
Exploration of Poverty Alleviation Based on Ecotourism in Minority Areas of Yunnan Province

Gao Suwei¹, Zhou Changchun^{1*}

¹ Faculty of Management and Economics, Kunming University of Science and Technology, Kunming, Yunnan, CHINA

* Corresponding author: ynzhoushir@126.com

Abstract

The exploitation and utilization of Yunnan's unique natural and cultural resources has made the tourism industry of Yunnan achieve substantial development; however, Yunnan province is the province with the largest poverty area and the highest poverty rate in China. Its poverty degree is very deep, especially the national poverty of minority nationality, which is the important reason that restricts the development of Yunnan. Mountainous areas, ethnic minorities, border areas, poverty, rich and unique tourism resources are basically overlapped in Yunnan. Therefore, Yunnan should take developing tourism as an important strategic choice for poverty alleviation. Based on the theoretical and practical results of sustainable tourism and ecotourism at home and abroad, the favorable factors for the development of ecotourism in Yunnan are analyzed. It is pointed out that ecotourism is an effective way for sustainable development of tourism in Yunnan, which has positive economic, ecological and social benefits. In a word, it should guide the development of ecotourism in Yunnan with a comprehensive, coordinated and sustainable scientific view of development, and take it as an important strategic choice of poverty alleviation in Yunnan.

Keywords: Yunnan, ecotourism, sustainable development, poverty alleviation

Suwei G, Changchun Z (2018) Exploration of Poverty Alleviation Based on Ecotourism in Minority Areas of Yunnan Province. Ekoloji 27(106): 1105-1113.

INTRODUCTION

Pro-poor Tourism originated from two projects funded by the United Kingdom, namely, the Sustainable Livelihoods Study in Southern Africa and the Comparative Research Project on Tourism, Conservation and Sustainability in the Protected Areas of Indonesia, India and Zimbabwe. Following the implementation of the two projects, the British agency for international development, together with the department of environment, transport and regional affairs, drafted the discussion report of "*Sustainable Tourism and Poverty Elimination*". In April 1994, the United Kingdom took the lead in proposing the concept of Pro-poor Tourism at the Seventh United Nations Conference on Sustainable Development. Since then, poverty alleviation has attracted widespread attention as a way to alleviate poverty. The research object of Pro-poor Tourism is the poor, how to increase the chance of the development of poverty population and improve the tourism on the poor's positive influence is the core content of research.

The development of tourism is closely related to the idea of sustainable development. In many countries, the traditional tourist areas have been developed and

utilized for a long time, the ecological environment is seriously damaged, and the development of tourism is threatened. China's tourism, which is still dominated by sightseeing tourism, is still represented as a typical developing country tourism development model at present, that is, the development of tourism is simplified into quantitative growth and extensive reproduction. In the development of tourism resources, there is a lack of necessary protection, especially depending on the natural and ecological environment. On the whole, it is still an extensive development model.

Ecotourism is a kind of tourism that depends on local resources, and the tourist object is the original and harmonious ecosystem. Therefore, ecotourism is called "natural tourism", that is, tourism that returns to nature. However, in the east, especially in China, which has a history of civilization of 5,000 years, nature is endowed with a strong cultural color. People and nature coexist in harmony, forming a specific cultural ecology that integrates heaven and man. It is difficult to completely separate nature from local history and national culture. The connotation of tourism objects has also expanded from "natural scenery" to an ecological system in which people and nature live in harmony. On further

consideration, not only the primitive nature and the ecological system of harmonious coexistence between human and nature are the objects of ecotourism, but also the modern and artificial ecosystems reconstructed by people following ecological laws should also be the object of ecotourism.

Ecotourism is a kind of conservation tourism and sustainable tourism. Since ecotourism emphasizes that “the object of tourism should not be harmed” and emphasizes that there should be strong protection measures for tourism objects that are different from traditional mass tourism, then the definition of the protection object and the driving force of protection are of vital importance. Firstly, the protection object should include the natural ecology and the cultural ecology of harmony between man and nature; secondly, the motivation for protection should be all people or organizations that benefit from ecotourism, it is the responsibility of tourists, tourism developers, development decision-makers, local community residents and the government to protect the natural and cultural resources of tourism.

Ecotourism should have multiple functions, such as tourism, environmental protection, poverty alleviation, and environmental education, and the research perspective of ecotourism should be determined from different research needs: for example, aiming at sustainable development goals, treat ecotourism as a tourism development model; oriented to the market and consumer behavior, and promote ecotourism as a tourism product to the market; targeted by code of conduct, emphasizing behavioral norms and environmental values of tourists and community residents.

Ecotourism should be positioned as a sustainable tourism development model in Yunnan, which is an important strategic choice for poverty alleviation through tourism. Because ecotourism emphasizes the organic combination of ecology and tourism, protection and development, that is, the essence of ecotourism should be the coordinated development of ecological environment, social culture and economic benefits. Its goal is to achieve the unification of the three aspects of ecological, economic and social benefits in tourism development, to maximize the overall benefits, to protect local natural, historical and cultural resources, to provide tourists with high-quality tourism experiences, and to promote local economic development. “If people don’t protect resources, they will not be able to meet the needs of tourists and there will be no tourism; without

the participation of local people, resources can’t be protected; without a dynamic economy, don’t expect the participation of local people”. Therefore, the core content of developing ecotourism in Yunnan should be the emphasis on the protection of local resources, the maintenance of people’s livelihood in tourism destinations, and the full participation of community residents, so as to drive impoverished areas out of poverty and get rich.

LITERATURE REVIEW

Pro-poor Tourism, as one of the important means of global anti-poverty, is receiving widespread attention from China and other countries in the world. Undoubtedly, the discussion on pro-poor tourism has become an indispensable part of global anti-poverty research.

Zhang et al. (2015) believed that the development of tourism can lift the poor out of poverty. The main reason is that tourism can provide a large number of employment opportunities and correspondingly increase the income of residents, thus improving the poverty situation.

Xu et al. (2015) believed that tourism is a typical labor-intensive industry with a high proportion of labor-capital and a certain amount of investment can create a larger employment demand and drive the employment of the poor population.

Mcmanamay et al. (2015) found that the development of rural tourism can bring a lower proportion of local poverty, while promoting the improvement of local community conditions, such as local education and health protection.

Wu et al. (2015) summarized the research on domestic pro-poor tourism and believed that the research on China’s tourism and poverty in recent years has solved some major problems, such as the significance of pro-poor tourism, the important role of the government, the core status of community participation, and the basic status of rural resources, which have been widely recognized.

Yan et al. (2015) pointed out the important role of tourism in raising the level of poverty alleviation and development: promote four transformations in poverty-stricken areas (the invalid information is transformed into effective resources, effective resources are transformed into high value-added products, tourism products are transformed into effective market demand, and effective market demand is transformed into all

aspects of operating benefits in poor areas), form four levels of communication (between international, between industries, between urban and rural, among other urban areas) and form an comprehensive promotion of the development in poverty-stricken areas, and further propose the main countermeasures to improve the level of pro-poor tourism.

Zhong and Ze (2016) studied the sustainable pro-poor tourism development model, that is, the community participation in rural tourism. Zhong and Ze believed that for the vast rural areas in central and western China that have not yet escaped poverty, solving poverty through community participation in tourism development is undoubtedly a path that is in line with the needs of industrial transformation and upgrading.

Zheng et al. (2016) proposed that in poverty-stricken areas where tourism resources are concentrated or relatively concentrated, under the premise of protective development, the tourism industry should be vigorously developed to continuously promote and drive the development of other industries, and a good environment for investment, construction and entrepreneurship should be created to achieve poverty alleviation and prosperity.

Castellanosverdugo et al. (2016) believed that it is necessary to use the unique tourism resources of poverty-stricken areas, aim at market demand, and develop tourism through the support of the government and society to make poverty-stricken areas get rid of poverty and become rich.

Ndang'Ang'A et al. (2016) proposed that on the basis of making full use of rich tourism resources in poor areas, the real economy should be developed to achieve poverty alleviation and prosperity under the condition that tourism becomes the pillar industry in the region.

Ahmed et al. (2015) analyzed the problems affecting population participation from another perspective, that is, the poor people's own quality seriously affects the poor people's ability to participate.

METHODOLOGY

The Current Situation of Poverty in Yunnan

Located in the southwest border of China, Yunnan is a multi-ethnic plateau and mountainous province. Yunnan province is also the province with the largest poverty area and the highest proportion of poverty. Among the 128 counties (cities) in the province, there

are 73 state-level poor counties, accounting for 12.3% of the 592 poverty-stricken counties in the country.

Among the poverty-stricken people in Yunnan, the poverty degree of ethnic regions is the largest. Among the 73 poor counties in the province, 51 are ethnic autonomous counties, accounting for 70%. At present, among the 506 poor villages designated by the provincial government, 386 are in ethnic areas, accounting for 76%. The vast majority of the 6.6 million people who have not yet solved the problem of food and clothing in the province are in ethnic areas, and 85% are ethnic minorities. There are 16 poverty-stricken counties in 26 border counties across the province, and the vast majority of the poor are ethnic minorities.

The poverty problems in the ethnic poor areas of Yunnan are mainly shown in the following aspects: large poverty area, deep poverty level, insufficient investment, poor infrastructure, low population quality, backward concept, low social development, backward science and technology, unbalanced development between regions and ethnic groups, and insufficient development funds.

The larger the proportion of ethnic minorities in the region, the larger the proportion of the poor. It can be said that the western regions, mountainous regions, ethnic groups, border areas and poverty are basically overlapping in China. Therefore, the focus of national poverty alleviation is mainly in the western regions, while the top priority should be placed on areas where ethnic minorities are concentrated.

In a sense, poverty is an ecological environment problem, the occurrence and extent of poverty are closely related to ecological environment, and the vicious circle of poverty and ecological environment is an important reason for the non-sustainable economic and social development in poor and backward areas. In areas where the environment is most devastated, because the poor are more dependent on natural resources than the rich, they may consume natural resources more quickly if they are not likely to have access to other resources. Poverty is closely related to the environment. This relationship is two-way. Poverty affects the environment and the environment affects poverty. Yunnan has a large number of poor people, with a deep poverty, fragile infrastructure, shortage of agricultural resources, fragile ecological environment, and limited development potential of traditional industries.

Table 1. Economic indicators related to tourism industry in Yunnan province from 2012 to 2017

Year	Inbound tourists (10,000 people)	Foreign exchange income from tourism (\$100 million)	Domestic tourists (10,000 people)	Domestic tourism revenue (100 million yuan)	Total tourism revenue (100 million yuan)	Output value of tertiary industry (100 million yuan)	GDP (100 million yuan)
2012	110.12	4.23	6012	334.09	369.28	1040.97	2959.49
2013	150.27	5.29	6862	386.16	430.15	1370.33	3472.88
2014	181.01	6.59	7721	447.11	499.81	1544.32	4006.73
2015	221.91	8.61	8987	494.75	559.22	1852.89	4747.32
2016	250.23	10.09	10251	594.78	663.29	2228.08	5700.11
2017	284.50	11.73	12000	730.67	828.64	2519.63	6169.76

Table 2. Growth rate of economic indicators related to tourism industry in Yunnan province from 2013 to 2017

Year	Growth rate of the number of inbound tourists	Growth rate of inbound foreign exchange income	Growth rate of the number of domestic tourists	Growth rate of domestic tourism revenue
2013	36.46%	25.06%	14.14%	15.59%
2014	20.46%	24.57%	12.52%	15.78%
2015	22.60%	30.65%	16.40%	10.66%
2016	12.76%	17.19%	14.06%	20.22%
2017	13.70%	16.25%	17.06%	22.85%
Average annual growth rate	21.20%	22.74%	14.84%	17.02%

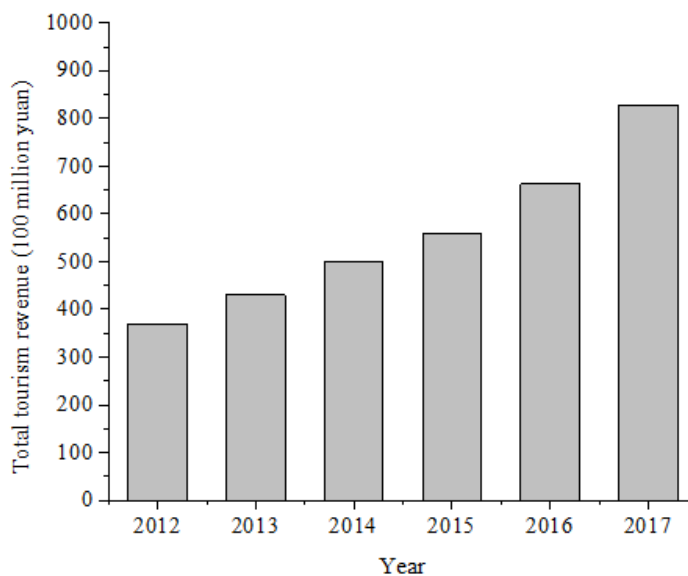


Fig. 1. Changes in the total tourism output value of Yunnan from 2012 to 2017

Development Status of Tourism Industry in Yunnan

The development of Yunnan’s tourism industry started in the 1970s. After more than 30 years of development, it is now one of the pillar industries of Yunnan province. Yunnan has also become a major tourism province in China. The development of tourism in Yunnan has gone through the initial stage of development, the stage of economic industry construction, the stage of pillar industry construction and the stage of strong tourism economy. At present, the province has more than 60 national and provincial scenic spots, the number of which ranks first in the country; it has more than 111 national, provincial and municipal nature reserves; it has 9 national and

provincial famous historical and cultural cities; it has 12 AAAA-level tourist attractions and 187 key cultural relics protection units. The tourism revenue of Yunnan province has contributed greatly to the development of Yunnan’s GDP.

It can be concluded from the above table that the tourism industry in Yunnan province has been developing rapidly, accounting for a considerable proportion of the gross national product and the output value of the third industry, with a large economic contribution rate (**Fig. 1**, **Fig. 2** and **Fig. 3**). According to the statistical data, the total economic revenue generated by tourism in the whole province in 2017 is 102.671 billion yuan, and the total tourism output is

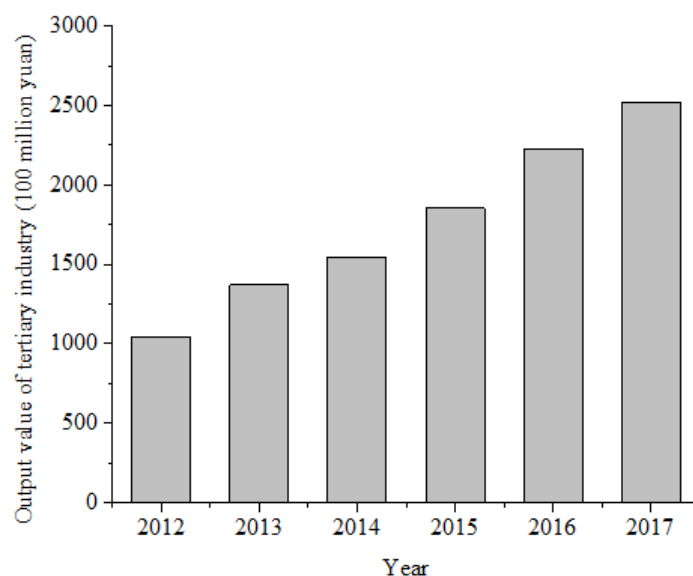


Fig. 2. Changes in the tertiary industry output value of Yunnan from 2012 to 2017

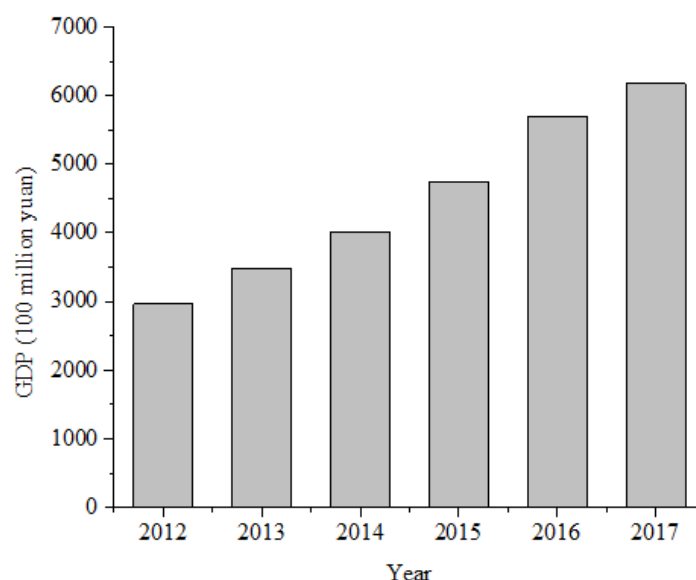


Fig. 3. Changes in GDP of Yunnan from 2012 to 2017

82.863 billion yuan. Among them, accommodation is 8.22 billion yuan, catering is 13.2 billion yuan, tourism transportation is 19.3 billion yuan, tourism entertainment is 2.85 billion yuan, tourism scenic spots is 1.5 billion yuan, tourism shopping is 6.64 billion yuan, and the overall value added is 37.996 billion yuan, accounting for 6.16% of GDP; a total of 11.2 billion yuan is invested in major tourism projects in the province, making the tertiary industry, with tourism as the leading industry, up to 41.0% of GDP.

In terms of inbound tourism, from 2012 to 2017, the number of inbound tourists received by the province increased from 1.1012 million to 2.845 million, tourism foreign exchange income increased from \$423 million

to \$1.173 billion. As shown in **Fig. 4**, the number of inbound tourists and foreign exchange earnings in the province increased steadily. The average annual growth rate of the number of inbound tourists is 21.20% and the average growth rate of foreign exchange tourism income is 22.74%.

In terms of domestic tourism, the number of domestic tourists is 6.12 million in 2012 and increased to 120 million in 2017. The total tourism revenue increased from 36.928 billion yuan to 82.864 billion yuan (**Fig. 5**). The average annual growth rate of the number of tourists is 14.84%, and the average annual growth rate of tourism income is 17.02%. It can be concluded that the domestic tourism market scale of

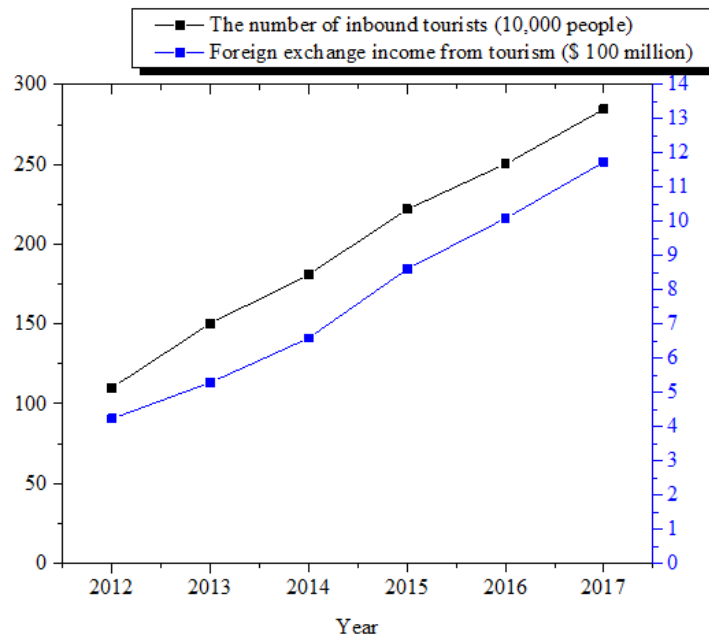


Fig. 4. Changes in the number of inbound tourists and foreign exchange earnings in Yunnan in 2012-2017

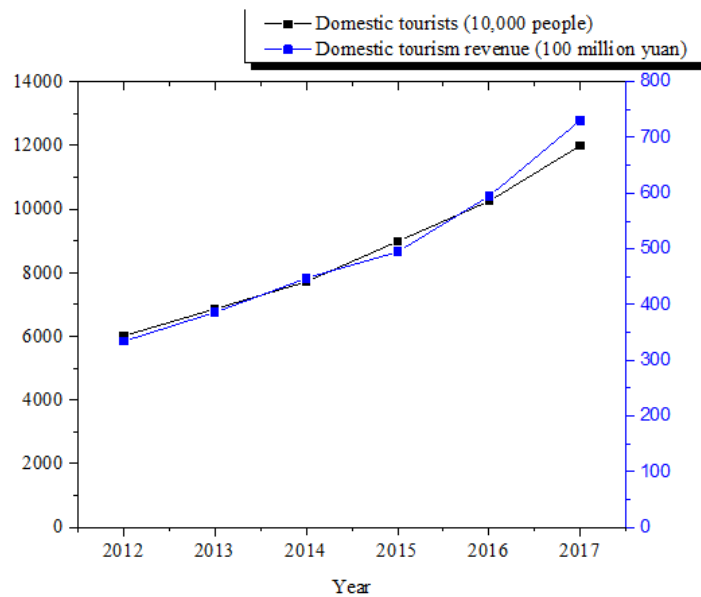


Fig. 5. Changes in the number of domestic tourists and income in Yunnan from 2012 to 2017

Yunnan is constantly expanding, and the average tourism consumption is constantly increasing.

There are a lot of researches abroad on the identification method of tourism industry agglomeration, but there is no unified standard up to now. At present, the identification methods of tourism industrial agglomeration include: locational entropy index method, resource distribution density, closest point index method, locational entropy, industry concentration degree, spatial Gini coefficient,

Herfindahl index, etc. Location entropy is the comprehensive index that best reflects the specialization degree of tourism and best reflects the concentration of tourism industry. The calculation formula is:

$$LO_i = \frac{e_i / \sum_{i=1}^n e_i}{E_i / \sum_{i=1}^n E_i} \quad (1)$$

Among them, e_i indicates the number of indicators of a regional tourism industry i ; E_i indicates the number of indicators for the entire national tourism industry i .

Table 3. The change of location entropy of tourism output value in Yunnan province from 2013 to 2017

Year	Total tourism output value of Yunnan province (100 million yuan)	GDP of Yunnan province (100 million yuan)	National tourism output value (100 million yuan)	National GDP (100 million yuan)	Location entropy of tourism output value in Yunnan province
2013	430.15	3472.88	7687	182322	2.93801
2014	499.81	4006.73	8851	210872	2.97222
2015	559.22	4747.32	10958	246620	2.65467
2016	663.29	5700.11	11585	300608	3.01964
2017	828.64	6169.76	12567	335354	3.58425

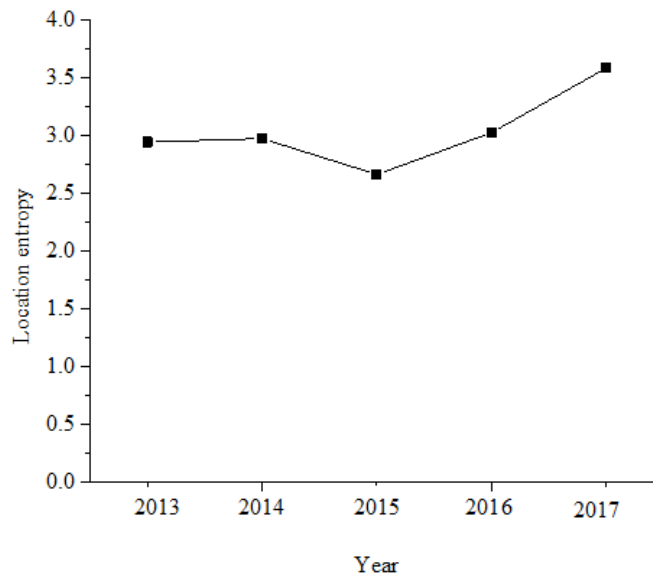


Fig. 6. Location entropy of tourism output value of Yunnan province from 2013 to 2017

In this study, e_i represents the total tourism output value of Yunnan Province; $\sum_{i=1}^n e_i$ represents the gross product of Yunnan province; E_i represents the total value of tourism in the country; $\sum_{i=1}^n E_i$ represents the gross national product.

$LO_i < 1$ indicates that the specialization level of Yunnan’s tourism industry is lower than the national level, and the tourism industry is in a relatively weak position with weak competitiveness.

$LO_i = 1$ indicates that the specialization level of the tourism industry in Yunnan Province is comparable to that of the whole country, the advantages are not obvious, and it is in a medium position.

$LO_i > 1$ indicates that the tourism industry of Yunnan province is more specialized than that of the whole country and belongs to a specialized industry. It has comparative advantages.

In conclusion, the larger the LO_i value, the higher the professional level, the greater the advantage and the stronger the relative competitiveness of the tourism industry.

The location entropy of Yunnan province’s tourism output value is calculated with the formula: it is 2.94 in 2013, 2.97 in 2014, 2.66 in 2015, 3.02 in 2016 and 3.58 in 2017. It can be concluded that all the locational entropy exceeds 1, and in particular, it reached 3.58 in 2017, showing an upward trend (Fig. 6). This shows that Yunnan has a high level of tourism specialization and has a strong comparative advantage.

In summary, developing tourism, especially ecotourism, has considerable potential. Tourism resources are the most advantageous resources in the poor areas of Yunnan ethnic minorities. If the ecotourism is fully developed in the poor areas where the natural and humanistic ecological conditions are suitable for the ethnic minorities in Yunnan, it will be of great significance for the development of Yunnan’s characteristic economy and for the ethnic minorities to get rid of poverty and get rich. Yunnan should regard the development of tourism as an important strategic choice for poverty alleviation. Due to the inconvenience of transportation and the lack of information, the natural landscape is less disturbed by human economic activities, the natural ecosystem is relatively intact, the ethnic customs are colorful, the natural scenery is

charming and magnificent, and the tourism resources are extremely rich.

DISCUSSION

Problems in Poverty Alleviation through Ecotourism in Yunnan Province

Transport facilities are weak. Yunnan province is located in the southwest of China, with a vast area but mostly plateau and mountain area. The distribution of ecological tourism resources is relatively scattered. Some major traffic arteries are mostly far away from the ecotourism scenic spots, and the railway and highway transportation are not convenient, which greatly affects the entrance amount of tourists. Such as the famous ecological tourism in Yunnan province, that is, “three parallel rivers” area. Due to the backward traffic and poor road facilities, tourists spend a lot of time on the traffic, which greatly reduces the enthusiasm of tourists, and will certainly affect the development of local ecotourism for a long time.

The management of tourism market is not standard. The development of ecotourism market in Yunnan province is not mature enough. Some economically backward regions hope to promote economic development by earning tourism revenue through ecotourism. However, due to the relatively backward local education, people lack education of professional knowledge, lack of understanding of tourism-related concepts, and long-term reliance on the natural environment, they only focus on loot and the extensive management in the process of ecotourism development. This will not have a positive effect, but will greatly damage the tourism resources and reduce the tourism quality in the process of development, making ecotourism can't be carried out as expected. In addition, the division of scenic spots is not clear, and the management is also chaotic. Some scenic spots belong to multiple leaders, which may mislead the development direction of eco-tourism, leading to constructive damage, unable to reasonably plan and distribute tourism income, and unable to effectively guarantee the legitimate interests of the community masses.

The structure of tourism products is single. Compared with traditional tourism, eco-tourism is a kind of tourism activity with a higher level, which has special requirements for the developers, producers and participants of tourism products. In addition to satisfying the spiritual relaxation during the journey, some special tourism products are of great value and significance to tourists. However, for Yunnan, which

has a multi-ethnic cultural heritage, the form of its products is too single and has no technical content in the process of ecotourism development. The general tourism products are handmade by some farmers themselves, with a small output, and a complete product supply and marketing system has not been established yet. Under such circumstances, it is difficult to form scale effect and bring substantial economic benefits.

Community participation is not high. For poverty alleviation through ecotourism projects, the main purpose is to benefit local residents by carrying out ecotourism, help to solve their living difficulties, and bring jobs and stable income. However, as far as the current situation is concerned, the ecotourism in Yunnan province lacks “national interaction”, and the potential of lifting people out of poverty and getting rich is far from being realized. The development of tourism is not just about the government, but also about the interests of the people. Therefore, the residents of the poor areas should also participate. In addition, local residents are less involved in the management and planning of ecotourism, and most of them are only engaged in some general reception services, resulting in the phenomenon that the interests of local communities are ignored by managers and operators.

There is a shortage of professionals. The value of ecotourism resources is reflected in whether it is properly and effectively developed, and the key to development lies in whether there are professionals. If there are more professionals and higher professional levels, the development of ecotourism will have higher quality and the development will be more prosperous. Ecotourism has very professional requirements for rational planning, product positioning, management and operation in the development stage. Nowadays, the development time of ecotourism in Yunnan province is relatively short, and there is a lack of investment in professional talents, which has become a major obstacle for the smooth development of poverty alleviation through ecotourism in Yunnan province.

Countermeasures of Poverty Alleviation through Ecotourism in Yunnan Province

Give full play to the leading role of government: coordinate the relationship between economic development and ecological protection, give full play to the government's macro functions, improve tourism management institutions, strengthen the design and promotion of ecotourism image, coordinate the contradictions between economic operations and poverty alleviation and the interests among various

entities, cultivate ecotourism professionals and improve service quality.

Effectively integrate ecotourism resources in ethnic areas: classify ecological tourism resources, create high-quality tourism routes, develop special products, strengthen brand building of ecotourism, accelerate the development of industrial ecotourism, and form an ecotourism industrialization.

Build a variety of ecotourism poverty alleviation models. Poverty alleviation through ecotourism is a relatively new development model, and the impact of tourism on the environment is much smaller than that of traditional industries. To develop ecotourism in ethnic regions, it can not only use rich and unique tourism resources to vigorously develop tourism, bring economic benefits, social benefits and ecological benefits, but also improve the living standards of poor residents in ethnic regions while protecting the ecological environment. Due to the differences in resource among ethnic regions, it is possible to focus on

developing models suitable for local resource elements according to local conditions.

Effectively guarantee the participation of the poor in tourism development: encourage the establishment of small-scale tourism business entities, help to solve the problem of funding for poor people in tourism development; improve the residents' participation mechanism to ensure that residents benefit from it.

CONCLUSION

To sum up, ecotourism emphasizes the protection of local resources and the maintenance of the livelihood of local poor people. The sustainable development of Yunnan's tourism industry depends on the sustainable use of tourism resources. The residents in tourist area are the strongest driving force for the protection of tourism resources. The problems in Yunnan's tourism development and the analysis of the objective conditions of Yunnan's ecotourism development all prove that the development of ecotourism is an effective way to further develop Yunnan's tourism and implement the strategy of poverty alleviation.

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