07): 6-7

² Huang Xiaoting, Research on Spatial-temporal Behavior Patterns of Scenic Spots Based on Time Geography - A Case Study of Summer Palace in Beijing [J]. Journal of Tourism, 2009 (06): 82-87

according to the situation of Mount Huangshan Scenic Spot. The main body of the questionnaire can be divided into three parts: 1. Activity log questionnaire to understand the tourists entering and leaving the scenic time, visiting attractions, stay time in each of the attractions and other information; 2. Basic information about tourists gender, age, education, occupation, income and other demographic information and to the tour frequency, stay days, self-help or in team, number of fellow travelers and related travel information; 3. Basic Tour lines drawn by the tourists.

The questionnaires were distributed to Mount Huangshan Scenic Spot Transfer Terminal, Ciguang Pavilion Visitor Center and Yungu Temple Cable Car Station. A total of 400 questionnaires were sent out and 370 copies were returned, of which 305 were valid questionnaires.

5.3. Analysis on the Time-Space Behavior of Mount Huangshan Scenic Spot

1) Full coverage overnight type

Among 17 spots included in the cluster analysis, "Full Coverage Overnight" visitors have visited all attractions except Lotus Peak, Danxia Peak and Cod fish Peak. According to analysis, most of these tourists are self-help, mostly for the first time to the Mount Huangshan Scenic Area, and therefore hope to explore as many attractions as possible. In the 21 major attractions listed in the questionnaire, such tourists have visited 12, staying top in the 6 types of tourists.

2) Core overnight type

Among the 17 spots included in the cluster analysis, "Core Overnight Type" tourists only have reached the transfer center. Among the 21 important spots listed in the questionnaire, they only visited 5 spots, covering only a small "Core" "area; they go up the mountain in the morning, go down early in the morning the next day, namely, the "Overnight" tourists on the mountain. The majority of such visitors are team-based, and are the only one of the six categories that are dominated by team visitors. In terms of demographic characteristics, "Core Overnight Type" visitors' education (36.4% master's degree) and their income are significantly higher than other types of tourists.

3) Half-covered southern extension overnight type

Among the 17 spots that are included in the cluster analysis, the spots visited by “Half-Covered Southern Extension Overnight Type” are concentrated in the classic southern areas including Yuping Peak, Guangming Peak, Shixin Peak, Baie Peak, Feilai Rock, Guest-Greeting Pine and Baibu Cloud Ladder. Few of them have been the western (Grand Canyon West Sea) and the north (Paiyun Pavilion, Danxia Peak, Monkey Sea of View). This type of visitors go up the mountain in the morning, go down early in morning next day, by the name of “Overnight”. Most of these tourists (95%) are self-help, who take up the highest proportion of self-service tourists in 6 tourists of space-time behavior pattern; 85% visit Mount Huangshan for the first time.

4) Semi-covered northern extension overnight type

Except southern classic attractions such as Yuping Peak, Guangming Peak, Shixin Peak, Geust-Greeting Pine, Baibu Cloud Ladder and Yixiantian Canyon, the "Semi-Covered Northern Extension Overnight" visitors also have visited the Monkey Sea of View and other northern attractions. However, such tourists never have reached the western attractions such as the Grand Canyon West Sea. At the same time, they only visited 10 of the 21 spots listed in the questionnaire so that they were "Semi-Covered" tourists, up the mountain in the morning, down the mountain the next day noon and staying overnight on the mountain. A majority of this type tourists of 83.9% visit Mount Huangshan for the first time, but hold the highest percentage among the 6 types of tourists who visited Mount Huangshan more than once.

5) Semi-Covered South Poly Day Trip

Tourists of "Half Covered South Poly Day Trip" who go up the mountain in the morning at 08:25, down in the afternoon at 16:21, do not spend the night in the mountains for their tour time is limited. Among the 17 spots included in the cluster analysis, such tourists only have visited the southern core attractions such as Transfer Center, Ciguang Pavilion, Yuping Peak, Guangming Peak, Guest-Greeting Pine, Baibu Cloud Ladder; of the 21 spots listed in the questionnaire, only 10 were visited, thus this tourists are named "Semi-Covered South Poly Day Trip" tourists. The average monthly income of such

tourists is lower than that of the other five types, with 47.5% of whom living below 3,000 RMB, excluding student groups below 1000 RMB, accounting for 15.8% of 1000-3000 RMB; among the 6 types of tourists, 32.4% of such tourists are team-based, which is higher than that of other types.

6) Semi-Covered Southern Extension Day Trip

Similar to the "Semi-Covered South Poly Day Trip", the "Semi-Covered Southern Extension Day Trip" also go up the mountain in the morning at 07:21, down in the afternoon at 14:16. However, during a limited time of tour, such visitors have visited most of the southern attractions such as Transfer Center, Ciguang Pavilion, Yuping Peak, Lotus Peak, Guangming Peak, Fish Peak, Flying Rock, Guest-Greeting Pine, Baibu Cloud Ladder and Yixiantian Canyon so as to be called the "Southern Extension" type. Among the 21 scenic spots listed in the questionnaire, 12 have been visited by this type tourists. This type of tourists have visited more attractions than the other five types. Similar to the "Semi-Covered South Poly Day Trip", "Semi-covered Southern Extension Day Tour" tourists have a lower monthly income than other types of tourists, with a higher proportion of team tourists than other types of tourists.

7) Summary and Suggestions

Scenic spots managers can manage and conduct marketing in the basis of classifying different types of tourists with distinct behavior and demographic characteristics, characteristics. At the same time, according to analysis, at present, the utilization rate of northern and western scenic spots needs to be improved, and the tourists are concentrated in the southern part to intensify the pressure on scenic spots management.

6 Component 2: Study on Perception of Community Residents' Quality of Life in the Surrounding Mount Huangshan

6.1 Background

Tourism plays an important role in driving economic growth, promoting employment and

improving cultural and environmental protection in tourist sites. As destination residents gain economic benefits from the development of tourism, their quality of life is also an important issue that needs attention. There are obvious differences in the development of tourism in five towns around Mount Huangshan. The quality of life and the differences among residents in five towns are one of the focuses of this survey.

6.2 Survey process

The survey was conducted by means of a combination of observation interviews and questionnaires. A total of 398 questionnaires were issued and 389 valid questionnaires were returned, of which 15.4% were from Gengcheng Town, 15.2% from Jiaocun Town, 16.7% from Sankou Town, 15.7% from Tanjiaqiao Town and 37.0% from Tangkou Town. The interviewees included a total of 62 local residents, four town governments, and three village committees. The community survey results are as follows.

6.3 Earthcheck Basic information about the life of community residents in the surrounding area of Mount Huangshan

6.3.1 Residents' medical care

According to field visits, each of the five towns has a large hospital, located in the town where the town government. In addition, each village has one or two small clinics that meet the daily needs of residents for minor medical attention. During the interviews with residents, it is learned that the medical conditions in township hospitals are simple and only equipped with basic inspection equipment. Therefore, residents often choose to see some minor illnesses in the local hospitals, and for a little serious situation, will choose to nearby Taiping Town or Tunxi District for treatment.

6.3.2. Residents' education

Based on field visits, each town has a primary school and a junior high school that basically meets the nine-year compulsory education of school-age children in this town. In addition, each town and each village has its own integrated cultural center, which is a government investment project to meet the daily cultural needs of residents. Some of these books are regularly received by these

cultural centers for free borrowing by residents of this town, but they are actually used to a lesser extent.

6.3.3. Residents' pension

Each of the five townships has a nursing home for the elderly in the five-guarantee households in the town and does not charge them any fees. In addition, each town buys pension insurance for the old people of 60 years old or above. As for the senior residents, some towns (such as senior residents over 70 years old in Gengcheng Town and over 80 in Tanjiaqiao Town) will grant them old-age allowance.

6.3.4. The construction of "Beautiful Countryside" of communities

The "Beautiful Countryside" Project focusing on bringing benefits to people, was initiated by Anhui Provincial People's Government in 2012. Its overall goal is to build a beautiful countryside of "livable and ecologically friendly villages, prosperous industries and prosperous life of civilians, civilized and harmonious villages". During the field visit, the cleanliness and unity of the village appearance under the "Beautiful Countryside" project are clear to feel in in the five townships.

6.3.5. Residents' leisure

Each town has a public event venue, usually small sports square, equipped with some fitness equipment, but lack of room for entertainment so that the residents' leisure activities are limited.

6.4. Survey on the living quality of community residents in the surrounding Mount Huangshan

6.4.1. Family and social relations

The survey was conducted from three aspects, which were the relationship of the respondents with their family, with their neighbors and friends. It comes out that respondents agree that the three kinds of relationships in good state, reaching an average rate more than 95%. The approval rate of the satisfying relationship with family is as high as 97.2%. And there is no obvious difference between the statistical results of five towns on this issue.

6.4.2. Working situation

The survey respondents in the five towns have the lowest satisfaction with their income level, while only 48% of the respondents are satisfied with their income level. In addition, respondents' approval rates for labor intensity, working environment and working flexibility are 75.6%, 66.6% and 73.7% respectively. As a town with the highest per capita income among the five towns, Tangkou Town is not satisfied with the income level, and only 40.7% of its residents are satisfied.

6.4.3. Leisure and entertainment

Overall, respondents' satisfaction with leisure facilities is the lowest, with only 42.9% of residents satisfied with the facilities at local leisure venues, while the approval rates for leisure time and family leisure facilities are 61.4% and 54.3% respectively. From the perspective of each town, residents in Gengcheng Town have the highest satisfaction with leisure time and family recreational facilities. Sankou Town is the most satisfied with local leisure facilities. Jiaocun Town has the lowest satisfaction with local recreational facilities with only 28.8%. Tangkou Town has the lowest satisfaction with home entertainment facilities, while the degree of satisfaction in Tangkou Town for leisure time and local leisure facilities are not high.

6.4.4. Self-development

The part of the survey on self-development is mainly measured in communication skills, access to information skills and learning ability. In general, most people are satisfied with their current level of self-development. Among them, 80.1% are satisfied with their ability to communicate, while 67.4% are less satisfied with their learning ability. From the perspective of towns, Gengcheng Town residents are most satisfied with their ability of communication and learning, and residents of Tanjiaqiao Town have the highest satisfaction with their ability to obtain information.

6.4.5. Health and medical care

Statistics show that less than 50% of the people agree with the medical resources and medical prices, and 78.9% and 82.8% of them agree with their physical condition and mental state in the past

year. Residents generally agree that the mental state is better than physical condition. In terms of each town, residents in Tangkou Town have the lowest satisfaction with local medical resources and medical prices, as well as their mental state over the past year. However, Sankou Town residents are in the highest satisfaction with these four aspects.

6.4.6. Consumption

The average overall evaluation of consumer spending was 3.16, of which the lowest level of satisfaction with the price level, only 33.9% of residents are satisfied with the local price level, moreover, the satisfaction of housing price is not high, only 46%. Satisfaction with their spending power and the supply of local goods is also normal, at 58.4% and 50.7% respectively.

6.4.7. Public service

Satisfaction with public facilities is the lowest at only 43.5%. For the two aspects: environmental quality and public security, the approval rates are 70.2% and 77.6% respectively. Judging from the situation in each town, the residents of Sankou Town have the highest endorsement rate of local public facilities, the lowest in Tangkou Town and Jiaocun Town. The highest rate of satisfaction with local environmental quality and public security is in Tanjiaqiao Town, and the lowest in Tangkou Town.

6.4.8. Overall situation

70.7% of the respondents are generally satisfied with the current living conditions, 39.3% of the respondents consider the current living conditions are particularly good and 54.8% of the respondents considered the existing life in line with expectations. Judging from the situation in each town, 69.2% of the respondents in Sankou Town agree that the present life meets the expectation. Tangkou Town has the lowest endorsement rate. 53.3% of the interviewees in Gengcheng Town agree with the current very good living conditions, which is the highest approval rate, while there are only 22% in Jiaocun Town. 37.7% of Tan Jiaqiao Town interviewees endorse their unwillingness to have any changes in their future life, and the opinion is strongly disapproved by Jiaocun Town with the lowest endorsement rate. Gengcheng Town respondents are the most satisfied with the current

state of life, while the lowest in Tangkou town.

6.4.9. Survey on the life quality of the elderly

A special interview was conducted for the elderly. According to the interview, there shows a great similarity of the living conditions of the elderly people in the five towns. Most elderly people still need to rely on their children for their pension. Most of the elderly are very concerned about their own health and go to the hospital for physical examination and are very sensitive to the medical price; the leisure activities of the elderly are very scarce. There is only one nursing home for each of the five towns, providing endowment insurance for the five-guarantee households.

6.5. Summary and suggestions

Generally speaking, less than 50% of the residents in the five towns are satisfied with their income level, leisure facilities, local medical resources, local medical prices, local prices, house prices and public facilities. This result shows that for the five towns, that the expenditure on the material life of residents such as health, medical care, consumer spending and so on, is still at a relatively low level.

The five towns surrounding Huangshan have great similarities in many aspects such as geographical location, ecological environment, tourism resources and so on. However, due to the impacts from tourism development varying from town to town in Mount Huangshan, the development of these five communities is also different.

The leading economic development does not mean that the community residents are satisfied with the quality of life. According to the survey results of the questionnaire, in many aspects, the evaluation of residents in Tangkou Town is far less than the evaluation of the other four community residents, which also shows that the improvement of the quality of life of residents should not only lie in promoting economic development and raising their income level, but more importantly, improve the public service capacity and service quality of the community, especially health and medical standards.

First of all, the primary task of improving the quality of life of residents should also be to raise the income level of residents. Second, the quality of public services also determines the quality of life, so the importance should not only be attached to promoting economic development but also improving the quality of public services, education resources, medical resources and medical standards. Finally, leisure life is the key to enhancing residents' well-being. Each town has its own leisure facilities, such as cultural rooms and library rooms and so on. However, the vacancy rate is high and the utilization rate is not high enough. Therefore, these places can be renovated to provide activities that are more popular with residents.

7 Summary and Suggestions

7.1. Control the negative effects and increase residents' sense of gain in tourism

The monitoring shows that the community residents surrounding Mount Huangshan Scenic Area have a positive attitude towards the advantages brought by tourism development and their support for the development of tourism in Mount Huangshan is also very high, which is similar to the previous monitoring results. Therefore, in order to further enhance community residents' support for Mount Huangshan Scenic Area and improve the satisfaction of surrounding community residents for the development of tourism in Mount Huangshan, efforts should be made to control the negative effects brought by tourism. These include widening gap between rich and poor, increasing living cost, rising prices, noise, water and air pollution, rising garbage and the other aspects more concerned by residents.

In interviews with residents, residents made many complaints, whether in Tangkou Town, which benefited more from Mount Huangshan Scenic Spot, or in Gengcheng Town and Jiaocun Town with lower levels of tourism development. In Tangkou Town, some qualified, capable and capitalized residents have made their fortune through tourism in Mount Huangshan while more residents without conditions have to endure the high prices and life disturbances brought by tourism, resulting in dissatisfaction among some residents. Elsewhere, residents are more dissatisfied with the limited benefits they receive from Mount Huangshan Tourism. In fact, except bringing the most obvious benefits to Tangkou Town in job opportunities and tourism income, Mount Huangshan Scenic Spot

has made great contribution to social development across Huangshan city. But these contributions should not only exist in the scenic area of the figures and the policies, but also in various ways such as increasing the interaction and exchange with the surrounding residents, pairing assistance, career training, public welfare donations and the introduction of services so as to make the residents feel the real benefits brought by Mount Huangshan Scenic Spot, reduce the misunderstanding of residents. And the Mount Huangshan Scenic Spot can get more support and cooperation from community residents to create a good atmosphere of the public environment of the scenic area.

7.2. Focusing on tourist experience, enhancing tourist service standards

Mount Huangshan Scenic Spot has made continuous efforts in improving the scenic environment, traffic conditions, tourist facilities, tourist reception facilities, the tourist service level and comprehensive management of the scenic spot, and has achieved many successes. In many aspects, it has been a national scenic spot learning model and benchmarking. However, the competition in the tourism market is getting fiercer and fiercer. The development of traditional scenic spots such as Jiuzhaigou Valley and Zhangjiajie is very fierce. The emerging scenic spots such as Wuhu Fantawild and Wuzhen in Zhejiang province are developing rapidly. Shanghai Disneyland also has opened the curtain. The obvious transitional trend in the tourism market and the continual emergence of new formats inevitably has an impact on tourism in Mount Huangshan.

The monitoring results show that no obvious major changes have been seen in Mount Huangshan Scenic Spot generally; visitors didn't think highly of quality of tourist experience including the scenic tourist diversion, catering and souvenirs, tourist information accessibility and other related aspects. Tourists particularly expressed dissatisfaction with prices in the scenic spot including tickets. Kept waiting for a long time to take the cableway up and down the mountain is also a major trigger of tourists' negative emotions. Meanwhile, there are also many tourists think Mount Huangshan Scenic Education is not good enough. All these indicate that there are still some shortcomings and deficiencies in the scenic spots that affect the tourists' experience. Most of these shortcomings are reflected in the fine services and management of the scenic spot, which require more energy to respond to these concerns of tourists, especially the balance between tourism economic returns and tourist travel experience quality.

7.3. Expand the tour space, to achieve expansion and upgrading of scenic spots

This special survey on visitor behavior shows that tourists are concentrated in the south, which has intensified the pressure on scenic spot management. At present, the utilization rate of northern and western scenic spots needs to be improved. In addition, there are still large undeveloped areas in the east.

Mount Huangshan Scenic Spot is also facing issues such as returns under performance, regional imbalance of tourist concentration, limited surrounding area for driving the development of the scenic spot, room shortfall for development and other aspects.

By opening up new tourist routes, widening the original trails or laying new touring paths, and optimizing the existing tourist space, it will play a good role in alleviating the congestion of tourists in the existing tourist areas and enhancing the tourist experience. More importantly, through the development of scenic spots in the East China Sea area and the east gate outside the scenic area, the tour area of Mount Huangshan Scenic Spot will be expanded to enrich the excursion experience of tourists, increase the stay time and consumption of tourists, and promote the development of the larger surrounding areas, bringing the scenic spot a longer and higher level of development.

7.4. Long-term focusing on ecological protection, to achieve sustainable development of tourism

Ecological environment is not only the biggest advantage and asset of Mount Huangshan Scenic Spot, but also the foundation of Mount Huangshan to achieve sustainable development. For a long time, Mount Huangshan Scenic Spot has devoted tremendous manpower and material resources in biodiversity conservation, ecological environment protection and cultural heritage maintenance, and has also made a series of achievements, which has been a visiting card for the development of tourism in the world. At present, Mount Huangshan Tourism is faced with transformation, upgrading and bottleneck breakthroughs. The desire to speed up the development is also getting increasingly stronger. At the same time, more projects and funds will be put into the 160.6-square-kilometer land in Mount Huangshan Scenic Spot, which also means Huangshan ecological environment protection is facing increasing pressure. The more challenges we face, the more attention should be put to the

ecological protection at this time.

Mount Huangshan Scenic Spot must consider the long-term ecological protection as a precondition and fundament for various tasks. It is necessary to take various technical measures to further strengthen environmental monitoring. For the construction and renovation projects within the scenic area, we must carefully assess their environmental impacts and do everything possible to reduce the environmental impacts caused by development activities and do a good job in ecological restoration. Renewal of the concept of protection, from a single protection to systemic protection, it also needs to protect objects as much as possible to cover the various components of the scenic ecosystem and its associated natural heritage and cultural heritage resources. Long-term effective ecological protection concepts and measures are important for achieving the sustainable development of scenic spots.

Huaneshan



2016 Monitoring Report on the Sustainable Tourism Development of Hongcun Village

Monitoring Center for UNWTO Sustainable Tourism Observatories

People's Government of Yixian County, Huangshan City



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1 Introduction

1.1 Monitoring background

With the gradual deepening of the concept of sustainable development, the promotion of sustainable tourism has become a global trend. A global consensus of promoting the sustainable development of tourism destinations has formed, and the search for monitoring the sustainable development of specific technical methods has become a focus, tourism destinations need a long period to observe records, and take the necessary preventive protection and corrective measures to achieve the common goal of sustainable tourism.

Since 2006, Sun Yat-sen University and the World Tourism Organization (WTO) have begun to establish a good cooperative relationship, and jointly committed to the use of sustainable development indicators of the World Tourism Organization designated tourism destinations in the actual operation, thus have a scientific monitoring and promotion of the tourism destination.

September 28, 2010, the United Nations World Tourism Organization signed a cooperation agreement with Sun Yat-sen University to establish the “UNWTO Monitoring Center for sustainable Tourism Observatories”, (UNWTO MCSTO, hereinafter referred to as ‘Monitoring Center’) which is responsible for the management and monitoring of the tourism sustainable Development observation point of China and the entire Asia-pacific region in the future. In 2012, the monitoring center began to set up observation points in ancient villages of Hongcun, Yi County in Anhui Province to carry out continuous tourism monitoring work.

Hongcun is located in the northeast of Yi County, Anhui Province, and is regarded as the most representative example of Anhui's mass Hui-style villages. Hongcun has an area of 4.1 square kilometers, more than 400 households, more than 1000 people, and complete Ming and Qing dwellings more than 140 buildings. In November 2000, Hongcun and Xidi were officially identified as world Cultural heritages; July 2003, Hongcun was officially rated as National 4A scenic spot, followed by the "first batch of historical and cultural villages", "China's most charming town", "Anhui province, civilized scenic spot", "China's most beautiful villages and towns" and in May

2011, the National Tourism Administration officially granted the title of " National 5A scenic spot ". In 2015, Hongcun had 1.86 million visitors.

In 2015, the filing of key protection dwellings and general protection dwellings had been basically completed. In 2016, in addition to the continuation of long-term monitoring for ancient dwellings in files, the filing of dwellings had turned from protected dwellings to general dwellings. This monitoring completes the filing of 51 dwellings whose properties are general, and Inn mainly. At the same time, the residents of Hongcun were surveyed and interviewed to understand the change path of the dwellings during this period, to record the change of cultural heritage, and to explore the sustainable development model of heritage according to the change, and to protect the heritage with minimal negative influence.

At the same time, through the questionnaire survey of tourists ' satisfaction and perception, the influence of tourist activities on the building nomenclature and environment is monitored. In addition, a comprehensive and in-depth investigation of the sewage treatment of Hongcun, the public facilities in Hongcun, the surrounding community, tourism commercialization behavior, the old people's living conditions is conducted. In particular, in the later period of monitoring, Hongcun group organized a sustainable tourism seminar, inviting the Hongcun administrators, inn owners and residents to participate in the discussion.

1.2 Monitoring methods

This monitoring investigation started from June 27, 2016 to July 2, and July 11. June 27, the Hongcun group arrived in Hongcun, Yi County, Anhui Province and began formal research activities. On-site monitoring is divided into three stages: June 27, a preliminary investigation of Hongcun was conducted, residential numbers and distribution rules was identified, and the distribution of Hongcun business form was basically clear; June 27 to July 2, the Hongcun group of observers were divided into several groups to work in the six days. Part of the group of members carried out the work of filing dwellings, including photo archives, household surveys and simple interviews; Some carried out the division and coding of the residential area, as well conduct a commercial survey; Some observed the status and environmental hygiene of Hongcun community.

Along with the completion of their mission, all the team members conducted simple interviews to the old people as well as some of the residents, merchants in the core scenic area of Hongcun, they also focused on the distribution of tourist questionnaires and conduction of simple interviews in the core scenic spots which was filled with mass tourists.

This monitoring collects a large amount of raw information, including information on the protection of residences and community from research in inhabitants' home, visitor questionnaires, interviews and observations.

2 The present situation of ancient dwellings in Hongcun

2.1 Government protection and renovation measures for dwellings

Same with 2012.

2.2 Basic information of ancient dwellings

In order to clearly mark out the location of each dwelling and avoid confusion, this monitoring continues the coding rules enacted last year, there are 9 areas:tea line (code c), East Street (D), Handicraft Market (G), Backstreet (H), east of the Well (J), South Lake (N), Front Street (Q), Sheung Shui Chun (S), kiosk (T), along the river (Y). Dwelling filing regards residential area which involves team tour route as Hot zone, including Sheung Shui Chun, Tea Lane, Front Street, Pavilion Front, South Lake; areas away from the team tour are called cold zone, including East Street, east of the well, back street. The contents of filing are mainly divided into basic residential information, housing function distribution, text data, floor plans and photos.

The monitoring builds a total of 51 residential building files, all are classified as general dwellings, and inn business-oriented. Numbers of Files: East Street Area (D) 9, Back Street area (H) 7, Front Street area (Q) 8, Sheung Shui Chun Area (S) 3, East well Area (J) 9, South Lake Area (N) 4, Tea Line Lane area (3) 2, along the river area (Y) 6, Pavilion Front (T) area 3. The current survey report is based on the latest zoning and dwelling numbers, with a slight discrepancy between the residential number and the original area.

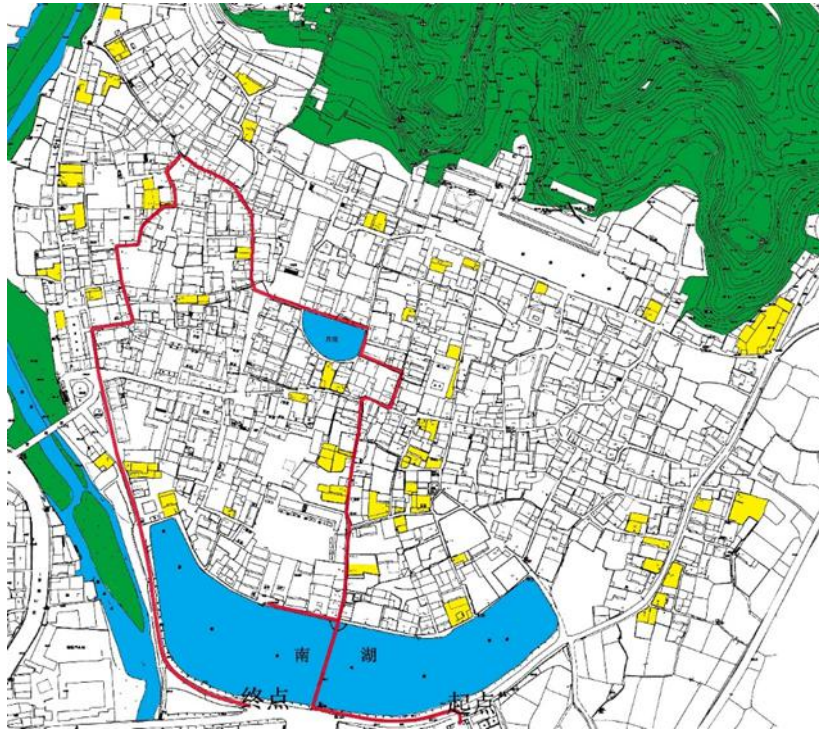


Fig. 2-1 The scope of the Hongcun residents ' filing

East Street is located in the east of Hongcun, 9 dwellings in the East Street area are general, 2 are rent (D102,D23), the remaining 7 dwellings are for residents' own use. Current use: 8 households (D25, D14, D102, D37, D95, D29, D21, D97); 1 tourist shops (D23).

The back street is located in the north of Hongcun, this monitoring has done a filing of 7 dwellings in the back Street area, the objects are general dwellings, of which 3 dwellings are for residents' own use (h46, h85,h53), 4 are rent, Current use: 6 tourist accommodation facilities, one for living.

The Front Street is located in the western part of Hongcun, east-west, connected with central street in the eastern end. This monitoring has done a filing of 8 dwellings in the front street area, the objects are general dwellings, of which 2 for rent (q51,q70), the rest for residents' own use, Current use: 7 tourist accommodation facilities, 1 store (Q70).

A total of 3 dwellings (Fig. 2-19) were filed in Sheung Shui Chun area which is adjacent to the front street, the objects are general dwellings, all of which were for tourist accommodation, 1 for rent(S54), and the rest were for residents' own use.

A total of 13 dwellings were filed in the East region (including South Lake), the objects are general dwellings, all of which were for tourist accommodation, 3 for rent (N32, J10, J32), and the rest were for residents' own use.

A total of 3 dwellings were filed in Tea line region, the objects are general dwellings, all of which were for residents' own use, 1 tourist accommodation, 1 store.

Compared with last year, the monitoring expanded the number of dwellings in the river area and the Pavilion front area. Among them, A total of 6 dwellings were filed in the river region, the objects are general dwellings, 2 for rent (Y8, Y42), the rest were all for residents' own use and for tourist accommodation. A total of 3 dwellings were filed in Pavilion Front area, the objects are general dwellings, all for residents' own use, 2 tourist accommodation facilities, 1 shop (T3).

2.3 Protection status of ancient dwellings

The situation is basically similar to 2015.

2.4 Utilization Status of ancient dwellings

In accordance with the situation of the ancient dwellings in 2015, the increase and utilization of general dwellings also shown in the following three aspects. Firstly, is to add modern living facilities in residential areas, such as air-conditioning, shelter, glass, etc., some dwellings will also install LED lights to decorate or attract visitors. Secondly, construct new ancillary buildings around the old residential areas, such as toilets, sundries rooms, kitchens, etc. to adapt to the increase in the family population, the problem of insufficient living space, and the new building has a trend to be modern style. Thirdly, add windows in the outer walls of dwellings. Traditional Hui-style architecture mainly uses the courtyard ventilation, most of the external walls of dwellings do not have windows, but in today's Hongcun, the phenomenon that general dwelling walls have large windows is very common.

In addition to the increase, many residents have also renovated their own dwellings. The interview found that the main purpose of the renovation was to transform the house into a new type of accommodation, to develop the commercial potential of dwellings, rather than to better protect the

traditional Hui-style architecture. Also, after the renovation is completed, residents will generally adopt two modes of business: one is to rent the house to outsiders to operate, to earn rental income; The other is to run the business by themselves, and they also live in the dwellings. But they tend to live in cramped rooms and make room for their guests to live in larger rooms. In these two kinds of business models, the latter is more common.

In the process of the renovation of the new type of accommodation, the problem of homogeneity is obvious, which mainly manifests in the following aspects: firstly, the brand awareness is not strong. Of the 51 general dwellings, 49 are being rebuilt or have been transformed into tourist services. However, because of the lack of awareness of the brand or the restrictions on the level of education, operators name these facilities very casually. 4 facilities were directly named "Wang Jia" or "Wang shi", and two inns even have exactly the same name. Secondly, the building structure is similar. In order to adapt to the Hui-style architecture, to create a traditional Chinese style, most of the ordinary dwellings in the transformation use wood frame or brick and wood structure, which has created a huge demand for wood. However, the cost of wood is generally higher than concrete or masonry, and the procurement of wood materials is difficult, which has led to a substantial uplift in the cost of renovation. Thirdly, the decoration style is similar. In addition to the general use of wood structures, the new accommodation of the decoration style has a lot of similar places. For example, decoration, most of the inn has introduced pond, goldfish, rockery, small bridge, wooden swing chair and other garden art elements. Although this style of decoration has been recognized by tourists in the early days, as these elements become the standard allocation in Hongcun, visitors are likely to lose their freshness, and their satisfaction is reduced. Fourth, the profit model is single. After the completion of dwellings, the main business mode is "accommodation + diet", the profit model is relatively single. The accommodation operators may consider adding additional activities to attract tourists, such as organizing food appreciation, painting and calligraphy exhibitions, cooperating with the wedding company, to extend its own industrial chain while fully exploiting the tourist market potential of the general dwellings.

3 Community perceptions of tourism development

3.1. Basic Situation of Community Questionnaire

At present, areas in Hongcun which carry out tourism activities are mainly: South Lake, South Lake College, Moon Marsh, the village tree, Reigang Mountain, Shuren Hall, Chengzhi Hall, Wangshi Ancestral Hall, Taoyuan habitat and so on.

This monitoring investigation mainly uses the questionnaire survey, the community questionnaire is mainly divides into five parts, the first part is the community's perception of the impact on tourism, part four is the evaluation of the current living conditions of the residents, these two parts are measured by the Likert 5-Component table, of which "1" expresses very disagreement, "2" Expresses disagreement, "3" indicates neutrality, "4" agree, "5" strongly agree.

The second part is the community's attitude and perception to the tourism development, the third part is the community's perception and suggestion to the heritage protection, these two-parts use choice question and the open question. Part five is the demographic characteristics of the population, including gender, age, education, the time of living in Xidi (Hongcun??), occupation, monthly income and so on. Compared with 2013 and 2015, the Community questionnaire added the "Residents ' assessment of current living conditions", and the questionnaire specific indicators were measured as shown in table 3-1.

Table 3-1 Community Questionnaire Measurement indicators

Content	monitoring indicators
Community's perception of tourism's impact	perception of tourism's economic impact
	perception of tourism's social impact
	perception of tourism's cultural impact
	perception of tourism's environmental impact
Community's perception and attitude to tourism development	residents' willingness to communicate with tourists
	residents ' satisfaction with the government's executive ability in tourism development
	Residents ' willingness to advise on local tourism development

Content	monitoring indicators
	Residents ' satisfaction with the present situation of tourism development
	The support of residents to tourism development
	The interference degree of tourism development to residents
	Whether the residents live in the business district
	Whether residents are willing to extend tourist areas to living areas
	residents ' reaction to the expand of tourist areas
	Whether residents welcome visitors to go home
	The way of residents ' participation in tourism development
Community perceptions of heritage protection and suggestions	Residents 'understanding of heritage protection
	Residents ' satisfaction with the status of heritage protection
	Properties of dwellings
	Attitudes towards the protection and transformation of traditional dwellings
	attitude to the maintenance of ancient dwellings
	The difficulties in heritage protection
	Residents ' attitude towards heritage protection and development means
Residents ' assessment of current living conditions	family and social relations
	Working conditions
	Leisure and entertainment
	Self-development
	Health and Medical
	Consumption status
	Public service
	Overall situation
Demographic	gender

Content	monitoring indicators
characteristics of the population	Age
	Education
	Living Time
	Occupation and relevance to tourism
	Monthly income
	Total family status and number of people engaged in tourism

A total of 150 community questionnaires were distributed, 150 of them were collected, 148 of which were effective and 98.67% in efficiency. The object of the monitoring is the residents living in the Hongcun scenic area and those who do not live in Hongcun but work there, and the residents include not only ancestral and indigenous ones in Hongcun, but also the foreign operators and the workers who live in Hongcun.

3.2. Community perceptions of tourism impact

In the aspect of perception on economic impact, through data analysis it is found that residents' perception is more objective, real and has two sides. They affirmed the positive effect of tourism on economic development, and expressed concern about the rising price and the rise of house prices. At the same time, mass community residents also perceive the widening gap between the rich and the poor, which is mainly due to different residents' access to the opportunities and the degree of certainty in the development of tourism. And in the gap between rich and poor, compared with last year, this year the residents' attitude is more pessimistic, mainly because of the impact of tourism on the lives of residents.

Perception on social impact, through data analysis it is found that: compared to last year, the residents of Hongcun has a lower awareness of the improvement of infrastructure, and differentiate on the negative impact of tourism on the social and cultural development, most residents perceive and agree with the negative impact on traffic congestion, and do not agree with the security situation. However, there are significant differences in perceptions of the other three negative effects. Traffic

jams mainly refer to the congestion caused by many tourists in the narrow alley, as well as the increased congestion of electric bikes or tricycles used by residents to travel and do business. Local security in the community leaves a very good impression to residents, Hongcun is equipped with surveillance cameras and security personnel patrol, thus the crime rate is extremely low.

Perception on cultural impact, through data analysis it is found that: the residents of Hongcun has a very positive perception on tourism Development's impact on culture. Tourism enhances local residents ' awareness of the value of cultural heritage, enhances cultural pride, increases foreign cultural exchanges and facilitates the inheritance of traditional culture. At the same time, most residents believe that tourism has a positive impact on the heritage and development of traditional culture, but some residents say that traditional folk customs such as Nuo opera have disappeared and have been damaged to some extent.

Perception on environmental impact, through data analysis it is found that: most residents are aware of the negative impact of tourism development on the environment, but the degree of perception of different indicators is very different. Among them, the perception of water pollution and solid waste pollution is strongest, but the perception of air quality is not obvious. Compared with 2015, the average value of the four indexes, such as the decrease of air quality, the aggravation of noise pollution, the aggravation of water pollution and the destruction of the natural environment of tourism facilities, is higher than that of last year, and only a decrease of the average value of solid waste increases, which indicates that residents have a stronger awareness of the negative impact of tourism development on the environment , but management levels of solid waste and treatments have improved over the past year.

On the attitude of the residents, most of the residents expressed support for the continued development of Hongcun tourism, but there is certain decline compared to last year. The residents of Hongcun are generally satisfied with the status of tourism development, and most of them are willing to communicate with tourists, but there is still a certain dissatisfaction with the government's efforts.

3.3. Community attitudes and perceptions of tourism development

Most residents of Hong Village live in the same place and participate in the tourism industry by

opening their own shops or inns. Fewer residents choose to move away, and more shops and accommodation in the village are the homes used by locals to live in. Compared with the rental form, the individual operating efficiency of the relationship with the tourists more direct. In addition, the local residents to participate in the tourism approach to become a local tour guide, for the local village committee or travel companies and so on. The vast majority of residents can accept tourists to visit their homes, close to half of the residents welcome attitude, the residents of Hong Village to tourism development support is higher. A small number of residents remain neutral, the interview was informed because tourists often broke into the room, or to the residents to borrow toilets, so that residents feel impolite, resulting in disgust.

After sorting and classifying the contents of the residents' information feedback, it is concluded that the residents are most concerned about the government's policy and management issues, such as the construction and renovation of residential buildings are too strict, no long-term planning and some policies to make residents feel unfair, followed by environmental protection, heritage and local characteristics of protection, development efforts, scenic management and so on. Residents have a sense of environmental protection, water system protection, but tourism development still exists in the water systems and environment pollution. Too many tourists bring a lot of solid rubbish and water pollution, and the villagers' daily life and the natural environment such as water system are closely related, and the environmental ecological problems such as aquatic pollution become the most concern and most sensitive problem of the residents.

3.4. Community perceptions of heritage protection

Most residents are satisfied with the status of heritage protection, but some residents think that the status of heritage protection is worrying, mainly in the renovation of some of the key protection buildings, as well as the local cultural characteristics of the atmosphere affected by commercial atmosphere. There is also a small number of residents feel indifferent to the status of heritage protection, but vast residents are very concerned about heritage protection.

Nearly one-fifth of the residents surveyed own protected dwelling, and new homes accounted for One-third. Most residents will repair ancient dwellings, and half of the residents will choose to do

maintenance by themselves, the main reason is that most ancient dwellings are now used to build accommodation, agritainment, or for their own residence, which means there is a need for maintenance, 22.6% of the residents said that they will do the repair only if the government give compensation, because there are many problems in the maintenance process.

According to the results of residents' questionnaires, the biggest problem in the maintenance of ancient dwellings is the long maintenance approval time, then, because of the narrow road and many tourists, the entry of motor vehicles is inconvenient, which has caused great obstacles to the transportation of building materials. Some villagers think that the maintenance of the House needs to pay a higher deposit, and government subsidies are less, so there is a lack of maintenance funds. Due to the few business awareness and business knowledge of the residents of Hongcun, the income from tourism development still makes it difficult for the residents to be affluent and to maintain the larger expenditure.

3.5. Inhabitants' evaluation of the current living conditions

In Family and social relations, most of the respondents have a harmonious relationship with their families, neighbors and friends, and there is a highest degree of satisfaction in working conditions, which may be related to the characteristics of the tourism industry; In leisure and entertainment, the residents satisfaction with the leisure time is the highest, the local leisure facilities has the lowest satisfaction level; In terms of self-development, residents are most satisfied with their ability to communicate with others, this is related to the tourist industry; and in health and medical care, the respondents are dissatisfied with the local medical resources and the medical prices, but they are satisfied with their physical condition and mental state. The residents' satisfaction with their own consumption ability is the highest, while low to the local price level and the level of the house price; In public service, the satisfaction to the public facilities, the environmental quality and the security situation is generally higher, but the promotion space of public facilities is still larger. In general, residents are most satisfied with the current living conditions and agree that the present life is coordinate with expectations, the present conditions of life are particularly good, and they still hope that the quality of life will be further improved.

3.6. The surrounding community---Jicun

Based on last year's monitoring, this study further discussed the commercial situation and distribution of the business and the relocation of the newly emerged River area.

Jicun is along two branches of S218, there are most tourism reception enterprises on the two sides of street close to the S218 branches. Among them, small volume of tourism reception enterprises is close to the east side of S318 branch, they are accommodations(about 15), catering enterprises (about 30) mainly. There are a small number of souvenir shops (no more than 15), snack bar 10, grocery 8, small supermarket 2. These tourist reception enterprises has a small size and volume, diet and accommodation are separated, most catering enterprises shop has only one floor, the area is generally 20-30 square meters, 7-8 tables, in the peak season, the reception can be full, while in the off-season, most day they can only receive 10 table of guests. Raw materials of Catering industry are mainly from Huangshan city. In general, the operator is the residents of Jicun or surrounding villages, they are lacking corresponding management expertise and business knowledge, their marketing mean and channels are relatively single, mainly to recruit guests from the road. Away from the east side of the S218 branch, there is a commercial estate project called Ink Hongcun, the layout is consisted of hotels, restaurants and a small number of recreational facilities, most of the tourists choose to have accommodation and dining here, especially the student sketch group. Overall, tourism development increases the number of small tourism enterprises, provide more jobs which need less skill, increase the income of local informal employment, thus there is an economic escalation phenomenon, but in social protection, labor skills upgrading, the maintenance of laborer's own rights, bargaining capacity and so on, the promotion is slow, social escalation phenomenon is not obvious.

In order to optimize the surrounding landscape and green belt construction, Hongcun government makes S218 under a whole demolition. The government plans to relocate the belt area into a public recreation site, design Park and other facilities, and the commercial facilities will be structured to the third stage of ink Hongcun, and the residents will be placed in the area under construction. However, most surrounding residents are sceptical about the government's intention to relocate, and they generally believe the government wants to develop tourism estate projects on the

land directly connected to Hongcun, thus local government's revenues will rise significantly. The original 73 buildings on the bank were 3 layers of new antique Hui-style buildings, shops were restaurants, native shops and small grocery stores opened by local residents, currently, 60 buildings have been demolished, the remaining 13 has not reached an agreement with the government as a result of relocation compensation, the interests of residents have not been responded so they become the nail households. Owner choose to have a relocation also said that it brings them own large economic losses, mainly because the price of new shops is far higher than the compensation price, and the relocation are mainly on non-street road which has a small traffic, this situation may be better after the construction of Jicun parking lot.

3.7. Living conditions of old people in Hongcun

According to the population statistics of Honcun, the current population of Hongcun is 1420 people, permanent resident population are 1800 people (including the floating population), of whom 261 are above 60 years old, accounting for the total permanent resident population of 14.5%; 30 are above 80 years old, (11.49% of the old people, 1.6% of the total population) The aging level in Hongcun approaches the national average level.

On average, old people in Hongcun have official basic subsidy of about 10000 yuan a year. According to the observation, old people's activity areas are mainly the village Tree, Tea Xuan, the entrance street, as well as ordinary street, inns and dwellings. Through conversations with old people, we found that they can be divided into four categories according to their labor and economic base: A. With an economic foundation and labor force. This is the majority in the elderly, they have more choices and freedom in life, thus they have a higher command for social entertainment and home status, etc. and most of them are used to be "busy" which make them more likely to participate in work. B. without economic foundation but with a labour force. Their life is simple and use labor to make money in addition to subsidizing the lack of stable economic sources, and their children often work outside, their commands are mainly children's company and income; C. without Labor but with the economic foundation; They have a simple life with less pressure, and because they are old, their vital needs are medical facilities and hospitals, as well as the care and companionship of family members; D. no labor force and no economic foundation. They are accounted for a small part, they

have no economic foundation so that their children need to work outside, this type do not have a very high level of material life and children's company.

Combined with the situation of the four categories of elderly people, the economic foundation of the family will affect whether their children stay in the village, thus affecting the care and companionship of the elderly. In addition, the village is mainly agricultural in the past, old people used to be "busy" in farming, and their view of economic consumption is more inclined to "save money for future generations", all elderly people with the ability to work generally choose work rather than leisure. It is noteworthy that, under the condition of tourism driving economic development, A-type is growing, and the demand for the old people's leisure, entertainment and social life is increasing gradually, and social entertainment becomes a reason for the old people to participate in the work. Therefore, follow-up research can pay attention to the needs of the elderly, and guide the development of Hongcun and recreational infrastructure for residents.

4 Visitor experience and satisfaction

4.1. Basic Situation of Visitor Questionnaire

The survey of tourists' perceptions and satisfaction is carried out in the form of questionnaires and supplementary interviews. The questionnaire mainly includes the following four parts: tourist experience and perception, overall satisfaction of tourists, characteristics of tourist travel and personal characteristics of tourists. Among them, the "tourists travel experience and perception" and "the overall satisfaction of tourists" measurement using the form of Likert five-point scale, the evaluation of "very disagree", "disagree", "neutral", "agree", "strongly agree", respectively, gives the values of 1, 2, 3, 4 and 5; "Tourist travel characteristics" and "The individual characteristics of tourists" are chosen to use choice question; each part of the content contains a number of sub-indicators from a variety of measures, thus the system is more comprehensive, and compared to 2013 and 2015, these indicators have a small change (specific measurement indicators as shown in table 4-1)

Table 4-1 Survey indicators for tourists

Content	monitoring indicators
Visitor travel experience and perception	Destination's landscape and excursions
	Destination Environment
	Infrastructure
	Scenic Service
	Safety and Health
	Diversity of tourist experience and attractions related activities
	Perceptions of the heritage
	Attitudes towards local people
Overall satisfaction	evaluation
	Recommended intention
	Revisiting intention
Tourist travel features	access to travel information
	Travel mode
	The first few trips to Hong Village
	Travel time
	Basic content of travel
	Impressions of the village
	Travel advice
Visitors ' personal characteristics	sex
	Age

	Education
	Career

A total of 200 questionnaires were issued, 200 were collected, the invalid questionnaires were eliminated, 198 of the actual effective questionnaires were collected, and the efficiency was 99%. Compared with last year, the proportion of business staff in the visitors group increased significantly, free travel more than the group of tourists, the proportion of overnight tourists increased and their stay time significantly prolonged. Network, friends and family introduction become the main channels for tourist to get information, and more tourists began to visit by themselves, but there still are problems like single tourism product, limited depth of travel experience and so on.

4.2. Visitor travel experience and perception

Destination's landscape: tourists' scores of traditional Hui-style dwellings and rural scenery were lower than last year, but the scores of dwellings were still higher than those of other projects. In terms of destination's environment, tourists think that Hongcun has a strong commercial atmosphere, crowded scenic spots, environmental quality and environmental management are good; Tourism infrastructure: Tourists are satisfied with the public transportation to the scenic spot, while the completeness of public toilets, health conditions and the satisfaction of public rest facilities are low, many tourists also said that there are fewer public rest facilities; Scenic service: tourists think that the ticket prices of Hongcun is high, tourism information carrier's richness and availability is poor, The scenic spot marking system is not clear enough, the scenic area is crowded, but the tour guide's explanation is good; Safety and health: tourists think that the public security situation in Hongcun is good, safety facilities (warning signs, fire extinguishers, hydrants, etc.) are ordinary, while the local medical equipment is poor; Experience and attractions related activities diversification: tourists' appreciation of historical culture, living condition, folk customs and food snacks is high, the evaluation of local souvenirs and handicrafts is general, and the diversity of tourism projects is low.

In terms of heritage perception: it is highly rated, and tourists are very aware of that Hongcun is world heritage and they believe that the ancient dwellings should be protected, but the satisfaction of the protection of the ancient dwellings is low; Local attitudes: tourists' evaluation is high, and their

communications with local mainly are reflected in the purchase of local fruit, travel souvenirs as well as accommodation and dining at local pubs and restaurants. In general, tourists' satisfaction with this trip is higher, and there is a high degree of willingness to recommend and revisit, which is consistent with the way tourists obtain travel information.

Tourist's suggestions mainly include: the area of public toilets is too small, the public toilets should be increased, the commercial atmosphere of the scenic spots is too dense, the antique and quaint living atmosphere of the ancient dwellings should be maintained; The explanation system of the scenic spot is not complete, the road signs, signs, guides and so on should be increased; Scenic Tour Project is too single and some folk games need to be added to let visitors have a better understanding of local culture; Strengthen environmental protection and so on. These visitors' opinions and suggestions should arouse the attention of the relevant management department and the scenic spot company, so they can take measures to protect Hongcun and improve the satisfaction of tourists.

4.3. Overall satisfaction of tourists

overall satisfaction of visitors (table 4-10) has 3 main indicators of evaluation: The overall satisfaction of the trip, intention to recommend to friends and relatives, intention to revisit Hongcun. The overall satisfaction of tourists is very high, The overall satisfaction of the trip is high, the evaluation is divided into 4.13 points, the willingness to recommend and revisit will are also high, the score is 4.16 points and 3.91 points respectively. This is consistent with tourists' access to tourist information, about 1\3 tourists visiting Hongcun through their friends and family's recommendations.

Table 4-1 overall satisfaction of visitors

Index	average	Standard deviation
Overall satisfaction with this trip	4.13	0.749
Will recommend to friends and relatives	4.16	0.813
Will come to Hong Village again	3.91	0.940

5 Conclusion

In addition to the original 105 filed houses, this monitoring filed 51 new residential building data, as a result of the protection of dwellings in Hongcun are basically completed, the construction of the work turns from the protected dwellings to general dwellings, and the main object are inns. Compared with the 2015 monitoring data, it was found that the popular and unpopular residential areas in Hongcun were developed to inns in 2016, and it was more obvious in the relatively popular zone. In inn operation, the number of foreign operators increased, but the function of dwellings is relatively simple, the appearance of dwellings basically remains intact in order to meet the requirements of the heritage, but the internal changes are large.

In tourism and community, there are different degrees of positive and negative perception to the economic impact of tourism, community impact, cultural impact, environmental impact. Overall, most of the residents expressed support for the continued development of tourism, the status is more satisfactory, and vast people are willing to communicate with tourists, but the implementation of the Government still has a certain dissatisfaction. The activity space of the old people of Hongcun covers the whole village, the main space of their daily settlement is the front of the pavilion, Tea Xuan in the South Lake,, the old people's activity center near the former middle school of Hongcun, the entrance of the village. With good geographical position and policy advantages, Jicun plays the role of providing back-up services for the tourism of Hong Cun, and becomes an important part of the tourism radiation area. At present, the government of Hongcun town makes an overall demolition and alteration along S218 to optimize the surrounding landscape and green belt construction, the.

The overall satisfaction of tourists is high, especially the landscape satisfaction of Hongcun. But at the same time, there are some problems such as single tourism product, insufficient public rest facilities, imperfect explanation system, single tour item and environmental sanitation. From this monitoring survey, tourists' perception of the heritage of the village and the attitude of the local people have improved. Although the ancient residential buildings, natural scenery impress them, some tourists believe that the village traffic, health, environment, interpretation system, infrastructure, commercialization, scenic service and interaction, etc. need to be strengthened, it should arouse the

attention of relevant management departments and scenic companies.

6 Component One: The commercialization of Hongcun

6.1. Shop layout and characteristics of shop distribution

In 2016, Hongcun scenic spot has a total of 447 commercial facilities, including 111 crafts market concentration, the remaining stores scattered in the core of the village. Because the handicraft market is purely commercial that cannot be inspected, and the monitoring is in off-season, so that there are more than 40 shops do not open, so this inspection of open shop information retained information collected last year. This monitoring is also mainly aimed at the shops in the core scenic area (non-handicraft market).

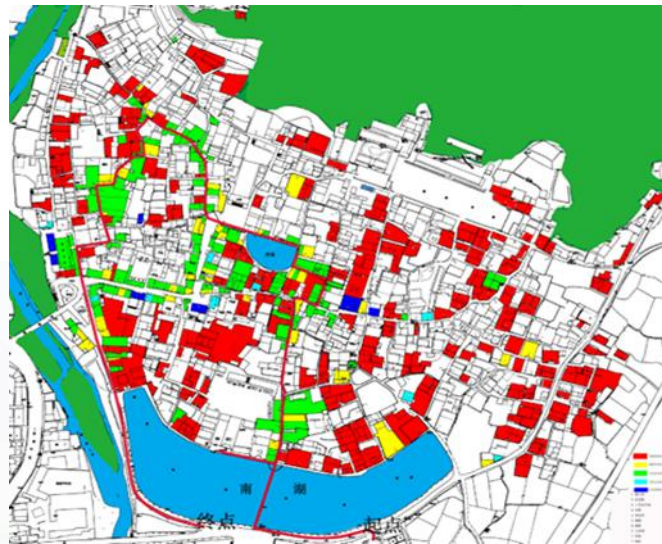


Fig. 6-1 Commercial distribution map of Hongcun

In the 336 shops of the core scenic spots, tourism reception facilities (Class A) 163, accounted for 48.8%, restaurant (category B) 46, accounted for 13.47%, souvenir retail stores 110, accounting for 32.63%, community shops (class D) and other commercial facilities (category E) 9 and 8, respectively, Accounted for 2.69% and 2.39%. From the type of business operation, the tourism business of Hongcun is mainly tourist reception facilities and souvenir shops, the ratio of these two is more than 80%.

Compared with last year, the total number of shops in Hongcun decreased by 12. But this is not because the commercial trend is slowing, residents benefited from the long-term accumulation of capital after the development of tourism. At the same time, a lot of foreign investors are attracted, the villagers' sense of operation gradually increased, prompting most of the investment of Hongcun concentrated in the tourism reception facilities category (a), make a growth of 7.95% compared with last year's. The most common manifestation is the shopkeeper through the combination of accommodation and catering, or the closure of the original catering and small shops, squeeze more space to operate accommodation, which may also lead to a decline in the number of shops, but in fact, the current macro villagers are close to saturation, forming a trend "Everyone opens an inn".

In terms of the distribution area, the Front Street, Sheung Shui Chun, East Street are the most concentrated area of the commercial district of Hong Cun, the number of shops in these three regions accounted for 53.57% of the total of nine regional shops, and the result is closely related to three districts located in the central area of the Hongcun Scenic Area, the crowded area of people, and the main business of each region are very different.

Through the "number of shops/regional building Total" to provide reference to the degree of commercial assessment, Hongcun has a total of 451 buildings now, of which 273 are in the conduct of at least one of the commercial behavior, the entire town business penetration rate is 60.53%, which is a slight increase compared to 2015-year trend. The high level of commercial penetration for the front street, Sheung Shui Chun, south lake and tea line, all reached more than 66% and on the tour route.

The evaluation of commercialization degree of Hong Village 2015 and 2016

Area	2015			2016		
	number of buildings	shops	commercial penetration	number of buildings	shops	commercial penetration
Tea Line Lane	24	17	70.83%	24	16	66.67%

Area	2015			2016		
	number of buildings	shops	commercial penetration	number of buildings	shops	commercial penetration
East street	97	46	47.42%	97	46	47.42%
Back Street	74	25	33.78%	74	32	43.24%
East Well	63	34	53.97%	63	32	50.79%
South Lake	35	26	74.29%	35	24	68.57%
Front Street	64	50	78.13%	64	57	89.06%
Sheung Shui Chun	59	46	77.97%	59	42	71.19%
Pavilion Front	9	9	100%	9	9	100.00%
along the river	26	14	53.85%	26	15	57.69%
Sum	451	267	59.20%	451	273	60.53%

6.2. Characteristics of Commercial Content

In the above five kinds of business operations, the specific business content of each store shows the trend of alienation.

Tourist reception facilities in the form of "accommodation + home Cuisine", the majority has the provision of home meals with local characteristics for visitors to enjoy, while there are some other forms such as "accommodation + souvenirs", "accommodation + coffee", "accommodation + Bar", "Accommodation + agritainment " and so on. Most of the tourist reception facilities in the village are mainly operated by the residents of the village, and after a simple transformation of their houses, they begin to treat visitors, provide accommodation and home dishes, and hotels that occupy a geographical advantage usually rent the doorway to other operators for small business. Some of the new or fashionable hotels are mostly run by foreign businessmen or young people in the village, which accounts for the majority of "accommodations + souvenirs", "Accommodations + bars",

"accommodation + coffee" forms. It is noteworthy that outside operators in leasing buildings operating hotels are usually unwilling to invest in decoration, so there are many hotels are directly rental after decoration.

Catering shops are mainly divided into two types: one is Anhui cuisine restaurant; the other is local snacks shop. This kind of restaurant is usually distributed in crowded places, and the construction is more narrow, unable to provide accommodation. Restaurants and cafes are very rare. Souvenir shops mainly provide tea, wine, root, special clothing, antiques, decorative handicrafts and so on, but in Huangshan, Anhui and even the national level, these souvenirs' characteristics are not obvious, have high repeatability and low degree of distinction with other scenic spots; Community stores mainly sell snack groceries, daily necessities and so on, they are supermarkets or shops which serves residents; Other commercial facilities include infrastructure such as health stations, banks, post offices, etc.

7 Component Two: Environmental protection of tourism

7.1. Garbage

Hongcun admits above a million visitors per year, according to the observation, the main waste of tourists are plastic packaging paper, plastic bags, plastic bottles, disposable chopsticks, fruit nuts and other waste, and mainly produced by the interior consumption in the area. On the other hand, residents of Hongcun also produce some of the rubbish.

To deal with solid waste , Hongcun choose the way of hand-cleaning, fixed-point stacking, unified recycling, garbage was collected and transported to the villages outside the south side of the town, to the waste transfer station, and transfer to Yi County for landfill treatment. The two districts of Hongcun--"popular zone" and "unpopular zone"--are responsible for the cleaning work of the Zhongkun company and the Villages Committee respectively. Popular Area has 12 personnel for cleaning, 4 for garbage transport, garbage transportation in off-Season is 2 times a day, common season 3 times, the peak season 5-6 times, Unpopular Area has 4 personnel for cleaning, to do 2 times cleaning in the morning and afternoon each day. There is a certain difference in the cleaning

work arrangement in the popular zone and unpopular zone, and the effect of cleaning work is different. Although there are many tourists in the popular are, but the cleaning and delivery are on time under supervision and management, so the environment is more tidy and clean, and due to less number of times of cleaning and transport in the unpopular zone, sometimes there will be garbage accumulation situation, the environment is relatively poor.

There are four main types of Hongcun dustbin, including special bins for tourist (32), household garbage bins (37), basket and small plastic trash bins. Overall, special bins for tourists are more densely distributed around the lake and around the moon Marsh, less on the line, especially from the Sheung Shui Chun, through the tea line lane, to the village tree, the tourist line which has an entire length about half an hour, only Chengzhi hall and the Shuren Hall have garbage cans, ways for tourists throw rubbish are inconvenient, so they often throw garbage disorderly, Or dump rubbish in a household trash bin. In addition, in the commercial street, tourists go shopping frequently which results in more garbage, and commercial streets only have 3 garbage cans which often are piled up in very full situation. Residential garbage bins are generally distributed in unpopular areas, mainly in the east of the village and back Street. In the popular zone, the number of dustbin is very small for residents, throwing garbage is inconvenient, thus they often share the special garbage cans with tourists.

There are more than 120 pubs, restaurants and agritainments in Hongcun which produce many kitchens waste every day. People who open pubs, restaurants and agritainments are equipped with a specific plastic bucket to pour kitchen waste, and arrange 4 full-time sanitation workers responsible for the unification of recycling kitchen waste, three trips a day. After visiting the 22 inns near South Lake and Moon Marsh, only 6 inn kitchen waste has a unified recycling, the rest of the inn, 7 will bring leftovers to home to feed pigs or to others to feed pigs, 5 directly throw the kitchen waste into the dustbin. Although they are not able to effectively deal with all the kitchen waste, they also did not bring the environment heavy negative impact.

7.2. Sewage

Hongcun water system has a very unique bionic design, which also gets the attention of tourists,

so the conservation of the waters of the village is a very important part. There are two parts to the great threat to the water body of Hongcun: one is the operating oily water produced by the Inn and restaurant, and the other is the watercolor paint wastewater of sketching.

The underground of Hongcun is sand and gravel, such structure leads to serious seepage, if the oil sewage does not undergo treatment and discharge directly, they directly enter South Lake, resulting in ecological system destruction, yellowing blackening, canal water oil film pollution and sticky oil wall. At present, the inn and restaurant, such as the management of oily sewage treatment methods have the following types:

Table 7-1 the management of sewage treatment in Hongcun

Processing Method	Notes
discharge into the water directly	such restaurants are mostly run by locals,they buried hidden tube to discharge sewage into the water directly
Collected in buckets and recycle together	unified recovery of oily sewage and kitchen waste together, a person makes door-to-door recycling 3 times a day
Construction of filtration pool(self-builto Government installation)	Government unified installation costs more than 6,000 yuan, since 2016, the government started to have free installation

After visiting 22 Inn around the South Lake and the edge of the Moon Marsh, we found that there are 13 Inn installed filter pool, of which 11 are installed by the village organization, there are 2 self-built, and 9 Inn discharged oil sewage directly. Far away from South Lake and Moon Marsh, inns are basically without filter pool.

In view of the current situation, July, this year, Hongcun government issued an emphasis on the source control and oil sewage vertical phenomenon, all villagers and operators are required to prohibit the direct discharge of sewage into canal water moon marsh and South lake waters, install oil traps, build septic tanks, and oil sewage must be filtered back into the septic tank. For operators with more oily sewage, they need to prepare the sewage barrels and do batch processing. In addition,

a comprehensive tourism law enforcement team will be set up in August 2016 to intervene in the norms of tourism order. government determines 31 shops through investigations, and they will under 3 months of sewage limit treatment from 10th July, the government makes free installation of sewage treatment equipment, and substandard shops will be closed after rectification.

As a base for sketching, Hongcun has hidden dangers in the painting oil sewage. For sewage produced by students' sketch, there is a fixed-point to pour and a team to collect. July, August and September are peak time for students to come to Hongcun, the average daily reception is about 250 people, and the average daily production of paint pigment sewage is 1.5 liters. Sanitation staff responsible for scenic spots said that the recycled pigment wastewater will be transported to the sewage treatment tank outside the village, but through observation, the sanitation workers only pour the sewage to the open land outside the village.

7.3. Noise

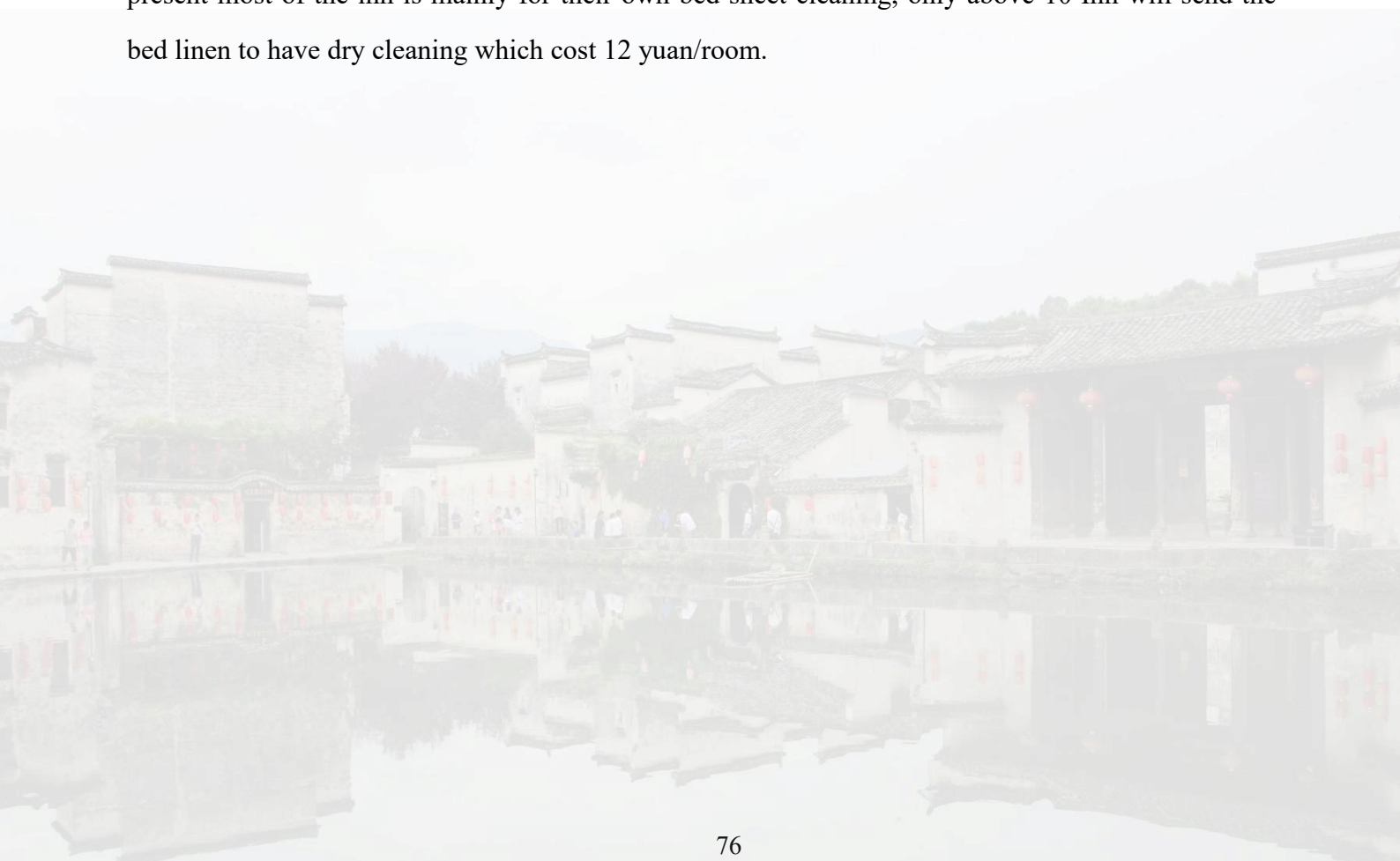
The noise pollution of Hongcun mainly comes from three aspects: the first is the noise generated by the motor vehicle engine and the whistle. Measured by the observer in the Commercial Street, the sound decibel of the motor vehicle is up to 80dB, while the decibel in the horn has 90dB; The Observer conducted a 3-day fixed-point decibel measurement in Hongcun, mainly recorded the main streets of the Hongcun popular district, secondary streets and unpopular areas of the main street, the decibel size of the secondary street in a single day has an average value of 50-72 decibels; thirdly, the construction of some dwellings renovation or decoration, mainly from the electric drill, chainsaw and nail gun, with a maximum of 95Db AND an average of 80dB, making people very uncomfortable.

For guiders' loudspeaker, some tourists think that because of the need to let the entire team of tourists hear, it is necessary to be loud, some tourists think there may be disturbing to the residents, there also are visitors mentioning other scenic spots travel experience in interviews, expressed the hope that each visitor can be equipped with headphones, so the voice of the tour can be relatively reduced. For this, the villagers do not have a strong feeling, most people do not realize that noise is also a kind of pollution. Living in the tourist route, an old man said that this "disturb" can be traded

to the company to their financial compensation, so although feel unwell but he can still accept being disturbed. And for the decoration noise pollution, because they generally carry on the decoration and the construction in the off-season, also because there are not many houses under renovation or decoration in popular area, therefore the visitor is not sensitive to this perception, but the resident says each family may experience decoration and construction, even to some extent it will disturb them, it is understandable.

7.4. Energy

Hongcun receives a large number of tourists every day, and the energy use of tourists are reflected in the hotel's energy consumption. In order to estimate the energy consumption of tourists in the Hongcun scenic spot, the observer chose a hotel and a restaurant, carried out the understanding of water consumption, estimated energy consumption as follows: Inn: per capita daily electricity 10.94 degrees; hotel: daily per capita water 0.14 tons. After Interview with inn owners, they said they were not very concerned about the number of tourists and the cost of operating the inn, that they believed mainly consumption was in air conditioners and washing machines. It is understood that at present most of the inn is mainly for their own bed sheet cleaning, only above 10 Inn will send the bed linen to have dry cleaning which cost 12 yuan/room.



2016 Monitoring Report on the Sustainable Tourism Development of Xidi Village

Monitoring Center for UNWTO Sustainable Tourism Observatories

People's Government of Yixian County, Huangshan City



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1 Introduction

1.1 Background of monitoring

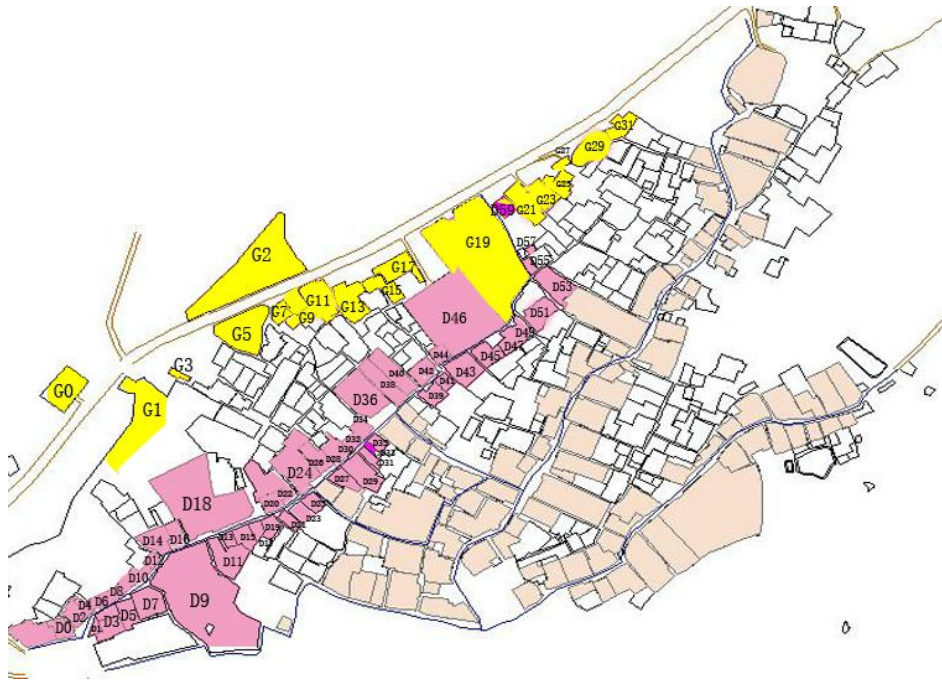
With the growing awareness of environmental protection, promoting sustainable tourism development has become the global consensus. Sustainable tourism development needs long term of influence monitoring and adopts necessary method of precaution and correcting. Finding specific method of monitoring sustainable tourism development has become a focus. From 2006, SYSU has established cooperative relationship with WTO and dedicated to apply the sustainable development index of tourism destination that designate by WTO to the practical operation.

In 2012, the monitoring center started to set up an observation point in Xidi, Yi County, southern Anhui. 8 kilometers from the center of the town, Xidi Village was built in the Northern Song Dynasty, emperor Yuo years (AD 1049 ~ 1054), with nearly a thousand year of history. The whole village is in the shape of a ship, with 124 intact ancient dwellings preserved. It now has more than 300 households and the population is more than 1,000. Xidi is honored as "a microcosm of Chinese traditional culture" and "China Ming and Qing Dynasties Folk House Museum". On November 30, 2000, Xidi was listed into the World Cultural Heritage List with Hong village because of its well-preserved ancient residential buildings. The following year on May 5, Xidi scenic area was awarded the "national 5A-class tourist attraction" by the National Tourism Administration. In 2016, Xidi received 889,500 visitors.

The monitoring of Xidi in 2016 was mainly based on the monitoring in 2015, in order to understand the changing track of residential dwellings during this period and recorded the changes of cultural heritage, which can help come up with the pattern of sustainable development of the heritage sites to minimize the negative impacts on the place. In addition, the monitoring will also conduct an analysis of tourists' satisfaction and monitor the impact of man-made activities on the architecture and the environment. The scope of the monitoring is Xidi village, where the questionnaire for tourists and community is distributed. The range of residential buildings is along the Dalu Street and Yihuang Highway.

1.2 Monitoring Method

The Xidi Monitoring Team has a total of 10 members and the monitoring time is from June 25th to July 3rd in 2016. The contents of monitoring include the archives of ancient names, residents' perceptions of the impact on tourism and tourists' satisfaction. For the archiving of ancient dwelling houses, the members of the monitoring team carried out subdividing, numbering, household survey. The household survey was mainly about structured interviews, which was supplemented by photographing and photography to record the status quo of the houses and residents' living styles. In the end the group completed the numbering work and file construction work of 72 buildings and 78 households. Among them, Dalu Street had the archiving 54 buildings and 60 households, while Yihuang Highway had 18 buildings and 18 households. As for the perception of tourism impact on the community, the monitoring adopted the method of questionnaire, which focus on the some streets in Xidi scenic area, such as Qianbianxi street, Dalu Street, Zhi Street, Henglu Street and Memorial Archway. The final community questionnaires were 150 and acquired 137 effective ones, with the effective returning rate of 91.33%. In addition, during the monitoring process, interview of the villagers also further complemented the community perception survey. In respect of visitor experience and satisfaction, this survey was mainly based on questionnaires and supplemented by interviews. 200 visitor questionnaires were distributed to tourists in Xidi core scenic spots and 199 valid questionnaires were collected, with an effective returning rate of 99.5%. Moreover, the monitoring conducted special investigations and reports on environmental protection, commercialization and the living conditions of the elderly.



Picture 1-1 The archiving of the scope of Xidi dwellings

2 The status quo of ancient dwellings

2.1 The basic information of ancient dwellings

There are 18 ancient dwellings along Yihuang road, of which 13 are ordinary dwellings and 5 are for conservation. Yihuang road is the access from the downtown of Huangshan to Xidi, along which the ancient dwellings are for self-use. Some public housing are distributed along the Yihuang road, such as power plants, supply and marketing cooperatives, forestry station, rural commercial bank and grain station. Yihuang road is the arterial road to connect Xidi to outside world, but there is no automobile stop. The original supply and marketing cooperative was used to be the ticket office, but now the ticket office is withdrawn, that's why residents live along Yihuang road are mainly farmers and workers, who seldom engage in tourism activities. On the whole, the architectural styles of houses along Yihuang road have long time span: they are built in Qing dynasty or in the period of 1880s-1890s. Yihuang road has a side with dense dwelling, while the other side is mainly farmland and sparsely distributed with buildings.

There are 54 ancient buildings and 60 households along Dalu street. Among the 60 households on Dalu street, 5 households are listed as key preserved dwellings, 18 households are ordinary preserved dwellings and other 37 are ordinary houses. The ancient residential buildings on Dalu street are mainly for self-use, with store-using as the main function and purpose, but the phenomenon of house renting is more obvious than that of Yihuang road. The income of residents living on Dalu street mainly comes from tourism, which relies on the sales of tourism specialty, tourist souvenirs and provision of accommodation. It shows that tourism has a great impact on the life of the residents on Dalu Street and also has changed lifestyle of local people.

2.2 The status quo of ancient dwelling protection

In terms of the protection of ancient dwellings, the ancient houses along the Yihuang road are well-preserved. The internal pattern of the ancient houses remains unchanged and the characteristics of the Huizhou buildings are well preserved, which are in accord with the sequence of "wing-hall-wing". However, small damages and changes of adding modern facilities occur. As time goes by, wind and rain erode the wall and make it black, shedding and cracking. The wall of ancient dwellings is reinforced by using cement and the patio is covered with plastic. Twenty or thirty years ago, the new residential buildings are modern style and are different from traditional Huizhou dwellings: large courtyards, many windows which are large and have no patio. This type of building are mostly used for public or tourism commercial purposes. From the perspective of the renovation, the overall size of the house renovation of Qing Dynasty is relatively small. Due to the government's restrictions on the renovation of old buildings, the restoration of ancient buildings mainly focuses on the repair of roofs (such as roof leakage), wall, sealing the patio with glass window or transparent plastic, without major changes.

The ancient dwellings of Dalu street can be divided into two categories. The first type were built in the Ming and Qing Dynasties era and basically retained the original appearance: well-preserved portals and patios, good lighting condition. It was listed as the major conservation dwellings or general conservation dwellings. Another type of dwellings were built in the period from 1980s to 1990s, three or four decades from now. The emergence of such houses due largely to the collapse of the original ancient houses and tourism development. Although the interior of the house

gradually adopts some modern elements such as porcelain floor tiles, air conditioning, telephone, solar water heater, new toilets building , expansion or new street windows, etc., the exterior design of the dwellings is still in Hui-Style , such as preserving gate tower. In the aspect of renovation, all kinds of dwelling houses are limited by the government, the overall repair are relatively small in size, which mainly focus on wall repainting and patio sheltering. No major changes have been made in general. In respect of repairing subsidies, residents unanimously indicate that there is no other subsidy specifically for repairing houses other than the allowance for annual ancient dwellings.

2.3 The status quo of ancient dwelling use

In terms of residents' utilization, residential areas along Yihuang highway are basically for self-use except public use , which are seldom used for tourism or other related purposes. There are mainly three ways of using residential houses along the Yihuang road, the first is residential functions. Among the 18 households that have been surveyed, nine of them have been used for residence. Therefore, the tourism development of Xidi has a relatively small impact on the house functions along Yi county. The second function is public housing , including grain stations, power stations, supply and marketing community, forestry station, bank. The third is operating function, which accounts for 4 houses, including tourism accommodation and tourism catering facilities.

The ancient residential buildings on Dalu street mainly function as accommodation and shops. Most of the residents still live in Dalu street. The impact bring by tourism is huge , especially for function exchange, because Dalu street is the main trunk of Xidi scenic spot and many visitors gather there. Residential D0-D42 on Dailu street is located in the tourist hot zone, which basically expand or set up new openings along the street to build new shops. However, D43-D59 is located in a cold tourist area, which is used as residential area for villagers' self-use, that's why the preservation is complete. In addition to some small restoration, there are no new windows and door. Residents are mainly workers or farmers. This phenomena are related to the design of scenic tourist route, which indicates that tourism has brought a great impact on the function and use of local dwellings. On the whole, residents live along Dalu street have great participation in tourism activities and depend largely on tourism.

3 Perception of community about tourism development

3.1 The basis information of questionnaire

The community questionnaire is divided into four parts. The first part is the residents' perception of the impact on tourism in Xidi, this part uses the Likert 5 scale to measure: "1" means "strongly disagree", "2" means "disagree", "3" means "neutral", "4" means "yes", "5" means "strongly agree". And the specific monitoring indicators are the same as 2015. The second part is about residents' perceptions and suggestions on tourism development. The third part is residents' perceptions and suggestions on heritage protection. Both the two parts use Likert scale, multiple choice questions and open questions to investigate. The fourth part is about the demographic characteristics of community residents. In addition, during the survey, some residents are interviewed to learn about the status quo and some problems about tourism development of Xidi. These interviews will be used as a supplement data for the analysis.

137 residents are involved in the survey, 63 persons are males and 74 persons are females; the group of 25-60 year-old are the main respondents, accounting for 76.6% of the interviewees. The surveyed residents have lower level of education, people with high school diplomas and secondary technical qualification or even lower are accounted for 85.1%. Moreover, 82.5% of respondents lived here for more than 10 years. In terms of income, the group below 3000 yuan makes up 73.7%. As for occupations, they are mainly individual and private economic operators, accounting for 69.3%; the ratio of tourist practitioner to non-stakeholders is about 5: 1. The total population of each household in the community is 3-5, accounting for 76.6% of the whole community. 1 or 2 persons in this kind of family are working on tourism.

3.2 Perception of community about tourism impact

In terms of residents' perception of the economic impact on tourism, except the indicator "tourism development is conducive to narrow the gap between rich and poor of local residents", other indicators are above 3.5, which indicate that residents are generally agree on these indicators. In addition, residents have the strongest perception of tourism's capacity of promoting local

economic development, with 84.7% of residents agree. Overall, most residents believe tourism effectively promotes the economic development of Xidi, which not only attracts more investment and increases consumption, but also raises residents' living standard and brings more job opportunities. Although tourism brings promotion, it also results in the rising of local price index, housing rents and housing prices, which increases the living costs and enlarges the gap between rich and poor. Compared with 2015, apart from the indicator of the impact on rising house prices brought by tourism, other indicators of residents' reduce.

In terms of villagers' perception of the tourism impact on society, the majority of the residents have a positive attitude towards the social impact of tourism. 75.2% of residents say that tourism development helps improve the local infrastructure. Most residents don't agree with ideas that "tourism development has made public order and social atmosphere worse, or has brought troubles and conflicts to the locals". This shows residents' perception of the social impact on tourism development is still relatively positive and they don't feel the obvious change. About half of the residents don't think there is any impact on the demographic structure of the population, such as the male-female ratio and ethnic composition of the community residents. Compared with previous years, residents' perception of the social impact of tourism development changes slightly, mainly reflects in the downward trend in traffic and population congestion.

In terms of villagers' perception of the cultural impact brought by tourism, the vast majority of them think that tourism development has a positive effect on the protection of local cultural inheritance. The perceived value is about 4.0. Perception about tourism development enables the villagers to realize the value of Xidi cultural heritage is most obvious, 87.7% of residents agree the idea. In addition, 62% of residents think that tourism development does not undermine traditional culture, skills and minority customs in Xidi, oppositely, it has played a protective role.

Regarding residents' perception of the environmental impact of tourism, except water pollution, most residents maintained an opposite or neutral stance about some negative impact like "deteriorated air", "noise pollution", "tough management of solid waste" and "natural environment damage because of constructing hotel and other tourism facilities". The average perceived value was below 3.0, indicating that residents as a whole did not agree that the development of tourism caused

deteriorating air quality, worse noise pollution, difficult solid waste management and natural environment difficulties.

3.3 The perception and attitude of tourism exploitation

Residents' attitudes toward tourism development are different. The first kind of attitude is positive, most residents are willing to take the initiative to communicate with tourists and strongly support the development of the tourism industry in Xidi. The second attitude is negative, on the negative side, only 25.6% of residents say they are satisfied with the government's implementing power of tourism development. In addition, only 40.1% of residents are satisfied with the current development, showing a slightly decline compared with 70.23% of last year. Only 40.1% of the residents are satisfied with the status quo of tourism development in Xidi. Overall, residents think tourism development in this year is not ideal compared with previous years. Residents' dissatisfactions are more based on economic interests, which is also consistent with the result of the decline of the perceived economic impact.

Residents are dissatisfied with the government, tourists, the environment and housing maintenance during the tourism exploitation. The main problems are: 1) government made no progress and lack of humane method in management ; 2) few bonus and welfare 3) unfair distribution 4) inadequate government support for residents; 5) poor tourists quality;) short time for tourists to stay 7) environmental pollution; 8) too many restrictions on housing maintenance restriction.

3.4 The perception of community about heritage protection

Residents are more satisfied with the status quo of heritage protection. As for residents' attitudes toward the maintenance of ancient dwellings, most of the residents will actively carry out the maintenance; they have formed the concept of consciously protecting and repairing ancient dwellings. Concerning the troubles in the protection of the heritage, "maintenance of houses need long cycle to get permission" was mentioned most frequently, following by other problems like "maintenance of the house need deposit" , "less government compensation and lack of maintenance funds" and "motor

vehicles are difficult to enter". In terms of the heritage development and conservation patterns, residents do not have a clear preference. Relatively, more residents hope that pastoral scenery around the heritage area can be well maintained and tourist accommodation and shopping activities should be assigned in the heritage area. Residents also put forward some suggestions on the protection of Xidi heritage, such as increasing the effort on protection, paying attention to inheritance, increasing maintenance funds and dealing with maintenance issues fairly.

3.5 Residents' living conditions

Most of the surveyed residents were generally satisfied with their current living conditions. Only 13.9% of the residents were dissatisfied with the overall living conditions and had a low level of happiness. According to the interview, the reasons for residents' dissatisfaction were mainly about the economic interests. When residents compare the current perceptions of quality of life with the expectations, 54% of them said their current life is roughly in line with their expectations, while 22.6% think there is a gap between life and the expectations. In terms of the perception of living conditions and future life, most of the residents did not feel particularly good about these two aspects. 62.8% of the respondents considered their current living conditions are not even ideal. At the same time, 58.4% of the residents hoped their future life will change. Only 25.5% of the residents do not want to make any changes in future life, which shows that most residents hope their life will be better and better regardless of their expectations and perceptions of living condition . In general, residents are more satisfied with the current living conditions and with more expectations and perceptions

Specifically, residents are more satisfied with their interpersonal relationships, working conditions, leisure and entertainment, self-development, health and medical services and community public services, with mean values above 3.0. Among them, residents have the highest degree of recognition of "good interpersonal relations", with all the three mean values above 4.2; followed by self-development, the mean value of residents' satisfaction with their ability to communicate with others and acquire information and learning iss above 3.6. However, the residents are not satisfied with their own consumption conditions; mainly reflect in local price level and the supply of local goods.

4 Visitors' experience and degree of satisfaction

4.1 The basic information of questionnaire

The tourist questionnaire is mainly divided into four parts. The first part is the basic demographic characteristics of tourists; the second part is the travel characteristics of visitors; the third part is the tourists' evaluation of the travel experience; the fourth part is the tourists' overall satisfaction evaluation. The third and fourth parts are measured by adapting Likert 5-point scale, in which "1" means "very dissatisfied", "2" means "not satisfied", "3" means "neutral", "4" means "satisfied" and "5" means "very satisfied". The specific monitoring indicators are the same as 2015. In the fourth part, "the deepest impression of Xidi" and "suggestions on tourism development in Xidi" are open questions. In addition, during the survey, some tourists were interviewed and the information of these interviews will be used as supplement to analyze tourists' perception and satisfaction.

Of the 199 surveyed tourists, 45.7% are men and 54.3% are women. The age range are 15-44 , with 15-24 year-old group accounting for the largest proportion of tourists, who are mainly students with low income. The proportion of respondents with tertiary education was 78.4%, those people have high level of education. At present, the type of tourists in Xidi is still mainly students. Compared with 2015, the proportion of students increased from 44.1% to 53.3%. The number of students is on the increase and study tour is one of the main features of Xidi tourism. Xidi attracted a wide range of tourists from Anhui, Jiangsu and Guangdong, accounting for 18.7%, 17.1% and 12.8% respectively.

4.2 Characteristics of tourists' trip

In terms of access to information, tourists get information from Internet, friends and family firstly. The second way is brochures from travel agencies. The percentage of acquiring relevant information from television broadcasting, newspapers and magazines is relatively low.

In terms of the way of traveling, 56.19% of the respondents chose team trip and 43.81% of

them chose free tour. Compared with 2015, the proportion of team trips increased, while the proportion of free exercise decreased, and the proportion of team trip is higher than free tour. Among the tourists who chose to go free, 63.77% of the tourists followed instructors, nearly the same as previous years. Tour guide service is still the main way for tourists to understand Xidi culture. 92.71% of the tourists surveyed came to Xidi for the first time and only 7.29% were revisited tourists. Compared with previous years, the proportion of revisiting showed a downward trend year by year.

In terms of the saying time, tourists stay in Xidi for mainly half a day or even below, students who want to sketch or conduct research will stay there for more than two days.

As for visiting activities, 65.7% of tourists visited the pastoral scenery around Xidi and 32.8% would taste farm food, while 41.4% of them would buy tourist commodities. On the whole, visiting ancient dwellings is the main touring activities, which results in monotonous experience as well as low revisiting rate.

4.3 Travel experience and perception

In terms of the evaluation of the landscape and visiting experience, the interviewed tourists are generally satisfied. Visitors are mostly satisfied with the traditional Hui-style dwellings in Xidi, no one chose dissatisfaction. A considerable number of tourists are neutral about these following aspects: attraction of scenic spots, the comfort of the tour environment and the extent of enthusiasm of residents. That's what the management should continue to improve next.

In terms of the perception of the environment, the surveyed tourists were generally satisfied with the environment of the destination. Tourists were most satisfied with the air quality of the scenic spots, with the number of 89.4%. As for business atmosphere, more tourists hold neutral stance, the same as their opinions on crowdedness of the scenic spot. The satisfaction is not high. In peak season, the scenic area should control the number of tourists to avoid overcrowding. In recent years, the sanitation of scenic area has been continuously improved so tourists' satisfaction has been continuously improved.

In terms of perception of infrastructure, the surveyed tourists have lower degree of satisfaction. Firstly, the satisfaction about the completeness of facilities of public toilet is relatively low, with only 47% of the respondents are satisfied. Second, tourists are basically neutral on the public resting facilities in the scenic spots, with only 45.9% of satisfaction. 11.1% of tourists are dissatisfied with the guidelines of some facilities such as tourist centers, trash cans and toilets. Particularly the sewage buckets, a lot of sketching students said they did not find any buckets to store waste water so they had to pour the sewage into the stream, which caused water pollution directly. The management should enhance the logo and guidelines in this area.

As for the perception of the services, the interviewed tourists are generally satisfied with the services there. 71.6% of the surveyed tourists expressed their satisfaction with the definition of the sign system. Compared with a couple of years ago, the capacity of information acquirement is improved a lot, such as maps, brochures. The sign system got tourists' approval because of the improving definition of the sign system.

In terms of safety and health awareness, interviewed tourists were relatively satisfied with local security facilities and local public order, with 69.6% of the tourists expressed their satisfaction. As for the local medical equipment, 42.9% of the respondents thought it was ordinary, while 45.1% of them were satisfied.

In terms of diversified perceptions of the visiting experience and activities, the respondents were more satisfied with the diversification of experiences and related activities. Moreover, visitors were particularly satisfied with the value and enchantment of the Hui-style ancient dwellings, the rich history and culture, residents' traditional living conditions, unsophisticated folk customs and atmosphere. The traditional Hui-style dwellings, local culture and history and culture are also the main reasons for tourists to visit Xidi. Most of the interviewed tourists experienced the features of local souvenirs and handicrafts, as well as specialties and snacks. The rich and various touring programs doesn't bring any difference to the visitors, as 38.3% of the tourists surveyed the projects are so-so. Therefore, the management should enrich the visiting program in order to enhance tourists' experience.

In terms of the perception of heritage protection, 82.5% of the interviewed tourists know Xidi is the world heritage site. 95.4% of the interviewed tourists approved that more protection should be put on Xidi ancient dwellings with no one disagreed. Compared with previous years, visitors' satisfaction with the status quo of Xidi ancient dwellings conservation has been declining for two years. Promotion of propaganda is needed and measures should be taken to protect Xidi for its status as world heritage.

As for the perceptions of locals' attitudes, interviewed tourists have good impression of the locals. Most of the tourists think the local service staffs are nice and local people are enthusiastic, that's why they are willing to chat with locals. Compared with previous years, tourists' perception of locals' enthusiastic slightly decreased, but without evident change.

4.4 The overall degree of satisfaction

Interviewed visitors have high overall satisfaction of Xidi tourism. 74.8% of visitors are satisfied and only 0.5% of them are dissatisfied. 74.7% of visitors say they will recommend Xidi to their friends and family, indicating the high approval of Xidi. However, as for the willing of revisiting, 12.4% of visitors aren't willing to come, only 52.8% of them has the willing of revisiting.

Visitors' impression of Xidi is mainly about ancient dwellings, friendly residents, pure folkway, residents' life, pastoral scenery and the environment. Visitors' suggestions about Xidi tourism development include infrastructure construction, tourism projects and environmental protection. The first suggestion is increasing public health facilities because many tourists reflect that the lack of toilets or charged toilets are causing inconvenience to tourists. Moreover, visitors' advice includes providing more shelter because the rainy weather of Xidi. Some visitors think there are not enough roadmaps and signs, the scenic spots need to give out tourism maps. The second suggestion is about tourism projects because of sole tourism activities in Xidi: it only takes half a day to walk around Xidi. Most visitors believe only viewing will be bored, so adding more experience tour items is essential, or maybe increasing some recreational facilities for visitors to rest. The third is environmental protection, many visitors propose some advices like "improving the sanitary" and "managing water pollution". The management should pay more attention on tourists' advices and

keep promoting for increasing visitors' satisfaction.

5 Conclusion

(1) The appearance and the style of the ancient dwelling are preserved well and there are some difference between popular or unpopular areas

Overall, complete appearance and overall image of Xidi dwellings are well preserved , such as the door building and wall . Regulated by the dwelling protection legislation, the repairing scale is small. Based on the need of modern life and commercial requirement, most of the ancient dwellings have been changed or adorned in different extent, like installing some modern equipment like air-conditions or toilets, etc.

Dalu Street belongs to popular scenic area and largely influenced by tourism. The dwellings along the streets have the commercial and business functions. The degree of repairing is evident because the entrance is firstly built or enlarged along the street; the inner modification has some modern factors. Nevertheless, Yihuang road is not the part of the tourism area, it is difficult for villagers to participate in the travelling. Villagers' income are mostly rely on farming and working. Without new doors or windows, the dwellings are preserved as primitive, the villagers repaired their house for their own basic use.

(2) The villagers universally recognize the positive influence brought by continual tourism , but the management and the benefit allocation will trigger potential conflicts.

The villagers hold the views that the continual tourism development of Xidi has positive impact on local economics , culture , society and environment, etc, especially the economics and culture. Tourism can accelerate the economic development of Xidi, attract more investment , promote the consumption, increase living level and job opportunities. With the increasing of tourism development levels , the social security has promoted a lot, the same as infrastructure. As for the cultural influence, tourism promote the protection and inheritance of the Xidi culture, which also strengthen the cultural pride.

However, there are still some places that residents are not satisfied with during the course of tourism development. These include: lack of humane management by the government and weak enforcement; little dividend and welfare for residents; inequitable distribution of benefits; long approval cycles for housing maintenance and more restrictions; residents' opinions are difficult to be adopted by policy makers. From the point of view of problems that trigger residents' dissatisfaction, they are mainly put forward for government management and decision-making. Therefore, how to do a good job in the protection and management of heritage; how to properly handle the interests of residents and the needs of heritage protection are important issues in the sustainable development of tourism in Xidi.

(3) High satisfaction but low probability of revisiting

Overall, the surveyed tourists are satisfied with Xidi tourism, especially the pastoral scenery, the traditional Hui-style dwellings, the air, the general sanitation environment, the environmental management, the value and enchantment of traditional Hui-style dwellings, rich history and culture, traditional life of local residents and honest folk customs.

In recent years, the sanitation environment, the availability of tourist information and the clarity of the signing system have been continuously improved, which has raised tourists' satisfaction. However, there are still some aspects that need to be improved. For example, the signs are not clear enough, the commercial atmosphere is too strong, the garbage and sewage treatment are not comprehensive, the public infrastructure needs to be increased, and the items of tourist experiencing are too few.

6 Special report 1 : environmental protection of Xidi

6.1 Refuse disposal

The refuse disposal of Xidi are divided into two parts: rubbish produced by visitors on two main travel route such as Dalu Street and Zhi Street , which is managed by company; other rubbish produced in residential district, including the doorway of house, non-travelling zone was charged by village committee. Besides, a group leaders was assigned to manage the sanitary and those persons

supervise the waste disposal. The villager-used rubbish bin are not designed for rubbish sorting, but the visitors-used rubbish bin has evident sign of rubbish sorting. Worse still, without separating the waste by types, the cleaners put all waste together. Therefore, the work of waste sorting needs improvements.

6.2 Sewage disposal

Sewage is mainly from tourists and residents. The sewage produced by tourists includes painted wastewater, domestic sewage and water pollution caused by littering into rivers. Residents mainly produce domestic sewage.

Table 6-1. Typical water consumption of business operator

Date	June 29 th	June 30 th	July 1 st	June 2 nd	June 3 rd
Hotel (m ³)	0.2925	0.1295	0.1910	0.1637	0.4322
Restaurant (m ³)	0.9298	0.8512	1.0288	1.0193	1.1096

Table 6-1 shows that in addition to the resident population such as the owners of inn and restaurant, the average daily water consumption of the inn is about 0.2418 cubic meters and the bar is 0.9878 cubic meters. Among them, larger amount of water is consumed in the bar because bar is usually the first choice of half-day tourists who have relatively large demand for food, that's why the water consumption of the bar is also correspondingly increasing.

As for the treatment of special sewage, the disposal and management are more difficult, mainly due to decentralized sketching students, which is difficult to manage. Although the management tell students to pour the waste water into the bucket, some students pour waste water everywhere. The management try to conducts inspections but they don't have sufficient energy because of the large amounts of students. The most critical thing is improving students' awareness of environmental protection.

6.3 Villagers and visitors' attention, attitude, behavior to environmental protection

According to the interview, the refuse disposal system is operating well and basically meets the

current hygiene requirements of Xidi scenic spots, which is approved by residents and tourists. However, there are still some problems with the sewage disposal system: the domestic sewage of the residents and the waste water produced by students' sketching are not effectively dealt with. Moreover, the cooperation of the residents on environmental protection needs to be strengthened. The pigment water caused serious pollution on water and soil, which needs particular attention.

According to existing problems of Xidi environmental protection, the following suggestions are listed: (1) Classify rubbish and improve the utilization rate of recyclable rubbish; (2) Speed up the progress of pipeline construction to solve the problems of sewage water produced by residents and overnight tourists (3) As for wastewater produced by students' sketching activities, it is necessary to strengthen environmental protection propaganda to the group of scenic painting. In addition, management and supervision should be strengthened, as well as the management of the waste water tanks in the scenic spots. The specific measures are as follows: increasing some punitive mechanisms and sewage buckets in hot spots; expanding the range of paint buckets or changing the appearance of paint buckets to make them more easily identifiable; increasing the number of eco-friendly signage, etc. (4) Provide regular education and propaganda of environmental protection to residents and tourists, in order to obtain their understanding and cooperation.

7 Special report two: commercial situation of Xidi tourism

7.1 Commercial monitoring methods

The survey of Xidi business is mainly based on observation, supplemented by interview to acquire information. The monitoring area includes five main streets - Henglu Street, Zhi Street, Dalu Street, Qianbianxi and Houbianxi; the monitoring content includes coding, locating, classification and mapping the distribution of the shops. According to the number, the group registers the shop information, including the basic conditions of business operators, shop ownership, the original use of the house, type of business and the shop history. Information analysis is to obtain the data for simple statistics and status quo analysis, while the purpose of commercial monitoring is to organize and archive information of commercialization in Xidi, striving to establish a complete database for Xidi business information. Monitoring results show that a total of 170 shops has been included in file, the

basic information is more complete, although some information is missing.

7.2 Commercial distribution situation

As the main thoroughfare of Xidi Village, Dalu street is the only way for tourists to get in and out of Xidi Scenic Area. Therefore, most shops locate here, accounting for 62. The main types of merchandise are tourist souvenirs. Henglu street and Zhi street are rather narrow, but it is a popular line because the leading of tour guides. Shops are very densely distributed here, of which there are 20 shops on Henglu street and 36 on Zhi street. The commercial types are mainly snack and tea, with very few accommodation facilities. Qianbianxi street is longer and the east and west end are dominated by housing and farmland. The commercial area is mainly concentrated in the middle section with a total of 35 shops, with diversified management types and relatively large number of accommodation, 10 for accommodation and 13 for catering shop. Houbianxi street is longer, which is the main area for living and agricultural production. Since it does not belong to the tourist routine, the tourist arrivals are less. Moreover, the number of shops is smaller with the number of 17, and 9 is accommodation, making up half of the volume. This shows that the commercial distribution of Xidi has a significant dependence on the tourist guidelines.

7.3 Commercial characteristics Analysis

Among all business types, souvenir shops are up to 69, accounting for 40.6% of the total numbers; specialty shops are 25, which are mainly tea shops; accommodation service facilities are 30 totally, mostly are run by local residents and few chained hotels. There are 32 catering and service facilities, including restaurants, beverage shops, wine shops as well as booths and stalls constructed and provided by the governments on both sides of the road. In addition, the scenic area has five community stores, mainly selling beverages, daily necessities and simple foods.

Shopkeepers engaged in tourism business are balanced in the sex ratio of men and women. The age are from 20 to 60, accounting for 90.3%. Young and middle-aged are accounted for 37.9% among the 20-60 group, a few elderly people will also participate in business operation. In addition, most of the business operators are local residents, making up 71.9%, only nine of them are from

other provinces, accounting for 6.5%. Six shopkeepers are from other cities in the same province, accounting for 4.3%. In general, the commercial operators are mainly Xidi locals. In recent two years, many Xidi locals purchase houses in the county and run their business in scenic areas during the day. At night or even during cold season, store owners will return to live in the county. In recent two years, the number of operators from other places (outside Xidi village) have shown a clear trend of increasing.

Regarding the relationship of property rights between business runners and the houses they used, 39.4% of the houses are owned while 38.8% were rented. Only a small part of the houses are occupied by the owner by purchasing, accounting for 4.7% of the total. Compared with 2015, the share of self-owned houses drops drastically (66.7% in 2015) and the share of rented houses increases significantly (20.4% in 2015), which indicate that store-house managers change a lot. The changes in the market price of housing may be one of the consideration of residents' choice, leaving some residents choose to rent out their houses to get more profits.

7.4 Conclusion and analysis

(1) Commercial distribution depends on tourism routine, distinguished popular and unpopular zone

In Xidi, the shops are mainly located on both sides of important tourist routes, including Hengluo street, Zhi street, the west section of Dalu street and the middle section of Qianxi street, forming a commercial hot zone. Less-tourists routes include the Houbianxi, east section of Dalu street, middle section of Qianbianxi, forming the unpopular zone. The obvious difference between hot and cold zone is not conducive to balance the commercial income Xidi, which easily lead to conflicts between residents in hot and cold area, or the conflicts between the government and tourists.

(2) Homogeneous market but has the trend of improvement

Xidi's business types are mainly souvenir shop, hotels and restaurants. Souvenirs and snack business are especially homogeneous, but business of Xidi is also gradually moving toward

differentiation and uniqueness. For example, the appearances of "Guessing Train Pub" and "Liangzhu Cafes" symbolize that some entrepreneurs are trying hard to look for the differentiated contents and modes. The presence of reception facilities like "Zhulan bar" which has petty-bourgeoisie will prompt Xidi to change its commercial style to uniqueness and petty-bourgeoisie.

(3) The commercial scale is basically stable while obvious changes in property rights

Xidi owns 69 old shops with the history of more than 10 years, while few new enter. This may be due to the strict control of government, or scale of businesses is now saturated and other businesses are hard to enter the market. In addition, compared with 2015, the proportion of using rental housing for business significantly increases. To some certain extent, it indicates the big changes in business environment has for retail store operators. The fluctuation in the rental price makes some people give up running business and choose making profits by rent a house. Moreover, Xidi successfully becomes the world heritage and more outsiders enter the business, leaving more residents be aware of value of the ancient residential value, so house deal becomes less and less.

(4) High prices and the major impact on residents

As tourist attraction, the area is also the living space for residents, but the type of business are mostly souvenir shops, specialty shops, accommodation and catering facilities. However, commercial facilities for residents are rare. In the survey, only five community supermarkets located in popular tourist zone are found, in which the price are high. For local residents who live long here, the high price level is rather difficult to accept. To some extent, it has put more pressure on the life of residents.

8 Special reports three: the living conditions of the elderly

8.1 Research methods

The members of the monitoring team interview 23 seniors within the time of 15-45 minutes. The interviews are mainly about the elderly's basic living conditions, daily activities and the impact

of traveling on them. As for the selection of places, the sites of interview covered both popular and unpopular tourism destination. In terms of age, the range is from 55 to 85 years old, but the main group is from 65 to 75 years old. In terms of gender, 12 are men and 11 are women.

8.2 The daily activities of elderly people

According to the interviewed elderly, their welfare comes from two sources after sixty years old. On the one hand, Chinese elderly people enjoys Social Security: when they reach regulated ages, they can draw pension of 70 yuan monthly given by the government. On the other hand, the village committee will give out the pension: 100 yuan monthly for people aged 60 to 69 , 120 yuan monthly for people over seventy. Among the interviewed elderly people , a few of them are retired employees from enterprises or retired as civil servants in Yi County. They have certain amounts of retirement salaries and good living material base. They don't need to worry too much about economic issues or engage in laboring to acquire income. They live a relatively leisure life , such as "walking around every day, watching TV, raising birds, planting flower and vegetables, gardening" (F8) or "read books or newspapers" (F1), or maybe practice their own hobby like "listening to and sing opera, play the violin"(M12).

Most of the elderly were peasants in general. They do not have retirement salaries and the subsidies from the government and village committees were not enough for the daily expenses. Therefore, some old people need to rely on selling agricultural products or working in travel agency or hotels. For example, 67-year-old M3 in Taoyuan works as cleaner in Taoyuan family hotel , 6-8 hours a day unregularly. When these groups of ordinary peasants grow old, their daily activities are mainly about making money, but they will not overwork. In free time, they may do housework, watch TV or go for walking in the village. Some elderly people will go to the ancient stage at night.

The surveyed elderly unanimously respond that they have less entertainment activities in Xidi. Their daily entertainment is square dance which is held in the ancient stage every night, but only a small proportion of the villagers participate in it because many people know nothing about dancing. "We usually stay at home and sometimes we will walk around or watch others dance. In the daytime, we are working "(F14). " Watching TV and walking around" are the entertainment activities for most

of the elderly. F6 responds “I usually wake up at five in the morning, then cook. After my granddaughter wakes up, I send her to kindergarten. In the afternoon, I do my own entertainment or sleep at home, and then watch TV. I watch TV after dinner, sometimes I walk around by myself and occasionally go to the place where people dance . The place is for villagers’ evening gathering.

8.3 The happiness of elderly people

When the elderly are asked if they feel happy in Xidi, their answers are mostly neutral. Some specific answers are " It’s OK” (M7) , “so so” (F14) , “not bad” and "not happy and not unhappy” (F1), “can’t describe it as happiness or unhappiness "(M12), “ Living in Xidi has not any difference and they don’t feel very special when live here “ (F10)...And when the elderly are asked why they have such feelings, they can’t answer anything, because life is nothing like insipid and ordinary for them. Some elderly people think living in Xidi is very happy, such as F2.

Actually, the well-being of the elderly of Xidi is largely related to their economic conditions. For example, M15 thinks "my well-being is higher because my life has improved and is much better than before". However, a 66 year old man who is in poor economic condition has dissatisfaction and complain about the life in Xidi .He used to be a soldier when he was young and returned to Xidi after leaving the army. Now he and his wife are living in a new 80-square-meter house. He says: "We came back after leaving the army and did not get any favor of the tourism development. My house is new and the maintenance fees are incredibly meager. We live a hard and poor life ". He even feels“unhappy” is not enough to describe his life , because his life is very poor. He says: "I eat porridge at noon and my three daughters are married. Only 270 yuan a month can’t sustain my life."

8.4 The impact of tourism on the elderly’s life

As for the influence of tourism to the elderly, this monitoring report puts forward the following feedbacks. Firstly, some elderly don’t think tourism bring any difference to their life. The influence is little because they are older. Secondly, some elderly people who benefit from the tourism believe it brings economic benefits to them. For example, they can earn money by starting small business, selling or working on something associates with tourism. Thirdly, some unbenefited elderly people it

is tourism that brings down their life quality, because the ownership of farmland enables them to plant and feed themselves before developing land. However, after tourism development, their farmland is rent by the government, the rent and the subsidy are not enough to maintain their life.

8.5 Conclusion

In Xidi, the majority of the elderly are still engaged in working or farming, such as cleaning in scenic spots or hotels, selling crops and setting stalls, etc. which occupy most of their time during the day. The remaining time are mainly for walking and watching TV. Some elderly people will also have go dancing on the ancient stage in the village, the place where villagers always gather at night. There is no obvious difference between the daily activities of the local elderly and other rural areas. Elderly people in Xidi have different degrees of happiness, which is not associated with Xidi itself. The happiness is closely related to their own life experience, family income and children's companionship. According to the surveyed elderly, tourism has little impact on their life. The impact of the tourism is mostly reflected in the economic life, but it has little positive influence on cultural activities that can help enrich the spirit life of the elderly as well as increasing the number of facilities and equipment for the elderly to exercise.

2016 Monitoring Report on the Sustainable Tourism Development of Zhangjiajie

Monitoring Center for UNWTO Sustainable Tourism Observatories

Zhangjiajie Municipal People's Government



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And all those who helped with the monitoring work.

1 Introduction

During June 26 to July 5, 2016, under the strong support and collaboration of Zhangjiajie Municipal People's Government, the monitoring group had successfully conducted a 10-day field research. Led by Professor Zhao Chaozhi, Deputy Dean of School of Tourism Management of Sun Yat-sen University, the monitoring consisted of 1 doctoral student, 3 postgraduate students and 12 undergraduate students from School of Tourism Management. This monitoring activity draws on past experience and makes up for the deficiencies on this basis. Through a comprehensive investigation on Zhangjiajie's residents, tourists and resources environment as well as the social, economic and environmental impacts of tourism development, the monitoring analysed the status quo and existing problems of Zhangjiajie's sustainable tourism development. After that, the monitoring concluded Zhangjiajie's management experiences of sustainable tourism development and promoted it worldwide.

Directing at the issues of tourism communities, tourist behaviours and satisfaction, economic impacts of tourism, tourism marketing as well as resources and environment protection, the 2016 monitoring program used the previous methods of questionnaires, interviews and second-hand data collection to conduct investigation. What is different from the previous monitoring is that the 2016 program included new items such as tourism education and resident happiness into the surveys. Questionnaires were classified into two groups, residents and tourists. Resident questionnaire survey was mainly conducted in Wulingyuan scenic area and the surrounding communities. Major monitoring spots included: Baofeng Road and Wujiayu managed by Jundiping Neighbourhood Committee; Yujiazui, the village of Tujia nationality; as well as Yangjiajie, Yuanjiajie and Tianzishan Town within the scenic area. In total, 505 questionnaires were distributed, and 484 valid ones were received. Tourist questionnaires were mainly conducted at key scenic spots such as Zhangjiajie National Forest Park (Yuanjiajie, Jinbianxi), Suoxiyu Nature Reserve (Shili gallery, Shuiraosimen), Tianzishan Nature Reserve and Baofeng Lake. Despite for the domestic tourists, the monitoring group also distributed questionnaires among foreign tourists. 800 Chinese questionnaires were distributed and 759 valid ones were received. 92 English questionnaires were distributed and 84 valid ones were received. Based on questionnaire surveys, the monitoring group also conducted

interviews among residents, tourists, local restaurants, hotels, and staff of government and scenic areas, in an attempt to supplement the data.

2 Tourism and Community

2.1 Residents' attitudes towards tourism development

Residents are positive about tourism development. According to the research results, over 93.4% of residents thought that tourism had positive impacts on local development; 82.4% of the residents thought they could benefit from tourism development; 91.3% of residents said that they were satisfied with Zhangjiajie's tourism development. 92.6% of them supported that Zhangjiajie should continue to develop tourism. The above indicators are basically the same as the previous year with little fluctuation. Some minority residents have a negative attitude toward tourism development due to the imbalanced development among different regions and the environmental damage caused by tourism development.

2.2 Residents' perception of tourism impacts

Residents had obvious perception for tourism's positive economic impacts. 85.7% of the residents agreed that tourism "create more job opportunities for local residents" and 86.2% of them agreed that tourism "attract more investment and consumption". Among which, the support rate of tourism "create more job opportunities for local residents" has increased significantly from last year. In addition, nearly 80% of the residents thought that their living quality had improved. However, residents also showed strong perception for tourism's negative economic impacts. 70.2% of the residents assumed that "tourism leads to inflation", and 61.0% of them thought that "tourism leads to increasing housing price", and the recognition degree for these two items both exceeded 3.70. Compared with previous years, they clearly increased the recognition of rising commodity prices, and significantly reduced the recognition of rising house prices. Community residents thought more rationally about tourism development. They thought that the rise of commodity and housing prices are not directly related to tourism development, but the result of joint impacts of the market as a whole.

Residents' perception for tourism's negative impacts on environment has reduced. According to the statistics, 93.2% of the residents agree that "environment protection is important". Their perceptions for "tourism development leads to traffic congestion", "tourism development exacerbates noise pollution", and "tourism development exacerbates environmental pollution" are all below 50%. Compared with previous years, the proportion rate has decreased dramatically. Although community residents are aware of environmental issues such as increased solid waste, water pollution and increased noise pollution, they feel positive about the existing urban landscape and sanitation environment and are proud of the local air quality. This shows that environmental protection work is effective to some extent.

Residents' perception for tourism's positive social and cultural impacts has reduced. 83.1% of the residents reached the agreement that "tourism development brings about improvement in fundamental facilities"; 51.6% of them agreed that "healthcare facilities and services have been improved greatly"; and 77.7% of them agreed that "tourism development contributes to demolition of old houses and increase in new houses". While in terms of social culture changes indicators, 74.0% of the residents thought that "tourism development is beneficial to the protection and development of culture tradition"; 61.8% of them agreed that "cultural activities and traditional festival celebrations increase"; and 64.3% of them agreed that "more and more people engage in promoting traditional culture". Though residents' perception of tourism's positive social and cultural impacts remained at a relatively high level, it had slightly decreased compared with previous years. On the other hand, only 12.8% of the residents agreed on "tourism leads to increasing crime rate"; 13.1% agreed on "tourism damages ethical standard"; and 31.8% agreed on "tourism disturbs our original life". The proportion rates have slightly decreased compared with previous years. It can be inferred that local residents had weak perception for tourism's negative social and cultural impacts, but their perception for tourism's positive impacts had decreased.

2.3 Residents' participation awareness and degree

Residents were highly enthusiastic and willing to provide suggestion for scenic area development. According to the statistics, 71.0% of the residents were "willing to provide suggestions for local tourism development", but reckoned that the accessibility of policy information remained to

be improved. 45.8% of the respondents believed that “I have accessibility to information of government’s policy and strategy”. 39.9% of the residents believed that “government would listen to our voices while making related policies”, and this figure has slightly decreased compared with previous years. In addition, Zhangjiajie residents showed high awareness of environment protection. 93.2% of the residents thought that natural environment protection was extremely important. Generally speaking, most residents were satisfied of government’s work, 92.6% of them said that they would continue to support local tourism development. However, in order to solve certain existing problems of local tourism development, some residents also provided their own opinions, such as resettlement for demolition, regulation of tourism market, and scenic area management, etc.

Residents had high degree of participation in tourism industry. According to the research results, 86.2% of the residents agreed on “tourism attracts more investment and consumption” and 85.7% of them agreed on “tourism provides us with more job opportunities”, which had both slightly decreased from last year. According to the interviews, residents mainly engaged in tourism by operating family hotels, restaurants, fruit stalls, food stalls, special shops; working as guide, full-time guide, servants in restaurants and hotels, ticket sellers, ticket-takers, sanitation workers, security workers, drivers, sedan chair carrier, and guide in shops. 58.4% of the residents earned income between 1,000 yuan to 3,000 yuan. Their age was about 25-44 (54.3%), their educational attainment was junior or high school level (72.8%), and they had lived in the area for more than 10 years (54.9%). Foreigners often competed with their resources through capital advantages.

Community residents have a higher level of well-being. 76.8% of the community residents agreed that "I am living here, so I am happy and satisfied" and 79.2% of them agreed on "I am very satisfied with my life". Tourism to a certain extent affected the well-being of residents. Residents gained a sense of well-being due to improved quality of life, the return of young people to work locally contributing to family reunion, friendship with tourists, communication with tourists to understand the outside world.

3 Tourist Behaviour and Satisfaction

3.1 Tourist market characteristics

The majority of tourists were first-time tourists. 88.7% of the Chinese tourists and 95.2% of the international tourists visited Zhangjiajie for the first time, only 11.3% of the Chinese tourists and 4.8% of the international tourists revisited Zhangjiajie.

Internet became the dominant channel for collecting information. According to the statistics, 47.5% of the residents collected tourism information via Internet. What followed was information received from friends and relatives, accounting for 42.1%, which had increased greatly from, showing significant word-of-mouth effect. Information collected from tourism agency brochures, television broadcast, and newspapers and magazines accounted for 23.5%, 14.9%, and 8.2% respectively. Meanwhile, 72.3% of the overseas tourists gained information via Internet and 54.2% from recommendation of relatives and friends.

The majority of the tourists travelled in groups. 71.0% of the domestic tourists travelled in a tour group, among whom, 23.5% of them joined a tour group independently and 47.5% of them joined with relatives or friends. Interviews also showed that some tourists arrived in Zhangjiajie independently and joined tour group after reaching Zhangjiajie. In contrast, 90.4% of foreign tourists chose to travel independently except for the Korean team.

Train was the dominant mean of transportation. 35.2% of the respondents confessed that they arrived in Zhangjiajie by train; 30.6% of Chinese tourists arrived in Zhangjiajie by planes; 22.4% of them by shuttles; 8.6% of them by self-driving; and 1.8% of them by other transportation means. Compared with 2015, the proportion of self-driving tourists had decreased from 21.6% to 8.6%, ranking the fourth among all transportation means. This change might be explained by the unprecedented incidence of natural disasters during the survey period and thus most primary, secondary schools and universities were not yet taking summer holidays. In addition, 37.3% of foreign tourists arrived in Zhangjiajie by plane and 36.1% by train.

Per capita consumption was more than 1100 yuan. 53.4% of the Chinese tourists spent more than 1100 yuan; 20.1% spent between 801 and 1100 yuan; 16.5% of them spent between 501 and 800 yuan; 6.7% between 200 and 500 yuan; and 2.6% spent less than 200 yuan. Most international tourists spent between 501 to 1000 yuan, accounting for 41.0%.

Wulingyuan Scenic Area was a popular spot. 78.0% of domestic tourists chose to visit Zhangjiajie National Forest Park; 74.0% chose to go to Shili Gallery; 75.2% visited Tianmen Mountain National Forest Park, and 70.3% visited Tianzi Mountain. In addition, respondent tourists from Huanglong Cave, Baofeng Lake, Grand Canyon of Zhangjiajie, Tujia Customs Garden and Xibu Street accounted for 36.3%, 25.3%, 34.6%, 28.2% and 15.2% respectively. At the same time, 89.2% of foreign tourists chose to visit Zhangjiajie National Forest Park and 81.9% of them visited Tianmen Mountain Scenic Area.

3.2 Tourist's satisfaction degree

Tourists had high satisfaction degree for tourism resources. More than 90.0% of domestic tourists are satisfied with the natural scenery and natural ecological value embodied in the scenic area. The satisfaction degree for the overall scenic beauty (89.6%) and the scenic air quality (87.9%) had increased significantly. The satisfaction degree for scenic area sound environment reached 75.1%, which had increased from previous years. However, different from Chinese tourists, international tourists had high recognition for aesthetic sensibility, natural landscape features, natural ecological value and air quality, accounting for 94.0%, 90.5%, 88.1% and 90.1% respectively, while they had low satisfaction degree with sound and environmental comfort degree of scenic spots in Zhangjiajie, accounting for 48.8%.

Tourists were generally satisfied with the service quality in scenic areas. According to the statistics, tourists' satisfaction degree for "catering", "accommodation" and "transportation" had all improved compared with previous years. Among which, tourists were least satisfied with "catering". Their satisfaction degrees for catering hygiene conditions, specialty and prices were 40.4%, 37.2% and 36.4% respectively. Tourists' average satisfaction degree for "accommodation" and "transportation" was around 60%. Chinese tourists had higher satisfaction degree than international tourists. Except for catering and transportation signing system whose satisfaction degrees were approximately 50%, satisfaction degree for other indicators were all around 80%.

Tourists had low satisfaction degree for shopping and entertainment activities. Tourists' overall satisfaction degree for the types, specialty, prices and order of commodities was around 50%. Among

which, tourists were least satisfied with the prices of tourism products, at 41.9%. In terms of entertainment activities, tourists' satisfaction degrees for their safety and content were around 60%. International tourists generally had low satisfaction degree for entertainment activities, remaining at approximately 40%.

3.3 tourism commentary level

Guide explanation was major way for tourists to access knowledge. 76.9% of domestic tourists obtained knowledge of information through explanation of tour guide, 44.6% through the explanation plates and attraction introductions. 73.8% of foreign tourists gained information through the location system, 33.3% through signboards, and 28.6% through books and brochures.

Most knowledge that tourists acquired was natural landscape knowledge. 85.1% of domestic tourists improved their understanding of the natural landscapes such as stone mountain and gorge; 55.7% got acquainted with local customs and practices; 41.2% knew about geological knowledge and 31.0% learnt about animal and plant resources. While 81.7% of foreign tourists increased their understanding of the natural landscapes such as stone mountain and gorge, and 45.1% obtained geological knowledge. Both Chinese and international tourists had a lack of understanding of local social culture.

3.4 Tourist's overall evaluation on Zhangjiajie

Tourists were generally satisfied with Zhangjiajie tourism. 77.6% of Chinese tourists and 76.2% of overseas tourists were generally satisfied with Zhangjiajie tourism, and 34.4% of Chinese tourists and 81.9% of overseas tourists confessed that they would like to revisit Zhangjiajie. In addition, tourists provided a series of development suggestions for scenic areas, especially concentrating on sanitary and hygiene conditions (scenic area environment, public toilets and non-smoking monitoring), supporting facilities and services (road signing system, English level of staff, line up and congestion), and market regulation.

4 Tourism's economic impacts

4.1 Tourism revenues

4.1.1 Tourism's impacts on GDP

In 2015, Zhangjiajie's GDP was 44.77 billion yuan, an increase of 8.5% from last year. If calculating with permanent resident population, then the per capita GDP in Zhangjiajie was 29,452 yuan, an increase of 8.1% from last year. In 2015, the total tourism revenue of Zhangjiajie reached 34.07 billion yuan, accounting for 76.10% of the GDP of that year, a substantial increase over the previous year (Table 4-1).

Table 4-1 the contribution of Zhangjiajie's tourism income to GDP from 2008 to 2012

Year	GDP (0.1 billion yuan)	Total Tourism Revenue (0.1 billion yuan)	Tourism revenue's contribution to GDP (%)
2008	183.98	83.49	45.30%
2009	203.10	100.20	49.30%
2010	242.48	125.32	51.70%
2011	298.04	167.31	56.14%
2012	338.99	208.72	61.57%
2013	365.65	212.29	58.06%
2014	410.02	248.70	60.66%
2015	447.7	340.7	76.10%

Data source: Zhangjiajie Bureau of Statistics

4.1.2 Composition of tourism income

In 2015, "tour", "accommodation" and "entertainment" were major components of tourism revenue, among which, tour consumption took a dominant position and entertainment consumption grew significantly. According to the statistics, in the total tourism revenue in 2015, tour income (mainly referring to tickets) accounted for 23.3%; accommodation income accounted for 19.07%; and entertainment income accounted for 18.58%. The proportion of entertainment income for the

very first time accounted for more than 10% of the total revenue, which indicated that Zhangjiajie's tourism income was undergoing structural changes.

4.2 Seasonality

The seasonality of Zhangjiajie was significant. July, August, September, and October were peak seasons of Zhangjiajie tourism, while November, December, January, February, and March were slack seasons. The disparities between tourist volume in peak seasons and slack seasons were significant. In 2015, the total tourists reception volume was the largest in August, reaching 8,004,100, and it was the lowest in January, at 1,162,700. The maximum monthly difference between the peak seasons was over 7 million. For overseas markets, the peak tourist season is April, July, September and October while the slack seasons are January, February, June and December. In 2015, the number of overseas tourists was largest in October, achieving 763,300, and smallest in January, at 71,500.

4.3 Tourism and employment

Residents had high employment rate. According to the statistics, 82.4% of the residents agreed that “I can benefit from tourism”. 85.7% of the residents agreed that “tourism provides us with more job opportunities”. 78.3% of the residents agreed that “living quality has improved greatly owed to tourism development”, which remained at the same level as 2015.

4.4 Tourism Industry

4.4.1 Hospitality industry

According to statistics, at present, Zhangjiajie has 3 five-star hotels, 6 four-star hotels, 29 three-star hotels, 2 leisure resorts, 150 special guesthouses and a total of more than 100,000 beds. In addition, there are a number of five-star hotels and international brand hotels, youth hostels, hotel chains, ethnic customs inn under construction. A variety of new accommodation facilities are emerging in Zhangjiajie. Zhangjiajie Car Camping, invested by Marriott Group, is under construction. The campsite, with a total investment of 45 million, covers an area of 260 mu (17.342 hectares). It will operate a car hotel and a car camping project and is expected to receive an annual

reception of 200,000 people and annual income of 60 million yuan. In addition, in order to promote sustainable development, a total of 13 green tourism hotels were opened in 2015 in Zhangjiajie, including 2 five-star hotels, 4 four-star hotels and 7 hotels of three-star or below.

4.4.2 Travel agency industry

By the end of 2015, there were 80 travel agencies in Zhangjiajie, including 79 domestic travel agencies and 1 overseas travel agency. There are 5180 people (Zhangjiajie registered tour guides) who are currently working as tour guides in Zhangjiajie. There are 1,500 registered tour guides and 1,100 temporary tour guides. Among them, 9 are senior guides, 200 vantage guides and 5601 preliminary guides.

4.4.3 Transportation industry

Air transportation. By the end of 2014, Hehua International Airport opened 24 domestic routes, completing 9811 flight movements throughout the year, directing towards major domestic port cities and Taiwan, Taipei, South Korea, Busan and Bangkok, etc.

Railway transportation. In 2015, there were 46 trains in Zhangjiajie Railway Station, bound for more than 50 large and medium-sized cities such as Beijing. Zhangjiajie is currently constructing Qin-Zhang Railway, which will connect Chongqing with Changsha.

Road transportation. Zhangjiajie Central Bus Station sent a total of 131 trips on a daily basis to the cities and counties in the province and outside the province. The Station has shuttles directly bound for each town in Zhangjiajie City and major attractions. Wulingyuan Bus Terminal sent a total of 16 trips on a daily basis to all scenic spots, urban areas, other counties and also cities outside the province, such as Wuling in Hubei province.

5 Tourism and Environmental Protection

5.1 Status quo of environmental protection

Scenic ecological protection. In the first half of 2016, Zhangjiajie Wulingyuan Scenic Area and

National Forest Park Administration invested a total of 16.995 million yuan to carry out environmental protection projects for sewage treatment. During the “12th Five-Year-Plan”, Wulingyuan District planned 35 eco-environmental protection projects with a total investment of 16.3 billion yuan, and a five-year investment of 13.8 billion yuan. By the end of 2015, the forest volume in Wulingyuan District was 3.1495 million cubic meters, and the forest coverage in scenic spots reached 95%, which was the highest in the province. By the end of 2015, there were 36 municipal-level ecological villages, 5 municipal-level ecological communities, 4 municipal-level green communities, 5 green schools and 16 green hotels. All of which achieved some success in promoting green environmental protection of hotels.

Clean energy use. The main energy sources used by restaurants and hotels in Wulingyuan are: liquefied petroleum gas, green oil, electricity, natural gas and air energy. The main energy used by local community residents are: liquefied gas, natural gas and electricity, partly supplemented by coal and firewood. In terms of renewable energy, there are mainly solar and wind energy.

5.2 Environmental monitoring and evaluation

5.2.1 Air and water environment quality

In 2015, the air quality in Wulingyuan District was in good condition. The number of days with good air quality in the whole year reached 348 days, with an excellent and good rate of more than 95%, an increase of 2.19 percentage points over the previous year. In addition, input haze, dust and motor vehicle exhaust are the main pollutant sources of atmospheric environmental quality in Wulingyuan District.

In terms of water environment of Wulingyuan District, the quality of surface water has been continuously improved since 2014, and the overall quality is good. In 2015, the water quality of two drinking water source monitoring points and four surface water monitoring points in Wulingyuan District reached Grade II standard of Surface Water Environmental Quality Standard (GB3838-2002).

5.2.2 Sound environment and solid waste management

In 2015, the traffic noise in Wulingyuan District dropped from last year, but the acoustic environment quality has not been effectively improved. This could be explained by the urban construction period of Zhangjiajie. There was an increase in the number of noise sources, such as construction noise, social life noise and traffic noise, which were alternately mixed and discharged. The long-term emissions of high-intensity noise sources affected the sound environmental quality.

The main residential area of Wulingyuan District had complete solid waste collection facilities and services, and the streets were tidy. Residential areas were equipped with solid waste collection points. Garbage trucks were regularly scheduled for transport and processing of recycle garbage. The sanitary environment in scenic areas are in good condition, but in crowded areas, such as restaurants, the hygiene conditions were worrying.

5.3 Environmental protection policies and measures

At present, Zhangjiajie City has formed an environment construction organization system under the guidance of Zhangjiajie City Environmental Protection Agency. Municipal Environmental Protection Bureau sets up eight departments and manages over a number of organization. It is committed to strengthening the noise, air and water pollution prevention, improving the ability of sustainable development to make a breakthrough, and establishing and improving the city's basic mechanism of environmental protection, coordination and regulation.

Zhangjiajie's environmental protection advocacy is mainly led by the Municipal Environmental Protection Bureau and coordinated by subordinated agencies. The advocacy includes environment protection education program in scenic areas and major sewage companies in surrounding areas, along public promotion focusing on special topics. Although the Environmental Protection Bureau and other environmental agencies continue to strengthen publicity and education on environmental protection, public awareness of environmental protection and awareness of active participation remains to be strengthened. There is limited understanding of specific environmental knowledge and environmental protection measures.

6 Conclusions and Suggestions

(1) Community residents attached great importance to and actively participate in tourism development, and their satisfaction with life was not balanced

According to the survey data, 92.6% of community residents supported Zhangjiajie to continue to develop tourism; 93.4% of residents thought that tourism was conducive to local development; and 82.4% of residents believed that they could benefit from tourism. The above indicators were basically the same as the previous year with little fluctuation. Residents continued to attach great importance to the tourism development in Zhangjiajie. However, there were conflicts among minority residents on such issues as demolition and resettlement as well as fair chances. As a result of the unbalanced distribution of benefits, residents' internal satisfaction with life is not balanced.

(2) Tourists are generally satisfied with Zhangjiajie, but the focuses of Chinese and international tourists varied

According to the statistics, 77.6% of domestic tourists and 76.2% of overseas tourists were generally satisfied with Zhangjiajie tourism, which was an increase over previous years. In terms of specific indicators, tourists were most satisfied with the tourism resources, but their satisfaction with the quality of service of the scenic spots remained to be improved. Their satisfaction with shopping and entertainment activities was low. In the evaluation of "catering", "accommodation" and "transportation", Chinese and overseas tourists had lowest evaluation for "catering". Chinese tourists concerned about environmental sanitation, food safety, accommodation security, and shopping environment regulation. International tourists had slightly higher satisfaction than Chinese tourists. They were more concerned about the clearness of signing system in scenic areas. The above aspects remained to be improved.

(3) Tourism significantly promoted Zhangjiajie's economy, and great importance should be attached to market regulation

Tourism contributed greatly to the economy of Zhangjiajie. In 2015, tourism revenue accounted for 76.10% of the annual GDP, significantly higher than that of previous years. Among which, "tour", "accommodation" and "entertainment" were the major components of the total tourism revenue. Tour expenditures dominated, and the proportion of entertainment consumption had grown significantly.

Entertainment revenue promoted the structural changes of Zhangjiajie's tourism income. Leisure travel market was taking shape.

Tourism not only created a large number of local employment opportunities, but also attracted foreign investment. Most residents engaged in low-return, low-skilled works. Foreigners competed for resources with capital advantages.

The seasonal pattern of tourism was obvious, and the market order needed urgent improvement. The difference between tourist volume in peak and slack seasons was significant. It was necessary to timely summarize the law of market development and to lay special emphasis on the transformation and upgrading of accommodation industry, as well as standardization and regulation of travel agency.

(4) Some achievements had been made in environmental protection, and resources and environmental protection work remained to be strengthened continuousl

Zhangjiajie had formed a relatively complete environmental construction institutional system. The data showed that the forest volume in Wulingyuan District had reached a relatively high level and maintained a slight increase each year. Atmospheric, water and acoustic environment quality had been improved. Residents and tourists both had high evaluation on environment. However, with the rapid growth in the number of tourists in recent years, solid waste and pollution emissions also rose rapidly. To make it worse, reconstruction projects such as the renovation of the old city and upgrading of housing created new problems, such as dust pollution, noise pollution and construction waste. Zhangjiajie still needed to attach great importance to environmental issues and continue to strengthen the protection of resources and the environment.

Zhangjiajie

2016 Monitoring Report on the Sustainable Tourism Development of Kanas

Monitoring Center for UNWTO Sustainable Tourism Observatories

Kanas Scenic Area Management Committee



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And all those who helped with the monitoring work.

1. Introduction

The 2016 monitoring program could be divided into three stages, specifically: monitoring preparation stage, field monitoring stage and report stage.

Monitoring preparation stage: Since MCSTO received the monitoring task in mid-June of 2016, MCSTO started to set up monitoring group and actively prepared for the monitoring program. The 2016 monitoring group consisted of 8 doctoral and postgraduate students from the Center for Tourism Planning and Research of Sun Yat-sen University (SYSU). During the preparation stage, the monitoring group conducted detailed discussion and analysis on monitoring tasks. Based on *Instruction Manual of Sustainable Tourism Development Indicators for Tourism Destinations* and the characteristics of Kanas scenic area, the monitoring group initially drafted the monitoring indicator system on Kanas scenic area, and designed the questionnaires to be distributed among tourists, residents, tourism business operators and staff, along with community interview proposals. In addition, the monitoring group also learnt about information about Xinjiang tourism and Kanas scenic area, which laid a solid foundation for the latter monitoring work.

Field monitoring stage: On September 20, the monitoring group arrived at Kanas and started their investigation. During the 10-day investigation, with the strong support and collaboration of Kanas Scenic Area Management Committee, the monitoring group successfully conducted the monitoring on sustainable tourism development indicators of Kanas scenic area. The monitoring group conducted random researches among tourists in Kanas Tourist Center (Transit Center), Hemu Village, Kanas Lake Area, Jiadengyu, Baihaba Village, Kanas Old Village and Kanas New Village. They also conducted interviews and researches among residents in Hemu Village, Kanas Village and Baihaba Village. In addition, the group also visited Kanas Scenic Area Management Committee so as to collect second-hand materials of Kanas scenic area.

During the monitoring program, the group collected a great number of first-hand materials about tourists, residents, tourism enterprises and local government. In terms of tourists, 773 tourist questionnaires were distributed, among which, 739 were valid, achieving a validity rate of 95.6%. While distributing questionnaires, the group also interviewed some tourists and tour guides about key

issues so as to supplement their analysis. In terms of residents, by random sampling, the group mainly conducted door-to-door interviews and supplemented by intercept interviews. The investigation combined semi-structural interviews and questionnaires. The group mainly adopted door-to-door in-depth interviews and semi-structural questionnaires to conduct community investigation, mainly in 3 communities, specifically: Hemu Village, Kanas New Village and Old Village, as well as Baihaba Village. 101 questionnaires were distributed, with 98 one returned, achieving a rate of return of 97%; among which, 98 valid one were collected, achieving a validity rate of 100%. In terms of tourism enterprises, the group conducted sampling investigation on the major business format in these three communities, including hospitality industry, catering industry, souvenir shops and retail stalls. 81 valid enterprise owner questionnaires and 93 valid staff questionnaires were collected.

Report stage: During October 1 to 15, the monitoring group started to study the materials collected during the monitoring and carried out a final report.

2. Tourism and Community

2.1 Tourism and community monitoring indicators

The 2016 monitoring was mainly conducted in Kanas New Village, Kanas Old Village, Baihaba Village and Hemu Village. By random sampling, the monitoring mainly conducted door-to-door researches and supplemented with intercept interviews. Combining semi-structural interviews and questionnaires, the monitoring group in total distributed 101 questionnaires, with 98 ones returned, achieving a rate of return of 97%. Among which, 98 of them were valid questionnaires, achieving a validity rate of 100%.

2.2 Community profile

In terms of gender proportion, there were more male respondents than female respondents. Young and middle-aged residents accounted for the most proportion. This indicated that tourism development appealed a great many young people to work locally, which effectively prevented the phenomenon of “hollowing-out”. In terms of education level, most residents were of high school or

technical secondary school level. Higher educated resident still accounted for low proportion. Residents' professions mainly related to agriculture and animal husbandry industry and tourism industry. Most residents lived in the local area for over 5 years, and non-local population mainly came from within Xinjiang province. Very few of them came from other provinces. The major family structure was core family with less than five family members. Nearly 70% of the families did not leave their homeland to work, and most families had 1 or 2 members engaging in tourism work. Nearly half of the residents had five or less than five houses while nearly 20% of the residents possessed more than ten houses. The dominant building material was wood and most houses were constructed after 2000. Over 90% of the houses were used for operation. The rental fees differentiated depending on their different locations.

2.3 Tourism participation conditions

Most residents had not participated in tourism training. Residents' ideal tourism participation ways were accommodation industry and catering industry, in that these two industries had highest profits. Most residents believed that their advantages to engage in tourism over others were their local identities and their possession of houses, which could provide services to tourists and at the same time could reduce cost. Residents thought that their disadvantages included language, investment, operation and service capabilities. Most residents claimed that after participating in tourism, their capabilities had improved, especially their communication and economic capabilities. However, their language and operation capabilities remained to be improved.

2.4 Residents' recognition of tourism impacts

(1) Economic impacts

Most residents said that tourism had promoted the development of the local economy, attracted more investment and consumption, increased employment opportunities and improved their standard of living. As for the negative impacts of tourism, the residents responded most strongly to rising prices. Comparatively, only half of the residents perceived the widening gap between rich and poor as well as the fact that only few people could benefit from tourism. The recognition proportions of these two indicators were far below the 68% of rising prices.

(2) Social impacts

Among the positive impacts, the fact that tourism improved the infrastructure construction such as roads as well as water and electricity supply gained highest recognition, reaching 73%. However, tourism's impacts on the improvement in medical care and education had not been widely accepted by residents, especially the improvements in medical care, which only won 36% recognition. Among the negative impacts, tourism's impacts on increasing demolition of old houses and increasing number of new houses had the highest recognition, at 76%; followed by tourism's impact on traffic congestion, at 57%. Most residents reckoned that there was little problem with certain aspects, for example, increasing crime rate, disruption to daily life, tourism's restriction on residents' utilization of scenic area resources or the tension between residents and tourists.

(3) Cultural impacts

The item that tourism promoted the communication between local and foreign culture gained the highest recognition, at 87%; followed by the items that tourism promoted the development of handicrafts, tourism increased festival activities and tourism enriched people's lives. More than half of the residents disagreed that tourism damaged or eroded ethnic and traditional cultures.

(4) Environmental impacts

Among the positive impacts, the item that tourism promoted environmental protection education along with animals and plants protection had gained the highest recognition, winning the recognition of 73% of the residents. In addition, the item that "tourism improved sanitation conditions" won the recognition of 70% of the residents. Among the negative impacts, residents complaint most about increasing waste due to tourism, accounting for 72%; followed by noise pollution (64%), water pollution (60%), consuming local residents' resources (50%) and air pollution (50%).

2.5 Residents' attitudes and satisfaction

2.5.1 most residents hoped that tourism industry could increase its scale

10% of the resident disagreed that tourism should increase its scale; 4% of them stayed neutral;

and 86% of them agreed with that. Generally speaking, the majority of the residents hoped that tourism could continue to develop, which indicated that most residents were supportive of the increasing scale of tourism and hoped that they could engage more in tourism so as to gain more benefits.

2.5.2 90% of the residents were willing to engage in tourism-related work

only 2% of the residents showed disagreement; 6% of them stayed neutral; 92% of them were willing to participate in tourism industry. This indicated that tourism's positive impacts on employment had won the recognition of residents and residents had relatively high expectation for tourism industry.

2.5.3 80% of the residents were willing to provide suggestions for scenic area development

9% of the residents showed disagreement; 10% of them stayed neutral; and 68% of them showed agreement; and 13% of them showed strong willingness to provide suggestions for scenic area development. In general, 81% of the residents held positive position while only 9% of them held opposite position, which indicated that local residents' interests were closely related to tourism development. The development of tourism enhanced residents' sense of ownership.

2.5.4 80% of the residents agreed that tourism contributed greatly to local development

Only 1% of the residents showed strong disagreement; 9% of them showed disagreement; 11% of them stayed neutral; 70% of them showed agreement; and 9% of them showed strong agreement. Generally speaking, 79% of the residents agreed with this idea while 10% of them held the opposite idea, which indicated that most residents recognized tourism's great contribution to local economy.

2.5.2 50% of the residents disagreed and 30% of them agreed with the idea that the scenic area would listen to residents' opinions while making decisions

11% of the resident showed strong disagreement; 42% of them showed disagreement; 10% of them stayed neutral; 34% of them showed agreement; and 3% showed strong agreement. On the whole, nearly 53% of the residents disagreed that the scenic area would listen to residents' opinions

while making decisions while 37% of them agree with that idea. There was a huge difference between the proportions of these two parties. Compared with the statistics of 2015, the 2016 data also showed stronger fluctuations, which indicated that to a certain degree, the scenic area would consider residents' suggestions, but they did not completely take residents' suggestions.

2.5.6 Most residents were willing to participate in promotion and propaganda

1% of the residents showed strong reluctance; 3% of them showed reluctance; 4% of them stayed neutral; 77% showed willingness to participate; and 15% of them showed strong willingness. In general, residents who were willing to participate in promotion and propaganda accounted for 92%, while those who were reluctant to participate accounted for 4%. This indicated that the majority of the residents were emotionally connected with the scenic area and were concerned about its development, therefore, they were willing to contribute their power to the promotion and propaganda.

2.5.7 Over 60% of the residents were satisfied with Kanas tourism development

3% of the residents showed strong dissatisfaction; 10% of them showed dissatisfaction; 23% of them stayed neutral; 58% of them showed satisfaction; and 6% of them showed strong satisfaction. In general, 64% of the residents were satisfied with Kanas tourism development while 13% of them were dissatisfied with it, which was similar to the conditions in 2015. This indicated that Kanas tourism development satisfied most residents' demands while still failed to satisfy the needs of a few residents.

3. Tourist Perception and Satisfaction

3.1 monitoring indicators for tourist perception and satisfaction

The tourist questionnaires of 2016 monitoring mainly investigated 3 aspects, specifically: basic characteristics of tourists, tourism experience evaluation and follow-up impacts of tourism. Tourist information included personal information and travel information. The tourism experience evaluation included tourists' evaluations on tourism resources, environment, service evaluation and overall

conditions. Among which, the evaluation of tourism resources included the following eight dimensions: forest, lake, ethnic customs, grassland scenery, border atmosphere, tourism activities, climate, and residential environment. Assessment of tourism environment included social security, local residents and tourism services. The evaluation of follow-up impact of tourism mainly involved two parts, which were tourists' willingness to revisit and recommend.

From September 20 to September 30, 2016, the monitoring team conducted a random survey of tourists in all major tourist attractions and villages of Kanas, including the Visitor Centre, Kanas Lake, the Cruise Terminal, Hemu Village, Old village, New village and so on. A total of 773 tourist questionnaires were distributed, and 739 were valid ones were collected, achieving an effective rate of 95.6%.

3.2 Characteristics of sample social population structure

In this survey sample, Guangdong, Xinjiang and Beijing tourists accounted for most proportion, among which, Guangdong tourists accounted for 12.9%, Xinjiang tourists 9.2% and Beijing tourists 8.7%. Kanas tourists mainly came from Xinjiang, the Pearl River Delta, the Yangtze River Delta and Beijing. The tourist distribution showed a trend of economically developed areas to relatively less developed areas. Overall, Kanas tourist market should be based on Xinjiang province, occupy large cities, and promote further to small cities.

Tourists were mostly young and middle-aged, with 51.3% of tourists aged 25 to 44 and 33.5% of them aged 45 to 64. In terms of education level, Kanas had a relatively high educational level. 11.9% of them were with master degree or above; 43.8% of them were with bachelor degree; 28.3% of them were with college degree; and 15.9% of them were senior high school degree or below. In terms of income level, tourists' income was generally high. 20.3% of the tourists had a monthly income of 10,000-30,000 yuan; 39% 5000-10,000 yuan; and 25.8% 3000-5000 yuan.

3.3 Tourist behaviour characteristics analysis

Travel form: independent travel dominated, supplemented with group travel. Among the 739 valid questionnaires, 50.2% of the tourists were independent tourists; 19.9% attended group tour

individually and 21.2% attended with families and friends. Company organized tour and conference investigation tour accounted for little proportion, at 5.3% and 1.1%. Future Kanas scenic area development should pay special attention to independent tourists, and thus Kanas could consider introducing self-driving tour routes.

Access to information: recommendation from relatives and friends along with Internet promotion were two major ways. Tourists had multiple ways to gain information about Kanas tourism. 45.5% of the tourists access information through Internet; 34.0% through recommendation from relatives and friends; 18.9% through broadcast promotion; 16.1% through introduction of tourism booklets; 16.0% through travel agency; and 6% through newspapers and magazines, which indicated that the promotion effects of traditional media was comparatively weaker than new media. Therefore, future Kanas promotion should focus on new media promotion. At the same time, it should also guarantee good word-of-mouth reputation. On the basis of enhancing the two major information accesses, Kanas tourism promotion should also develop new promotion ways.

Length of stay: tourists' length of stay was relatively short and family guesthouses won most affection. According to the statistics, the majority of the tourists planned to stay for 2 or 3 days, with 38.1% of them planning to stay for 2 days and 28.8% for 3 days. In addition, most tourists preferred to stay in family guesthouses (55.9%) and star hotels (28.4%). Compared with 2014 and 2015, there was an increasing number of tourists chose to stay in family guesthouses while the number of tourists choosing star hotels had slightly declined. This indicated that, attributed to the advantages of ethnic features and lower prices, family guesthouses won larger market share.

Tourism consumption: tourists had strong consumption capability but they bought few souvenirs. In terms of tourism consumption, 32.2% of the tourists spent more than 5000 yuan in Kanas; 18.1% spent between 3000 and 5000 yuan; and 19.9% spent between 2000 and 3000 yuan. This indicated that Kanas tourist had relatively strong consumption capability, however, few of them bought Kanas souvenirs. 12.6% of them would purchase ethnic embroidery, which accounted for most proportion; 9.5% would buy Gobi jade; 7.2% would buy Ehe River magic stone; while 29.3% chose not to purchase any souvenirs or purchase other products, which accounted for largest proportion.

3.4 Tourist's tourism perception

The natural landscape was unique and the ethnic atmosphere was strong. In terms of the reasons to visit Kanas, 96.6% of the tourists confessed that they attracted by its beautiful natural landscape; 34.8% were attracted by its ethnic cultures; 10.6% attracted by Kana's special climate; and 9.6% attracted by its unique border atmosphere. It could be inferred that beautiful natural landscape and unique ethnic culture were two major attracting elements. It was these two elements that made Kanas stand out among other scenic areas.

Tourists demanded greatly for tourism information and demanded most for accommodation and transportation information. Tourists had great demand for Kanas' tourism information. Their demand for information about transportation, accommodation, catering, scenic area introduction, travel fees and weather had exceeded 30%. Among which, they demanded most for information about accommodation, transportation, scenic area introduction and catering, which accounted for 62.9%, 55.5%, 46.3% and 42.2% respectively.

3.5 Tourist's satisfaction evaluation

Tourism resources won the highest evaluation. The natural landscape was stunning beautiful. Tourists had high evaluation on Kanas' natural and cultural tourism resources, with both average value above 4. They had relatively lower satisfaction on tourism activities, with an average value of 3.53.98.3% of the tourists were satisfied with primitive forest and 98.8% satisfied with Kanas Lake, which indicated that almost all tourists spoke highly of Kanas' natural tourism resources.

Social security was good, but tourism environment was bad. Tourists evaluated highly on Kanas' social security conditions, scoring 4.16, and their satisfaction for it was 97.3%. However, Kanas' tourism environment was unpleasant. In terms of humanity environment, the evaluation of the hospitality of local residents was 3.88. In terms of objective environment, the evaluation of transportation, accommodation, catering, products and entertainment was 3.28, 2.94, 2.68, 3.14 and 2.94 respectively, which was relatively low.

The evaluation of services was low, and the overall satisfaction was low. According to the statistics, tourists only scored the Kanas scenic area at 3.4, and only had a satisfaction degree of 80.4%. Generally speaking, tourists had relatively low satisfaction on Kanas scenic area. Tourists generally complaint that the service price was too high; the management was in disorder; and the queueing time was too long. As a result, Kanas scenic area should pay special attention to improve tourism service. In particular, Kanas scenic area should deal with the problems of expensive tickets, commodities, accommodation and catering. In addition, the scenic area should also improve its management, to figure out how to arrange queue-up and how to distribute tourists more reasonably. If these problems remain unsolved, they would affect the reputation and long-run development of Kanas scenic area.

3.6 Tourists' willingness to revisit

The image did not live up to tourists' expectations, and tourism experience was worse than expectations. 24.6% of tourists said that the experience did not completely live up to what they had expected, which accounted for largest proportion. 16.4% of tourists thought that the experience was much worse than expectations. 22% of tourists claimed that the experience lived up to their expectations. Only 14% of them said that the actual experience was better than expected. According to the tourists interviews analysis, we found that tourists spoke highly of Kanas' beautiful scenery, but they were dissatisfied with scenic area management and services.

Tourists had strong willingness to revisit Kanas. Tourists mainly concentrated on summer and autumn. According to the statistics, 45.5% of the tourists were willing to revisit Kanas; 27.2% were unsure whether or not to revisit; and 26.5% of them would not revisit Kanas. This indicated that tourists were generally satisfied with Kanas tourism. For those who were intended to revisit Kanas, they preferred to revisit during June, July, September or October, which might be explained by the seasonality of Kanas landscape.

Tourists showed strong willingness to recommend Kanas to others, because Kanas' natural landscape was amazingly beautiful. Most tourists (69.3%) were willing to recommend Kanas scenic area to their relatives and friends; 14.5% were uncertain; and only 13.1% of them refused to

recommend Kanas to their relatives and friends. For those who were willing to make recommendations, they thought Kanas' natural landscape was beautiful. According to tourist interviews, tourists mainly used words like “natural landscape”, “beautiful scenery”, “scenery”, “beautiful”, “heaven on earth” and “Kanas Lake” to describe their impressions of Kanas. It could be inferred that the most attractive resources in Kanas was its uniquely beautiful natural landscape.

Accommodation and transportation conditions remained to be improved. Kanas tourists were dissatisfied with the services and prices. What they mentioned most were “transportation”, “ticket price”, “accommodation”, “hygiene conditions”, “catering” and “safety”, indicating that Kanas' tourism infrastructure remained to be improved. In addition, tourists had different opinions concerning ticket prices or prices of related products. Most tourists could understand that Kanas charged for ticket fees, but they hoped that the ticket prices could be more reasonable. Some tourists thought that scenic area should promote one-ticket strategy. As for the strong seasonality of Kanas tourism, tourists said that they could accept relatively higher prices, but accordingly, they expected that product quality could be improved and scenic area management could be more regulated.

4. Tourism products and services

Based on tourist questionnaire, interview recording, observation recording and information provided by Kanas Scenic Area Management Committee, we monitored and analysed Kanas' tourism products and services from four aspects, specifically: tourism motivation and purpose, tourism products and routes, tourism services and quality, tourism image and promotion. The major findings were presented as follows.

Tourists had diverse motivations for visiting Kanas scenic area. Sightseeing, leisure travel and photography were still the major purposes and motivations of tourists to visit Kanas.

Kanas scenic area's core tourism products and routes did not change much from previous years. Tourism routes mainly included the classic tourism routes, outdoor trial, expedition, adventure routes and winter tourism routes. All these routes connected the core scenic spots of Kanas. Those core scenic spots had different themes and thus had different characteristics, which could satisfy tourists'

diversified tourism experience demands.

The tourism service facilities in the scenic area were mainly distributed and constructed surrounding core scenic spots (Kanas Lake, Hemu, Jarden Valley, Baihaba). Compared with last year, the government implemented more stringent supervision on the quality of tourism services. As a result, standardization of tourism services had been improved.

Relying upon the high-quality and unique natural landscape and cultural landscape, Kanas scenic area established the tourism image of "Pure Land". At the same time, Kanas scenic area actively marketed and promoted its tourism image through festival publicity, tourism fair, media publicity as well as film and television broadcast. Attributed to the great efforts, Kanas achieved good social responses and marketing effect.

5. Tourism and resources environment protection

The beautiful natural resources and natural landscape of Kanas scenic area were most attractive to tourists; therefore, resources and environment protection were extremely important. Under the background of tourism development, Kanas scenic area's resources and environment were more fragile and more easily be affected, thus regular monitoring on scenic area's resources and environment was essential. The protection and management of Kanas scenic area's natural resources mainly involved two aspects, specifically: "forest resources and ecology" and "landscape resources and tourism". The former was the foundation for the exploration and development of the latter, and the latter was the further development and systematization of the former.

For now, the resources environment of Kanas scenic area was pleasant. The air, soil and water had not yet been polluted due to tourism development, which met the national first-class standard. All kinds of animals and plants were under relatively good protection and the ecological environment was pleasant. All kinds of illegal construction were gradually demolished. The buildings and construction matched well with the surrounding environment, which presented good views. Meanwhile, illegal and unethical operation were under more stringent control and regulation.

According to the tourist and resident questionnaire surveys, we found that residents and tourists

were both pleasant about Kanas scenic area's air, sound, water environment as well as the sanitation condition of overall environment (solid waste). Residents had relatively high recognition for the improvement of sanitation conditions and environment protection.

However, as Kanas scenic area became more famous as a tourism destination, there was an increasing number of tourists visiting Kanas. Undoubtedly, this would bring certain influences on the environment. Residents had perceived certain negative environmental impacts of tourism, such as, resources consumption, air, noise, water and solid waste pollution. Tourists also perceived that tourism had caused certain negative impacts on Kanas' natural environment. Although Kanas scenic area had improved related environment and sanitation supporting facilities to satisfy increasing demands of tourists, all sorts of damages to environment should be under stricter control, so as to ensure the sustainable development of ecological environment.

For now, Kanas scenic area was still a natural landscape destination, and tourists' perception of Kanas mainly focused on the natural landscape and climate of Kanas Lake, Baihaba Village, Hemu Village, Naren Grassland and Jarden Valley. According to the tourist questionnaire, tourists' perception and understanding of Kanas mainly concentrated on its natural environment and natural landscape; however, they did not have enough understanding of Kanas people's ethnic culture and life style. In addition, the major Kanas tourism products were mainly common sightseeing products focusing on natural landscape. The tourism products did not go deep into Kanas' cultural resources, such as the buildings, ethnic culture and festivals, and cultural resources related products were lacking. Concerning the future tourism development, Kanas should not only maintain its image as a destination with stunning natural landscape, but also should promote its ethnic cultures such as Tuwa cultures. Kanas should contribute more efforts to exploring Tuwa culture and further promote cultural products.

6. Conclusions

According to the 2016 Kanas monitoring results, our major conclusions were listed as follows.

6.1 Tourism and community: residents' participation level increased and they had strong

perception of tourism's positive impacts

As local tourism developed, residents' awareness and ability to participate in tourism had generally improved. Community's tourism participation forms started to take shape and stabilize. Due to the changing conditions of tourism development in recent years, villagers had different stands and suggestions. The scenic area to some extent had taken residents' suggestions into consideration, but it did not completely take residents' advice. Residents had high recognition for tourism's economic impacts and environmental impacts. Most residents agreed that tourism had promoted local economic growth; tourism promoted the improvements of sanitation conditions. They did not show strong perception for rising prices. In terms of perception of tourism's social impacts, residents had highest recognition for the fact that tourism improved fundamental facility such as road construction, water and electricity supply. Comparatively, residents had lower recognition for tourism's impacts on medical conditions and education improvements. In terms of negative impacts, residents had highest recognition for the fact that demolition of old houses had increased due to tourism and new houses had increased; followed by the fact that tourism caused traffic congestion. In terms of cultural impacts, residents had highest recognition for the fact that tourism had promoted the exchange of local and foreign cultures.

6.2 Tourist satisfaction: tourists had higher satisfaction on scenic area's resources while had lower evaluation on supporting services

Generally speaking, tourists had relatively high satisfaction towards Kanas' natural and cultural tourism resources, but they had relatively lower overall satisfaction. Problems that tourist complaint most about were high prices, disordered management and long lining hour. The scenic area image tourists had perceived were different from their expectations, and their experiences were lower than what they and expected. Despite that, generally speaking, tourists had relatively strong willingness to revisit and they preferred to revisit in summer and autumn. Tourists were tolerant about Kanas' current construction and management problems. Tourists showed high willingness to make recommendation. Most tourists were willing to recommend Kanas to relatives and friends.

6.3 Tourism products and services: introduction of IP promoted the development of products, and standardized management was generally promoted

The core tourism products of Kanas scenic area did not change much from previous years. Tourism routes connected all core scenic spots of Kanas scenic area. Each scenic spot had different themes and unique characteristics, which could satisfy tourists' diversified tourism experience demands. This year, Kanas scenic area actively promote festivals and celebrations, tourism fair, media publicity and television broadcast. In addition, the scenic area also introduced IP. Relying upon cross-country competition, Kanas enriched its scenic image. Kanas also innovated tourism organization forms, such as O2O, which got active social response and had good marketing effects.

In terms of tourism service facilities in Kanas scenic area, compared with last year, government carried out more stringent supervision over tourism service quality. Attributed to that, the regulation of tourism services had been improved to some extent.

6.4 Tourism and resource environment protection: natural environment was under good protection, and cultural landscape should be developed with care

Residents and tourists were generally satisfied with Kanas scenic area's air, sound and water environment as well as the sanitation conditions of the overall environment (solid waste). Residents had relatively high recognition for the improvements in sanitation conditions of environment and environmental protection. However, residents also perceived certain tourism's negative environmental impacts, such as resources consumption, air, noise, water and solid waste pollution. Tourists also perceived that tourism had caused certain negative impacts on Kanas' natural environment. Tourists and residents both agreed that the rapid development of guesthouses had damaged the primitive landscape.

2016 Monitoring Report on the Sustainable Tourism Development of Chengdu

Monitoring Center for UNWTO Sustainable Tourism Observatories

Chengdu Municipal Tourism Bureau



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1. Introduction

During July 13th to July 20th, 2016, under the strong support of Chengdu Municipal Tourism Administration, the monitoring team successfully conducted the fifth phase of field investigation on Chengdu observatory on sustainable tourism development. The 2016 monitoring program was the continuation of the previous four phases, including regular monitoring and special monitoring, involving tourism and environment, tourism and community, tourist perception and satisfaction, tourism and economy, tourism and urban-rural development, and leisure city, etc. Moreover, based on the previous achievements, it also conducted investigation on several aspects, including Chengdu tourism and poverty elimination, improvements in living quality, enhancement in happiness and the like. In light of the above efforts, Chengdu's sustainable tourism development monitoring indicator database can thus be perfected, so as to benefit the analysis and evaluation of Chengdu's tourism development conditions and problems and to discuss city tourism destination's sustainable tourism development mode.

The 2016 monitoring program covered the whole Chengdu urban areas, especially focusing on China Lane, Jinli, Sanshenghua village, Eastern Suburb Memory (the original Eastern Music Park), Giant Panda Base, Dujiangyan and surrounding areas. The monitoring group consisted of one full-time teachers from Center for Tourism Planning and Research of Sun Yat-sen University (SYSU), two doctoral students, four graduate students, and sixteen undergraduate students.

During the monitoring program, the research group visited related Chengdu government departments and carried out in-depth interviews with residents and administrators in the surrounding communities. The research group has sent out 800 tourist questionnaires, with 743 valid ones returned; 300 resident questionnaires, with 281 valid ones returned; 300 environment quality perception questionnaires, with 268 valid ones returned; 500 leisure city questionnaires, among which 200 were for residents, 200 were for tourists, and 100 for businesses respectively, with 198, 192, 88 valid ones returned respectively. The evaluation indicator system and analytical framework for this phase refers to Indicators of Sustainable Development for Tourism Destinations: A Guidebook, which is developed by the World Tourism Organization, as well as academic research

and actual situations of Chengdu tourism development.

Table. 1-1 Questionnaires during Chengdu monitoring program

	Chengdu tourists	Chengdu residents	Environment quality perception	Leisure city (tourists)	Leisure city (residents)	Leisure city (businesses)
Questionnaires sent out	800	300	300	200	200	100
Valid questionnaires	743	281	268	198	192	88
Recovery rate	92.9%	93.7%	89.3%	99%	96%	88%

2. Tourism and Resources, Environment

2.1 Resources assessment

Chengdu has good natural, ecological environment, which provides basic conditions for various species to survive and reproduce. Government department and related institutes pay special attention to the city greening and biotic resources protection, such as old trees and famous woods, so as to guarantee enough greening areas in city. The diversity protection methods generally achieved the goal of balancing city's ecological system. When developing a scenic spot (area), government also lay special emphasis on the natural, ecological environment balance, so as to provide good environment for rare animals and plants and to make sure that natural conservation area is under perfect protection while making developments.

The richness of cultural heritages in Chengdu has been widely recognized by the world and China. Chengdu Municipal Culture Bureau and cultural tourism enterprises have taken various methods to realize the prosperity of cultural enterprises and the conservation of cultural resources at the same time. Jinli, China Lane, and Capital of Delicacy have already become distinct, creative name cards of Chengdu. The re-development and reutilization of historical architectures due to tourism development, such as the case of China Lane, can not only protect the cultural heritage, but also can bring about a lot of benefits, such as improving local culture recognition, boosting local

economic growth, and promoting local sustainable development, etc.

2.2 Environment assessment

Environment assessment will be elaborated in the following aspects: air environment, water environment, sound environment, ecological environment, and environment management methods.

As for air environment, in 2015, the air quality in Chengdu central urban area did not reach the secondary standard, but that of suburb areas has been improved on the whole. Generally speaking, the air quality in Chengdu has been improved, with the major pollutant concentration decreasing and the number of days with good air quality increasing while that of days with heavy pollution decreasing. Among which, 27 days were of “great” air quality in a whole year, a year-on-year increase of 9 days. 22 days were of heavy pollution (including heavily polluted and severely pollution), a year-on-year decrease of 15 days.

As for water environment, in 2015, the water quality of Min River and Tuo River system declined. In recent years, the water quality of Tuo River system has deteriorated in successive years, therefore government should strengthen the management over the water quality of Tuo River. In addition, the drinking water quality of two urban areas and suburb areas in Chengdu is good, achieving a reach-the-standard rating of 100%.

As for sound environment, according to the sound environment quality monitoring data from 2006 to 2014, we found that the sound environment quality remained stable in the last nine years, with the average equivalent sound level maintaining at a relatively good level. In addition, the major pollutants of sound environment quality in urban areas are: traffic, industry, life, and construction.

As for ecological environment, according to the *2014 Bulletin on Environment Quality in Chengdu*, Chengdu’s ecological environment index scored at 65.8 in 2014, achieving a “good” level, yet a slight decline compared with that of the year 2013 when the index scored at 67.9.

As for environment management measures, Chengdu has made substantive progress in the field of pollution treatment in 2015. Chengdu Municipal Environmental Protection Bureau has conducted

long-term monitoring and management on the enterprises within Chengdu. The Bureau has conducted comprehensive management in central urban areas, including closing, transferring certain enterprises and devoting a great many labors and funds to industrial pollution, sewage, and waste exhaust treatment.

2.3 Tourists perception of environment quality

In 2016, tourist satisfaction on Chengdu's environment quality improved significantly compared with last year—tourists were relatively satisfied on the whole. The problem of “congestion” was greatly improved, but still far from making most residents satisfied. The problem of “environment noise” and “line-up regulations” remained to be improved. As for the line-up problem, the management should focus on improving line-up order instead of reducing line-up duration. As for the congestion in scenic spots, tourists believed that the most crowded scenic spots were Jinli, Chunxi Road and China Lane, therefore the congestion may be mitigated in the following two aspects: (1) improve the control and diversion over tourists in Jinli, Chunxi Road, and China Lane; (2) enhance construction of other scenic spots and enhance promotion.

3. Tourism and Community

3.1 Residents' attitudes towards tourism

According to the research results, most residents agreed with Chengdu's positioning as a “Leisure City” and tourism's positive impacts on local development. They believed that tourism could boost local development. They welcomed more tourists and claimed that they would definitely support local tourism development, for example, they might recommend Chengdu to their friends and relatives. However, residents' satisfaction degree towards tourism development remained to be improved.

In terms of economic impacts, most residents approved that tourism might have positive influences on economy, claiming that tourism might increase job opportunities, attract more investment and consumption, and improve living quality. However, residents also realized that due to tourism development, their living cost also increased.

In terms of socio-cultural impacts, on the whole, Chengdu tourism development has improved residents' living environment, including local public transportation system, renovation of old towns, medical conditions and services, etc. However, tourism development also intensified traffic congestion, making it into a more severe problem. In addition, tourism has exerted positive effects on community culture. Most residents believed that thanks to tourism, they had more opportunities to communicate with non-local cultures; their mind became more open; and children's as well as teenagers' horizons were thus broadened. Yet, some residents gradually perceived that tourism development had some negative influences on traditional culture protection and old building conservation.

In terms of environmental impacts, tourism development, to some extent, contributed to the protection of landscape and scenery. However, it also had some negative effects on environment, such as the increasing waste and worsening pollution, etc.

3.2 Community participation degree and awareness

During the leisure tourism development dominated by government, residents' participation level was relatively low, which was specifically reflected in the facts that residents could not learn well about government's tourism development planning and measures, and scenic areas would not ask for residents' opinion when making decisions. On the other hand, residents showed high initiative in participating in tourism activities. They were willing to put forward some suggestions for local tourism development. The contradiction between the two parties led to a low satisfaction of residents towards government's implementations.

Most residents believed that when developing tourism, special attention should be paid to environment and the distinctiveness of those scenic spots. Only in this way could Chengdu attract more tourists and thus realize sustainable tourism development.

4. Tourist Behavior and Preference

4.1 Tourist composition and behavior preference

In terms of tourist source market, the majority of the tourists come from Sichuan province. Chengdu Municipal Government should conduct targeted propaganda, so as to improve its influences on long-distance areas.

In terms of information acquisition, Internet and word-of-mouth transmission are the major ways for tourists to get tourism information. Therefore, we should enhance Internet marketing promotion, and at the same time, guarantee the tourism quality and emphasis tourist experiences, so that we can improve tourist satisfaction.

In terms of tourism patterns, more and more Chengdu tourists choose do-it-yourself travel. The proportion of travel organized by companies and units showed a slowly increasing trend, which indicated that this travel pattern might be a potential market for Chengdu's future tourism development.

In terms of travel motivations, "leisure and relaxation" accounted for the most proportion, which to some extent indicated that Chengdu's image of leisure has become well-known to the public. In addition, the number of tourists motivated by "learn about delicacy and enjoy culture" kept increasing, which meant that government's promotion had already made some achievements.

In terms of travel transportations, more and more people were more willing to travel by plane, motor car and high-speed rail, which indicated that railway and airline construction might be the directions for Chengdu's future development. Improvements on motor car, high-speed rail, and airlines might convenient the tourists.

In terms of accommodations, nearly half of the tourists would live in economical hotels, followed by star hotels. Only a few of them might choose to live in homestay hotels or youth hotels.

4.2 Tourist perception and satisfaction

4.2.1 Tourists' evaluation on tourism resources

In terms of resources distinctiveness, except for "adaptability to Chengdu's climate", tourists' evaluated relatively highly of Chengdu's resources distinctiveness, achieving certain improvements

to some extent.

In terms of city image, tourists' satisfaction of each indicator of city image has improved compared with last year. However, the noise pollution received the lowest evaluation, which required further improvements.

In terms of infrastructure, what received the highest satisfaction was the greening effect in Chengdu, yet the public transportation and hygienic conditions of public toilets remained to be improved.

In terms of safety and health, tourists were relatively satisfied with city safety, medical equipment, and security. However, their satisfaction of “city’s safety equipment” declined compared with that of last year. Therefore, Chengdu government should take actions to improve the security facilities for each tourist attractions, vital communication lines, and public transportation facilities, so as to improve tourists' satisfaction.

4.2.2 Tourists' evaluation on tourism services

In terms of the service in scenic areas, tourist's satisfaction was at a medium level. Among which, tourists were least satisfied with the ticket prices and congestion.

In terms of catering services, tourists were most satisfied with the taste, variety, and feature of the food, yet were not very satisfied with the hygiene, safety, and price of the food.

In terms of traffic service, tourists believed that the traffic in Chengdu was relatively convenient, with high comfortability and safety index. The prices were reasonable and the guiding sign system was relatively clear, which basically satisfied the commuting demands of tourists.

In terms of accommodation, shopping, and entertainment service, tourists were satisfied on the whole, yet they all agreed that the prices were not reasonable.

In terms of consultation and complaint, tourists' satisfaction was at a medium level, but their satisfaction of “consultation feedback attitudes and efficiency” improved compared with last year.

4.3 General evaluation and recommendation for improvements

According to the research results, most tourists were relatively satisfied with Chengdu tourism. Most of them were willing to revisit Chengdu or to recommend it to their friends and relatives.

The recommendation for improvement mainly involved the following aspects, namely: traffic, scenic spots, infrastructure, products, and services. Most tourists believed that Chengdu had severe traffic congestion, and the situations that taxi driver refused to take the passengers happened a lot. They also thought that it was too crowded in scenic spots and the ticket prices were too expensive. They also spotted that the fundamental facilities were far from enough.

5. Tourism's Economic Impacts

5.1 Tourism and economic growth

Chengdu tourism incomes have contributed more to GDP from 2005 to 2014, with its proportion showing an increasing trending, increasing from 10.43% in 2005 to 16.54% in 2014, which indicated that Chengdu tourism was developing stably. The scale of tourism industry has enlarged gradually and played a more important role in the national economic development.

Tourism's contributions to local state revenue not only include the taxes paid by tourism enterprises, but also include the taxes paid by those industries which are affected by tourism. According to the statistics, in 2015, Chengdu's local government revenue has increased by 12.9% from last year. Since 2006, tourism incomes and local government revenue have increased together. Since 2009, they started to increase at similar increasing rate.

During 2006 to 2015, the proportion of Chengdu's tourism incomes in the added value of tertiary industry has increased from 24.20% to 34.98%. The increasing number showed that tourism industry was playing an important role in the development of tertiary industry.

Tourism foreign exchange is an indispensable part of export exchange. One single increase in Chengdu tourism foreign exchange may lead to 38.418 increases in Chengdu export exchange, which showed the strong association between tourism and other industries. However, after Wenchuan Earthquake, the proportion of tourism foreign exchange in the Chengdu export exchange decreased dramatically and maintain such frustrating condition for the following years until it rebounded in 2015. This showed that after the negative impacts of natural disasters,

Chengdu tourism industry retrieved its importance place in Chengdu's foreign trade after a period of struggles.

According to the field survey of distributing questionnaires to business, we found that business owners were not that satisfied with the business conditions, claiming that the expensive rent was a major obstacle for their operation, followed by tourists' consumption ability, cost of goods and employment payments (juxtaposing), competitions form other enterprises, and taxes.

5.2 Tourism and employment

According to the questionnaire results, residents generally believed that tourism had positive effects on local employment, including increasing job opportunities and economic profits. By the end of 2015, tourism industry has already created job opportunities for 977,900 people directly or indirectly, a year-on-year increase of 9.78%.

5.3 Tourism and investment

Tourism has become a hot destination for the tertiary industry investment. 2016 marked the beginning of the "Thirteenth Five-Year Plan", which meant that Chengdu tourism was at an even higher level. In 2015, Chengdu had attracted a total fixed investment of 700.7 billion yuan, an increase of 5.8% from last year. In addition, Chengdu will accelerate the construction of 21 major tourism projects, each with an investment of more than 2 billion yuan, such as Dujiangyan Wanda Cultural Tourism City and CTS Jingtang Hot Springs Resort, etc.

6. Component 1: Chengdu Leisure City Development

6.1 Perception of leisure subjects

Chengdu's leisure culture possess the features of popularity and universality. According to the research results, respondents were relatively satisfied with Chengdu's leisure quality on the whole, but they thought that transportation remained to be improved. Most residents and tourists were satisfied with their experience in Chengdu Leisure City, claiming that Chengdu had rich leisure resources, relatively perfect infrastructure, therefore, they showed high willingness to revisit and recommend.

In terms of city environment, tourist satisfaction on Chengdu's hygienic environment was higher than resident satisfaction. The possible reason for the differences may be that the hygienic conditions are generally good in urban areas or scenic areas while bad in suburb areas or non-scenic areas.

In terms of tourism information acquisition, tourist satisfaction was significantly higher than resident satisfaction, which was mainly due to the popularization of the Internet. All sorts of helpful applications were widely used. In addition, scenic spots also paid special attention on the promotion of social communication platforms such as Wechat. In the light of that, tourists can easily acquire all kinds of information. On the contrary, government did not devote much to the propaganda of tourism, therefore, residents' satisfaction of tourism information acquisition declined slightly compared with last year.

In terms of city image, residents, businesses, and tourists all highly recognize with Chengdu's image as a Leisure City. Chengdu can strengthen cultural education in the future.

As for residents, businesses, and tourists' evaluation on Chengdu's Leisure City development, the increasing number of entertainment and celebration activities lived up to their expectations for Chengdu's Leisure City development. However, at the same time, attention should be paid to dealing with the problems of traffic congestion, environment deterioration, and tourism's negative impacts on city residents (businesses) daily life.

6.2 Problems and recommendations

According to research results, residents, business, and tourists mainly concern about the following problems: (1) traffic transportation within the urban area remains to be improved; (2) the fierce business competition within scenic areas; (3) hygienic environment remains to be improved; (4) leisure tourism facilities remain to be improved.

Directed at the above problems, improvements can be made in the following three aspects: (1) improve tourism infrastructure construction; (2) improve services in Chengdu; (3) enhance the distinct leisure tourism activities in Chengdu.

7. Component 2: Tourism and Urban-rural Coordinated Development—the case of Sanshenghua Village in Chengdu

Under the implementation of urban-rural coordinated development, a batch of infrastructures have been upgraded and improved in Sanshenghua village, including: traffic infrastructure, water and electricity supplement infrastructure, and information network infrastructure and the like. Local tourism have been comprehensively developed. The development and planning of rural tourism and the continuous innovation in business pattern made rural tourism a new economic growth point of Sanshenghua village which help realize a comprehensive promotion both in local social culture and economic construction. Two focuses of the 2016 monitoring program is the optimization of Sanshenghua village's tourism products and brands, along with the reference significance of new pattern and new commercial activities for rural tourism's upgrading and transformation.

7.1 Urban-rural coordinated development process

Jinjiang District Government actively broke down the dualistic system and narrowed the gap between urban areas and rural areas. The government helped develop rural leisure tourism industry and accelerate urban-rural integration. In addition, it continued to work on land consolidation and thus accelerated the process of urbanization.

As for promoting transformation of rural tourism business pattern, Sanshenghua village injected cultural elements and industrial elements into “five golden flowers”. By constructing cultural projects, Sanshenghua village attracted artists to stay in the village and also motivated the peasants to join the culture industry chain. Sanshenghua village encourage new commercial activities and thus realized sustainable tourism development.

As for infrastructure, government enacted a unified standard and provided appropriate subsidy for those who followed the standard. As a leader of operators in the scenic areas, the government also conducted unified transformation of certain infrastructure, such as the kitchen and the toilet, so as to carry out a comprehensive, systematic regulations in scenic areas.

7.2 Existing problems

As the urban-rural integration in Sanshenghua village accelerates, the following problems have surfaced: cultural, creative industry does not integrate well with the community; infrastructure and transportation system have not yet been perfected; the quality of tourism facilities remains to be improved; the creation of cultural connotation needs to be innovated; the development of tourism souvenirs and artworks lag behind; the status of tourism has not yet been elevated significantly.

7.3 Future development trend

The integration of transboundary industries will deepen. Due to the integration between cultural industry and tourism industry, the rural tourism business pattern of Sanshenghua village will keep upgrading. New commercial activities will spring up, covering farmhouse restaurants and art business. The function of cultural education will thus be enhanced and the tourism experience may be improved.

In addition, with the construction of commercial complex and all sorts of matching infrastructure, the transportation conditions will be perfected, the ecological environment of Sanshenghua village will be more and more attractive. We can foretell that Sanshenghua village will prosper, no matter in the real estate or in the business transaction.

8. Component 3: Tourism and Poverty Elimination—case study of Improvements in Livelihoods

8.1 Case presentation

The case that two peasant women have transformed into operators of farmhouse restaurant vividly illustrated that the rural tourism development in Sanshenghua village greatly increased villagers' incomes as well as promoted economic transformation and structural adjustment in villages. It illustrated that rural tourism was truly a vital way to lift villages out of poverty and realized urban-rural integration.

The first peasant woman, Zeng Li, used to be a flower girl. Grasping the opportunity that Sanshenghua village encourage rural tourism, Zeng Li transformed her own courtyard into a farmhouse restaurant and thus became the owner of it. Under the guidance of the government, Zeng Li ran her farmhouse earnestly and kept learning about related knowledge. In the light of her continuous efforts, she successfully turned her farmhouse into an attraction for urban residents which attracted them to consume. She also kept seeking for new modes of business practice, so as to carry out better management ideas. Ten years of operation not only satisfied her basic needs, but also turned Zeng Li from a flower girl into an independent woman with capability and dreams.

The second peasant woman, Liu Yin, was also a flower girl at the beginning. When Sanshenghua village encouraged villagers to develop flower planting to attract tourists, Liu Yin grasped this business opportunity. Taking advantage of the Flower Exhibition, Liu Yin not only set up her own farmhouse, but also established her own floriculture enterprise. She integrated tourism experience into farmhouse operation, teaching tourists how to arrange flowers in vase. Now, she has already become a sophisticated entrepreneur.

8.2 Case Summary

The cases of Zeng Li and Liu Yin are the epitomes of all villages in Sanshenghua village rural tourism development. These two peasant women are only two of the villagers who have got rid of poverty through tourism development. According to the research, we learn that we should combine rural tourism with peasants' interests, tourism resources with folk culture, and sightseeing tourism with leisure, vacation tourism. In the light of that, we can make full use of tourism development to help mass rural areas out of poverty; to diversity peasants' income sources; to increase job opportunities; to improve village environment; and to improve villagers' quality. We should let peasants benefit from tourism and enhance interactivity between urban and rural areas.

Monitoring Centre for UNWTO Sustainable Tourism Observatories

2016 Monitoring Report on the Sustainable Tourism Development of Luoyang

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Henan Province Tourism Administration

Luoyang Municipal Commission of Tourism



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And all those who helped with the monitoring work.

1 Monitoring Profile

The 2016 Luoyang monitoring program on sustainable tourism development was carried out during June 27th to July 5th, 2016. The monitoring group consisted of Professor Bao Jigang, Director of MCSTO; Teacher Weng Shixiu and four graduate students (1 doctoral student and 3 master students) from the Center for Tourism Planning and Research of Sun Yat-sen University (SYSU); 15 undergraduate students from School of Tourism Management of SYSU. Under the strong support of People's Government of Henan Province, Henan Province Tourism Administration, People's Government of Luoyang Province, and Luoyang Municipal Commission of Tourism, following the evaluation indicator system and analytical framework developed by the Sustainable Development of Tourism Program of the UNWTO, and taking into the local situations and actual needs into account, the 2015 monitoring program successfully accomplished the monitoring work.

The Luoyang sustainable tourism development monitoring program mainly monitored on five scenic areas, namely: Longmen Grottoes, Baima Temple, Guanlin, Sui and Tang Dynasties Luoyang City (Mingtang and scenic paradise) and Chongdugou, along with Luoyang Old Town areas. The monitoring content mainly consisted of two parts: (1) regular monitoring, including tourist satisfaction, resident perception, environmental impacts, and economic impacts, etc.; (2) special monitoring, mainly including three special topics, specifically: Annual Progress of Smart Tourism Construction; Tourism and Poverty Eradication: experiences of Chongdugou; and Annual Progress of Heritage Resources Preservation and Tourism Development.

During the monitoring, 1085 questionnaires concerning tourist satisfaction as well as 392 questionnaires concerning tourist's perception of environment quality were distributed. Besides, 139 structural interviews with residents were conducted. In addition, the monitoring group visited Luoyang Municipal Commission of Tourism and management administrations, Longmen Grottoes, Baima Temple, Guanlin, Sui and Tang Dynasties Luoyang City (Mingtang and Scenic Paradise) and Chongdugou in Luanchuan County. Under the organization and collaboration of Luoyang Municipal Commission of Tourism, the monitoring group collected a great number of second-hand materials from government departments, including: Luoyang Municipal Statistics Department, Land and

Resources Bureau, Transportation Administrative Bureau, Environmental Protection Bureau, Water Bureau, Press and Publication Bureau, Agriculture Bureau, Business Bureau, Bureau of Parks and Woods. Consequently, the monitoring group developed a better understanding of the status quo of Luoyang tourism development along with its new changes in 2016.

2 Major Findings in Regular Monitoring

2.1 Residents are generally supportive of tourism development, with positive perception dominant

According to the 2016 monitoring, similar to last year, most residents believe that tourism development had positive influences on Luoyang. 88% of the residents are supportive or very supportive that Luoyang continues to develop tourism. 91% of the respondents are satisfied with local tourism development. Community residents have high sense of local identity, with 95% of them affirming that “Luoyang is really a good city for tourism”. 88% of the residents think they are enthusiastic to tourists and welcome more tourists. 92% of the residents are aware of the significance of protecting natural environment and 86% of them recognize the importance of humanistic features of communities.

As for tourism’s impacts on the communities, residents have relatively more obvious perception of tourism’s economic impacts. 84% of the residents believe that tourism has “promoted the development of local special restaurants and souvenir shops, etc.”; 76% of them believe that “I can have economic benefits from tourism”; 79% of them believe that tourism has “created more job opportunities for local youth”; 78% of them think that tourism has “promoted the development of local handicrafts”. In addition, 54% of the respondents believe that due to tourism, “the housing price in communities rises faster. Most residents agree that tourism has positive impacts on the improvement of social life conditions and fundamental facilities. 84% of them agree that “fundamental facilities have been improved” and 70% of them agree that “local medical conditions and services have been improved”.

As for tourism’s cultural impacts on communities, approximately 80% of the residents believe

that tourism help “promote Mandarin” (accounting for 86%), “promote the communication between local and non-local cultures” (83%). They also think that due to tourism, “residents’ minds become more open” (79%). 89% of the residents believe that tourism development can “broaden children and teenagers’ horizons”. What is worth noting is that 47% of the residents disapprove that “social atmosphere is not as good as before” while 38% hold the opposition position. This shows that most residents approve the positive cultural impacts brought by tourism development, but still some residents believe that tourism has brought some negative impacts.

As for environmental impacts, in the positive aspect, most residents approve that tourism is beneficial to landscape protection, accounting for 79%. In the negative aspect, what receive most approval is “cultivated land is decreasing”; what follows is “waste is increasing”. The disapproval proportion of “tourism facilities (such as houses, roads, and parking lots) damage the landscape” is larger than the approval proportion. This shows that residents’ opinions vary. Among the perception of negative impacts, the most direct and evident one is towards the decreasing cultivated land, followed by increasing waste and various pollutions.

In terms of development willingness and participation degree, nearly 30% of the residents do not invest in tourism industry, which is mainly because of lack of funds and lack of experiences in tourism operation (accounting for 75%). Therefore, increasing support for funds and skill training may appeal to more people to invest in tourism industry. In addition, over 60% of the residents are willing to devote all their household labours to tourism industry. Over 70% of the residents are willing to provide suggestions for scenic spot development. Similarly, over 70% of the residents think that government and enterprises would better ask for the community’s opinions before making a decision. Approximately 60% of the residents are willing to reflect their requests raised during tourism development to the government. However, when asked whether they wish to participate in tourism development, only 16% of them are willing to participate in government’s planning and decisions.

Residents concern most about economic development issues (40%), demolition and resettlement issue (14%), environment issue (9%) and transportation issue (7%). Among which, as for economic development issues, residents’ major concerns are listed as follows: (1) some residents reckon that

tourists are still not enough and their incomes are too low; (2) some residents think that although tourists are plenty, their shopping demand is so low that residents' incomes are relatively low; (3) compared with incomes, the rent and the commodity prices are too high; (4) they lack channels to benefit from tourism development.

In addition, according to the 2016 research on resident's awareness of tourism development, we find that residents are still unfamiliar to sustainable tourism development. Their knowledge about sustainable tourism development mainly have the following two characteristics: (1) most people only concern about the results (i.e. long-term development) and neglect the development process (protection and rational utilization); (2) most people understand sustainable tourism from single perspective, such as from environment perspective, tourist perspective or community perspective.

Compared with monitoring results of 2014, 2015 and 2016, we find that: (1) residents are optimistic about tourism development, and they have more optimistic attitudes towards tourism's economic, cultural, social and environmental impacts; (2) residents' initiative of participating in tourism has also been improved. In 2014, there was a large discrepancy between residents' attitudes and their behaviours. They had extremely high recognition for certain initiative items, such as attitudes towards tourists, environment and culture protection, and they are willing to provide suggestions for scenic area development. On the other hand, they had low or even no recognition for items which lack initiative, such as knowledge about tourism development plans, participation degree of decision making and government's implementation. However, in 2016, the polarization has been improved significantly. Residents have better understanding of tourism development plans and they show stronger initiative in tourism participation; (3) although residents have improved initiative, their willing to participate decreases significantly.

On the whole, Luoyang residents have closer relationship with tourism. Tourism has increased residents' incomes, improved environment and enrich their cultures. More and more residents wish to participate in tourism, but their financial conditions and operation capability are limited, therefore most of them only engage in basic works. In addition, residents also perceived the negative impacts of tourism, such as rising house prices, rising commodity prices, increasing traffic congestion, decreasing cultivated land and pollution, etc. Besides that, residents generally reckon that they lack

power to voice on tourism decision making, and thus lack confidence to engage in tourism planning and decision making.

2.2 Tourist's overall satisfaction on Luoyang tourism

On general, in 2016, tourists have relatively high satisfaction degree towards Luoyang tourism. 84% of the tourists are satisfied or very satisfied with Luoyang tourism, which has increased slightly from last year. only 0.32% of the tourists are unsatisfied or very unsatisfied. 82% of the tourists think that Luoyang tourism has lived up to or even surpass their expectation. Tourists have high willingness to revisit Luoyang or recommend Luoyang to others.

According to the classified statistics, tourists aged between 46-60 have a satisfaction degree of 100% on Luoyang tourism, while tourists aged above 60 have a degree of 91%. Tourists aged below 18 have lowest satisfaction degree, at 80%. In terms of education level, tourists with primary school education level have a satisfaction degree of 40%. Tourists with middle school, high school or technical secondary school education level have a degree of 80%. Tourists with education level of junior college, undergraduate or master degree have a satisfaction degree of 85%. Tourists with doctoral degree have a degree of 92%.

According to the IPA analysis, for tourists, the most significant factor influencing their satisfaction degree is “resources specialty”, while the least important factor is “shopping”. On the whole, resources specialty, fundamental facilities, city image, services in scenic areas, safety and health are five factors which have greatest impacts on tourist satisfaction degree. Among which, “resources specialty” have greatest impacts on tourists. For now, tourists in Luoyang have the highest satisfaction degree on “resources specialty”, which is a pleasant result. This to certain degree explains why Luoyang has relatively high overall satisfaction degree. The remaining four indicators (fundamental facilities, city image, services in scenic areas, safety and health) have unpleasant results in satisfaction degree, which are lower than the average value, and thus need to be improved. Indicators such as transportation services, catering services, shopping, entertainment activities, consultation and complaint have low satisfaction degree. However, considering that these factors have little influence on tourists' satisfaction, they are not as urgent to be improved as the above four

indicators.

2.3 Tourism has increased contributions to economic growth

(1) Tourist number continues to grow, and tourism incomes continue to increase. In 2015, Luoyang has received 104.3 billion tourists, a year-on-year increase of 10.14%. The growth rate is slightly higher than last year. The total tourism income is 18 billion yuan, a year-on-year increase of 29.78%. The growth rate has increased by 5.94% from last year. Luoyang has received 1,004,200 international tourists, a year-on-year increase of 19.55%; 103.3 billion domestic tourists, a year-on-year increase of 10.06%. Luoyang has created high tourism income of 0.309 billion USD, a year-on-year increase of 28.6%; 76.134 billion RMB, a year-on-year increase of 29.7%.

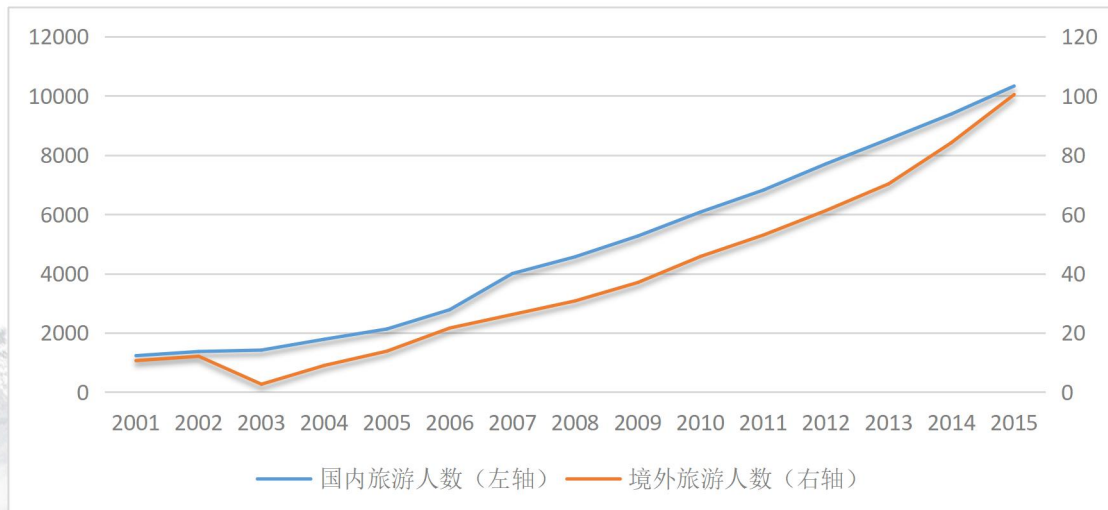


Figure 1. Domestic and International Tourist Number in Luoyang from 2001 to 2015
(domestic tourist number (left); international tourist number (right))

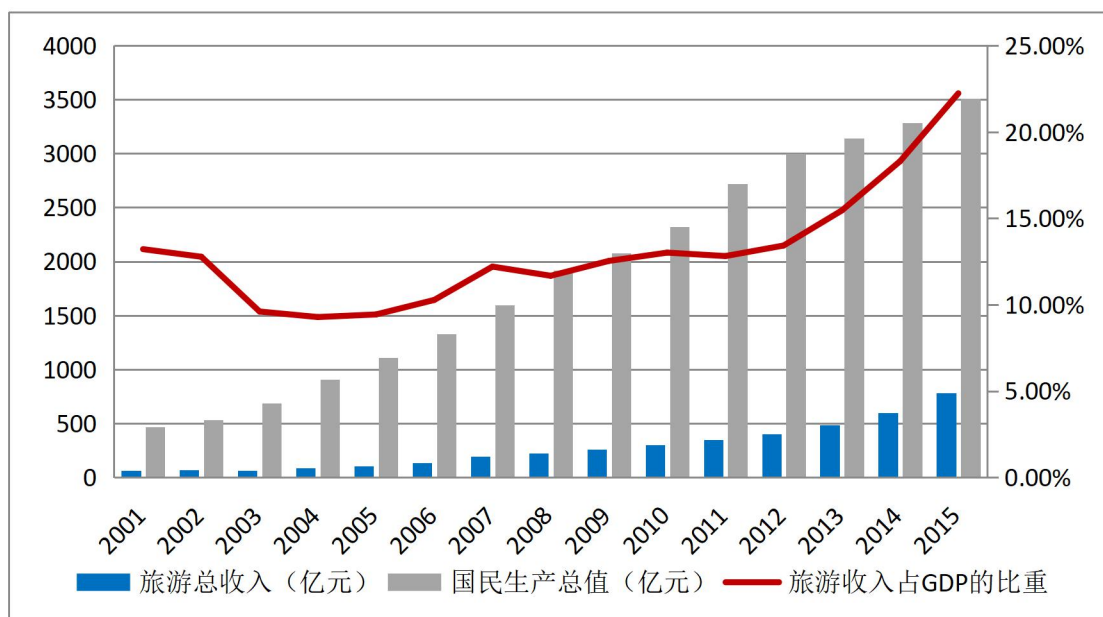


Figure 2. Total tourism income and its proportion of GDP in Luoyang from 2001 to 2015

(total tourism income (0.1 billion yuan); GDP (0.1 billion yuan); proportion of tourism income on GDP)

(2) Tourism output continues to grow, which promote the upgrading of industrial structure. For now, in Luoyang, industry still dominates. In recent years, the industrial structure has changed slightly and the proportion of service industry has frustrated to grow. In service industry, tourism industry's proportion has increased from 50.41% last year to 50.87% this year.

(3) Tourism promotes the development of small enterprises. Tourism involves six major aspects: catering, accommodation, tour, entertainment and shopping. Tourism development helps promote the commercial development of tourism communities. The majority of the enterprises in the communities are small, individual enterprises, mainly focusing on accommodation, catering, tourism souvenirs and normal commodities. The majority of these operators are local residents. However, their revenues are limited due to concentrated locations, similar products, fierce competition. During tourism development, we should guide individual operators to improve their operation capabilities, enrich operation contents and diffuse competition. In 2016 monitoring, we find that the business format of tourism scenic area does not change much compared to 2015, still focusing on peony drawings, imitative tri-coloured pottery of Tang Dynasty, and bronze ware. In Luoyang old town area, innovative small shops emerge, which add new colour to the old town.

(4) Tourism provides job opportunities for local residents. Except for the above job opportunity

of individual operation, tourism-oriented enterprises also provide a great many job opportunities for local residents. As the deepening of scenic area development, projects in scenic areas continue to develop and diversify. In the research, we find that tourism-oriented enterprises mainly involve cruise industry, hospitality industry, catering industry, tourism consultation and tourism handicraft manufacturers, etc. These tourism enterprises provide a lot of job opportunities for local residents. However, due to the limitations of residents' job experiences and education level, most of them can only engage in basic works and few of them can engage in management section. At the same time, under the attraction of Luoyang city, few non-local labours flow in Luoyang, which may construct competition with local residents. Therefore, local residents need to improve their capabilities so as to win job competition.

2.4 Tourism does not damage resources and environment

The biotic resources are relatively abundant in Luoyang. Some forests and plantation have been developed into National Forest Park or Leisure Tourism Area, which not only provides funds for biotic resources protection, but also provide original ecological tourism experience for tourists. Inferred from the current monitoring data, tourism has not caused damage to biotic resources and their habitats.

Luoyang's tourism development has not produced an effect on Luoyang's water quality. In 2015, the overall water quality of monitoring sections for surface water is quite well. The average values of water quality of seven monitoring sections for surface water have all reached the planning goal, achieving a total standardizing rating of 100%. From 2010 to 2015, Luonan, Zhangzhuang, and Lilou, the three centralized drinking water sources in Luoyang, whose water quality has reached the standardizing rating of 100%. Due to the fact that all water quality monitoring indicators have reached the standard, all sorts of socio-economic activities, including tourism, have not caused unsustainable influences on water quality.

In terms of air quality, what is worth noting is that, after 2012, the days of good air quality in Luoyang decrease dramatically. Days of polluted air quality increase, and the proportion of days of good air quality decrease year by year. The increasing air pollution in Luoyang may impact on

tourism resources protection and tourist satisfaction degree, which might further impact Luoyang sustainable tourism development.

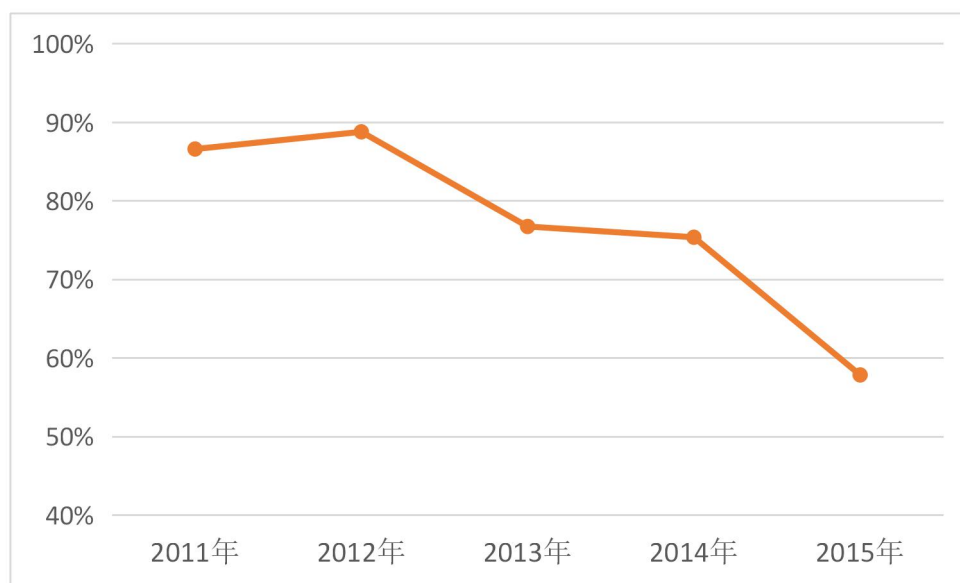


Figure 3. Proportion of days of good air quality from 2011 to 2015

In terms of sewage treatment in scenic areas, in 2015, four scenic areas, i.e. Baima Temple, Longmen Grottoes, Guanlin and Chongdugou, have 2 hotels, 202 agritainment, and 13 restaurants whose daily displacement are 647 tons per day and 1295 tons per day in peak seasons. Among which, Longmen Grottoes has 1 hotels whose daily displacement is 120 tons per day and 170 in peak seasons. And 1 underground integrated disposal facility is constructed in this area. Baima Temple scenic area has 6 restaurants whose daily displacement is 72 tons per day and 94 tons per day in peak season, and the household sewage will flow into Baima Temple pipe network. Guanlin scenic area has 7 restaurants whose daily displacement is 95 tons per day and 116 tons per day in peak seasons, and the household sewage will be treated in the new area sewage treatment factory. Chongdugou scenic area of Luanchuan county has 1 hotels, 202 agritainment whose daily displacement is 360 tons per day and 915 tons per day in peak season. The sewage will be treated in Congdugou sewage treatment factory.

In terms of cultural resources, Luoyang, as a big city of cultural heritage, attach great importance to the protection of cultural heritage. As for those cultural heritages full of values, Luoyang actively create conditions for protection, for example, it applies for world cultural heritage

as well as national, provincial projects, so as to realize a win-win situation of cultural resources protection and tourism development. In 2015, Luoyang has in total invested 10609 yuan in heritage protection, and details are shown as follows.

Table 1. Heritage protection conditions of all levels in Luoyang in 2015

Project	Funds
Movable heritage general investigation	500000
Exhibition and display improvement	2400000
Heritage protection units maintenance and heritage collections restoration	6340000
Great relics and heritages protection project	76370000
Archaeological exploration projects	20480000

3 Core Contents of Special Monitoring

3.1 Annual progress of smart tourism construction

The major progress of Luoyang smart tourism system construction in 2016 includes:

First, actively promote smart scenic area construction. On April 6th, 2016, the launch ceremony of “Longmen micro-shop” was held in Longmen Grotto. As the first smart tourism e-commerce platform in China, “Longmen micro-shop” is the joint product of Longmen Grotto and Tencent corporation. In the same month, the launching ceremony of “Internet + Guanlin” and the awarding ceremony of Guanlin Scenic Area Smart Tourism Pilot Unit were held in Guanlin Scenic Area. Guanlin Scenic Area became the first batch of Smart Tourism Pilot Units in the city. Luoyang smart travel marketing platform provide background support and services for Guanlin scenic area official WeChat subscription. This platform is the city's first case of scenic application. On July 15, Longmen Grottoes Smart Tourism 2.0 and big data report conference was held, marking the Longmen Grottoes as the country's first “Internet +” smart area and opening a new chapter in the era of big data into the “Internet + Grottoes” 2.0 era. In the event ceremony, Tencent released “Big Data Report of Longmen Grottoes Smart Tourism”, which is also the first tourist big data report of tourist attractions in China.

The report details the integration of the Longmen Grottoes into the "Internet +" background, the course, major projects, construction achievements, major achievements, important influences and innovations of the "Internet + Longmen" smart scenic spot construction. According to the data of more than 3 million tourists and 350000 WeChat fans, the report also analyzes big data of Longmen Grottoes scenic area, and looking forward to the future development goals and major initiatives in the era of big data.

Second, release "Big Data Report of Smart Tourism in Luoyang". On July 28th, 2016, Luoyang City Tourism Development Commission released the "Big Data Report of Smart Tourism in Luoyang". The report aims to serve the marketing, management and industrial upgrading of tourism by conducting a comprehensive and systematic analysis of the hot elements such as destinations, tourism enterprises, tourists, Internet users and tourist market distributions, tourists' hot spots of concern and tourist information supply. In addition, the report also covers the crowd portrait, tourist behavior, e-commerce, brand building and other aspects of the data. The report has a wide range of sources and integrates with the unit data of public security, traffic police, traffic and communications operators in Luoyang, and introduces a large amount of basic data on Baidu and Ctrip. In addition, Beijing Nebula Monitoring Company, the professional international big data analysis company, helps analyze the overseas dissemination of Luoyang tourism data. This report is the first comprehensive big data report in Henan Province that contains rich content. It is also a concentrated expression of Luoyang smart tourism construction achievements, which provides big data analysis results for the entire industry so that they can better carry out accurate marketing, plan tourism activities, develop tourism products and enhance tourism management and services.

Third, the implementation of smart tourism 2.0 project. In November 2015, Luoyang City started implementing the Smart Tourism 2.0 project. It is estimated that the project will be completed in the second half of 2016. Smart Tourism Project mainly provides smart marketing, smart service and smart management services for Luoyang Tourism. (1) Smart Marketing: Through smart tourism projects, we collect data related to tourism such as tourist accommodation registration information from the public security department, vehicle information from the transportation department, roaming data from telecom operators, etc. By using these data, we can describe the characteristics of

tourists, the target area or tourists so as to conduct precise marketing. (2) Smart Services: With the smart tourism project, visitors can effectively connect with tourism administrations and tourism enterprises through portal websites, enterprise groups, mobile APPs, WeChat matrix and service terminals to find out more comprehensive travel information and to participate in various Online activities, electronic trading. Consequently, we have better access to a more comfortable travel experience. (3) Smart Management: Based on big data analysis of tourism, it provides the decision-making basis for the management of Luoyang tourism industry. At the same time, it improves the multi-level linkage management system, strengthens the industry management and continuously improves the overall service level of Luoyang Tourism.

3.2 Tourism and Poverty Eradication: Chongdugou Experience

3.2.1 Tourism development and poverty eradication process

Chongdugou Village is located in Tantou Town, Luanchuan County, 118 kilometers southwest of Luoyang City. The tour area of the village is 60 square kilometers and has been granted the title of "Funiu Mountain World Geological Park", "National 4A Grade Scenic Spot" and "Agricultural Tourism Demonstration Point", "National Ecological Demonstration Zone", "National Ecological Culture Village", "Top Ten Scenic Areas of Henan Province" and "National Central Tourism Talents Training Base" and other honorary titles.

Before the development of rural tourism, Chongdugou is a typical poor mountain village. In order to realize poverty alleviation, Chongdugou Village tried to develop rural tourism by relying on rich primitive ecological resources in 1999, and officially opened to visitors on July 10 of the same year. A decade later, due to the driving effect of rural tourism, more than 95% of the residents of the village benefit from tourism and start to make a fortune relying upon rural tourism.

In the early stage of tourism development, in order to get rid of poverty and get rich, the community residents of Chongdugou Village participated in the rural tourism mainly in the form of operating farmhouse guesthouses under the guidance of local government and scenic tourism companies. Chongdugou residents' participation in rural tourism underwent four stages: cultivation and commencement, development and construction, standardization and management, bottlenecks of

development.

(1) Cultivation and commencement

In the initial stage of cultivation, the government guides the villagers to gradually open their minds and form awareness of tourism participation. Since 1999, in order to solve tourists' eating and living problems in scenic areas, the scenic area put forward suggestions on building farmhouses and hotels and mobilized villagers to run farmer's hotels. However, due to the initial poor economic, simple living environment, the relatively conservative concept, the villagers generally lack awareness of market competition, so very few villagers responded to the suggestions. To solve that, Ma Haiming and other pioneers in tourism development actively encouraged some villagers to start a family hotel. These pioneer villagers who took the lead in the trials enjoyed their benefits and their incomes gradually increased. Farm hotels attracted more attentions and were imitated by more villagers. According to the interviews in Chongdugou, in the initial development stage, most residents started to operate farmhouse hotels after witnessing others' success. However, due to lack of funds at the initial stage, most villagers used their home to do simple reception, and reception service level is still in its infancy.

(2) Development and construction

Since 2000, there has been an increasing enthusiasm for villagers to develop farmhouses due to the development of Chongdugou rural tourism. However, due to lack of funds, it is difficult to make major breakthroughs in the development scale and level. As a result, the local government made the best use of the situation. They started from the core issues and connected the financial markets to better lead villagers to prosperity. According to interviews, after locals set up farmhouses and hotels, they could secure their loans with loan certificates based on their house values while enjoying low interest. Most local residents make guarantees for each other. Most residents have certain amount of loans in local Rural Credit Cooperatives or banks. With the help of loans and other borrowings, they built farmhouse hotel. Under the preferential policies, the original adobe houses and homesteads were converted into farmhouses with rural characteristics and the hardware facilities were also improved. In addition, the scenic area offered to guarantee loans for villagers who operated

farmhouse hotels. These funds were mainly managed by the scenic management committee for special needs, such as improving and updating farmhouse hotel beds and beddings. At this point, the residents owned the farmhouse hotel ownership and management rights, so that they could operate the farmhouse hotel at a lower cost. Better accommodation conditions bring better tourist experience, and thus the local residents took another step forward towards poverty eradication and prosperity.

(3) Standardization and management

On August 10, 2004, Chongdugou Scenic Spot was undergoing recapitalization, developing from the original Tantou Town Tourism Development Company to Chongdugou Scenic Spot Co., Ltd., and from a township enterprise to an independent joint-stock private-owned enterprise. In January 2006, Chongdugou Scenic Spot was officially granted as the national AAAA-class tourist attractions by the National Tourism Administration. The scenic spot grasps the pulse of the times in a timely manner and adjusts the development strategy to "creating reputation, increasing benefits, building brand" and adjusts the concept of scenic spot development to "green leisure clubs, eco-happy workshops and natural health homes". In addition, it also put forward the plan to change common room into standard room, and actively cooperate with the County Tourism Committee to take the lead in deciding farmhouse star hotel standards and conducting the first pilot assessment. In order to improve the quality of farmhouse hotels and improve the service quality, the scenic area has contributed great manpower, material resources and financial resources to set a model for pilot hotels. For example, the Apricot Garden Scenic Area borrowed 1.6 million yuan six relocating households to help them design and construct. It also assisted them in operation and management. Through the "Management instead of Training", the operation capability of relocated households has been improved. After that, the operation would be returned to the relocated households to operate on their own.

At the end of 2008, the scenic spots required farmhouse hotel service facilities to be further advanced and thus put forward the "four -zation standards", that is, building style ancestralization, external environment pastoralization, internal facilities modernization, service procedures standardization. On this basis, the scenic reception center would implement standardized management of farmhouses hotels by area code. It would also implement bundled management,

implementing "four unified" management mode, that is, unified reunification, unified settlement, uniform price, unified promotion. Under strict management system, farmhouse hotels have been developed healthily and a series of problems such as vicious competition have been avoided. In addition, after a series of standardized management and training, the villagers' attitudes and behaviors have undergone major changes, and "development-oriented poverty alleviation" has been basically achieved.

(4) Bottlenecks of development

After Chongdugou scenic area planned to construct AAAAA class tourism scenic spot, Chongdugou farmhouse hotels have conducted comprehensive transformation and upgrading of buildings, appearances, materials, sanitary conditions and service levels. However, with the rapid development of tourism in Chongdugou Scenic Area, the number of farmhouses in Chongdugou also increased rapidly in recent years, and the number of foreign operators increased gradually. According to interviews, the rapid increase in the number of farmhouses makes the competition among farmhouses more intense, and consequently show some signs of low-price competition. In addition, some residents think that the appearance of farmhouses is seriously homogenized in appearance and has no specific characteristics; At the same time, some residents mentioned that the coming of non-local operators added more pressure on local operators. Meanwhile, some residents mentioned that in order to create a 5A-level scenic spot, Chongdugou may expand Chongdugou scenic area which may make the old scenic area become transition areas. This also arouse some some dissatisfaction among residents towards scenic area management company. When all kinds of contradictions emerge, the former conflicts on the ticket and parking fee dividend also emerged. Therefore, how to avoid vicious competition and the widening gap between the rich and the poor are the problems that must be paid attention to in the future development.

3.2.2 Development experience

The business model of "company + peasant household" is what makes Chongdugou development unique. The development pattern of Chongdugou relies heavily on the joint action of tourism companies and local farmers, and the local government regulates the strategic development

of Chongdugou. Its development experience can be summarized as follows:

(1) The leading role of the elite

The successful development and operation of Chongdugou is attributed to the selfless dedication of the pioneers with far-sighted and bold innovations. Ma Haiming is its representative.

In the early 1990s, Ma Haiming, the deputy mayor of Tantou Town, put forward the idea of developing Chongdugou tourism first. However, at that time, it was still hard for the local residents to understand Ma Haiming's thinking because they have little understanding of tourism. Therefore, Ma Haiming's tourism development plan was severely obstructed. However, this situation has not prevented him from embarking on the idea into reality. Since 1992, as long as he has free time on weekends, Ma Haiming would come alone to Chongdugou to conduct field investigation of the mountains. He would investigate the environment and plan viable tourist routes while exploring the characteristics of scenic spots. In 1996, Tantou Town set up a tourism resource development company to develop Chongdugou tourism, and Ma Haiming served as the first manager of the company. "No labourforce, no money, no official seal, no site. I have nothing but a title", but Ma Haiming did not give up. He searched for funding, and started construction. At the same time, he also did mass work to win villagers' support and enhance their initiative. Faced with people's doubts and confusions, Ma Haiming patiently explained to them, moving them with heartfelt feelings and rationalities. He devoted painstaking efforts to raise funds. He even made mortgages with his own house as the collateral when the projects funds were still on the way. Under the guide of Ma Haiming, in 1999, Chongdugou scenic area finally opened to public. In order to attract tourists, on the one hand, Ma Haiming and his colleagues visited other scenic areas to learn experiences; on the other hand, he did propaganda to attract talents to Chongdugou. In order to advertise Chongdugou, Ma Haiming visited all large mine factories in Luoyang, and appealed to cars of tourists. In the first year when Chongdugou opened to visitors, tourism revenue reached 38,000 yuan. Residents who initially benefited from tourism thus determined to follow Ma Haiming to develop tourism. Since then, Chongdugou tourism has developed better and better. Today, more than 95% of the Chongdugou peasants engage in tourism service industry. Per capita income has exceeded five million for consecutive five years, which is undoubtedly attributed to Ma Haiming, the pioneer.

(2) The coordinated development of the company and the community

The development of Chongdugou is impossible without tourism companies' good management of scenic spots and communities. The development of scenic spots and the unified management of farmhouses are all led by tourism companies. The tourism companies are responsible for scenic area development planning, ecological environment protection, marketing and market organization, infrastructure construction, scenic commercial outlets management and farmhouse hotel management and business guidance. As tourism company executives understand the tourism market and community status, they not only seize the opportunity to expand the market but also flexibly handle community relations. Therefore, during the development of tourism, the problem of competing with the people is avoided as much as possible. While guaranteeing corporate profits, the coordinated development of the company and the community is also achieved. Of course, with the changes in the development conditions of Chongdugou Scenic Area and the increasingly complicated community issues in recent years, whether tourism companies can continuously maintain the harmonious development in the future is a challenge for the company managers.

(3) Farmhouse hotel's effective management

At the beginning of tourism development, developers made great efforts to change the concept of residents. After initial attempts, with the income of local residents greatly increased, farmers' enthusiasm and initiative to participate in tourism have also increased. Most residents said that tourism was the main source of their income. Tourism brought them back from farmland and from being foreign workers. "The quality of life is greatly improved." Since the property rights and management rights of farmhouses are owned by local farmers, the development of tourism can really bring them incomes. Chongdugou solve a number of issues in a low-cost way. Reception capacity of scenic area and satisfaction of local farmers have been rapidly increased, and the community and tourism are integrated ideally.

In order to conduct orderly management of farmhouse hotels while improving the satisfaction of tourists, tourism company has formulated a series of farmhouse hotel standards and management practices. Chongdugou Scenic Area has strict standard management on a number of aspects, ranging

from the hotel's external design to internal hygiene conditions, from the floor to the bed, as well as the price which residents and tourists are most concerned about. As for the building, the tourism company put forward three principles: localized instead of westernized, small instead of big, reserved instead of exposed. At the same time, the scenic spot also creatively proposed reception management standard "four unifies". Scenic Area also sets up a special committee to manage the farm guesthouse, making clear about management standards and reward system so as to prevent market confusion.

Local resettlement residents in the scenic area, improvement of the living environment of residents, increase of residents' tourism incomes, and improvement of the reception capacity of scenic spots have become a major feature of Chongdugou scenic area. Local farmers operate farmhouse hotels, and tourism companies conduct scientific management are the key reason why farmhouse hotels are successful in Chongdugou scenic area.

However, it must be noted that due to the arrival of foreign operators, foreign operators and local operators have a competitive relationship. Whether this relationship is treated appropriately will affect the sustainable development of tourism, and thus calls for special attention. In addition, due to the lack of flexibility in the "four unified" management strategy, tourism companies tried to introduce new management measures in 2015, but the new management system is still under investigation due to the unsatisfactory effect of the system.

(4) The government's strong support

The support of the government has always run through the development of Chongdugou scenic area. From the changing the concept of residents, to the construction of scenic roads, to the goal setting of scenic spots, to the management and planning of scenic area, the government has been supervising and helping to develop Chongdugou scenic area. Chongdugou's initial development is led by Tantou Town Party Committee and Tanzhou Tourism Development Co., Ltd. set up by government. Afterwards, the government provided financial support for the construction of roads and other infrastructure in scenic areas, which played a crucial role in the development of scenic spots. In the subsequent development, the government also promoted the development of Chongdugou Scenic

Spot through such measures as building infrastructure, supporting enterprise development, developing local education, and practicing community practitioners' skills training. After the development of the scenic area, the government grasps the general direction of the development of tourism, complies with the leisure tourism heat and clarifies the positioning of the Chongdugou scenic area. It helps build Chongdugou into a national 4A-level tourist attraction. Thus, it can be seen that the government has given great supports to the scenic spots during the construction and development of Chongdugou, which is also one of the important reasons for the successful development of Chongdugou scenic area.

3.3 Heritage resources protection and annual process of tourism development

(1) Continue to carry out heritage protection and utilization

Continue to promote the great relics display project and the national archaeological site park construction. In 2015, Sui and Tang Dynasties, Ming Tang site protection display project achieved a comprehensive opening up. Jiuzhou Pool site protection demonstration project started construction. Ningren Square relics site, Luoyang City of Han and Wei Dynasties protection project is progressing smoothly. Erlitou Museum of Xia Dynasty planning started. Yanshi Commercial Palace core relics site display protection project basically completed.

Ancient buildings, traditional villages were protected and repaired. By 2015, the renovation and painting of the Kuanlin ancient buildings will be basically completed. The protection of Baima Temple, Zhougong Temple, Wuhua Temple Pagoda and Luobaban site continue to advance. At present, a total of 14 villages are selected as the "List of Traditional Chinese Villages" and 42 villages are selected as "List of Traditional Villages of Henan Province". In addition, since 2015, the overall protection and comprehensive management of the historic district of the Old City has started, and the renovation and reuse of the industrial heritage of Jianxi District has been approved by the State Administration of Cultural Heritage. High technology has been used to protect Longmen Grottoes, the Northern Wei Dynasty Tomb on Hengshan Road, Tangxiaochemakeng, the new mural tombs, Taiji Temple of Han and Wei Dynasty Old City. The anti-seepage project of Jingling Museum, the ancient art museum, started.

In terms of museum construction, in 2015, the main part of the contractual document museum was basically completed. The construction of the museums in Ruyang and Mengjin County started to take shape. The Luoyang Museum, the Tianzijialiu Museum and the Dingdingmen Relics Museum were upgraded. In 2016, seven private museums, including Luoyang Carved Stone Text of Nine Dynasties Museum and Luoyang Shovel Museum, were approved by Henan Provincial Bureau of Cultural Relics. Currently, there are 19 state-owned museums in Luoyang and 41 non-state-owned museums.

Movable heritage general investigation has received breakthrough achievements. Luoyang Folk Culture Museum and Luoyang Museum Hall completed the investigation work successively. By the end of 2015, Luoyang registered a total of more than 210,000 pieces of articles. Nearly 50,000 pieces of collection information were collected offline. More than 70,000 pieces (sets) of platform online audit have been completed, 8150 pieces (sets) offline reviews have been conducted.

In 2015, the funds for various cultural relics protection projects totaled 106.09 million yuan, including 76.37 million yuan for large sites and cultural relics protection items, 6.34 million yuan for maintenance of cultural relics protection units and restoration of cultural relics, 2.4 million yuan for exhibitions upgrading, and 500,000 yuan for movable heritage general investigation.

(2) Cultural tourism project construction

In 2015, 10 large-scale cultural industry projects with an investment of 100 million and above have been completed with a total investment of 2.1 billion yuan. There are 17 major cultural industry projects under construction with a total planned investment of 77.8 billion yuan. 6 major cultural industry projects with a total planned investment of 69.8 billion yuan are under construction. Among them, the "Tianxialongmen" project plans to invest 28.6 billion yuan; Wan'an Mountain Wild Animals Theme Park project plans to invest 15 billion yuan; Chinese Civilization Inheritance Theme Park project plans to invest 2.8 billion yuan; Sui and Tang Dynasties Zhengpingfang Cultural Creative Park project plans to invest 2 billion yuan. All these above projects have successfully signed a contract. The world-famous Tree (Luoyang) Expo Park project successfully launched.

In 2015, Luoyang City established 52 key tourism construction projects, including 13 new

projects, 39 renewal projects, 6 government investment projects, 10 self-funding projects and 36 investment projects open for funding. Up to the first half of 2016, Laojunshan Scenic Spot Improvement Project, Daimei Mountain Scenic Spot Project, Zhonghe Fantasy Water World Main Project, Silk Road Carnival Project and other projects were completed and put into use. Lingshan Tourism Cultural Park Project, Luanchuan County Siberian Tiger Park Project and other projects continued to promote. Geely Yellow River Wetland Eco-leisure Tourism Park project with an investment of 8.3 billion yuan, Wan'an Hill Hauser tulip flower eco-cultural tourism second project with an investment of 4 billion yuan, and Ruyang County Eco-leisure Resort and business complex project with an investment of 3 billion yuan have launched. Among them, Luoyang Baiyun Mountain National Tourism Resort, infrastructure project of Laojunshan Cultural Ecotourism Resort, and Daimei Mountain scenic area upgrading project are listed in 2016 National Tourism Preferred Directory.

(3) Activities and festivals

Luoyang Festival has made great strides in development, forming a pattern of "Peony Culture Festival in spring, Yellow River Xiaolangdi Waterfall Sightseeing Festival in summer, Heluo Culture Tourism Festival in autumn, Funiu Mountain Skiing Festival in winter". The 33rd and 34th Luoyang Peony Festival, the 10th and 11th Xiaolangdi Waterfall Festival, the Heluo Culture Tourism Festival and the China Luoyang (International) Cultural and Technological Innovation Exhibition have been successfully held since 2015. Besides that, China (Luoyang) Stone Culture Exhibition & Arts Fair, Chengni Ink Stone Cultural Festival, China Chou Kung Festival, Heluo Culture New Year Temple Fair and other festival activities have also been held, which combined culture and tourism together. In addition, Xin'an Cherry Valley Riding Tournament, Lavender Manor International Windmill Festival, Dreamland Festival, the 5th Spring Festival Guanlin Folk Culture Temple Fair, the 19th China Luoyang Guanlin International Pilgrimage Festival and other counties and scenic festival activities were also held, which enhanced the competitiveness of Luoyang cultural tourism.

(4) The transformation of cultural resources

In terms of cultural resources turning into cultural tourism products, Luoyang increases the

Tang tri-colored pottery, peony series products, imitative antique bronze and other cultural and tourism products development, which forms 10 serieses of handicrafts, in total 39 categories, more than 2,000 varieties of tourism products. Luoyang tri-colored pottery has formed three industries, specially: antique Tang tri-colored pottery, new tri-colored pottery and flat tri-colored pottery. Peony industry has formed a complete industrial chain and introduced more than 400 kinds of deep-processing products, including: peony porcelain, peony painting, peony embroidery, peony cake, peony stones artwork, peony stamps, peony tea, peony cosmetics, peony oil, peony immortality flowers, peony massage pillow, and peony edible oil.

The Silk Road non-legacy carnival art works, such as "Luoyang in the World" and "100 Operas in the Sui and Tang Dynasties", were successfully performed in 2015 and become the new highlights and attractions of Luoyang's cultural tourism. By the end of 2015, the large-scale performances repertoire with real landscape background, "Peony Flower Fairy", with a planned investment of 1 billion yuan, has been completed, enriching the cultural tourism product system. "Kung Fu Poem • Nine Volumes", Eason Chan concert, Jay Chou concert and other cultural performances program have also attracted a large number of tourists.

(5) Cultural tourism achievements

According to the statistics released by the Bureau of Cultural Relics, in 2015, 13 cultural relics protection units such as Luoyang Museum, and 10 county-level cultural relics protection units such as Xuanzang's hometown opened to public for 7734 days in total and the number of tourists reached 5,580,700.

Festival tourism achieved good economic returns. In the 33rd Peony Cultural Festival, the city received a total of 21,747,600 tourists and created a total tourism revenue of 17.845 billion yuan. During the 2015 Luoyang Heluo Culture Tourism Festival (including the October 1st Golden Week), Luoyang received a total of 10,414,700 tourists from China and abroad and created a total tourism revenue of 6.168 billion yuan.

Luoyang creates the theme slogan of "World Holy City, Silk Road Starting Point, Millennium Empire, Peony Flower City". Luoyang also establishes tourism images as "the source of Huaxia,

Millennium Empire Capital, Peony Flower City, Silk Road starting point, Root of Heluo, Leisure Resort”. It also creates eight major special cultural tourism brands, specifically: peony culture tour, historical and cultural tour, industrial and agricultural cultural tour and the like.

Visitors feel good about their experiences of cultural tourism in Luoyang. In the questionnaires of tourist satisfaction, tourists who visited Luoyang in order to “understand the ancient culture” accounted for 55.8% of the total number of respondents. 85.9% of the tourists confirm that “Luoyang impresses them most with its historical and cultural city image”. The average score of “Luoyang’s historical and cultural heritage” is 4.59 out of 5, which indicates that Luoyang’s cultural tourism is welcomed and recognized by most tourists.



2016 Monitoring Report on the Sustainable Tourism Development of Jiaozuo

Monitoring Center for UNWTO Sustainable Tourism Observatories

Henan Province Tourism Administration

Jiaozuo City Tourism Administration



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And all those who helped with the monitoring work.

1 Monitoring Profile

2016 is a special year when Jiaozuo tourism is undergoing an adjustment stage. The consumption transformation led by Chinese tourism's "new normal" has exerted deep-level, structural influences on Jiaozuo tourism. Some scenic areas have made some active adjustments so as to cope with tourism consumption transformation. They have made quick and tremendous adjustments, which has already made some achievements. Other scenic areas are still at the exploration stage where their focuses of tourism investment and exploration remain unclear and tourist flow maintains the status quo. However, some scenic areas fail to respond to the "new normal" actively, due to the limitations of management system adjustment and product supply reformation which are lagging behind. Though the tourist flow remains stable, the actual tourism income growth is slowing down and even shows a declining trend. The above changes in tourism development have brought new vitality and diversity to the production and daily life of the surrounding residents and staff in tourism enterprises. Residents generally hold positive attitudes towards tourism development, but not as optimistic as they were two years ago, instead, they are more rational now. They have more practical expectations about their future life quality. Meanwhile, as for their current life quality, though residents who participate in tourism development show relatively high satisfaction, the proportion of residents who are very satisfied has declined. Obviously, no matter inferred from the data of tourism development or from the real perception of residents, Jiaozuo tourism has already faced the bottleneck, arriving at the last phase of a development stage and growing slowly. New adjustments should be made to push Jiaozuo tourism into a brand-new stage.

At present, Jiaozuo tourism is at the crucial stage transforming from a traditional sightseeing tourism destination into a comprehensive tourism destination. Tourism development should breakthrough the traditional resource-dependent concept, instead, more attention should be paid to the development of the tourism products other than sightseeing tourism products, for example, leisure vacation, health preservation, outdoor adventures, sports and entertainment, cultural experiences, and rural tourism and the like. Moreover, the supporting facilities such as accommodation, catering, and shopping, etc. should be promoted and upgraded, so as to gradually realize the comprehensive construction of the tourism destination as well as the upgrading and

transformation of tourism industry. In the light that, Jiaozuo's tourist number will keep growing and the tourism income will also greatly increase at the same time.

In 2016, while conducting the regular monitoring projects, the monitoring group also carried out two sub-projects, i.e. the development of small and medium tourism enterprises along with tourist experience and life quality. The focus of the monitoring was put on analyzing how tourist experience affect tourist's life quality and analyzing the contributory factors of the sustainable operation of small and medium tourism enterprises in the destination and the corresponding recommendations. Based on the above research results, reflections on existing policies and methods were expected to be made, so as to further promote the destination's sustainable development.

The 2016 monitoring work is the third year of the monitoring program. The nine-day monitoring program, starting from June 27th, 2016 to July 5th, 2016, was carried out in Jiaozuo. The research sites included several scenic areas, such as Shennong Mountain, Chenjiagou, Qingtian River, Yuntai Mountain and their surrounding communities. Research objects mainly included heads of government departments, tourists, residents, and staff in tourism enterprises. The 2016 monitoring group consisted of Prof. Liang Zengxian and researcher Cui Qingming from the Center for Tourism Planning and Research of Sun Yat-sen University, one postgraduate student and ten undergraduate students. Following the evaluation indicator system and analytical framework developed by the World Tourism Organization and taking local tourism development conditions and actual needs into full account, the monitoring group conducted the 2015 Jiaozuo monitoring analysis and report in October, 2016.

During the research, 1000 tourist questionnaires have been sent out, with 934 ones returned. After excluding the invalid questionnaires, 894 valid ones remained, resulting in a valid rate of 95.7%; 600 questionnaires designed for residents and staff in tourism enterprises have been sent out, with 584 ones returned. After excluding invalid questionnaires, 482 valid ones remained, resulting in a valid rate of 82.5%.

The evaluation indicator system and analytical framework for this phase refers to Indicators of Sustainable Development for Tourism Destinations: A Guidebook, which is developed by the World

Tourism Organization, as well as academic research results. The report is divided into two parts: general report and special report. Among which, the special report is further divided into two parts: the sustainable development of small and medium tourism enterprises as well as tourist experience's impacts on tourist's life quality.

2 Major Discoveries

2.1. The tourism market appears to be stabilizing, while the income growth slows down

Jiaozuo's tourism market growth is levelling off. Most of the visitors are from low-and-medium-income group, coming from nearby or mid-range areas, therefore the per-capita consumption is relatively low. The revisit rate of Jiaozuo tourists is continuously increasing. The majority travel length is 2 to 4 days, accounting for 73.57%; however, the proportion of the 1-day tourists is rising, increasing from 12.30% in 2014 to 20% in 2016. The per-capita tourism consumption mainly falls into the section between 501 to 1000 yuan. Re-visit tourists tend to spend more than the first time tourists. Tourists mainly acquire the information from word-of-mouth promotion. For those traditional tourists whose incomes are comparatively low and consumption is mainly limited to sightseeing, the promotion of new media, such as WeChat, is not effective. On the whole, Jiaozuo tourism market is not at the last phase of sightseeing development. The traditional market's growth is facing constraints, which urgently calls for adjustments of product supply, so as to realize the further development of the market.

Jiaozuo's tourism market appears to be stabilizing while the growth of tourism income slows down, which is shown in Fig.1. The growth rate of tourism income peaks in 2006, which is as high as 54.91%, and the rate remains stable in the following years, at 16%, except the year 2014 when the rate is 8.52%. The monitoring is a convenience sampling under the quota, where male outnumbers female, with a gender proportion of 55:43. Tourists aging between 18 and 45 account for the most proportion, at 71.3%. Compared with the previous two years, the number of male tourists under 18 years old has dramatically increased, and the number of male tourists aging between 36 and 45 years old has gradually increased, while the number of female tourists aging between 18 and 35 has slightly decreased. Tourist's average monthly income is mainly below 4000 yuan, accounting for

61.63%, among which 21.36% of the tourists earn not more than 1500 yuan, and tourists earning between 2501 and 4000 yuan accounts for 26.29%. It can be inferred that the majority of the tourists are from low-and-medium-income group. In terms of the distribution of source-market, the major source-market for Jiaozuo is Henan, Hebei, and Shandong province, along with Jiangsu, Shanxi, Anhui province which are not far away from Jiaozuo. Jiaozuo tourism mainly attracts people of central China (mainly including Henan, Hebei, and Shandong province). According to the monitoring data from 2014 to 2016, the proportion of Henan and Hebei province has increased greatly, and Shandong source-market remains the dominant position while the proportion of Shanxi has decreased. Meanwhile, the number of source-market has significantly increased, indicating that Jiaozuo has attracted people from more areas and the market appears to be stabilizing. In terms of tourists' education background, tourists with diploma of high school or above account for 89.25%, and tourists with diploma of junior college or college or above account for 56.65%. The data shows that generally speaking, tourist's education level is relatively high.

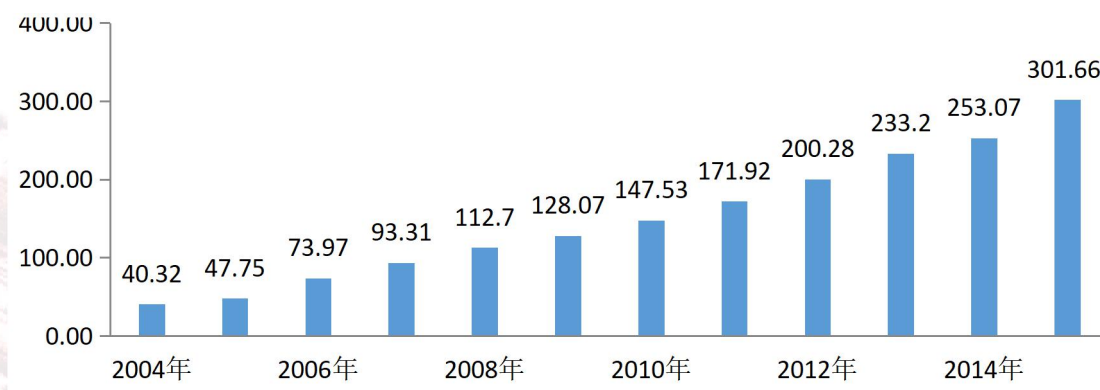


Fig.1 Jiaozuo's tourism incomes from 2004 to 2015

In terms of re-visit rate, the first-time tourists account for 65.77% of the total number of Jiaozuo tourists; the second-time tourists account for 14.21%; the third-time and more-than-third-time tourists account for 20.02%. That is to say, the re-visit rate is as high as 34.23%, higher than the 26.99% in 2015. For three years, the proportion of first-time tourists has decreased year by year while which of second-time tourists has not changed much, and the proportion of tourists who have visited for the third time or even more times is gradually increasing, as shown in Fig.2.

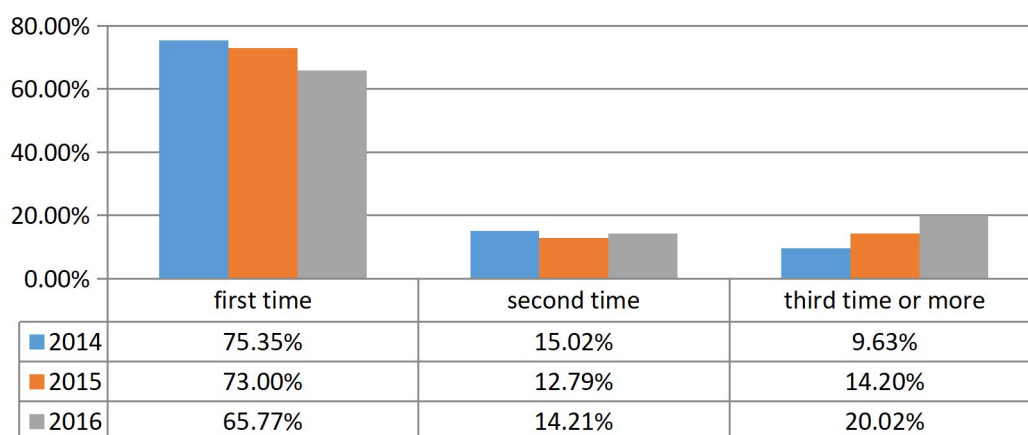


Fig.2 Changes of the proportion of tourists who has visited Jiaozuo for different times from 2014 to 2016

In terms of duration of stay, both first time tourists and re-visit tourists will stay in Jiaozuo for 2 to 4 days; however, the distribution of time of re-visit tourists is more balanced compared with first time tourists. The 1-day-tour tourists account for the most. From 2014 to 2016, re-visit tourists and first time tourists generally will stay in Jiaozuo for 2 to 4 days, and the proportion keeps decreasing year by year; however, the proportion of 1-day-tour tourists is gradually increasing. Re-visit tourists tends to stay longer than first time tourists.

In terms of tourism consumption, tourist's per capita consumption is relatively low and is increasing slowly. The majority of the tourists may spend 501 to 1000 yuan, accounting for 43.44% of all the tourists. One quarter of the tourists may spend less than 500 yuan, as shown in Fig.3. During 2014 to 2016, the majority of the tourists are low-and-medium consumers, and the number of which is slowly increasing. Re-visit tourists tend to spend more than first time tourists. In Chenjiagou Shennong Mountain, Qingtian River, and Yuntai Mountain, tourists spending less than 1000 yuan account for 50%. The proportion of tourists spending more than 1000 yuan is higher in Chenjiagou compared with other three scenic areas, which is due to the fact that except for ordinary sightseeing visitors, there are domestic and international tourists coming to Chenjiagou to learn Kung Fu and thus may stay longer in Chenjiagou.

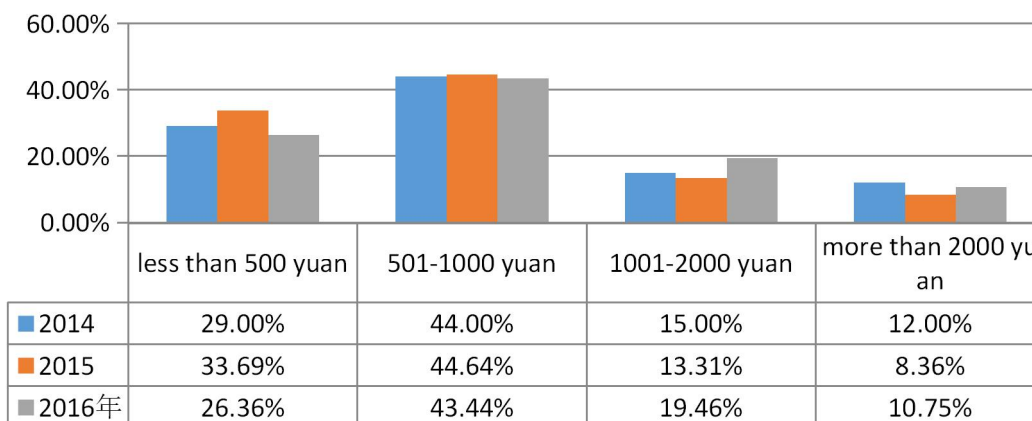


Fig.3 Comparison between tourist's tourism consumption from 2014 to 2016

In terms of travel style, Do-it-yourself tour and group tour dominate. In 2016, Do-it-yourself tourists account for the largest proportion, at 48.87%. 19.37% of the tourists choose to travel in tour group with their friends and relatives; 14.08% of them choose to join tour groups on their own; and 12.61% of them will take a trip organized by their units or organizations. In recent years, the proportion of do-it-yourself tourists has increased dramatically. Under the background of tourism consumption transformation, the consumption by public funds plummeted, and the proportion of tourists joining tour group or taking a trip organized by units decreased rapidly. In terms of the motives to travel to Jiaozuo, leisure and relaxation are the major motivations, which indicates the monotonousness of Jiaozuo tourism supply from the other side.

In terms of accommodation, the majority of the tourists choose to live in low-and-medium accommodations (family hotels, mostly cost less than 200 yuan per night), accounting for 43.26% of the total sample of people. Compared with 2015, the proportion of tourists living in star hotels or relative or friend's houses has increased, while the proportion of tourists living in family hotels or youth hotels has decreased slightly, which indicates that tourism demand begins to differentiate, as a result, the tourism accommodation supply in Jiaozuo needs to be adjusted to apply to the new demands.

In terms of tourist's ways to acquire information, word-of-mouth promotion dominates, and new media promotion may be transformed into word-of-mouth promotion. According to the monitoring data, the most important information acquiring assess is through the introduction of

relatives and friends, accounting for 50.56%, followed by network (25.50%) and advertisement of travel agency (20.47%), while the television, radio, newspaper and magazines account for little proportion. The new media, such as WeChat, is not effective enough in Jiaozuo's traditional tourism market.

2.2. Differences of residents' living quality are obvious and residents' future expectation diminish

Under the background of tourism consumption transformation, Jiaozuo's tourism development need to be adjusted. Such dramatic change in market has influenced most of the participating residents' living quality. In 2016, local residents' satisfaction on their own living quality are generally above average. Those who chose "very unsatisfied" or "unsatisfied" do not account for much, but they show great differences. To make it more specific: (1) during 2014 to 2016, the satisfaction degrees are 69.87%, 45.90%, and 55.40% respectively, showing great fluctuation, especially the year 2015 when the resident's satisfaction on living quality were greatly affected by the exterior environment; (2) the satisfaction degree during the three years has declined first and then climbed up later, but the decreasing amplitude is greater than the rising amplitude, so the satisfaction degree shows a downward trend on the whole. Among which, the proportion of residents who felt "very satisfied" has dropped dramatically, decreasing from 28.45% in 2014 to 13.28% in 2016, achieving a rate of decline of 53.32%, as shown in Fig.4.

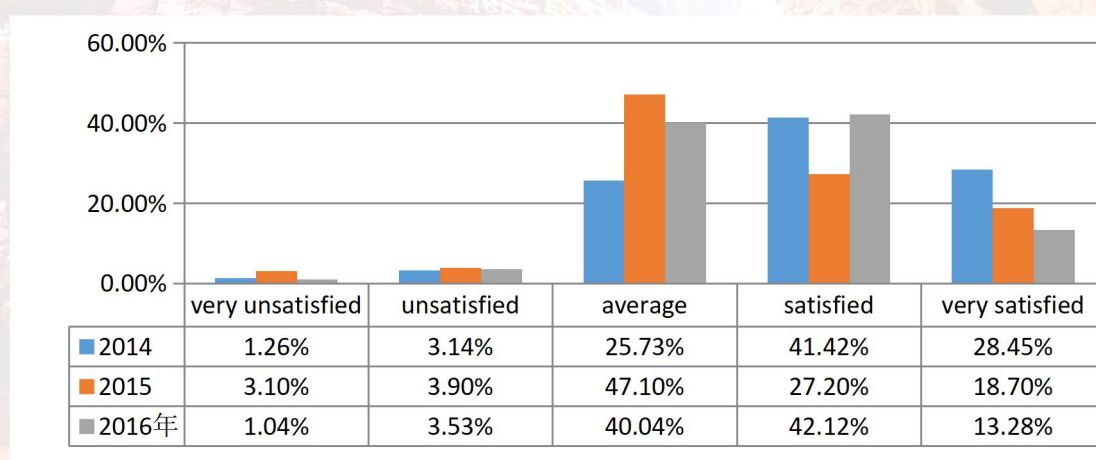


Fig.4 comparison between resident's overall satisfaction degrees on living quality during 2014 to 2016

Compared with people in neighborhood, during 2014 to 2016, the proportions of residents who

felt “satisfied” and “very satisfied” are 39.42%, 35.42%, and 43.56% respectively, which indicates that compared with neighboring people, residents feel like that their lives have better prospect. However, the proportion of residents who felt “very satisfied” has dropped to 7.88% in 2016 after soaring to 11.67% in 2015, which shows that the proportion of residents who are “very satisfied” has declined dramatically.

Compared with their own ideal lives, in 2016, 41.08% of the residents think that their living quality is what they have expected, however, in 2015, the figure was 50.2%, 10% higher than the figure in 2016. Under the influence of tourism economic fluctuation, the respondent residents think that the gap between their actual lives and their ideal lives has enlarged. Residents who have captured the opportunity have lived a life better than what they have expected while some of them fail to live an ideal life under the tourism economic fluctuation.

Compared with the living quality three years ago, 57.88% of the residents believe that their living quality is better than three years ago, which is close to proportion 59.2% in 2015. However, 9.75% of the residents think that their current lives are worse than three years ago, an increase compared with the 7.05% in 2015.

Compared with resident’s ideal living quality for the next three years, 57.88% of the residents believe that their living quality will be better in the next three years, a decrease from the 70.1% in 2015. 9.75% of the residents presume that their living quality will be even worse in the following three years, higher than the 4.6% in 2015. Residents are more rational about the future improvement and the respondents have lower expectations on their future living quality.

Table.1 Comparison between resident’s satisfactions on current living quality during 2014 to 2016

Indicators		Year	Very Unsatisfied	Unsatisfied	So-so	Satisfied	Very Satisfied	Average	Standard Deviation
Compared with people in neighborhood		2014	1.47%	7.76%	51.36%	31.87%	7.55%	3.36	0.79
		2015	1.46%	6.88%	56.25%	23.75%	11.67%	3.37	0.83
		2016	0.00%	3.73%	52.70%	35.68%	7.88%	3.48	0.69
Compared with ideal life		2014	4.39%	16.74%	46.44%	24.90%	7.53%	3.14	0.93
		2015	6.85%	9.96%	50.21%	20.95%	12.03%	3.21	1.01
		2016	3.11%	17.84%	41.08%	29.05%	8.92%	3.23	0.95

Indicators	Year	Very Unsatisfied	Unsatisfied	So-so	Satisfied	Very Satisfied	Average	Standard Deviation
Compared with the previous three years	2014	1.88%	6.07%	32.85%	44.98%	14.23%	3.64	0.87
	2015	2.28%	4.77%	33.82%	35.27%	23.86%	3.74	0.95
	2016	1.66%	8.09%	32.37%	45.64%	12.24%	3.59	0.87
Compared with the following three years	2014	0.63%	4.19%	16.98%	28.93%	49.27%	4.22	0.92
	2015	1.87%	2.70%	25.31%	31.33%	38.80%	4.03	0.96
	2016	1.24%	18.26%	41.49%	29.25%	9.75%	3.28	0.91
Compared with what one has expected	2016	1.04%	13.33%	44.79%	31.86%	8.96%	3.34	0.86
Compared with one's basic life	2016	0.21%	5.39%	34.44%	44.61%	15.35%	3.70	0.80

2.3. Residents are high supportive and tends to be more rational

Residents are highly supportive of Jiaozuo's tourism development. In 2016, the average score of resident's evaluation on general tourism development is 3.95 and the standard deviation is 0.76. Generally speaking, only 71.58% of the residents are satisfied (those who chose the option of "satisfied" and "very satisfied"). The average score and the proportion of satisfied residents remain at a high level and achieve a slight growth compared with the situation in 2014 and 2015, which indicates that residents are generally satisfied with Jiaozuo's tourism development. Nonetheless, the proportion of residents choosing "very satisfied" has declined, as shown in Fig.5.

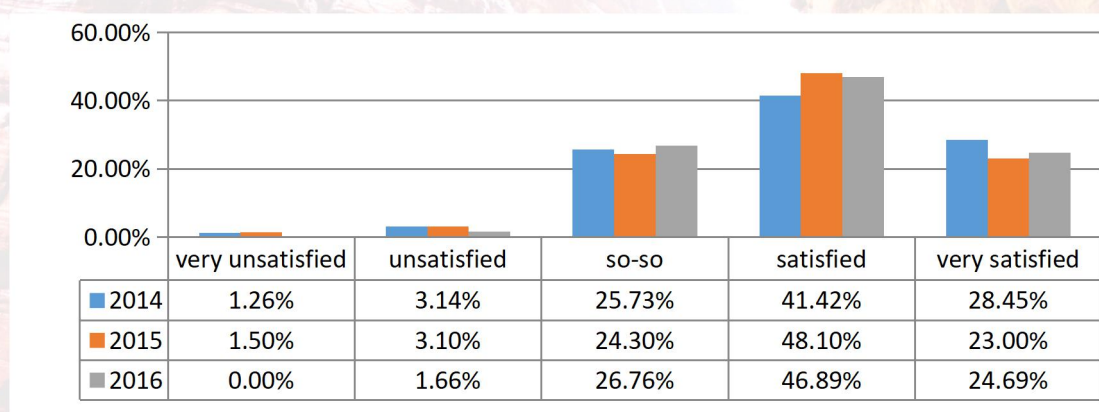


Fig.5 Residents' satisfaction on Jiaozuo's tourism development during 2014 to 2016

In 2016, the average score of "whether tourism development is important to community" is 4.17 and the standard deviation is 0.64, a decline compared with 2015. The proportion of "agree" (those who chose the options of "agree" and "totally agree") is 88.80%, close to the 90.30% in 2014

and 87.30% in 2015. However, the proportion of the option of “totally agree” has decreased by 7% compared with the previous two years.

The average score for “resident’s support rate for continuing to develop tourism” is 4.29, a slight decline from 2014 and 2015, and the standard deviation for it is 0.65. The proportion of residents who are supportive (those who chose the options of “support” and “totally support”) is 92.20%, which has decreased by 1% from 2015. The proportion of residents who chose the option of “totally support” has plummeted to 23.60%.

Residents are highly supportive of the idea that “tourism can promote local development”. However, according to the data of 2016, the proportion of residents who have chosen the option of “totally support” has greatly declined year by year. While residents are more approved with tourism development, they are also wavering, and they tends to be more rational.

85.68% of the residents believe that “tourism development is significant to local community” and they “support community to continue to develop tourism”. 87.35% of the residents believe that “tourism development is significant to local community” and they “welcome more visitors”. Only 3.11% of the respondents approve with the significance of local community development but still reserve their opinions on “whether they welcome more visitors” (those who chose the options of “do not support” and “not matter”), a dramatic decline from the previous two years.

Most residents are supportive about the positive impacts brought by tourism. Their identification (including “supportive” and “very supportive”) for “more job opportunities”, “more investment and consumption”, “improvement in living quality”, “economic benefits”, “young generation have more job opportunities” and “development of special catering industry and souvenirs” are all above 60%, which indicates that residents have high recognition for these six indicators. The recognition degree has risen again in 2016 after a slight drop in 2015, which indicates that residents’ recognition for the positive impacts of tourism development has been improved after certain adjustments in tourism development. At the same time, residents’ perceptions of soaring house price, accelerating increase in price inflation and enlarging gaps between rich and poor have increased significantly (compared with the statistics of 2014, the recognition degree in 2016 has increased by

nearly 10%).

In the evaluation of tourism's positive impacts on social and living environment, residents' satisfaction degree of the improvements in medical condition has been improved continually in recent three years. The satisfaction degree for fundamental facilities improvements has reached its peak in 2016, which is as high as 74.06%. In recent years, with the number of Jiaozuo tourists continues to grow, the fundamental facilities are constantly being improved, therefore residents have relatively obvious perception of the improvements in fundamental facilities. As for the problems of being disrupted in daily life, traffic congestion and losses of public spaces, most residents presume these problems are inevitable, but luckily, they do not have severe negative impacts, therefore, they can still understand and accept these situations.

Tourism also has positive impacts on cultural change, among which, “promotes Mandarin”, “enhances sense of pride” and “broadens horizons” win most recognitions, achieving high recognition degree of 81.12%, 77.39%, and 77.38% respectively. And the recognition degrees of these three indicators fluctuate little in recent three years.

In 2016, though the number of Jiaozuo tourists continues to grow, the increase of total tourism income slows down, which actually indicates that tourism consumption stabilizes. In traditional sightseeing markets, competitions among scenic areas and among communities are fierce, which not only influences residents' attitudes towards tourism development, but only affects residents' living quality directly. As a result, there is great differentiation existing between residents' attitudes towards tourism development and their living quality.

2.4 Tourist's satisfaction degree fluctuates slightly, but their perception of images tends to stabilize.

In 2016, the tourists' average overall satisfaction degree is 3.89, and the standard deviation for it is close to 1, which implies that there is no significant differentiation among tourists. 68.97% of the tourists are satisfied, which indicates that tourists are generally satisfied with their tourism experiences in Jiaozuo. However, compared to 2015, tourists' overall satisfaction degree has declined slightly. Detailed explanations are given as follows.

Tourists have relatively high evaluation on Jiaozuo's special resources, with an average value of above 3.8 and a standard deviation of nearly 1. In addition, tourists who are satisfied (choosing "relatively satisfied" and "satisfied") with all indicators of Jiaozuo's special resources account for the most proportion. Among all the indicators, "enjoyment of Jiaozuo's scenic spots" wins the highest evaluation, gaining a high score of 4.20, and 76.87% of the tourists are satisfied with it. What follows is tourists' evaluation of Jiaozuo's natural and ecological value (with a score of 4.16 and a satisfaction degree of 76.14%), Jiaozuo's tourism environment (with a score of 4.13 and a satisfaction degree of 76.28%), and abundance of Jiaozuo's tourism resources (with a score of 4.07 and a satisfaction degree of 73.16%).

In 2016, tourists do not speak highly of Jiaozuo's city image, with an average score below 3.90, which is lower than tourists' overall evaluation on Jiaozuo's resource speciality. Among the indicators of city image, tourists have lowest evaluation on "hospitality degree of local residents", "city's noise pollution" and "cleanness", whose average scores fall between 3.65 and 3.70 and satisfaction degree below 60%. In a word, tourists' perception and satisfaction of Jiaozuo's city image is more solid.

In 2016, tourists' overall evaluation on Jiaozuo's fundamental facilities is positive, but the satisfaction degree is not high. Among all the indicators, tourists have highest evaluation on "clarity of Jiaozuo's traffic guiding signs" (with a score of 3.89 and a satisfaction degree of 65.71%) and "greening of Jiaozuo" (with a score of 3.88 and a satisfaction degree of 65.49%). However, tourists have low evaluation on Jiaozuo's overall transportation conditions and sanitary conditions of Jiaozuo's public toilets. Tourists' evaluation and satisfaction of Jiaozuo's security facilities, medical facilities as well as safety and hygiene of catering have been improved, but their satisfaction of Jiaozuo's security situations decline greatly.

Tourists have average satisfaction degree of services in scenic areas, with scores for each indicator falling between 3.50 and 4.00, far from the level of "satisfied". Scenic area's fundamental facilities (with a score of 3.92 and satisfaction degree of 67.92%) and clarity of signing system (with a score of 3.85 and satisfaction degree of 64.68%) have comparably high evaluation. Tourists have average evaluation on sanitary conditions of public toilets, guide's explanation, congestion and

abundance in tourism information in Jiaozuo's scenic areas. Tourists have the lowest evaluation on the reasonability of scenic area's ticket price (with a score of 3.58 and satisfaction degree of 53.07%).

Tourists generally have low evaluation on services in the catering industry in Jiaozuo, with average scores for each indicator falling between 3.30 and 3.60 and satisfaction degree below 50%. Tourists' overall evaluation on Jiaozuo's transportation services are positive, with average scores for each indicator falling between 3.80 and 4.00 and standard deviation close to 1, which indicates that tourists are generally satisfied with Jiaozuo's transportation services. Tourists' overall evaluation on commendation environment is above average, with average scores for each indicator falling between 3.60 and 3.80, and satisfaction degrees (including tourists who are "satisfied" and "very satisfied") falling between 54% and 62%. Tourists' evaluations on shopping and entertainment activities are not high, in that only half of them are satisfied or very satisfied with Jiaozuo's shopping and entertainment activities. What is worth noting is that the average score for the efficiency of complaint resolutions is 3.62, which needs to be improved urgently.

When asked whether they will travel to Jiaozuo again, 37% of the tourists chose "agree", 21% of them chose "relatively agree". In total, 58% of the tourists will revisit Jiaozuo, which has increased compared to 2015. When asked whether they will recommend Jiaozuo to relatives and friends, 44% of the tourists chose "agree" and 26% of them went for "relatively agree". In total, 70% of them will recommend Jiaozuo to relatives and friends, while only 11% of them chose not to recommend. Comparing the monitoring statistics in recent three years, we find that though tourist's inclination to revisit Jiaozuo has increased, their inclination to recommend Jiaozuo to other has declined, which is accounted by the decreasing number of tourist choosing "agree" and increasing number of them choosing "disagree", "relatively disagree" and "neutral".

2.5 City's environment protection remains to be improved and the environmental perception is average

Jiaozuo's environment protection remains to be improved. The air quality of urban Jiaozuo in 2015 has worsened compared to what is was in 2014. The number of days with good air quality has

decreased; compliance rate has declined by 4.1%; the number of days with slight pollution, medium pollution and heavy pollution has increased; and NO₂, PM₁₀, PM_{2.5} and other air pollutant concentrations exceed the secondary concentration limit, which is quite severe. Inferred from tourist's perception, in 2016, more than half of the tourists (57.19%) are satisfied with Jiaozuo's overall sanitary conditions (choosing "satisfied" and "very satisfied"). The average satisfaction degree has slightly increased, which indicates that tourists obviously perceive the improvements in Jiaozuo's sanitary conditions. The average satisfaction degree for air quality has improved greatly. In 2016, 63.19% of the tourists are satisfied or very satisfied with the air quality. Although Jiaozuo's overall air quality remains to be improved according to the monitoring statistics, tourists' high satisfaction of the good air quality in some scenic areas such as Yuntai Mountain and Shennong Mountain offsets their dissatisfaction of the poor air quality in urban Jiaozuo.

The two indicators for tourists' perception of scenic area environment are tour environment and congestion. In recent three years, the two indicators show positive trend. Tour environment has won high satisfaction which is continuing to grow. While perception of congestion in scenic areas remains at a low level, but has been improved. In 2016, tourists' satisfaction degree of tour environment has reached a new height, achieving at 4.13, which implies that tourists are very satisfied with the tour environment of scenic areas and the environment quality has been gradually improved.

The issue of city's environment improvement involves the efforts of many sectors, which calls for joint efforts of all sectors so as to achieve comprehensive improvements. However, considering the reality that there are too many scenic spots, great attention should be attached to the details. After comparing tourists' satisfaction degree of six scenic areas being monitored horizontally and vertically, we have the following major findings. Yuntai Mountain, as the dominant scenic area, maintains a high level of satisfaction degree, pursuing breakthrough in stability. The overall satisfaction of Qingtian River, an emerging scenic area, has greatly improved. The overall perception of Shennong Mountain's environment is not optimistic, but there are some highlights, which needs to be improved. The perception of Chenjiagou's environment is average, which calls for great environment improvements so as to promote tourists' satisfaction of their environment perception.

2.6 Community tourism products have been adjusted, laying emphasis on different product experiences

After ten years of free development, the accommodation and catering in communities have developed to certain qualities and quantities. With the coming of consumption transformation, tourists are no longer satisfied with standardized, low-experienced community tourism products. Instead, they ask for thematized and customized products. In recent three years, the problems surfacing in Jiaozuo community tourism are displayed in Table 2.

Table 2. Comparison of community development features and problems in 2014-2016

Year	2014	2015	2016
Problems and Feedback	Homogeneity in service area development, differentiation in operation level	High level of homogeneity but there are emerging new types of hotels	Awareness of anti-homogeneity has been promoted, but the phenomenon remained unchanged
	Lack of powerful industry association and leading elites	Lack of powerful industry association and leading elites	Community lack unified regulation and planning
	Tourism product and cultural atmosphere are the weak parts of tourism development	Investment from government increases but folk tourism products lack speciality	Large-scale planning of projects, tourists perception of Jiaozuo culture has been enhanced
	Conflicts between non-local rental operators and local residents	Lack of foreign investment to drive local economy	Lack of foreign investment to drive local development, non-local operators account for little proportion
	Number of tourists decreases, differentiations in hotel operation enlarges	Enthusiasm decreases	Supply surplus, hotels can only sell at an extremely low price
	Operator's awareness of initiative promotion is weak	Attempt to try online marketing but rely greatly on repeat customers	Awareness of marketing has enhanced, a large number of family hotels conduct online marketing

At present, community tourism product supply started to make adjustments. Some community elites started to promote homestay and inn with certain specific themes and special experiences. In every service area of Yuntai Mountain, there are family hotels, specialty shops and many other new tourism formats, such as express hotels, theme hotels, ecological manors and picking gardens and the like. Driven by tourism development and market competition, villagers have raised the awareness of

differentiation development, striving to conduct special operations to diversify products and develop a number of new tourism formats; however, the homogeneity phenomenon is still severe. Medium-and-low-level accommodation reception products supply surplus, which leads to intense competition. Some operators reflect that there are supply surplus in accommodation industry, so that their rooms have to be sold at extremely low prices. In recent years, as a great number of community residents flood into hospitality industry and regulations remain imperfect, there is supply surplus in the industry, which urges operators to conduct vicious competition through low prices. Such vicious competition exacerbates the market disorder. In 2016, a research was conducted among 283 tourism operators. We find that local tourism operators accounted for 87.28% of the respondents while the non-local operators only accounted for 12.72%. Compared with the proportion of 40% in 2014, the proportion declined significantly, which was owed to the slowing down of slowdown of market growth and exacerbation of environment. Because the market profits were too low and the competition was too fierce, non-local operators were not willing to enter the market.

Fortunately, there were some emerging agritainment with specific themes and special experiences, such as Happiness Hotel, Yunling Hakka Hotel, Yuntai Mountain Flower Field Pastoral Inn and the like. These agritainments not only presented thematized designs in their architecture design, interior decoration and services, but only promoted their marketing prices and occupancy rate compared with traditional agritainments, and thus were greatly welcomed by tourists. This may be the direction of future development.

2.7 Small-and-medium-size tourism enterprises are in dilemma, which needs urgent guidance and encouragement

There were 305 valid questionnaires from tourism operators in the monitoring program. Among which, people between 26 and 35 years old accounted for the most proportion (45.57%), what followed was people between 16 and 25 (24.92%), people between 36 and 45 (19.02%). Among the 305 operators, people with 1 to 3 years of operating experiences accounted for the most, nearly 29.84%. what followed was people whose operation experiences were less than 1 year, accounting for 23.61%, an increase of 14.9% from 2015, which indicated that many operators started to engage in tourism operation in recent one year. Jiaozuo's community tourism operation was mainly in the

form of family operation, and many of them chose not to employ or employ few workers outside their families. Most of them were operated in the form of couple business, which meant the husband and the wife ran a business together. Among the couple business, 46.77% of them were operating family hotels, 24.71% of them were operating retail shops, and 15.9% of them were running restaurants, which was similar to the conditions in 2015. This phenomenon implied that the structure of small-and-medium-size tourism business did not change. Among these operators, unexperienced operators accounted for the most, nearly 36.60%, experienced operators accounted for 28.51%, and the government supporting operators accounted for the least, approximately 5.11%.

However, compared to the conditions in 2015, though small enterprises operators had specific operation goal, their feelings had changed. They felt more powerless at operation, feeling that their strength did not match their ambitions. The operation was not largely dependent upon themselves but more easily to be affected by others, which to certain extent implied that the small enterprises underwent more hardships in 2016 compared to 2015. The competition was fiercer, which made the operators felt more powerless, which was displayed in Figure 6.

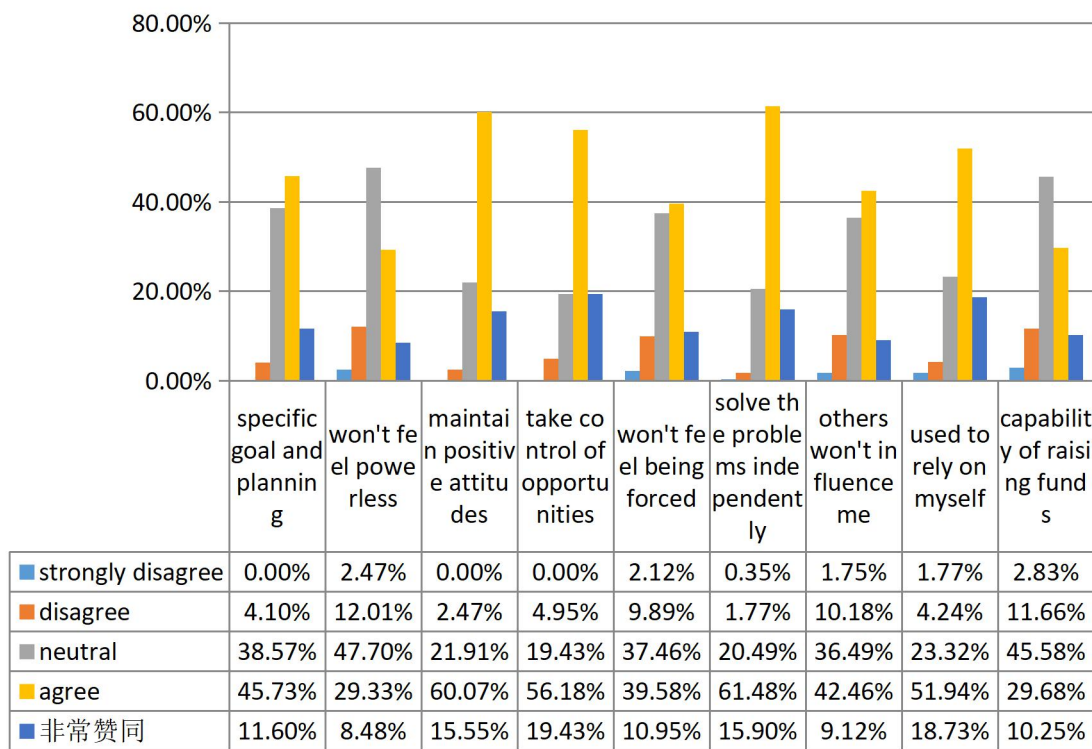


Figure 6 recognitions of operator characteristics in 2016

In the four characteristics “business operation runs as I have planned”, “business better than comparable firms”, “good management” and “strong marketing capability”, respondents agreed more on “neutral” than on “agree”. This result indicated that the differentiation between business were little, which would easily lead to vicious price competition and thus left little space for profits, as shown in Table 3.

Table 3 Comparison and analysis of operations’ recognitions of characteristics from 2015 to 2016

Operator characteristics	Year	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Average	Standard Deviation
Business runs as I have planned	2015	4.21%	4.91%	35.44%	31.58%	23.86%	3.66	1.03
	2016	1.06%	7.77%	39.58%	38.16%	13.43%	3.55	0.86
Business better than comparable firms	2015	3.16%	7.02%	47.02%	21.05%	21.75%	3.51	1.01
	2016	1.41%	10.95%	47.35%	26.15%	14.13%	3.41	0.91
Good management	2015	1.06%	3.52%	40.14%	29.23%	26.06%	3.76	0.92
	2016	0.00%	5.30%	52.65%	33.92%	8.13%	3.45	0.72
Strong marketing capability	2015	0.72%	6.45%	34.41%	35.84%	22.58%	3.73	0.91
	2016	0.35%	3.89%	46.29%	37.10%	12.37%	3.57	0.77

Factors contributing to the above results were plenty, including decreasing support operators received from outside as well as limitation of insufficient innovative capability. In terms of outside support, Jiaozuo’s small-and-medium-size tourism enterprises gained little finance and technology support from outside (with an average of 2.89 and 3.05). While in terms of mutual support of relatives and friends as well as support from previous customers, the number declined from 2015. In a word, small-and-medium-size tourism enterprises lack powerful support, as shown in Table 4.

Table 4. Comparison and analysis of operators' characteristics recognition from 2015 to 2016

(III)

Operator characteristics	Year	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Average	Standard
								Deviation
Outside financial support	2015	15.30%	20.64%	35.59%	16.73%	11.74%	2.89	1.20
	2016	8.13%	22.61%	47.70%	15.19%	6.36%	2.89	0.97
Technical support	2015	13.26%	18.28%	32.26%	22.58%	13.62%	3.05	1.22
	2016	4.59%	19.79%	44.17%	24.73%	6.71%	3.09	0.94
Relatives and friends' support	2015	3.96%	8.63%	37.41%	30.94%	19.06%	3.53	1.02
	2016	0.71%	10.95%	44.17%	37.46%	6.71%	3.39	0.80
Staff support	2015	7.12%	4.98%	40.21%	30.60%	17.08%	3.46	1.06
	2016	1.41%	7.07%	44.88%	36.40%	10.25%	3.47	0.82
Customer support	2015	3.21%	2.86%	35.71%	35.71%	22.50%	3.71	0.95
	2016	1.06%	5.32%	36.88%	43.62%	13.12%	3.62	0.82

Inferred from the resources and capability of small-and-medium-size tourism enterprises, comparing with results of 2015, except for the item “I emphasize quality and continually concern about customer satisfaction”, the scores of all other items had improved. It meant that operator's awareness of developing new products, improving product quality, innovating marketing approaches, controlling costs, and stimulating staff had enhanced, but still remained at a low level (with all averages below 4), as shown in Table. 5.

Table. 5 Comparison and analysis of enterprises' characteristics recognition from 2015 to 2016

Enterprise characteristics	Year	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Average	Standard
								Deviation
Develop new products	2015	12.90%	9.32%	41.58%	24.37%	11.83%	3.13	1.14
	2016	3.56%	18.86%	43.06%	25.62%	8.90%	3.17	0.96
Improve service quality	2015	4.64%	5.71%	39.29%	31.79%	18.57%	3.54	1.01
	2016	0.33%	8.25%	33.00%	40.92%	17.49%	3.67	0.87
Innovate marketing approaches	2015	5.34%	7.12%	41.99%	25.27%	20.28%	3.48	1.06
	2016	0.00%	10.60%	40.99%	36.04%	12.37%	3.50	0.84
Emphasize quality	2015	0.00%	3.91%	24.56%	38.08%	33.45%	4.01	0.86
	2016	0.00%	1.77%	21.55%	51.94%	24.73%	4.00	0.73
Control cost	2015	1.42%	3.91%	40.93%	29.89%	23.84%	3.71	0.92
	2016	0.00%	4.95%	33.57%	44.52%	16.96%	3.73	0.80
Stimulate staff	2015	5.00%	6.07%	41.43%	28.21%	19.29%	3.51	1.03
	2016	3.21%	6.79%	34.64%	38.93%	16.43%	3.59	0.95

Therefore, factors affecting development of Jiaozuo's small-and-medium-size tourism enterprises are diversified. Government and giant tourism enterprises need to provide enough funds, technology and innovation support for them. Small-and-medium-size tourism enterprises need to enhance the study and innovation of tourism development concepts. At the same time, they should also improve their resources and capability, adjust operation strategy, and improve product attraction, so as to promote the development of enterprises. This monitoring program suggests that government should set up special funding to backup small-and-medium-size tourism enterprises, collaborate with Sun Yat-sen University as well as tourism colleges in Henan province, invite experts to give a lecture and carry out special training for these enterprises.

2.8 Tourists attach great importance to intangible experiences and have high request for leisure experiences

tourists had high evaluation on Jiaozuo's resources specialty and transportation services, while average evaluation of Jiaozuo's city image, fundamental facilities, safety and health, services in scenic area, accommodation services, tourism consultation and complaints, and low evaluation of scenic area's accommodation services, shopping and entertainment activities. This monitoring had conducted exploratory factor analysis on 42 variables (excluding 16 variables through analysis) affecting tourism experiences. After excluding certain variables through cross loading and excluding system of orientation, we finally spotted 6 factors (shopping and entertainment services, resources specialty, hotel services, environment condition, transportation condition, and catering services) which explained variance of 73.067% of the original data. Among which, the uniqueness, interest of tourism; the diversity of tourism activities and the reasonability of their prices; environment, order and tourism security; product diversity and service attitudes were all key factors affecting tourists' overall experiences. Tourist attached great importance to the above services, externality, atmosphere of these intangible experiences instead of tangible experiences. However, Jiaozuo still needs to improve its tourism experiences.

As for tourists' own living quality, leisure life, leisure time and leisure activity gained low level of satisfaction, all scoring at nearly 3.6, which meant that tourists are generally unsatisfied with their leisure life. Such results to some extent became the incentives for their traveling, which was high request for leisure. Other factors had relatively high average satisfaction, scoring at 4.0. The satisfaction with these factors of their life laid foundation for their traveling.

3 Monitoring Suggestions

The image of Jiaozuo as a “coal city” was weakening, and its image as a tourism city was under establishment. In the process of tourism consumption transformation, tourism market entering new formats and Jiaozuo tourism management transformation, Jiaozuo tourism development was in the face of significant adjustment. According to the results of this monitoring reports and field researches conducted by the monitoring group, some suggestions and recommendations were given as follows, for reference only.

3.1 Transformation and upgrading, accelerating the construction of tourism destinations

Jiaozuo tourism development has entered a new historical stage when traditional mass sightseeing tourism development faces dilemma, the number of tourists in core scenic areas increases at a slow pace (such as Yuntai Mountain), and tourism revenues are not pleasant. Since the introduction of eight provisions, tourism consumption transformation objectively asked for accelerating construction of Jiaozuo's tourism destination system. Jiaozuo must transform and upgrade its original single sightseeing product development way, and develop and diversity tourism products, such as leisure vacation, mountain adventure, sports and exercises, self-driving and the like. Jiaozuo should encourage the development of leisure vacation product, especially the “deep leisure, light vacation” product in Yuntai Mountain; “light adventure” tourism products which are directed at majority of tourists, such as mountain hiking, camping, rock climbing and photography; take advantage of Taichi culture and develop exercise and sports activity; and development of self-driving routes, with construction of parking bays and viewing platforms, so as to develop comprehensive tourism.

With the coming of new age, new layout and new development, Jiaozuo must further strengthen itself, enlarging the attraction system of core scenic areas, developing new scenic areas and spots, accelerating the environment regulation and community tourism development, and enhancing the construction and support facilities for independent tourism. With the above efforts, Jiaozuo can be constructed as a first-class tourism destination with the features of “cores, systems, supporting facilities, good environment, pleasant services, and outstanding specialty” in China.

3.2 Dominated by government, fully mobilizing the enthusiasm of the community

The construction of tourism destination should not be restricted only to the development and perfection of core scenic areas and spots, instead, it should include the comprehensive development of communities surrounding scenic areas and tourism routes. In the new age, there are new requirements for the coordination between scenic areas and communities as well as the collaboration between government and residents. In some core scenic areas (such as Yuntai Mountain), destination regulation commission must be established to integrate the planning, development and regulation of scenic areas and surrounding communities, so as to integrate community regulation with scenic area management and thus endow subjects, regulations and implementation to comprehensive tourism

development. Meanwhile, the construction of tourism destination should fully mobilize the enthusiasm of the communities. The small enterprises need the regulation and coordination of industry associations. A number of small enterprise operators showed concerns about the regulation of regulators within the scenic areas. Among all their concerns, the phenomenon of viciously competing for customers as well as plagiarism and imitation were the major two limitations for small enterprise development. The establishment of industry association dominated by government will help to establish industry standards.

3.3 Cultural transformation, promoting the use of cultural resources

Jiaozuo has abundant historical cultural resources. How to transform cultural resources into tourism experience products or even cultural capital has become an urgent problem for Jiaozuo tourism development under the new age. Jiaozuo's Taichi culture, "four major Huai medicine" culture, old architecture, folk cultural activities and local handicrafts are subjects of tourism protection as well as subjects for tourism development. The protection and inheritance of old architectures, folk cultural activities and local handicrafts are specific actions of protecting community cultural specialty. Government should figure out more local specialty, customs, special food and the like, and enhance promotion so as to form a label for Jiaozuo. Firstly, government should apply local cultural ceremonies and cultural factors to tourism services. Secondly, government should exploit architectures, scenic spots and tourism products with local cultural specialty. Thirdly, government should explore local culture, festival or ceremony tourism products. Fourthly, government should protect intangible cultural inheritors and develop tourism products with local specialty.

3.4 Encourage innovation, promote marketization development of enterprises

Jiaozuo tourism development needs continuous innovation. On the one hand, Jiaozuo should enlarge innovation body, encouraging community and enterprise innovation; on the other hand, innovation needs driving motivation, therefore Jiaozuo should provide certain incentives strategies for innovative enterprises, such as investment incentive, and protect and develop innovation body. According to research statistics, four dimensions, including entrepreneur's attitude, social network,

leisure vacation can effectively stimulate slack season consumption. However, in Jiaozuo, the above resources exploitations have faced insufficiency and dilemma, for example, Jiaozuo is lack of hot spring resources and does not have potential market for ice and snow tourism. For Jiaozuo, the key to activate winter slack season is cultural resources. How to make use of Jiaozuo's traditional cultures such as Taichi culture and develop high cultural-added-value, unseasonal tourism products should be the focus of future tourism development.

Jiaozuo, Henan



2017 Monitoring Report on the Sustainable Tourism Development of Xishuangbanna

Monitoring Center for UNWTO Sustainable Tourism Observatories

Xishuangbanna Municipal People's Government



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And all those who helped with the monitoring work.

1 Foreword

1.1 Monitoring Origin

On September 28th, 2010, United Nations World Tourism Organization and Sun Yat-Sen University signed an agreement in setting up Monitoring Center for UNWTO Sustainable Tourism Observatories (MCSTO for short). In April 2015, the first observatory of sustainable tourism development in Yunnan, Xishuangbanna Observatory of Sustainable Tourism was established. On July 4th, 2016, MCSTO launched the second field monitoring work in Xishuangbanna. The monitoring group consisted of: 5 full-time teachers from Center for Tourism Planning and Research; 1 teacher from School of Geography and Planning of Sun Yat-Sen University; 2 doctoral students; 4 postgraduate students; and 16 undergraduate students.

1.2 Monitoring Method

The 2016 monitoring program was divided into two phases. The first phase was major project monitoring. In this phase, six monitoring teams would visit different destination spots, including Dai villages (Dai Park, Mandan village, Shanggan village), Jinuo villages (Bapo village, Bapiao village, Baya village), tea industry villages (Banpo old village), China and Laos Border Mohan Port, and Jinghong urban area and the like, mainly carrying out several special researches on minority tourism, tea industry tourism, border tourism and tourism real estate. The major research subjects were shown in Figure 1-1. The second phase was the monitoring conclusion and promotion. The whole monitoring group would investigate on the major tourism resources in Xishuangbanna urban area and surrounding areas and would visit and interview related tourism departments. At the same time, the monitoring group also conducted questionnaire surveys. In total, 400 tourist questionnaires were distributed, with 390 valid ones returned; and 243 resident questionnaires were distributed and 243 valid ones were returned. In 2016 Xishuangbanna monitoring program, a specific photographing team was established, which was responsible to shoot videos for sustainable tourism development propaganda.

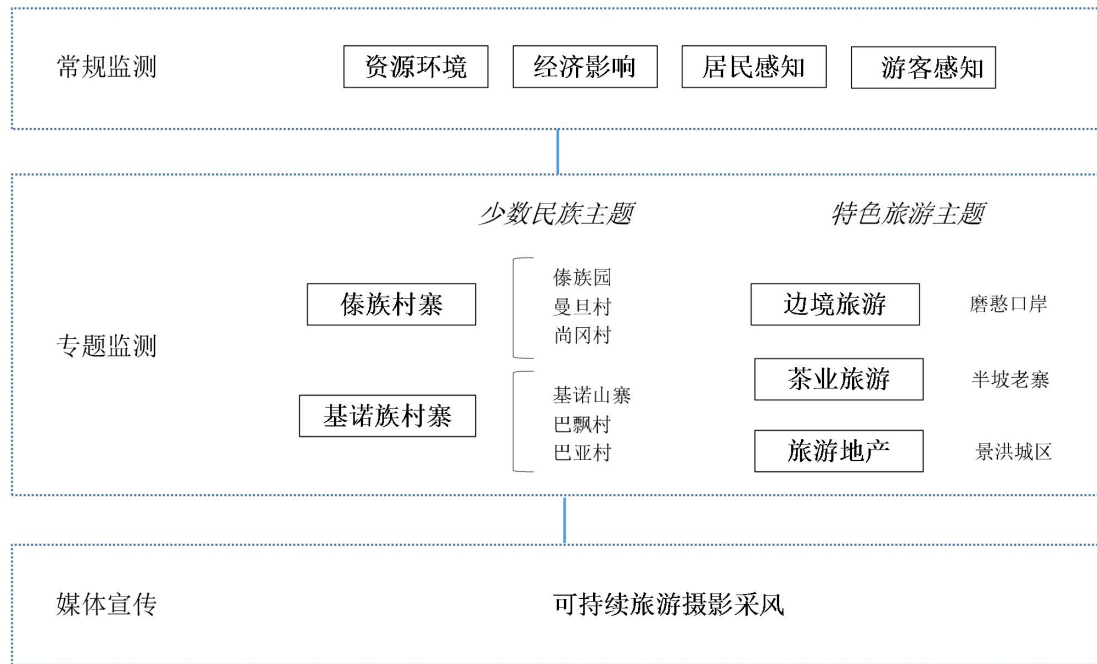


Figure 1-1 2016 framework of Xishuangbanna monitoring content

(regular monitoring—resource environment; economic impacts; resident perception; tourist perception.

Special monitoring—minority theme: Dai village (Dai Park; Mandan village; Shanggan village); Jino village (Jino mountain village; Bapiao village; Baya village); Special tourism theme: border tourism (Mohan Port); tea industry tourism (Banpo old village); tourism real estate (Jinghong urban area)

Media promotion—photographing for sustainable tourism development)

2 Tourism and Resources and Environment Protection

2.1 Tourism and Resources Protection

Xishuangbanna National Natural Conservation Area, located in Xishuangbanna Dai Nationality Autonomous Prefecture which situated at the southern border of Yunnan Province, covered one city and two counties and consisted of five isolated sub-conservation areas, i.e. Mengyang, Menglun, Mengla, Shangyong and Mangao (as shown in Figure 2-1). Xishuangbanna conservation area covered a total area of 242,251 acres, accounting for 12.68% of the total autonomous district area, with a high forest coverage rate of 95.7%. Xishuangbanna conservation area was a comprehensive

natural conservation area focusing on protecting tropical rainforest, seasonal rainforest and tropical precious wild animals. It was most typical and complete tropical rainforest area in China with largest rainforest area, most complete ecological system, most abundant biotic resources and most special unspoiled landscape.

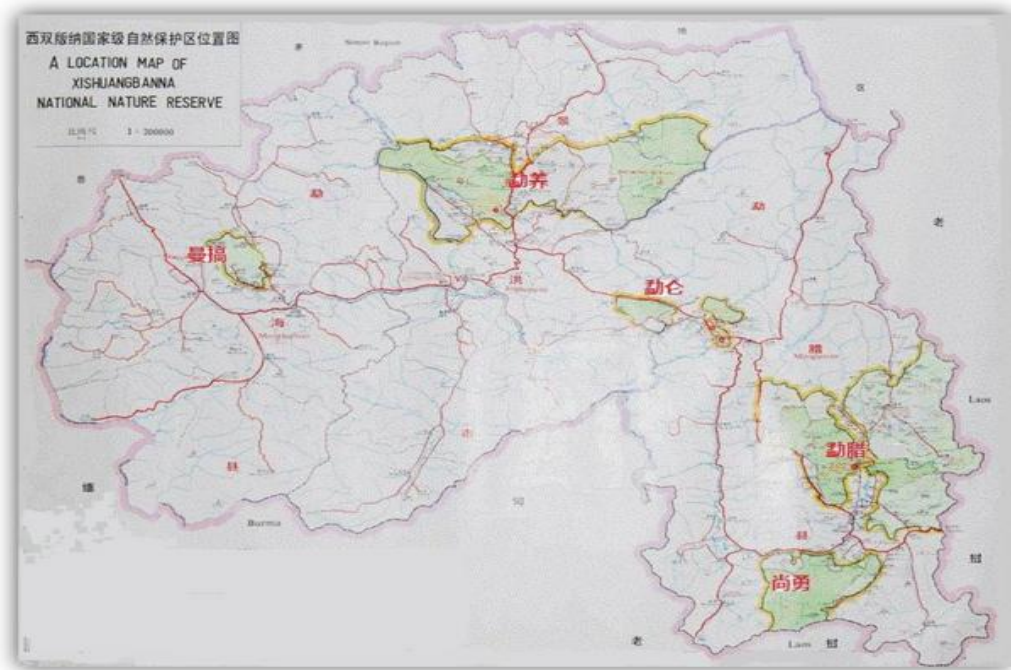


Figure 2-1 Distribution of tropical rainforests in Xishuangbanna

2.2 Tourism and environment protection

In 2012, the air quality index level in Jinghong was classified into excellent, good, slightly polluted and moderately polluted, accounting for 44%, 47%, 6% and 1% of the days in 2012. The major pollution factor was inhalable particles which was smaller than 10 microns. Due to power cut, there were 9 days without data collected. Compared with 2014, the number of days with excellent air quality had increased by 10 days. Generally speaking, the air quality in Jinghong city was quite pleasant, however, certain moderately polluted conditions started to emerge. Good air quality was crucial to sustainable tourism development, therefore related sectors should pay special attention to the negative changes taking place in Jinghong city's air quality, and related prevention measures were essential.

In 2015, the surface water quality in Xishuangbanna was quite good. Among 12 monitoring river sections, 5 sections met the Category II Standard, accounting for 42%; 7 sections met Category III Standard, accounting for 56%. All of them satisfied the water functional standards, which indicated that the water quality was quite good.

The average equivalent sound level range in Jinghong urban roads was between 34.1-70.0dB(A). The average equivalent sound level in Jinghong was 64.0dB(A), which was below the national standard, indicating that the traffic noise quality was “good”. According to the monitoring results of the noise of Jinghong central urban functional areas, the average equivalent sound levels of category 1, 2 and 4 areas all met functional area sound environment requirements, indicating that the sound quality in functional areas was “good”. The average equivalent noise sound level in Jinghong regional areas was between 40.3-57.5dB dB(A), with an average equivalent sound level of 50.1dB dB(A), indicating that the sound quality in regional areas was “relatively good”. Generally speaking, the traffic noise conditions was qualified in recent ten years (70bB during daytime and 55dB during night).

3. Economic Impacts of Tourism

3.1 Status quo of tourism development

There were 17 A-class scenic areas in Xishuangbanna, among which, Chinese Academy Tropical Botanic Garden was 5A-class scenic spot; 9 of them were 4A-class scenic spots; 2 of them were 3A-class scenic spots. Table 3-1 presented Xishuangbanna’s tourism statistical data collected between 2004 and 2015. In 2015, Xishuangbanna had received 20,014,000 domestic and overseas tourists, an increase of 17.7% from last year. The number of one-day inbound tourists was 1,086,300, an increase of 29.1%. The comprehensive total tourism income was approximately 28.7 billion yuan, an increase of 25.7%. Among which, tourism foreign currency income was 2.41 billion yuan, an increase of 12.3%; and domestic tourism income was 27.18 billion yuan, an increase of 26.5%.

Table 3-1 Tourism reception conditions of Xishuangbanna between 2004 and 2015

Year	The number of	Thereinto (ten thousand)	Total tourism	Thereinto (ten thousand)

	domestic and international tourists (ten thousand)	Domestic tourists	International tourists	Inbound tourists for one-day tour	incomes (0.1 billion yuan)	Domestic tourism incomes	Foreign currency incomes
2004	283.82	271.34	3.37	9.11	24.74	23.65	1.09
2005	282.53	269.99	3.1	9.44	24.4	23.3	1.1
2006	359.71	346.66	2.87	10.18	27.28	26.17	1.11
2007	503	478.83	6.82	17.35	33.96	31.86	2.1
2008	624.28	590.12	11.31	22.85	41.17	37.93	3.24
2009	732.03	686.05	15.18	30.8	62.36	58.12	4.24
2010	853.14	795.61	21.67	35.86	80.33	74.47	5.86
2011	1012.65	935.98	29.44	47.23	100.24	92.08	8.16
2012	1253.61	1158.47	37.42	57.72	139.96	130.19	9.87
2013	1494.35	1383.55	41.66	69.14	171.67	159.32	12.35
2014	1700.26	1579.52	36.59	84.15	228.02	214.83	13.19
2015	2001.4	1859.53	33.24	108.63	286.70	271.85	24.08

3.2 Status quo of economic development

In 2015, even confronting the complicated economic environment and tough revolution and stability tasks, Xishuangbanna still realized stable economic development. Even more surprisingly, its development speed surpassed the average level of Yunnan province. According to the initial estimation, the overall output value of Xishuangbanna was 33.6 billion yuan, an increase of 10%. Among which, the added-value of primary industry was 8553.55 million yuan, an increase of 5.4%; the added-value of secondary industry was 9462.98 million yuan, an increase of 13.8%; the added-value of tertiary industry was 15574.58 million yuan, an increase of 9.3%. the added-value of primary industry accounted for 25.5% of the total output value; the secondary industry accounted for 28.2%; and the tertiary industry accounted for 46.4%. Per capita output value was 2894.5 billion yuan, an increase of 9.4%.

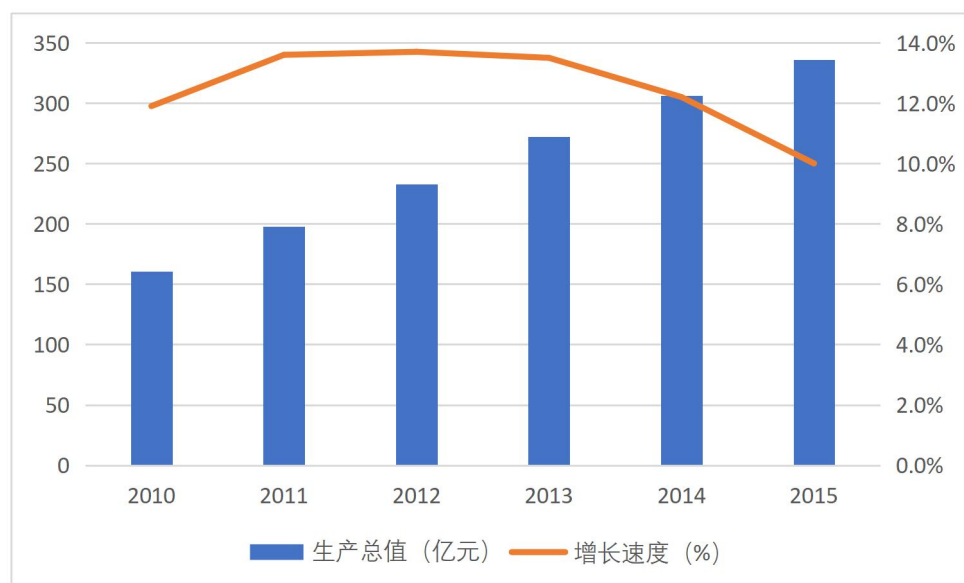


Figure 3-1 Total output value and growing speed of Xishuangbanna between 2010 and 2015

3.3 Tourism's impacts on economy

3.3.1 Tourism's contribution to GDP

According to Table 3-2, the proportion of Xishuangbanna's tourism incomes over GDP showed an increasing tendency, and the increasing trend was obvious in 2014. Tourism revenues accounted for high proportion of GDP, which indicated that tourism played an important role in Xishuangbanna's overall economic development. It further illustrated that the healthy development of tourism industry was significant and meaningful to Xishuangbanna's overall economy.

Table 3-2 The contribution of Xishuangbanna's tourism incomes to GDP during 2010-2015

Year	Total tourism revenues (0.1 billion yuan)	GDP (0.1 billion yuan)	Proportion of tourism revenues on GDP (%)
2010	80	161	49.7
2011	100	197.7	50.6
2012	140	232.6	60.2
2013	171.7	272.3	63.1
2014	228	306	74.5
2015	286.7	335.9	85.4

3.3.2 Tourism and Investment

The total import and export trade volume of Xishuangbanna was 2133.94 million USD, a year-on-year increase of 7.9%. Among which, import trade volume was 522.50 million USD, a decrease of 19.1% and export trade volume was 1611.44 million USD, an increase of 20.9%. In 2016, Xishuangbanna had attracted 173 business investment projects. The actual capital in place was 18146.54 million yuan, an increase of 9% from last year. The actual foreign direct investment usage was 35.08 million USD, an increase of 6.3%.

By June 2016, Jinghong city had attracted 10 tourism real estate projects, among which, 3 of them were completed and 7 of them were still under construction.

Table 3-3 Tourism real estate projects in Xishuangbanna (by June 2016)

Category	Project	Investment Company	Coverage Area	Planned investment	Actual Investment
Completed projects	Xishuangbanna Pu'er Tea Culture Expo Park Project	Yunnan Real Estate Development Co., Ltd.	640 acres	/	0.8 billion yuan
	Xishuangbanna Riverside Orchard Mountain Winter Resort Project	Golden Resources Real Estate Development Co., Ltd.	4000 acres	/	5 billion yuan
	Dragon Boat Square Project	Yunnan Tuopu Real Estate Development Group Co., Ltd.	346 acres	/	81.35million yuan
Projects under construction	Jinghong Dadugang Tea Park, Tourism Town, Rainforest Sightseeing Leisure Zone Project	Beijing Economic Development Investment Co., Ltd.	647 acres	0.5 billion yuan	0.466 billion yuan
	Xishaunbanna Gaozhuangxishuangjing Project	Yunan Haicheng Industrial Group Co., Ltd.	1200 acres	2 billion yuan	2.692 billion yuan
	Gasa Tourism	Yunan Yunlv Real	500 acres	0.35billion	1.53 billion

Category	Project	Investment Company	Coverage Area	Planned investment	Actual Investment
	Town “Dai” Hot Spring Health Tourism Resort Sheraton Hotel Project	Estate Development Co., Ltd.		yuan	yuan
	Xishuangbanna Nanjing New Town Project	Sichuan Mingyu Group	15753 acres	4.3 billion yuan	2.63 billion yuan
	Xishuangbanna ASEAN International Project	Xishuangbanna Yunjiang Real Estate Development Co., Ltd.	600 acres	1 billion yuan	0.319 billion yuan
	Xishuangbanna International Hot Spring Health and Leisure Resort Project	Shenzhen Ping’an Real Estate Co., Ltd and Yunnan Baiyao Group	20000 acres	15 billion yuan	2.489 billion yuan
	Xishuangbanna Hongjing Yajule Tourism Resort Project	Qianze Group (Hong Kong) Co., Ltd	27000 acres	20 billion yuan	1.998 billion yuan

Xishuangbanna

4 Resident Perception and Attitude

4.1 Respondent resident information and tourism status quo

The 2016 monitoring and resident researches were conducted in communities in several tourism destinations, such as Gaozhuangxishuangjing, Dai Park, Jinuo Village, along with certain underdeveloped villages such as Banpo village of Nannuo Mountain. 300 questionnaires were distributed, with 243 valid ones returned, achieving a validity rate of 81%. Sampling measures included occasional sampling and convenience sampling.

Respondent resident had relatively high participation awareness, but conditions differentiated. Residents living near scenic area had more opportunities to participate in tourism.

Among which, 107 residents (44%) confessed that they were engaging or had engaged in tourism-related works. Among these 107 residents, most of them worked as tour guides, accommodation staff and scenic area administrators. 37 of them worked as dance performers. 32 residents from the samples (13.2%) worked as tourism-related enterprises operators or individual operators. As for enterprises types, most of them were accommodation, travel agency and tourism shopping enterprises.

4.2 Resident's participation willingness

The majority of the residents were supportive of local tourism development. They were willing to communicate with tourists and to recommend their relatives and friends to visit Xishuangbanna. Residents were relatively enthusiastic to provide suggestions for local tourism development. According to the research results, the proportion of residents who were willing to cooperate with government's tourism development plans and measures had increased significantly. Respondents' satisfaction degree on government's implementation on tourism development was 59%, which had improved compared with the 49.8% last year. However, this indicator remained to be improved in the future.

4.3 Residents' perception of impacts of tourism development

77.6% of the respondents believed that tourism was beneficial to Xishuangbanna's overall development. 78.1% of the respondents thought that the coming of tourists injected new vitality into Xishuangbanna's regional development. 60.1% of the respondents claimed that tourism-related workforce and capitals promoted Xishuangbanna's overall development. On the whole, local residents had positive perception of tourism development impacts.

Table 4-1 Indicators of residents' perception on tourism development impacts

Indicator	Proportion of Agreement
1.tourism is beneficial to Xishuangbanna's overall development	77.6%
2.the coming of tourists injects new vitality into Xishuangbanna's regional development	78.1%
3. tourism-related workforce and capitals promote	60.1%

Xishuangbanna's overall development	
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5 Tourist Behavior and Satisfaction

5.1 Respondent tourist sample information

Among 390 valid questionnaires, the characteristics of the sample were listed as follows. In terms of gender, 169 respondents were males (43%) and 209 respondents were females (54%). 12 questionnaires were lost. In terms of first visit and revisit, 73% of the respondents visited Xishuangbanna for the first time. In terms of age, the majority of the tourists were between 18 and 25, accounting for 32%; what followed was tourists between 26 and 35, accounting for 25%. In terms of education level, tourists with bachelor or above degrees accounted for 47% of the total tourists, while tourists with junior college or high school accounted for 21% and tourists with specialized secondary school degrees accounted for 16%. In terms of occupation, students accounted for the most proportion, at 32.6%; what followed was enterprise employees or managers, accounting for 19%. In terms of incomes, tourists with an income less than 2000 yuan accounted for the most proportion, at 26.4%, which was associated with the large proportion of student tourists.

5.2 Tourist behavior analysis

5.2.1 Tourists' channels to gain information

Internet was the major channel for tourists to gain information. 41% of the tourists gained information about Xishuangbanna tourism via Internet. What followed was recommendations from relatives and friends as well as travel agency brochures. Nowadays, Internet had become the dominant and most convenient way to gain information, therefore internet marketing became especially important. No matter it was e-business tourism or Me Media, establishing a good Internet reputation of Xishuangbanna was extremely important and meaningful. In addition, 40% of the tourists visited Xishuangbanna because of relatives and friends' recommendations, therefore word of mouth marketing were equally significant.

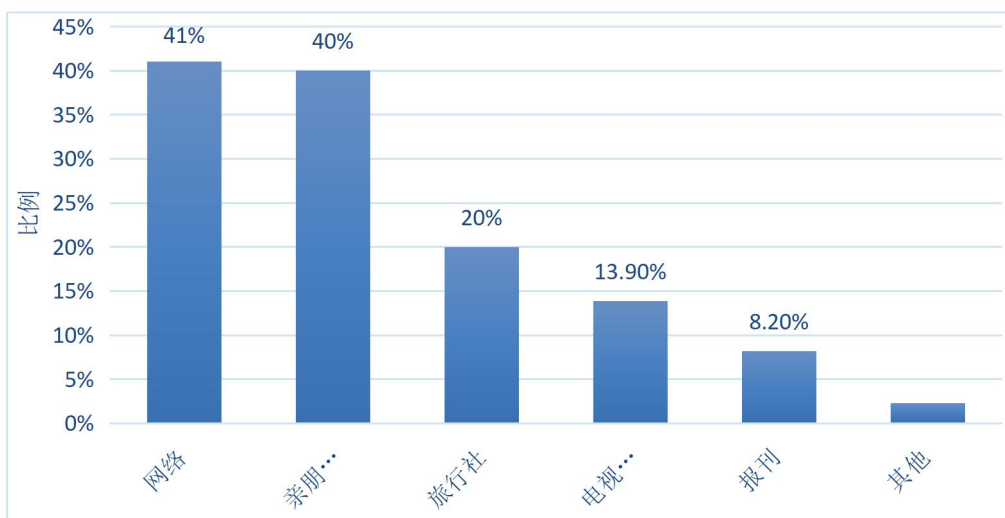


Figure 5-1 Respondents' channels to gain tourism information

(Internet; recommendation from relatives and friends; travel agency; television broadcast; newspaper; others)

Xishuangbanna

5.2.2 Tourists' ways of traveling

According to the statistics, independent tourism was the major tourism style among Xishuangbanna tourists, accounting for 47%. Joining in group tourism individually and company unit tourism were also popular tourism styles, while conference investigation accounted for smallest proportion, only at 2%.

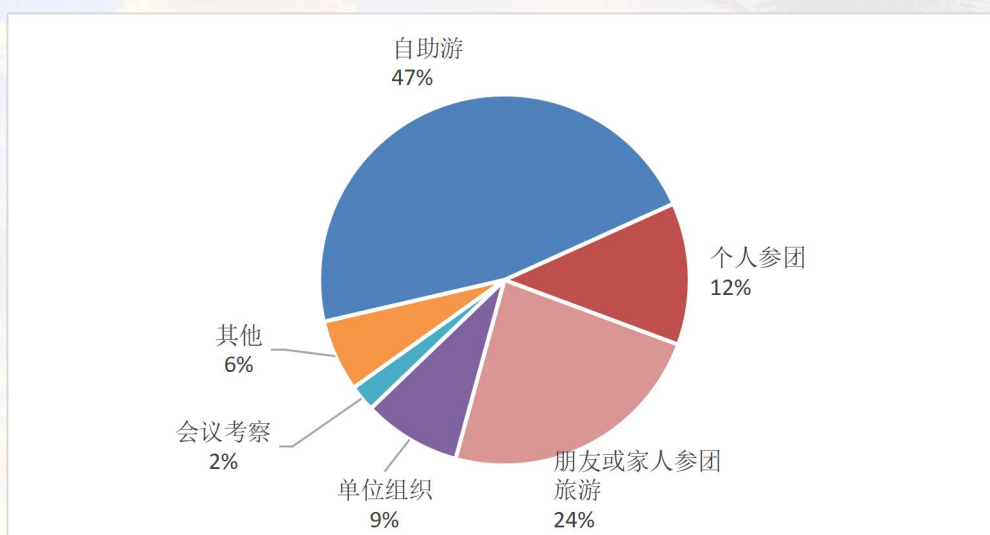


Figure 5-2 Tourists' ways of traveling

(Independent tourism; join group tourism individually; join group tourism with relatives or family; company unit tourism; conference investigation; others)

5.2.3 Tourists' travel motivation

In terms of tourists' travel motivations, 76% of the tourists travel in Xishuangbanna mainly for “leisure and relaxation”, which indicated that Xishuangbanna's image as a leisure destination was gradually clear to public. In addition, “learn about ethnic cultures” and “enjoy pleasant climate” were also important motivations.

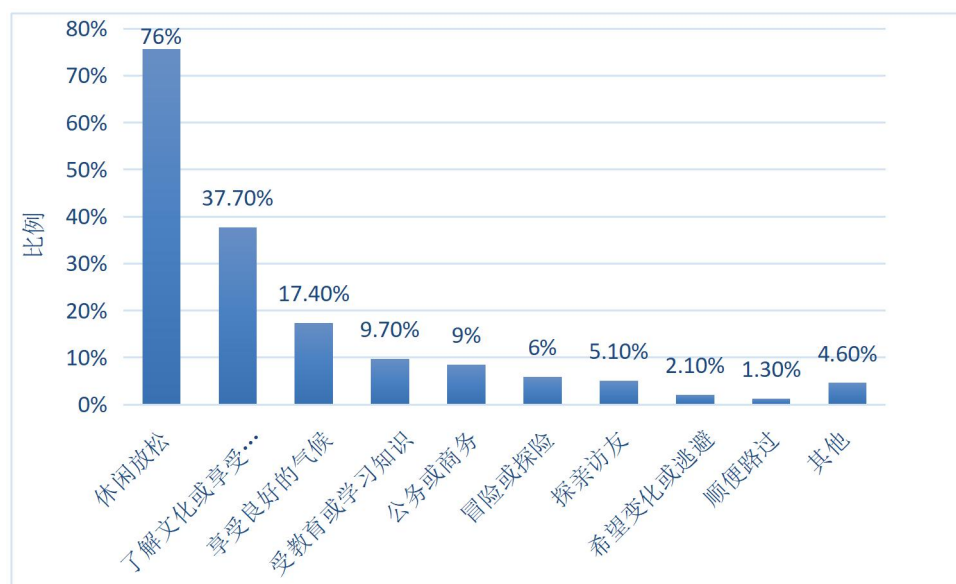


Figure 5-3 Respondents' travel motivations

(leisure and relaxation; learn about cultures; enjoy pleasant climate; education or learning; business; adventure; visit relatives or friends; expect changes or avoid something; pass by; others)

5.2.4 Means of transportation

According to the questionnaires, most tourists choose to travel to Xishuangbanna by plane, accounting for 64.1% of the total number. What followed was travelling by shuttles and private vehicles, accounting for 24.6% and 17.7% respectively. Tourists who travelled by train accounted for 11%, and tourists who travelled by other means only accounted for 1%. All the above figures illustrated that the construction of Xishuangbanna Gasa International Airport provided great convenience for tourists, and thus airplanes became the major transportation mean. The proportion of self-driving surpassed that of shuttles, and travelling by train was not a dominant mean. All these data implied that aviation development and road construction significantly promoted the development of Xishuangbanna tourism.

5.3 Tourists' overall evaluation on Xishuangbanna tourism

In terms of tourists' satisfaction evaluation on Xishuangbanna tourism, 52.4% of the tourists were satisfied and 26.5% of them were very satisfied. When compared with perception and expectation, 54.4% of the tourists thought that their tourism experiences lived up to their expectation, which had decreased by 10% compared with last year. 20.6% of the tourists said that their experiences were much better than their expectation, which had slightly increased from last year. Generally speaking, the majority of the tourists were satisfied with Xishuangbanna tourism, which reflected high recognition for Xishuangbanna. However, the ratio of living up to expectations decreased from last year. Great attention should be paid to whether it would continue to drop and why it would decrease.

Xishuangbanna

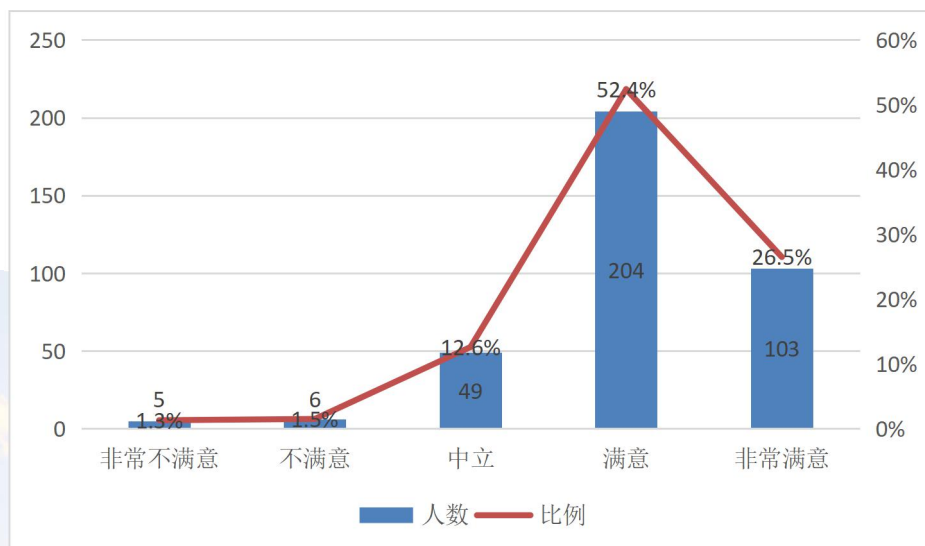


Figure 5-4 Respondents' overall evaluation on Xishuangbanna

(very unsatisfied; unsatisfied; neutral; satisfied; very satisfied)

5.4 Tourists' willingness to revisit or recommend

In terms of tourists' willingness to revisit, 47% of the tourists claimed that they would revisit Xishuangbanna; 44% of them were uncertain; and 9% of them would not revisit Xishuangbanna. In terms of tourists' willingness to recommend Xishuangbanna tourism to others, 71% of the tourists would recommend Xishuangbanna to friends; 25% were uncertain; only 4% would not recommend. Generally speaking, tourists were relatively satisfied with Xishuangbanna tourism, and thus had

relatively high willingness to revisit and recommend.

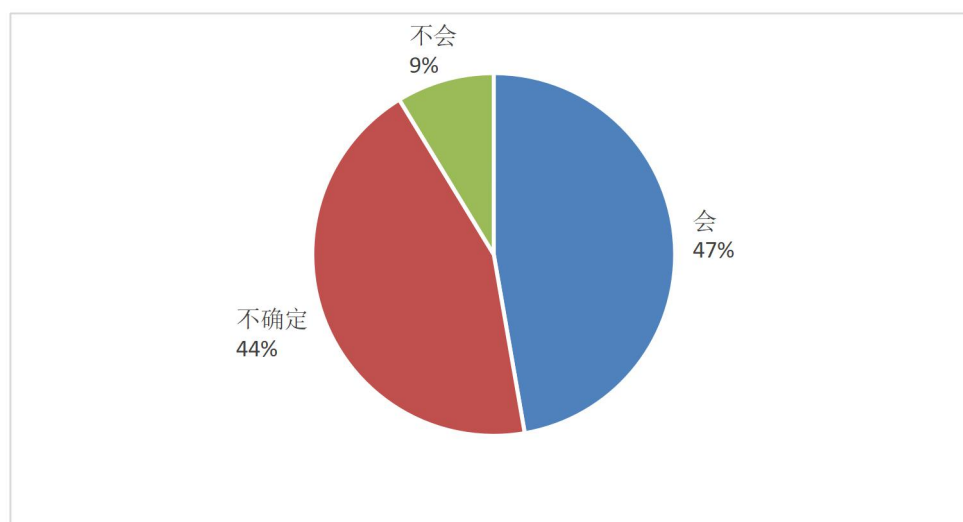


Figure 5-4 Whether tourists would revisit Xishuangbanna
(would not revisit; would revisit; uncertain)

6 Conclusions and Recommendations

(1) Tourism had strong driving power, and resources and environment protection were the focus of tourism development.

For now, Xishuangbanna became a famous and special tourism destination depending upon its abundant tourism resources. Every year, Xishuangbanna would attract a great many tourists, and thus its tourism-related industry was prosperous. Attributed to that prosperity, local residents' incomes had increased, which helped promote local economic development, indicating that tourism had greatly driven economic development. However, as tourism industry continued to develop and the number of tourists continued to grow, the conflicts between the exploitation of tourism resources and ecological environment protection was sharpened. Ecological environment and natural resources were the basis of Xishuangbanna's tourism development, and they were the key to local sustainable tourism development. Therefore, while accelerating tourism development, resources and environment protection should not be neglected. Promotion of ecological protection should be implemented so as to promote coordinated development of tourism economy and ecological environment.

(2) Residents had high willingness to participate in tourism but their awareness of sustainable development remained to be improved.

For now, local residents had relatively high willingness to participate in tourism and they could participate in various ways, including serving as tour guides, explainer or staff in scenic areas, or tourism products salesman, etc. Most residents who directly participated in tourism put forward some suggestions for tourism development. However, local residents did not have enough recognition for sustainable tourism. Some residents still took economic growth as the only focus of tourism development. Therefore, tourism-related sectors should hold more propaganda and education activities on sustainable tourism development, in an attempt to raise residents' awareness and recognition of sustainable tourism development.

(3) The number of tourists continued to grow steadily. Domestic tourists became the major driving power and border one-day travel market grew rapidly.

Under the background that international economy developed at a slow pace and domestic tourism demand increased rapidly, domestic tourists became the major driving power of Xishuangbanna tourism development. The construction of Chinese and Laos as well as Chinese and Myanmar ports greatly promoted the development of cross-border one-day tourism. Such growth momentum would remain in recent one or two years.

(4) Inconvenient transportation was the major restriction of Xishuangbanna tourism development.

Most Xishuangbanna tourists chose to travel to Xishuangbanna by airplanes, which provided large market for Xishuangbanna's aviation development. However, Xishuangbanna's internal transportation remained to be improved. According to the investigation on mountain villages and villages, we found that transportation was one of the major restrictions of local tourism development. Respondent residents and tourists both expressed their expectations for improved transportation fundamental facilities. Therefore, great importance should be attached to urban transportation constructions, tourism service system improvements, so as to promote further tourism development.

(5) Leisure vacation market grew rapidly, and the number of long-stayed domestic tourist continued to grow at a steady pace.

Xishuangbanna's image as a leisure vacation destination was gradually clear to the public, which appealed to increasing number of long-stayed domestic tourist. Such phenomenon brought about opportunities and challenges to Xishuangbanna's accommodation industry, catering industry, scenic area service, transportation and healthcare services. While further promoting local tourism development, due attention should be paid to construction of supporting fundamental facilities and upgrading of services. At the same time, market order should be regulated so as to improve satisfaction and reputation.

Special Topic 1: Research Report on Dai Nationality's Village Tourism and Community Development

This research focus on tourism development's impacts on Dai villages' economic development and cultural changes. This investigation adopted the means of interviews and questionnaires, and was conducted during July 5th to 10th, 2015. 107 questionnaires were distributed, and 106 valid ones were returned. In-depth interviews were conducted among 15 people, and 13 valid cases were collected.

Table 1: Comparison between Dai Park, Mandan Village and Shanggang Village

Village	Stage	Development Mode	Economic Level	Cultural Inheritance	Issues
Dai Park	Mature stage	Corporation + peasant household	Great development, with many traditional industries being replaced	Good + commercialization transformation	Profit distribution
Mandan Village	Budding stage	Peasant household	At the beginning of development, with few traditional industries being replaced	traditional	Ecological issues
Shanggang Village	Operation awareness raising stage	/	/	traditional	Development strategy

1.1. Tourism development promotes economic prosperity

Dai Park’s development mode of “corporation + peasant household” had already matured. Tourism development had brought great economic profits to local villagers, with their production and operation transforming into non-agriculture industries. The majority of the second generation who had been brought up in Dai Park inherited the operation modes from former generations, and was gradually stepping into diversified operation. Mandan Village’s tourism industry was still at the stage of budding, with villagers operating individually. However, it could be predicted that tourism development would bring great economic benefits to local villagers. Shanggang Village did not have tourism projects for now, and its development strategy remained unclear.



Figure 1: “Dai Agritainment” pervasive in Dai Park



Figure 2: “Agritainment” in Mandan Village

1.2. Tourism development promotes culture protection and inheritance

In terms of culture inheritance, Dai Park Corporation’s concept of “Protection is Development” rooted deep inside people’s heart. By comparison, we found that villages without tourism industries nearby had already started the so-called “modernization” development, with traditional buildings gradually being replaced by brick houses and concrete buildings. However, in Dai Park, traditional Dai buildings were not replaced, but reserved and developed. Up to now, the Dai building had already developed as the third generation of Dai building. Attributed to tourism development, Dai Park preserved relatively complete religion culture, traditional festivals, arts, buildings and customs. Their confidence in their ethnic culture were continuously reconsolidated through communications with tourists. Taking advantage of upper-class strategies, Mandan villagers spontaneously established

ethnic culture education center, which contributed greatly to culture inheritance. At present, three villages confronted dilemma in religion and Dai language inheritance. Shanggang villagers spontaneously organized Dai learning group, which provided support for culture inheritance. However, tourism development inevitably commercialized ethnic products, which unavoidably impacts on traditional agricultural culture.

Special Topic 2: Monitoring Report on Jinuo Nationality Village

This research investigated on Jinuo nationality and conducted interviews on villagers of Bapo village, Bapiao village and Baya new village of Jinuo nationality village committee. Among which, Bapo village developed quickly depending upon Jinuo mountain village scenic area, which was a half-developed tourism village. Bapiao village located 1 kilometre away from Bapo village, and thus was slightly influenced by Bapo village's radiation effect. Baya new village was located far away from Bapo village, and had no tourism development. Baya new village mainly relied on economic crops as income sources, such as rubber, tea and plum trees. By comparing these three villages, this monitoring investigated tourism development's influences on ethnic minority's cultural changes and life style changes.

According to the research, tourism development would promote economic prosperity, increase job opportunities and enhance villagers' incomes. For example, Bapo village was situated near scenic area, therefore approximately each household had some family members engaging in tourism employment. In addition, their houses had already upgraded as the third-generation houses, and each household possessed a car. At the same time, tourism could promote development of related industries. Bapiao village was 1 kilometre away from Jino mountain village, therefore its agritainment and senior health relaxation base developed rapidly. However, due to the vulnerability of tourism and limitation of radiation range, traditional agriculture remained the major economic income source. Baya new village was the best illustration.



Figure 1 Changes in Bapo village attributed to tourism development

In terms of social aspect, tourism development expanded the level of opening up and enhanced village's civilization level. However, tourism development also led to traffic congestion in villages near scenic areas. Village head of Bapiao village said, "there were so many tourist vehicles during festivals that they had to park down there. Because there were no space in front of that car, they had to lay out along the road, lining from administration area to there. Sometimes we asked for charge, sometimes we did not. Because some cars merely parked along the road, and we only charged when cars entered into the village. Sometimes we did not even charge some family members. They came from the upper scenic area gate and parked here, which would cost 20-50 yuan. The car parked in front of whose house, that household was responsible for the charge."

Xishuangbanna

In terms of cultural changes, tourism promoted the protection, inheritance and communication of traditional cultures. However, ethnic traditional culture confronted the problems of commercialization, staged-ness and distortion. Teacher Bai, the folk inheritance artist, knew well about Jinuo nationality traditional cultures and he said, "For our culture, tourism development had positive meaning in terms of opening up to public. However, it also had negative aspects for it distorted our cultures..."

In terms of environmental protection, tourism development promoted regulation and cleanness of residential environment, but it also inevitably led to construction pollution and noise pollution.



Figure 2 House construction and construction waste in Bapo village

Special Topic 3: Research on Government Behavior Concerning Border Self-Driving Tourism Development

With the rapid development of global tourism and peaceful, stable international community, border regions have become important areas for many countries to develop tourism. Developing border tourism had become one major mean to enhance cross-border communication and to promote border region's development. In addition, border tourism also contributes to one country's opening up and international financial and trade cooperation. Mohan was located in the southernmost of Yunnan province, connecting with Laos and adjacent to Thailand. It possessed natural advantages to develop border tourism, including: unique ethnic culture, strong border atmosphere and pleasant ecological environment. Since 2013, China was approved of the third-country personnel landing visa rights. In addition, the border tourism route from Xishuangbanna to Laos Prabang. Attributed to that, Mohan border tourism has gradually become a new economic growth point in the area.

Research on border self-driving tourism was divided into six chapters, which conducted analysis from two aspects, including: endowment-driven, policy-driven, investment-driven and policy-driven. In chapter one, we analysed and summarized border tourism development background and research process were given. In chapter two, we introduced and analysed the development and status quo of Mohan border tourism, including port history, development advantages, social and economic conditions. After summarizing border tourism development process, we thought that Mohan port

tourism development underwent slow start-up stage, budding and growing stage along with rapid developing stage, and now it is at the stage of rapid developing, with tourist reception volume and border tourism scale continuing to grow. At last, a detailed analysis on Mohan border tourism development status quo was conducted, developing from aspects like tourism development mode, tourism resources evaluation and border transportation condition and the like. As Kunman road construction continued to be improved, the proportion of self-driving tourism on Mohan tourism continued to grow.

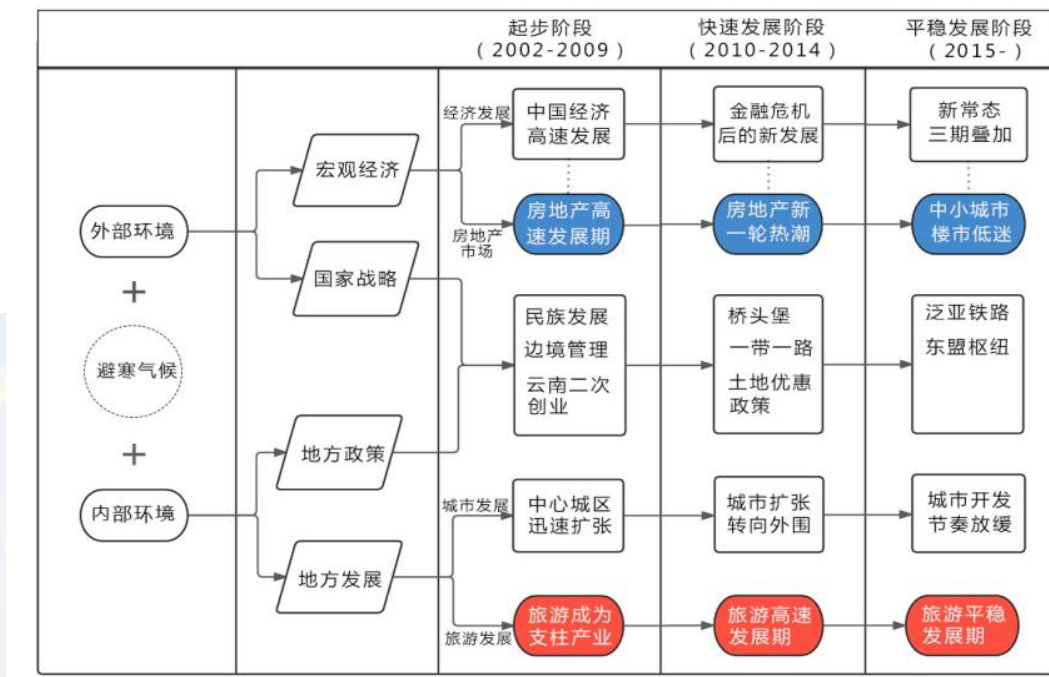
In chapter three, we analysed Mohan port border tourism policies. First of all, we studied Mohan port self-driving tourism policy, Chinese convenient cross-border policy, along with expanding length and space range of tourists traveling to other counties. Next, we mainly analysed the “strictest” new legitimate regulations on foreign vehicle entry in Thailand. By conducting in-depth interviews with self-driving tourists and analysing self-driving outbound tourism data between 2015 and 2016, we gained the conclusion that in short term, the scale of self-driving tourism showed a decreasing tendency while tourist and group volume had increased. Long-term influences remained to be tracked and monitored in the future. In chapter four, we analysed the incentive elements for Mohan port investment. With the help of government’s investment on tourism fundamental facilities, along with the coordinated development of hospitality industry, travel agencies and resorts, a comprehensive, complete modern tourism industry system was expected to be constructed. In chapter five, we studied social population characteristics, market demand characteristic, tourist travel characteristics and service quality perception, and thereafter analysed and compared the conditions in 2015 and 2016. Based on chapter five, recommendations on Mohan port development were raised in chapter six.

In the end, the report summarized Mohan port development conditions, concluding that tourism products lacked specialty, tourism-supporting facilities was not complete, tourism services remained to be improved and tourism had low popularity were major problems concerning current development. In the light of that, the report suggested that government’s dominant function should be strengthened, investment environment should be optimized, capital raising channels should be enlarged and promotion should be enhanced.

Special Topic 4: Research Report on Xishuangbanna Tourism Real Estate

1. Development process

Based on the data of development node of Jinghong city’s real estate and tourism real estate, Xishuangbanna’s tourism real estate development could be roughly divided into three stages. Generally speaking, the development of tourism real estate almost matched with the development of China’s real estate market. In addition, tourism real estate development showed strong association with local tourism and city development.



Xishuangbanna

Figure 1 Analysis on Xishuangbanna’s tourism real estate investment environment

(starting stage; rapid developing stage; steady developing stage//

external environment; warm climate; internal environment//

macroeconomics; national strategy; local strategy; local development

economic development; Chinese rapid economic development; real estate rapid developing stage;

ethnic development; border regulation; Yunnan’s second entrepreneurship; city development; rapid

expanding of downtown; tourism development; tourism became pillar industry//

new development after financial crisis; new mania of real estate; Qiaotoubao; “the Belt and Road Initiatives; land preferential policy; city expanding turned to suburban; tourism rapid developing stage//

new normal; accumulation of three stages; depression in real estate market in small-and-medium-size cities; Pan-Asia Railway; ASEAN connection; city exploitation slows down; tourism steady developing stage//)

2. Investigation

In this research, we visited five most representative tourism real estate projects, specifically: Wanda Xishuangbanna Resort, Gaozhuangxishuangjing, Xishuanglinyu, Yuejingzhuang, Goldern Resources.

Attributed to field investigation, we gain better understanding of basic conditions of these projects, their development process, marketing conditions and customer structure. Based on the observations, we analyzed the advantages and disadvantages of these projects.

3. Problems and Recommendations

Gain better understanding of tourism real estate characteristics:

- (1) monopoly climate is the core attraction of tourism real estate;
- (2) tourism projects can contribute to popularity, but cannot reverse real estate marketing dilemma;
- (3) tourism real estate development should adapt to current public consumption modes.

Associate with local conditions:

- (1) determine target population: investment buyers decreased and vacation buyer dominated;

(2) combine with characteristics of tourism industry, such as “tourism + tea industry”, etc.;

(3) gradually complete supporting fundamental facilities and comply with city development pattern.



2016 Monitoring Report on the Sustainable Tourism Development of Changshu

Monitoring Center for UNWTO Sustainable Tourism Observatories

Changshu Municipal Tourism Administration



Acknowledgement:

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And all those who helped with the monitoring work.

1 Introduction

During August 2 to August 8, 2016, Monitoring Center for UNWTO Sustainable Tourism Observatories (MCSTO) successfully accomplished the monitoring work in 2016, according to the index system and operation method recommended by the World Tourism Organization Sustainable Development Department and in the light of tourism development and actual needs of Changshu observation points. In October 2016, the monitoring team completed the 2016 monitoring and analysis as well as report writing of the Changshu Observation Point.

The monitoring covers the entire Changshu city. From August 2 to August 8, 2016, under the strong support and cooperation from Changshu Municipal Tourism Administration, the monitoring team successfully carried out the second field investigation on the sustainable tourism development of Changshu monitoring site. The research team consists of 1 full-time teacher from Sun Yat-sen Tourism Development and Planning Research Center (Zhongshan University Tourism College), 2 teachers from Monitoring Center, 3 doctoral students from Sun Yat-sen Tourism Development and Planning Research Center, 2 masters as well as 16 undergraduate observers.

A total of 246 questionnaires were distributed for the leisure life quality and tourism development of local residents in Changshu. 246 questionnaires were collected with a recovery rate of 100% and 238 valid questionnaires with an effective rate of 96.7%. In addition, a total of 30 in-depth interviews were conducted with local residents. A total of 474 questionnaires on tourists' perception and satisfaction of tourism of Changshu city were sent out to tourists from other places. 474 questionnaires were collected and the recovery rate was 100%. There were 440 valid questionnaires with an effective rate of 92.8%. A total of 300 questionnaires were sent out to tourism industry practitioners (tourism employers and employees) for their perception of the impact of tourism development. 281 questionnaires were collected and the recovery rate was 94%. 242 valid questionnaires and 86% efficiency were collected. In addition, a total of 26 interviews were conducted with tourism industry practitioners and tourism business owners, of which 20 were audio-recorded.

The monitoring indicator system and analytical framework for this period mainly refer to the "Indicators of Sustainable Development for Tourism Destinations: A Guidebook" by World Tourism Organization and related academic research results.

2 Tourism and Resources, Environmental Protection

(1) Ambient air quality and atmospheric environment quality.

From 2013 to 2015, the annual compliance rate of urban ambient air quality in Changshu was 66.85% -75.34%. In 2015, sulfur dioxide reached the standard; nitrogen dioxide exceeded the standard with a daily compliance rate of 97%; respirable particulate matter exceeded the standard with a daily compliance rate of 90.7%; fine particles exceeded the standard with a daily compliance rate of 78.6%; ozone exceeded the standard with a daily compliance rate of 88.5%. According to the assessment of "Ambient Air Quality Standard" (GB 3095-2012), in 2014 and 2015, the proportion of fine days in Changshu was 75.34% and 66.85% respectively. The primary pollutants were fine particles. According to the three indexes of "sulfur dioxide, nitrogen dioxide and respirable particulate matter", the comprehensive index of air pollution in five years (2011-2015) was 1.39, 1.54, 1.96, 1.82, and 1.81. The five-year average was 1.70, of which the pollution degree in 2013 was the highest.

(2) Water environment.

In 2015, the surface water quality of Changshu generally was generally at the light pollution level. In terms of lakes, the total nitrogen was the main pollutant affecting the lakes. The water quality of Shanghu Lake was excellent; the water quality of Kuncheng Lake and Jiajintuotang was slightly polluted; and Kunchung Lake and Shanghu Lake were all at medium nutrition level. In 2015, the drinking water quality of Changshu met the water quality standards of Category II and the total nitrogen indicators met the water quality standards of Category III. No 80 specific items of centralized drinking water sources in the city exceeded the standard and the water quality was generally safe.

(3) Sound environment.

The main sources of noise in Changshu are: shops, restaurants, cultural and recreational facilities, residential life and vehicle operation. Noise is divided into life noise and traffic noise. By interviewing the owners in scenic spots such as Shajiabang, Xingfu Temple and Zhang Naiyuan, most of the respondents disagreed with the expression of "noise pollution in Changshu". They don't think the noise brings impact because there is a distance from the parking lot or the road inside the scenic area. Owners of a small number of shops located in the scenic entrances and exits agreed to attitude, mainly troubled by the car into the scenic whistle.

(4) Environmental protection projects promotion.

From 2011 to 2015, Changshu actively promoted water environment remediation, air pollution remediation, urban and rural environment remediation, expansion of green area and other projects, and achieved remarkable results.

3 Tourism and Community

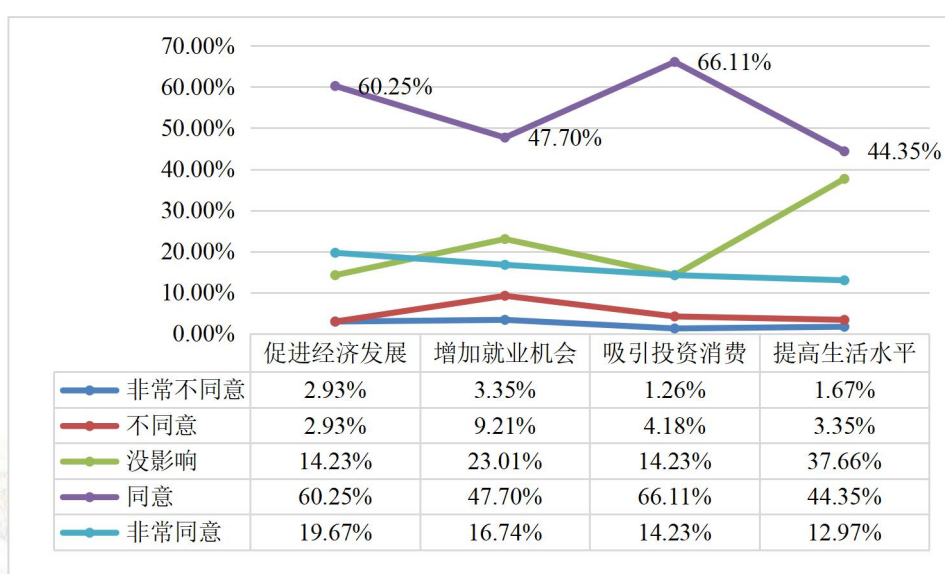
3.1 Residents' attitude towards tourism

(1) Residents' perception and evaluation of the impact of tourism economy.

The monitoring sets the following seven indicators to measure residents' evaluation and perception of tourism economic impact, including: 4 positive indicators and 3 negative indicators, each corresponding to five options - "strongly disagree", "disagree", "making no difference", "agree", "strongly agree". In order to more clearly reflect the residents' attitude toward the impact indicators, the data is analyzed with numerical values of 1, 2, 3, 4 and 5 to stand for "strongly disagree", "disagree", "no opinion", "agree" and "strongly agree" in order to assist in the statistics and comparison the mean value of residents' attitudes and perceptions. The larger the mean value, the higher the sense of identity (acceptance) of residents

As can be seen from Figure 3-1, most of the residents agreed that tourism can have a positive impact on the economy. In particular, more than 47% residents provide scores above 4 (indicating "agree" with the indicator) for the three indicators "tourism development promotes economic

development," "tourism development adds jobs," and "tourism development attracts investment and consumption", indicating that residents agree with these three points. In the indicator of "tourism development improves living standard", residents' recognition level is relatively low compared with the other three indicators. Only 44.35% of residents agree that some residents think that tourism development may not directly bring them economic benefits and that the major industry in Changshu is light industry, tourism development has little to do with their lives. It is related to the industrial structure of Changshu, residents' employment practices, and the degree of urban economic development.



Changshu

X:"tourism development promotes economic development," "tourism development adds jobs" and "tourism development attracts investment and consumption" "tourism development improves living standard"

Y: "strongly disagree"

"Disagree"

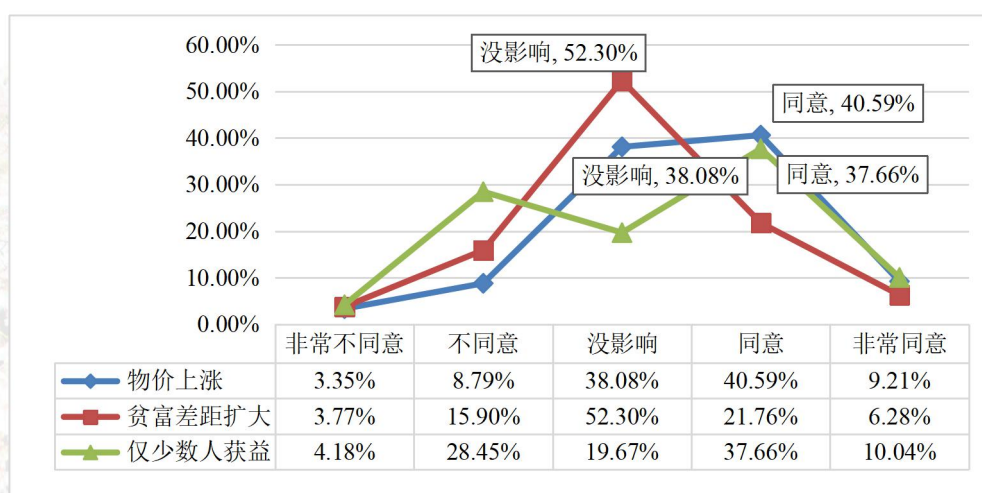
"Making no difference"

"Agree"

"Strongly agree"

Figure 3-1 Assessment of positive indicators of the impact of tourism economy

From Figure 3-2 we can see that the negative impact of tourism development on the community cannot be ignored. In the evaluation of the indicator that "tourism development benefits only a few people", 37.66% of residents "agree", 10.04% of residents "strongly agree". Compared to the data in 2015, the proportion of "strongly agreed" this year is higher. However, the overall percentage of agreeing to the phrase (indicating "agree" and "strongly agree") is basically the same. 38.08% of the residents said "making no difference" in the indicator of "tourism development causes local prices rising", that the price of Changshu is already high and has nothing to do with tourism. However, 40.59% of the residents also said "agree" and 9.21% of residents said "strongly agree". They think that tourism development does raise local prices. And as compared with 2015, the proportion of residents who agree with the statement (which means "agree" and "strongly agree") has been raised. In response to the statement that "tourism development has widened the gap between the rich and the poor of the locals", 52.30% of the residents considered it as "making no difference" while 21.76% and 6.28% of the residents said "agree" and "strongly agree" respectively. Compared to the data of 2015, the proportion of the residents who agree with this statement has come down.



没影响: Making no difference

同意: Agree

物价上涨: Price rising

贫富差距扩大: The gap between the rich and the poor of the locals widened

仅少数人获益: Tourism development benefits only a few people

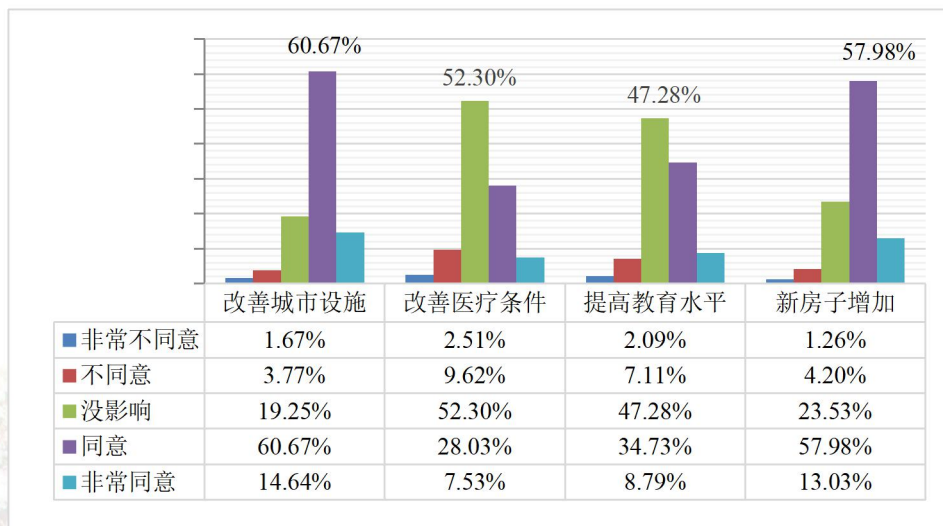
Figure 3-2 Assessment of negative indicators of the impact of tourism economy

(2) Residents' perception and evaluation of the impact of tourism society.

The monitoring sets the following seven indicators to measure the perception and evaluation of local residents on the impact of tourism development on the social living environment. Among them, there are four positive indicators, namely "improving facilities such as roads and hydropower", "improving medical conditions", "improving the quality of education", and "demolishing old houses and increasing new houses". There are five negative indicators - "aggravating the traffic congestion", "leading to an increase in the crime rate", "tourists disrupting the residents' original life", "restricting residents' use of resources in tourist attractions" and "tension between residents and tourists".

The positive impact of the development of tourism on society has been generally evaluated as high as that in 2015. Among them, the highest evaluation is "improving facilities such as roads and hydropower" with the average score 3.83, followed by "demolishing old houses and increasing new houses" with the average score of 3.77. It indicates that residents generally agree that tourism development helps improve urban facilities and increase new houses. The mean score of "tourism development improves local medical conditions" was 3.28, and the mean value of "tourism development improves the quality of education" was 3.41, indicating that residents think that tourism development has no direct impact on these two indicators. As can also be seen from Figure 3-3, 60.67% of residents think that tourism development has a positive impact on urban facilities. Secondly, 57.98% of the residents agree with the statement of "demolishing old houses and increasing new houses", both of which have shown an increase from 2015. This shows that tourism development does have a positive effect on urban construction. Among the two indicators, "tourism development improves medical conditions" and "tourism development improves the quality of education", more than 47% of residents think that these two indicators are not directly related to tourism development and their proportion has also risen as compared with previous years. Residents' assessment of the negative impact of tourism development on society was basically "making no difference". Only the average value of "tourism aggravates traffic congestion" reached 3.4 while the average of the other five indicators was less than 3, indicating that residents basically think that tourism will not have a negative impact on the society of Changshu, or basically making no difference.

As can be seen from Figure 3-4, 37.66% of residents said "making no difference" on the indicator that "tourism aggravates traffic congestion" and 39.75% of residents agree with this and the proportion is higher than the one in 2015. It shows that Changshu should pay more attention to the construction of public transport system. Besides, for the 4 indicators of "tourism leads to risen crime rate", "tourism has disrupted the residents' original life", "tourism has restricted the residents to use tourism resources" and "tourism has caused the tension between residents and tourists", more than 46% residents said "making no difference", indicating that city performs better in public safety, residents living order, scenic resources and the host-guest relationship which makes residents rather satisfied.



X: Tourism development improves urban facilities

Tourism development improves medical conditions

Tourism development improves the quality of education

Tourism development increases new houses

Y: Strongly disagree

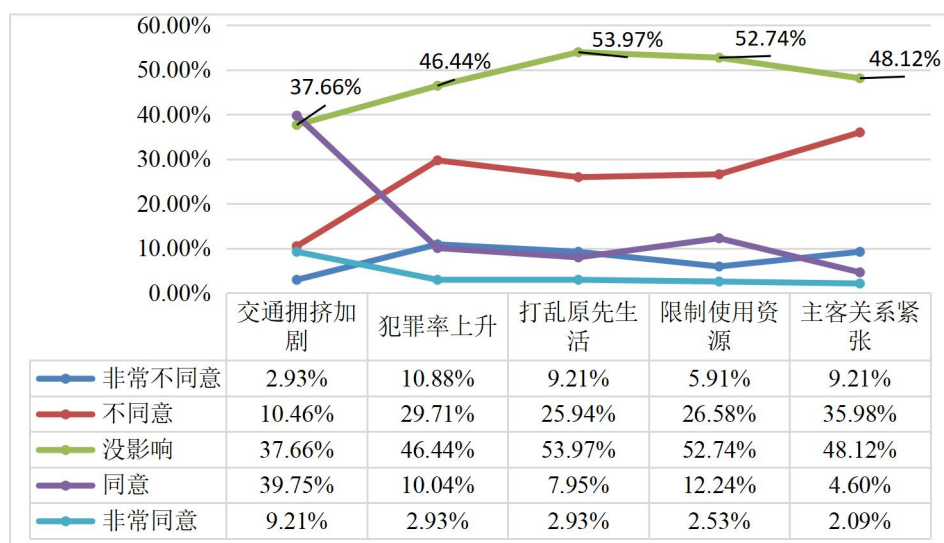
Disagree

Making no difference

Agree

Strongly agree

Figure 3-3 Evaluation of positive indicators of social impact of tourism



X:

Tourism aggravates traffic congestion

Tourism leads to risen crime rate

Tourism has disrupted the residents' original life

Tourism has restricted the residents to use tourism resources

Tourism has caused the tension between residents and tourists

y:

Strongly disagree

Disagree

Making no difference

Agree

Strongly agree

Figure 3-4 Evaluation of negative indicators of social impact of tourism

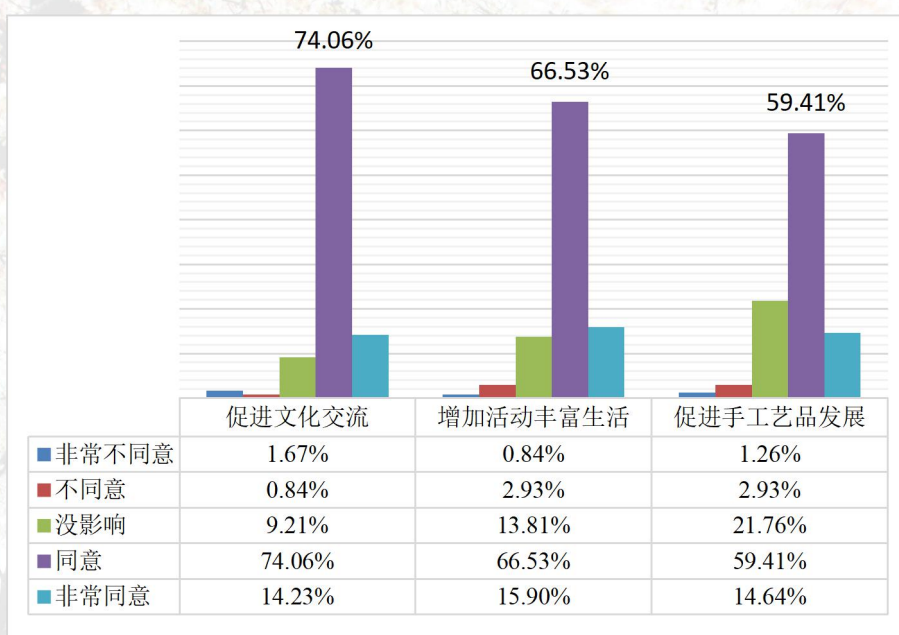
(3) Residents' perception and evaluation of the impact of tourism culture.

The monitoring set the following indicators to measure residents' perception and evaluation of the impact of tourism culture. The indicators are divided into two categories: positive indicators and negative indicators. Among them, 3 are positive indicators, namely "tourism promotes cultural exchanges between local and foreign places", "tourism increases festivals and enriches residents'

life" and "tourism promotes the development of local handicrafts"; the negative one is "tourism makes folklore and traditional culture be forgotten"

Overall, tourism has a positive cultural influence on the community. As shown in Figure 3-5, 74.06%, 66.53% and 59.41% say "agree" to the three positive indicators of cultural impact, accounting for more than 59% of the total, indicating that nearly 60% of the residents claims "agree" on tourism positively promotes tourism development. In the field of cultural exchanges, increases festivals, enriches the life of residents and promotes the development of local arts and crafts. Compared with 2015, these proportions have been greatly improved which shows that tourism is playing an increasingly significant role in community culture.

In the evaluation of the negative indicator "tourism development leads to folkways and traditional culture being destroyed and forgotten", 43.10% of residents consider it as "making no difference" while 28.87% of residents said they "disagreed" with it. Although the proportion of "agree" is still rather low, it is higher than the one in 2015. According to the added contents of interviews with residents, some residents said nothing about the "What are the traditional folk customs and cultures in Changshu", and this situation is particularly prominent among young people. The city should pay more attention to it.



X:

“Tourism promotes cultural exchanges between local and foreign places”, “tourism increases festivals and enriches residents' life”, “tourism promotes the development of local handicrafts”;

Y:

Strongly disagree

Disagree

Making no difference

Agree

Strongly agree

Figure 3-5 Positive indexes for the cultural influence of tourism

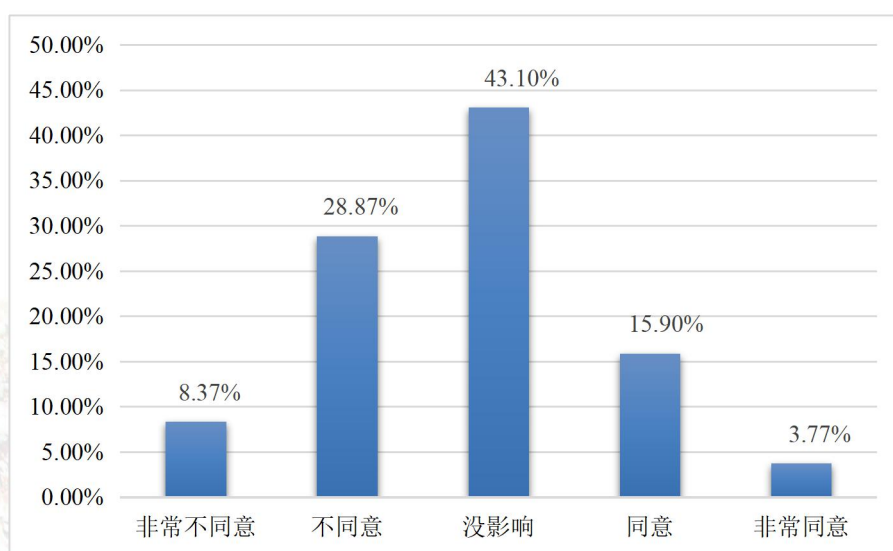


Figure 3-6 Evaluation of negative indicators of tourism culture influence

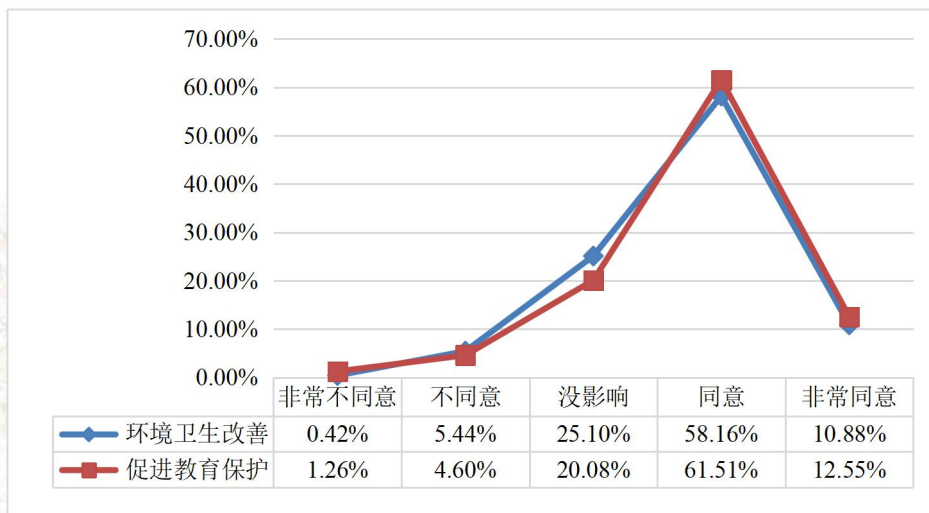
(4) Residents' evaluation of the tourism influence on environment.

The monitoring sets the following seven indicators to measure the perception and evaluation of residents on the influence of tourism on environment. Indicators are divided into two categories: positive indicators and negative indicators. Among them, two are positive indicators, which are "significant improvement of sanitation conditions" and "promotion of environmental education" and "promotion of animals and plants protection"; 5 negative indicators, which are "tourism consumes

Changshu

local resident’s resources such as fish and water”, “air pollution”, “increases noise pollution”, “increases water pollution” and “increases garbage”.

More than 58% of residents agree with the two indicators of tourism's positive influence on the environment. As shown in Figure 3-7, residents' evaluation of two positive indicators: "significant improvement in environmental sanitation conditions" and "promotion of environmental education and protection of animals and plants" are basically consistent, which as a whole indicates that residents “agree” with that tourism development has a positive influence on environment, especially in terms of improving sanitation, environmental education and animal and plant protection. This proportion has greatly improved compared with that of 2015. Residents mention many times that the zoo in Changshu scenic area, indicating that Changshu has done a good job in environmental protection and animal and plant protection.



X: Strongly disagree

Disagree

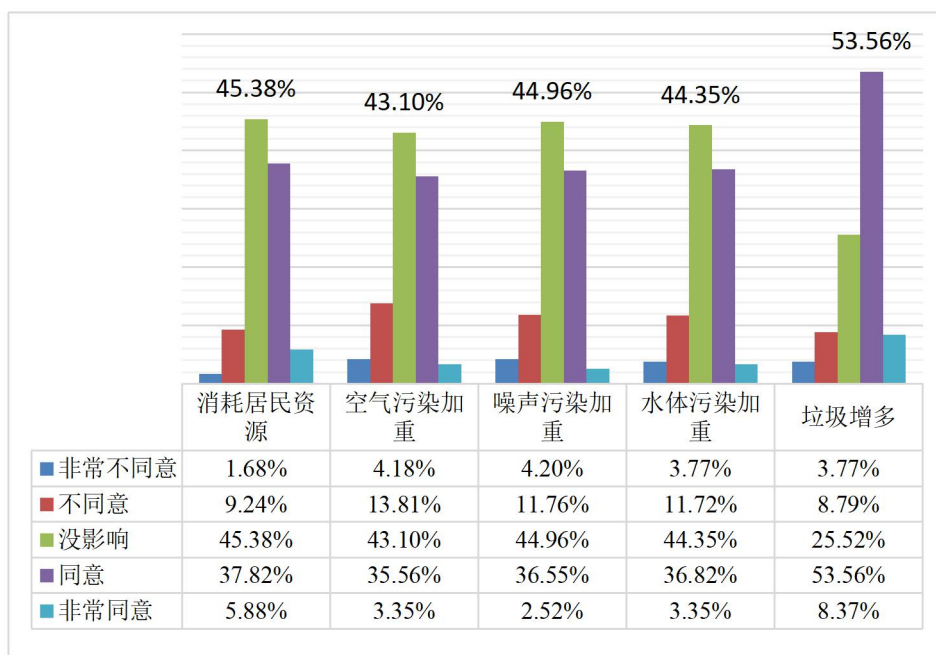
Making no difference

Agree

Strongly agree

Y: “significant improvement of sanitation conditions" and "promotion of environmental education”

Figure 3-7 Evaluation of positive indicators of influence of tourism on environment



X: “tourism consumes local resident’s resources such as fish and water”, “aggravates air pollution”, “aggravates noise pollution”, “aggravates water pollution” and “increases garbage”.

Y: Strongly disagree

Disagree

Making no difference

Agree

Strongly agree

Figure 3-8 Evaluation of negative indicators of influence of tourism on environment

Among the five indicators that tourism negatively affects the environment, the average value of "garbage increase" is 3.54, which is the most recognized one among residents. However, for "tourism consumes the resources required for residents ", "air pollution aggravated", "water pollution aggravated" and " noise pollution aggravated", the average value is between 3.2-3.4. Residents are not highly agreed with these, most of them not thinking that they have too much negative impact. As shown in Figure 3-8, more than 40% of the residents hold the opinion of “making no difference” in terms of the four indicators of "consumption of resources required by residents", "air pollution aggravation", "water pollution aggravation" and "noise pollution aggravation". While 53.56% of the respondents agree with "tourism development increases garbage" and the proportion has increased compared with 2015.

3.2 Community involvement and awareness

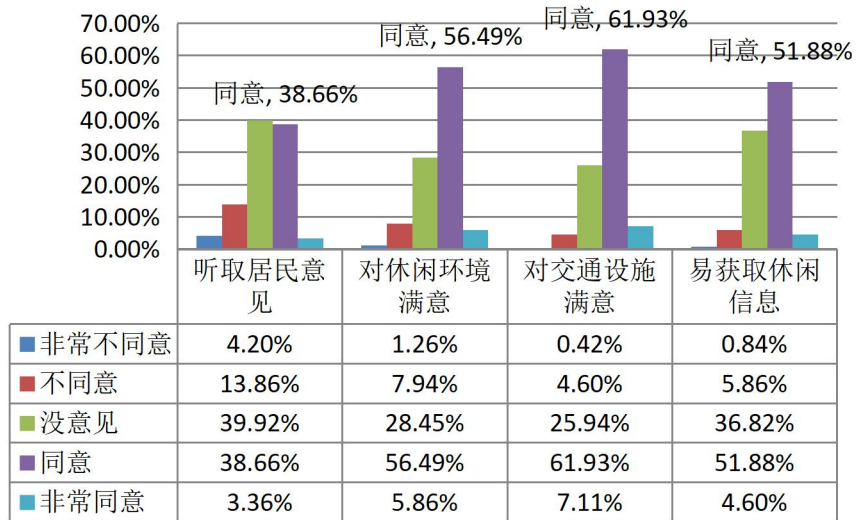
(1) Community residents' perceptions of their participation in tourism.

The monitoring sets the following 7 indicators to analyze the community residents' perceptions of their level of tourism participation, including: "opinions of residents will be heard when making scenic spots", "residents are very satisfied with the environment and hygiene of leisure activities", "residents are very satisfied with the transport facilities in leisure venues " and "residents are very easy to obtain leisure information".

As Figure 3-9 shows, as a whole, residents are rather satisfied with the various indicators of perceived evaluation. 56.49%, 61.93% and 51.88% of residents agree with "very satisfied with the environment and hygiene of leisure activities", "very satisfied with the transport facilities in leisure venues" and "very easy to obtain leisure information" respectively. More than half of respondents agree with these two statements, indicating that residents are rather highly satisfied with the places for leisure activities. Compared with 2015, residents' satisfaction with access to information has increased. Although some residents mentioned the issue of traffic congestion during the interview, the number of residents who are satisfied and very satisfied accounted for 69.04%, up from 68.08% in 2015. As a whole, residents are satisfied with the transport facilities. Residents' satisfaction with the index of "residents will be consulted when making decisions on scenic spots" is the lowest, with a mean score of only 3.23, indicating that most residents think that the decision makers of the scenic spots basically will not listen to residents' opinions or the residents said that the activity has nothing to do with them. Some residents also said that although they are willing to take the initiative to make suggestions for the development of scenic spots, they are not clear of the specific ways. In the in-depth interview, some residents make it clear in their interviews that they think Changshu does not have any tourism, but at the same time they are satisfied with Changshu's leisure tourism. They think that Changshu is a good city for living and visit. It further shows that Changshu residents' understanding of the concept of tourism in Changshu is fuzzy. What's more, it also manifests that although residents of Changshu have a rather high degree of perception of tourism development in Changshu, there is still a certain sense of distance. Future scenic area operation and management should be strengthened in these aspects.

(2) Community residents' awareness of participation.

The evaluation indicators of community residents' willingness to participate in the development of tourism include: "I hope the scale of tourism will continue to increase", "I am willing to engage in tourism-related work", "I am willing to take the initiative to make suggestions for the development of scenic spots" and "I would like to participate actively in tourism promotion and publicity". As can be seen from Figure 3-10, residents who are willing to take the initiative to participate in the tourism industry occupy the vast majority. 66.44% of the residents hope that the tourism industry will continue to increase in scale. 47.06% of the residents are willing to engage in tourism-related work. 59.83% of the residents are willing to take the initiative to provide suggestions to scenic spots development and 66.11% of residents are willing to actively participate in the promotion and publicity of related tourism activities. The above data shows that Changshu residents hope to continue the development of tourism industry, and they are highly motivated in participating in the tourism industry. Changshu tourism development is highly supported by the masses. "I hope the scale of tourism will continue to increase" and "I will actively participate in tourism promotion and publicity". The proportions of residents who choose "agree" these two all have an increase compared with that in 2015 (the proportions of residents who agreed to the two in 2015 was 62.13 % and 55.74% respectively). However, it should also be noted that there has been a substantial drop in the proportion of residents who choose to "strongly agree" (18.72% and 15.32% respectively of those who voted strongly in both sections in 2015). Firstly, it is because that the samples are rather young. The choices of young residents will not be too extreme. Some residents will take factors like time, money and abilities into consideration. Secondly, tourism in Changshu is still under development. Some residents feel that "the level of residents' participation in tourism is not bad, but there are few among the people I contact with" and they are more hesitant in making choice.



Agree, 38.66% Agree, 56.49% Agree, 61.93% Agree, 51.88%

X: "opinions of residents will be heard when making scenic spots", "residents are very satisfied with the environment and hygiene of leisure activities", "residents are very satisfied with the transport facilities in leisure venues ", "residents are very easy to obtain leisure information"

Y: Strongly disagree

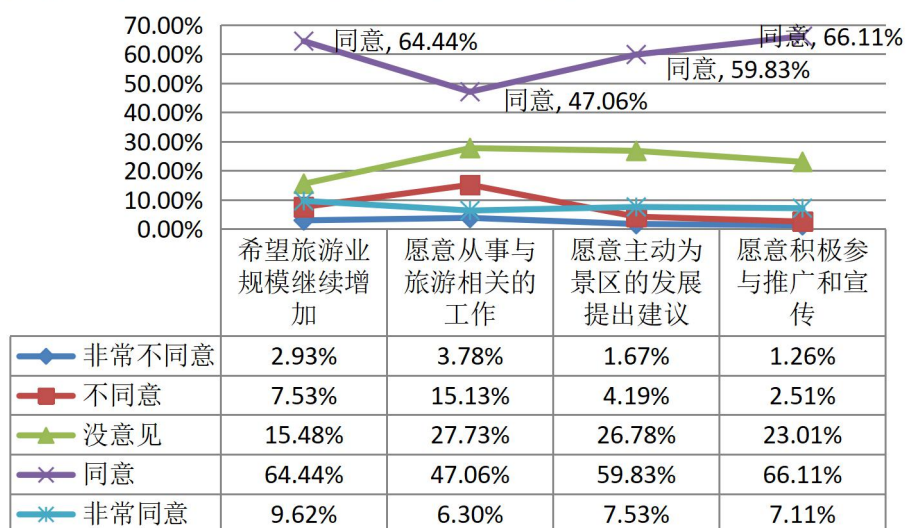
Disagree

Making no difference

Agree

Strongly agree

Figure 3-9 Perception evaluation of community residents' participation in tourism



Agree, 64.44% Agree, 47.06% Agree, 59.83% Agree, 66.11%

X: "I hope the scale of tourism will continue to increase", "I am willing to engage in tourism-related work", "I am willing to take the initiative to make suggestions for the development of scenic spots", "I would like to participate actively in tourism promotion and publicity"

Y: Strongly disagree

Disagree

Making no difference

Agree

Strongly agree

Figure 3-10 Evaluation of community residents' willingness to participate in tourism

4 Tourists Behavior and Satisfaction

4.1 Tourists behavior preferences

(1) The way tourists obtain information.

A survey of tourist access to tourist information can help the destination better implement tourism promotion. The survey finds that "relatives and friends introducing" accounts for the largest proportion, reaching 29%; followed by "Internet access" to 26%; then "TV", accounting for 14%; "newspapers and magazines" and "travel books" account for less than or equal to 5%, of which the proportion of access to information from "newspapers and magazines" was the smallest (Table 4-3). As the saying goes, "One pass ten, ten hundreds" and "Good news travels thousands of miles", we can see the spread of word of mouth is essential for tourism in Changshu. Only the good destination construction and services can get more potential tourists. Comparing with the data from 2015, it is found that the changes are "Internet" and "travel agencies". Among them, the "Internet" approach increased by 5 percentage points, indicating that with the development of the Internet, it becomes a more important channel to obtain travel information.

(2) The way tourist organize the trip.

From the analysis of survey data of tourists' participation in tourism, it is found that "independent travel" is the main form of tourism for tourists to Changshu and 60% of them choose this form. The second one is "package tour with friends or family", accounting for 22% of the total. The number of tourists who choose "unit organization" accounts for 8% and the smallest proportion is the one of "meeting inspection", only 3%. It shows that so far Changshu is more suitable for independent travel, which is related to the leisure climate in Changshu. Compared with the data from 2015, it is found that the biggest change is in "independent travel", with an increase of 18%. It indicates that Changshu should focus on independent tourist groups and strengthen relevant construction (such as hospitality, traffic system, sign recognition system, etc.)

(3) Tourists' traveling motivation.

Among the tourists who come to Changshu, most of them are for the purpose of "sightseeing", which accounts for 45%. To some extent, it tells that the landscape like natural history of Changshu dominates the current development of tourism now. In addition, about 38% of tourists travel for "leisure". "Business activities", "visiting friends and relatives" share roughly the same proportion. Compared with the data from 2015, it is found that the proportion of tourism motives such as "company and unit incentive tours", "wild expeditions", "scientific expeditions", "religious pilgrimages" and "scientific expeditions" are still relatively small, indicating that Changshu's tourism image is rather single and there is still tremendous potential in the development of these tourist motivations.

(4) Tourists' choice of transportation.

From the survey on the modes of transportation for tourists, it can be found that the total most tourists to Changshu drive by themselves, accounting for 66% of the total (these tourists are mainly from cities near Changshu in Jiangsu Province). The following one is to take the coach (these tourists mainly join in group tours in travel agency tours in surrounding cities and provinces), with the proportion of 17%. Traveling by aircraft or trains (these tourists refer to the ones reach the previous destination by air or train) occupy 10% and 3% respectively, while the others account for only 4%.

(5) Types of accommodation.

According to the data analysis of tourists' accommodation types, tourists who choose "other" account for nearly half (49%). It is related to the fact that tourists are mostly short-distance tourists, and generally do not choose to spend the night in Changshu. There are also some visitors to visit relatives and friends, living in relatives and friends at home. The following one is living in the star hotel and its proportion is 35%, while family hotels and youth hostels accounted for 11% and 5% respectively.

4.2 Tourists' perception and satisfaction

(1) Tourists' assessment of tourism resources.

The tourism resources evaluation is analyzed from the aspects of resource characteristics evaluation, city image evaluation, infrastructure evaluation and safety and health evaluation respectively. There are six indicators in the evaluation of resource characteristics, which are Changshu's historical and cultural background, natural ecological value, richness of tourism resources, appreciation of tourist attractions, tourism environment and climate suitability. It can be seen from Table 4-1 that tourists evaluate the characteristics of tourism resources in Changshu with average scores above 4.0 and 74% of tourists are satisfied with each index, indicating that tourists are more satisfied with the tourism characteristics.

Table 4-1 Tourists' evaluation on Changshu's tourism resources characteristics

Index	Average Value	YOY percentage change	Proportion of being satisfied	YOY percentage change
Historical and cultural background	4.172	-0.037	83.5%	+8.1%
Natural ecological value	4.227	+0.016	86.7%	+11.8%
Richness of tourism resources	4.060	-0.051	74.8%	+4.5%
Appreciation of tourist attractions	4.090	+0.041	76.4%	+8.5%

Index	Average Value	YOY percentage change	Proportion of being satisfied	YOY percentage change
Tourism environment	4.157	+0.476	80.1%	+11.2%
Climate suitability	4.090	+0.296	77.8%	+19.0%

Compared with the monitoring results in 2015, it can be found that the tourists' overall evaluation on the tourism characteristics in Changshu has risen. From the point of view of the average value, the scores of tourists' satisfaction with Changshu's tourism environment and climate have significantly improved. In the monitoring results in 2015, tourists scored lower on the tourism environment of Changshu. The improvement of scores in this area shows that over the past year Changshu has effectively solved the problems of overcrowding and poor sanitation in tourist attractions. As shown by the proportion of "being satisfied", the proportions of tourists who said being satisfied or very satisfied indicators showed a significant increase, indicating that Changshu has made some progress in promoting the features of tourism resources in the city and the comprehensive experience of tourists has also been improved.

(2) Tourists' evaluation on the city image of Changshu.

The monitoring sets seven indicators in the evaluation of resource characteristics, respectively, the cultural value of tourism, distinctiveness of Changshu's tourism image, enthusiasm of local residents, urban noise pollution, cleanliness, urban air quality and urban river water quality in Changshu.

Index	Average Value	YOY percentage change	Proportion of being satisfied	YOY percentage change
Cultural value of tourism in Changshu	4.106	+0.065	79.4%	+13.9%
Distinctiveness of Changshu's tourism image	4.002	+0.077	73.9%	+12.3%
Enthusiasm of local residents	3.832	+0.055	65.2%	+9.9%
Urban noise pollution	3.867	+0.155	65.7%	+12.8%
Cleanliness	4.007	+0.124	75.1%	+13.5%
Urban air quality	4.032	+0.136	75.5%	+12.5%
Urban river water quality	3.763	+0.464	62.9%	+11.6%

Compared with the 2015 monitoring results, tourists' contribution to urban noise pollution, air quality and river water quality increased significantly, indicating that Changshu City has enhanced its tourist image through environmental management (Table 4-2). However, of the seven indicators, the score of urban river water quality is the lowest, with a mean score of 3.763. Only 62.9% of tourists are satisfied or strongly satisfied with the water quality of Changshu's water. In the survey, some tourists propose to Changshu to strengthen river control and improve river water quality, which indicates that this work needs to be strengthened. Judging from the proportion of "being satisfied", tourists appraised the city image more before, indicating that tourists' recognition of Changshu's city image has risen, and Changshu's tourism image building has received good results.

(3) Tourists' evaluation on infrastructure.

The monitoring sets six indicators in terms of infrastructure, which are the overall urban hygienic environment, the overall conditions of urban public transport, the sanitary conditions of urban public toilets, the status of urban public resting facilities, the clarity of road-guiding markers and the urban greening (Table 4-3).

Table 4-3 Tourists' Evaluation of Infrastructure

Index	Average Value	YOY percentage change	Proportion of being satisfied	YOY percentage change
Overall urban hygienic environment	3.968	+0.071	73.9%	+11.2%
Overall conditions of urban public transport	3.922	+0.426	69.8%	+6.8%
Sanitary conditions of urban public toilets	3.965	+0.12	72.1%	+13.1%
Status of urban public resting facilities	4.094	+0.218	76.9%	+14.9%
Clarity of road-guiding markers	4.069	+0.074	77.3%	+9.8%
Urban greening	4.188	+0.054	81.0%	+7.7%

As can be seen from the above data, tourists are generally satisfied with the infrastructure in Changshu, with average scores ranging from 3.9 to 4.2. Compared with the monitoring results in 2015, tourists score higher for each index and the percentage of tourists who said they were satisfied or very satisfied increased significantly. According to the data, the urban greening in Changshu has made the vast majority of tourists feel satisfied, but the public transport and sanitary conditions still have long way to go.

(4) Tourists' evaluation of safety and health.

The questionnaire sets a total of three indicators on safety and health - urban safety facilities, medical equipment and public order (Table 4-4).

Table 4-4 Tourists' evaluation of safety and health

Index	Average Value	YOY percentage change	Proportion of being satisfied	YOY percentage change
Urban safety facilities	3.933	-0.051	68.2%	+7.4%
Medical equipment	3.745	-0.054	57.0%	+11.0%
Public order	3.871	-0.056	64.5%	+2.4%

Compared with the monitoring results in 2015, the mean scores of urban safety facilities, medical equipment and public order conditions remain basically unchanged, while the proportion of being satisfied or very satisfied with medical equipment increases significantly. However, since most tourists do not have much intuitive experience with safety equipment and medical equipment, the data are of little value. Survey results show that tourists' score on the city safety, medical equipment, and public order are above 3.7, which means they are rather satisfied. In recent years, some tourist cities have witnessed a series of major security incidents such as terrorist attacks, earthquakes and fires, so Changshu government has taken corresponding measures to increase the security investment in various tourist attractions, transportation routes and public transport facilities in the urban area of Changshu. As a result, it earns tourists satisfaction.

4.3 Tourists' evaluation of tourism service

The monitoring analyzes tourists' overall evaluation of travel services from the aspects of services in scenic spots, catering services, transportation services, accommodation services, shopping and entertainment as well as the evaluation of resources and complaints.

(1) Tourists' evaluation of services in scenic spots.

The questionnaire has 7 indicators for the evaluation of the services in scenic spots. The result is as shown in Table 4-5.

Table 4-5 Tourists' evaluation of services in scenic spots

Index	Average Value	YOY percentage change	Proportion of being satisfied	YOY percentage change
Infrastructure in the scenic spots	4.037	+0.021	76.7%	+8.3%
Sanitation of toilets	4.041	+0.051	75.7%	+10.3%
Reasonableness of ticket prices	3.488	-0.115	48.3%	-2.0%
Professional and entertaining narrations	3.557	-0.119	46.2%	-4.6%
Richness of tourism information	3.864	+0.008	66.1%	+4.3%
Clarity of the signs	3.966	+0.024	71.4%	+6.3%
Crowding in scenic spots	3.965	+0.073	70.9%	+9.5%

Compared with the monitoring results in 2015, the scores for the reasonableness of ticket prices and the professional humorous narrations by tour guides have declined. While the scores of other indicators, the proportions of “being satisfied” and “strongly satisfied” have risen markedly. In particular, for the sanitation of toilets in scenic spots, visitors were satisfied or very satisfied with the proportion increased by 10.3%, indicating scenic toilet sanitary problems in this year has been better dealt with. The issue of ticket prices has been presented in the 2015 monitoring report. Less than half (48.3%) of tourists think that Changshu's scenic spots ticket prices are reasonable. During the interviews, many tourists also reflected the problem of over-priced scenic spots. In particular, the ticket prices in the scenic area of Shajiabang make the tourists feel dissatisfied. Also in September, Yushan Shanghu Lake Scenic Area was in the off-season, the ticket price is 60 yuan. While the ticket price of Shajiabang scenic spot is in peak season of 120 yuan. Such a gap may also be one the reason why tourists are not well satisfied.

(2) Tourists' evaluation of catering services.

The questionnaire has 4 indicators for the evaluation of the catering services. The result is as shown in Table 4-6.

Table 4-6 Tourists' evaluation of catering services

Index	Average Value	YOY percentage change	Proportion of being satisfied	YOY percentage change
Catering tastes, varieties and specialties	3.708	-0.012	56.1%	+2.5%
Food hygiene and safety	3.730	-0.063	56.8%	-0.4%
Reasonableness of price	3.498	-0.274	45.5%	-7.4%
Initiative of offering service	3.718	+0.367	56.3%	+1.3%

From the above data we can see, most tourists feel good about Changshu catering' hygiene conditions as well as tastes, varieties and specialties. The average score of the catering service at a reasonable price is 3.498. Compared with the monitoring results in 2015, the reasonableness of the catering prices was significantly lower both in terms of the average scores and the rates of "being satisfied" or "being very satisfied".

(3) Tourists' evaluation of transportation services.

The questionnaire has 5 indicators for the evaluation of transportation services. The result is as shown in Table 4-7.

Table 4-7 Tourists' evaluation of transportation services

Index	Average Value	YOY percentage change	Proportion of being satisfied	YOY percentage change
Convenience	4.014	+0.095	74.8%	+11.6%
Comfort	3.998	+0.511	74.4%	+10.7%
Safety	4.060	+0.097	76.4%	+11.0%
Signs system	4.103	+0.155	73.5%	+8.3%
Reasonableness of price	3.908	+0.011	67.5%	+5.9%

Compared with the monitoring results in 2015, tourists' evaluation on all indicators of transport services have increased. There's a good trend in improving transportation services in Changshu.

(4) Tourists' evaluation of accommodation services.

The questionnaire has 6 indicators for the evaluation of accommodation services. The result is as shown in Table 4-8.

Table 4-8 Tourists' evaluation of accommodation services

Index	Average Value	YOY percentage change	Proportion of being satisfied	YOY percentage change
Convenience of checking in the hotel	3.818	-0.025	61.6%	+4.0%
Comfort of rooms	3.811	-0.006	57.9%	+0.1%
Hygiene and safety	3.790	-0.036	58.4%	+3.3%
Reasonableness of room prices	3.711	-0.059	52.9%	+0.2%
Service attitude of staff	3.785	-0.026	57.2%	+2.2%

Convenience of the time	3.774		56.5%	-2.5%
to check in		-0.108		

Compared with the monitoring results in 2015, the tourists' evaluation of accommodation services has been slightly reduced, with the overall average basically unchanged. As most tourists from surrounding areas are not overnight tourists, not all tourists experience the accommodation services in Changshu. However, in the development of tourism in Changshu, improving the tourists' experience of accommodation service is a very important part of enhancing tourists' satisfaction.

(5) Tourists' evaluation of shopping and entertainment.

The questionnaire has 10 indicators for the evaluation of shopping and entertainment. The result is as shown in Table 4-9.

Table 4-9 Tourists' evaluation of shopping and entertainment

Index	Average Value	YOY percentage change	Proportion of being satisfied	YOY percentage change
Variety of commodities	3.773	-0.035	61.1%	+3.9%
Specialty of commodities	3.756	-0.024	59.0%	+4.2%
Reasonableness of prices of commodities	3.599	-0.048	51.5%	0.0%
Having good value for money	3.717	0.063	51.9%	+1.3%
Shopping environment and market order	3.785	-0.015	55.6%	-0.6%
Variety of entertainment	3.604	-0.105	51.3%	-1.9%

Index	Average Value	YOY percentage change	Proportion of being satisfied	YOY percentage change
Specialty of entertainment activities	3.647	-0.009	51.7%	+0.6%
Safety of entertainment activities	3.795	0.047	57.0%	+2.7%
Fun of entertainment activities	3.691	0.009	52.9%	+2.3%
Reasonableness of prices of entertainment activities	3.560	-0.083	48.1%	-0.9%

According to the above data analysis, it shows that Changshu tourism products and entertainment diversity get a certain degree of recognition from tourists. But the overall level of satisfaction is not high. Compared with the monitoring results in 2015, the score of each index is basically the same, only the satisfaction of the reasonableness of prices of entertainment activities declines a little. Such a result is foreseeable in the reality where new special tourism products and entertainment activities are not created.

(6) Tourists' evaluation of tourism consultation and complaints.

The questionnaire sets 10 indicators for the evaluation of tourism consultation and complaints. The result is as shown in Table 4-10.

Table 4-10 Tourists' evaluation of tourism consultation and complaints

Index	Average Value	YOY percentage change	Proportion of being satisfied	YOY percentage change
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Convenience of obtaining tourism information	3.875	+0.037	66.8%	+9.9%
Efficiency of dealing with complaints	3.596	-0.024	45.1%	+1.5%
Consulting service attitude	3.780	+0.024	56.5%	+6.4%

Compared with the 2015 monitoring results, visitors' appreciation of the convenience of tourism information is to some extent higher. It reflects the Changshu Tourism Administration's efforts put in the reception center of tourist attractions have been affirmed by tourists. In addition, the rate of tourists' satisfaction of "to deal with the complaint efficiently" is less than 50%, indicating that the attitude and efficiency of staff in tourist attractions handling tourist complaints still need to be greatly improved.

4.4 The willingness to revisit and recommend Changshu

Monitoring data shows that 65% of tourists have the will to revisit Changshu. 84% of tourists say they will recommend friends and relatives to travel in Changshu. 30.0% of the tourists are not sure whether they will revisit Changshu again. 13.0% tourists are unsure of whether to recommend relatives and friends to visit Changshu. Only 5% of tourists say they will not want to visit Changshu again; 3% Visitors say they "will not recommend relatives and friends to visit Changshu."

Referring to the monitoring data above, it can be seen that the vast majority of tourists have a positive assessment of their travelling experience in Changshu. However, the high fees charged by tickets, catering accommodation as well as commodities and entertainment are the important factors for the tourists' decreased willingness to revisit Changshu. It also can be found in the interviews that some tourists think the quality of Changshu tourism needs to be improved. The water quality of the river is poor and the facilities of leisure and entertainment are not perfect. The scenic ticket price is too high and the road needs better maintenance. These listed problems and others have affected the

satisfaction of some tourists. In addition, tourists also need clear sign system in scenic spots, nightlife with more choices, more souvenirs with features, and distinctive features of scenic spots.

5 Economic influence of tourism

5.1 Tourism and economy development

Changshu has witnessed a steady progress in its economic development in recent years. After 2013, the growth rate of Changshu's tourism total revenue surpassed the GDP growth rate of the city. It reflects the development strategy of "tourism activates the market". Compared to 2015, the growth rate in 2015 slowed down but was still as high as 7.2%.

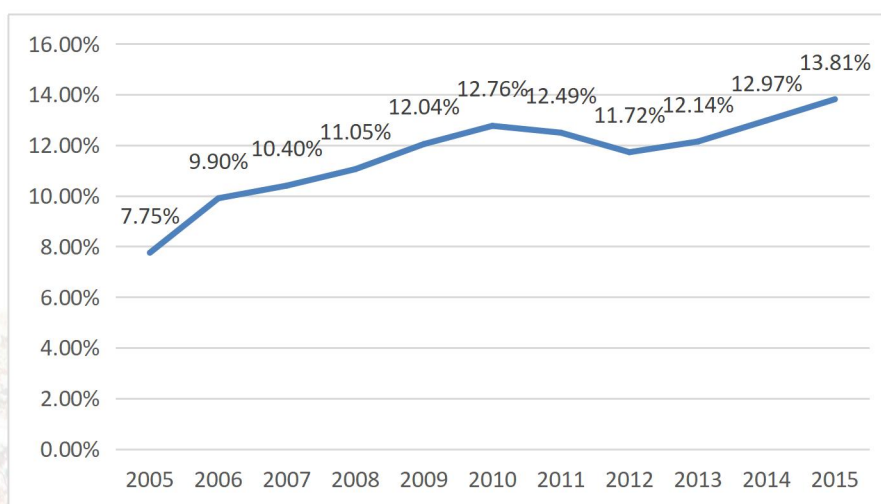


Figure 5-1 The proportion of Changshu's tourism revenue in GDP from 2005 to 2015

Sources: "Suzhou Statistical Yearbook", "Statistical Bulletin of National Economic and Social Development in Changshu" from 2005 to 2015

The Figure 5-1 shows that the proportion of total tourism revenue in GDP generally shows an upward trend. Although it fluctuates slightly, it is not obvious. The proportion of total tourism revenue in GDP of Changshu has increased from 7.75% in 2005 to 13.81% in 2015. It manifests that Changshu has strong momentum in tourism development and tourism industry has gradually expanded its scale. The importance of tourism has been further consolidated and improved in economy. The larger proportion in 2015 than in 2014 shows that the larger and outstanding

contribution of tourism development to GDP.

5.2 Tourism's influence on industry structure

It can be seen from Figure 5-2 that tourism revenue occupies an increasingly important position in the added value of the tertiary industry. Compared with 2014, the proportion of tourism in 2015 has shown a significant increase. On the whole, this trend will continue.

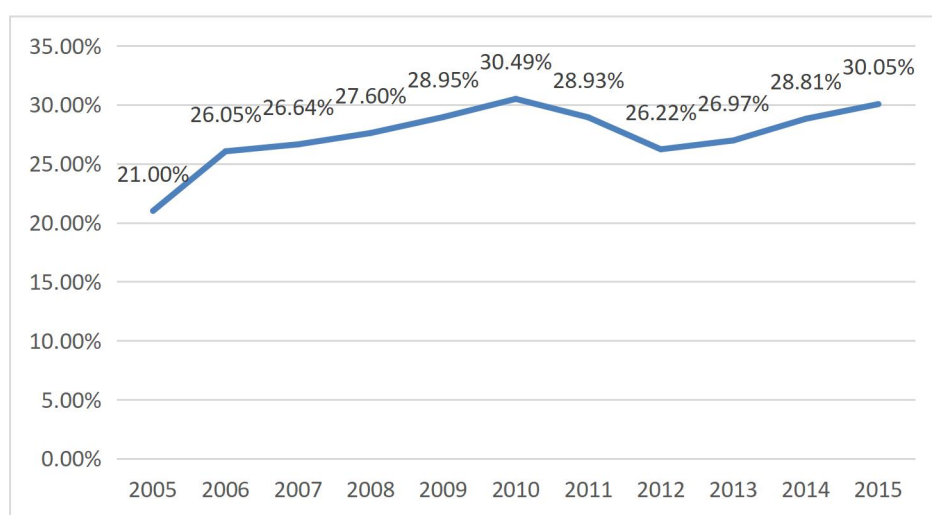


Figure 5-2 The proportion of Changshu's tourism revenue in tertiary industry added value

Source: "Statistical Bulletin of National Economic and Social Development in Changshu" from 2005 to 2015

5.3 Tourism industry

(1) Hospitality and catering enterprises.

As of June 2016, there are 219 accommodation facilities and 296 catering enterprises in Changshu. Changshu now has 19 tourism star hotels. Among them, 5 are five-star, 5 four-star, 7 three-star and 2 two-star. It is noteworthy that, with the changes of national macro policies and markets, 1 five-star hotel and 1 three-star hotel were delisted in 2016 as compared with the previous year. It shows that with the advent of the new economic normal, the hospitality industry has encountered a shift and adjustment. In terms of catering enterprises, Changshu builds a multi-level

and diversified tourism catering system to meet the different needs of tourists, including star hotels, restaurants in tourist attractions, casual dining in specialty streets, time-honored brands, specialty snack bars, farmhouses and family hotels and so on. Combined with the city's own natural advantages, the brand of the crab food is created and thus rural dishes, boat meals, eco-catering and other special meals are vigorously developed.

(2) Travel agencies.

As shown from the data of 2016, there are 81 travel agencies in Changshu. Among them, there are 39 registered in Changshu, 1 less than in 2015. Travel agencies in Changshu have a good overall operating performance. But the problems of small scales, small markets, few employees, frequent movements, weak managements, out-of-time developing concepts and lack of stamina exist. Overall, the development situation in 2016 has not changed much, and the problems and challenges presented by the data still exist.

(3) Internal traffic.

Changshu has a rather perfect bus system and it enables bus lanes in specific sections. Many bus routes go past Shajiabang scenic spot, Yushan Shanghu Lake scenic spot and so on. At the same time, Yushan tour line, Fashion City shopping line, Shanghu Shajiabang line and other tour lanes are made for tourists and citizen. However, in general, public transportation and tourist hotline are not frequently used by tourists. What's more, self-driving tourists to Changshu account for about 70% of the total reception volume, so the convenience and comfort of traffic and the clarity of traffic sign system are crucial to the improvement of tourists' satisfaction.

6 Conclusion and Suggestions

(1) Community residents rather strongly support for tourism development, but their actual participation in it needs to be improved.

This year's monitoring results show that residents in Changshu have a higher degree of support for tourism development. It mainly reflects that, firstly, residents generally believe that Changshu is a

livable city and that "suitable for leisure" is one of the important label of Changshu. However, as compared with the data of 2015, the proportion of residents choosing the "civilized and friendly inhabitants" has declined. Secondly, residents of Changshu generally hold a positive attitude toward the economic and social influence of tourism and think that tourism development is conducive to the construction and development of Changshu. However, compared with the 2015 survey results, Changshu residents' perceptions of the influence of tourism development in Changshu like "promoting local economic development" and "greatly improving living standards" have declined. Thirdly, most of the residents think that tourism development is good for the city construction, especially the construction of scenic area and the surrounding infrastructure. But residents don't have many perceptions on the public services. Fourthly, the residents speak highly of the positive influence of developing tourism on the social and cultural environment. Fifthly, in the process of developing tourism, residents are also aware of ecological environment issues, traffic problems, people's livelihood issues and land issues. Sixthly, in terms of community residents' perception of participation in tourism development, it still needs to be notice that the indicator "opinions of residents will be heard when making decisions on scenic spots" has the lowest level of satisfaction. Most residents think that when the scenic spots make decisions, they basically do not listen to the views of residents. Additionally, they say that decision making has nothing to do with them. During the interviews, some residents also mention that although they are willing to take the initiative to make suggestions for the development of scenic spots, they are not clear about the specific ways.

(2) Visitors are generally satisfied with the tourism in Changshu, but there is still room for improvement.

Tourists from other places to Changshu are very satisfied with tourism in Changshu. They especially have higher evaluation on the resources and environment such as historical and cultural background, natural ecological value, and richness of tourism resources and scenic spots that can be appreciated. It suggests that the natural and cultural value of the tourism in Changshu has earned the general recognition from tourists. However, for the sanitation of the public toilets in Changshu, the average score of tourists' satisfaction is only 3.095. According to the survey results of revisiting and recommending Changshu, 65% of the tourists from places outside Changshu would like to revisit

Changshu. 84% of the tourists will recommend their friends and relatives to visit Changshu. Tourists' assessment of the water quality of the rivers, of the noise pollution and of the community residents' behaviors are lower, with the averages scores under 4, though they are higher than the ones in 2015. Tourists' evaluation on the services of tourist attractions remains at the medium level, the average score of each index generally between 3.5 to 4.0. Only the scores of the infrastructures and sanitation of the toilets in scenic spots are above 4.0. Attention should be paid to the problem of ticket prices being too high hasn't been well dealt with. At the same time, according to the survey analysis result, tourists generally think that tourism employees are not active enough to offer services.

(3) Tourism exerts increasing positive influence on economy development and transformation in Changshu.

The rapid development of tourism in Changshu has played a positive role in the economic development and transformation of Changshu. Firstly, the contribution of tourism to Changshu's GDP is even more pronounced. The tourism revenue as a share of Changshu's GDP has increased from 7.75% in 2005 to 13.81% in 2015. It manifests that the momentum of tourism development is still strong, that the scale of industries is gradually expanded and the status of tourism in the national economy is further consolidated and enhanced. Secondly, tourism development further promotes the industry optimization and restructuring in Changshu. From 2005 to 2015, the proportion of tourism revenue in the tertiary industry added value has remained above 20%, and 30.05% in 2015. The rapid development of tourism further pushes the development of tertiary industry and provides more sufficient impetus for the optimization and transformation of the industrial structure in Changshu. Thirdly, changes in the employment and ownership of tourism enterprises promote the economic development and transformation of Changshu.

(4) Changshu tourism sustainable development still depends on the continued deepening of environmental protection.

The monitoring this year is carried out from the aspect of protection of the natural environment, mainly monitoring the air environment, water environment, sound environment and major pollutants. Firstly, for the air quality, the annual average concentration of airborne nitrogen dioxide in the city

exceeded the standard and the concentration of ozone increased and exceeded the standard in 2015. In 2015, the compliance rate of ambient air decreased compared with 2014. Secondly, for the water pollution, the surface water quality of Changshu is generally at the light pollution level in 2015. Thirdly, for the sound pollution, traffic noise regulation in Changshu City is rather effective. But the owners of a few shops located in scenic entrances and exits will still be troubled by car whistles entering the scenic area. Fourthly, in terms of industrial wastewater, the total emissions of industrial wastewater, chemical oxygen demand and ammonia nitrogen decreased year by year under the promotion of ecological civilization construction, pollution reduction, and comprehensive management of Wangyu River and Yangcheng Lake watershed during the "12th Five-Year Plan" period. However, the industrial wastewater emissions are still huge, relevant departments in Changshu should keep stepping up efforts to regulate and manage it.

