

The Development Status of Ecotourism in Lugu Lake Area and the Development Suggestions of the Qinghai-Tibet Plateau in China

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Abstract

Lugu Lake is located in the southeast edge of the Qinghai-Tibet Plateau in China, with beautiful scenery and suitable climate, it is a national AAAA-level scenic spot, which has been developed since 1995, and the current scenic construction is relatively mature. The ecosystem of Lugu Lake area, China is a kind of the lake ecosystem, with benign ecological environment. The water quality is in the class I standard all year round, the vegetation is rich, and it is the habitat and breeding ground of a variety of animals. In recent years, with the continuous development of tourism and the increase in the frequency of human activities, the ecological environment of Lugu Lake, China has been affected. Therefore, it is of great significance to complete the transformation of the traditional tourism mode of Lugu Lake, China to the ecotourism model. From the perspective of sustainable development, this paper analyzes the current situation and existing problems of tourism development in Lugu Lake area, China, discusses the necessity of carrying out ecotourism in Lugu Lake area, China, and the policy and management operation mode of ecotourism in the Qinghai-Tibet Plateau area.

Keywords: Lugu Lake, Qinghai-Tibet Plateau Ecotourism

1. Introduction

Lugu Lake, located at the junction of Yanyuan County in Sichuan Province and Ninglang County in Yunnan Province, southeast of the Qinghai-Tibet Plateau in China, is the third deepest freshwater lake in China, under the joint jurisdiction of Sichuan Province and Yunnan Province, China. Lugu Lake has beautiful scenery and pleasant climate (Peng et al., 2014), with scenic spots such as Caohai, the Goddess Mountain of Gemu, and the ancient village of Mosuo, which has high natural and cultural value. Suitable for the development of tourism on the Qinghai-Tibet Plateau, it was rated as a national AAAA-level scenic spot in November 2009. In recent years, the development of ecotourism has led to economic growth in the Qinghai-Tibet Plateau region in China, providing employment opportunities for local residents and improving the public's understanding and awareness of the third pole of the earth, while the increase in human activities has also caused damage to ecosystems and affected the behavior patterns and interspecies relationships of local species. Taking Lugu Lake as an example, this paper analyzes the development status of ecotourism in the region through field investigation

and data query, and discusses the development and development of ecotourism in the Qinghai-Tibet Plateau from the perspective of sustainable development.

2. Overview of Lugu Lake area

Lugu Lake area in China belongs to the subtropical plateau monsoon climate, with a warm and pleasant climate, the average annual temperature is above 10 °C; there were few human activities in the past, creating a good growth environment for many wild species; the main indigenous people are Mosuo, which are preserved to a certain extent Customs of matriarchal clan societies.

2.1 Climate

Located at the junction of Yunnan and Sichuan provinces in China, Lugu Lake is one of the largest plateau lakes in Yunnan, China, with an altitude of 2690 meters, which is lower than the average altitude of the Qinghai-Tibet Plateau (which is more than 4000 meters). The lake area has a subtropical highland monsoon climate, with an average annual temperature of 12.7°C and an average temperature of 4.7°C in January 2°C, the average temperature in July is 19.1°C (Li et al., 2016), under the regulatory action of the lake, the annual temperature difference in the area is slight, the winter is warm and the summer is cool, compared with other areas of the Qinghai-Tibet Plateau, this place is more suitable for human activities, which provides an innate advantage for the development of local tourism. The dry and wet seasons in Lugu Lake, China is clearly distinguished, June to October is the rainy seasons of the year, precipitation accounts for 89% of the annual precipitation during this period, the average annual relative humidity is 69%, and the climate is relatively mild (Zeng et al., 2012). Lugu Lake, China covers an area of 57.7 km², with an average water depth of 38.4m and a storage capacity of 1.953 billion m³. The maximum water transparency reaches up to 12-14m, the lake is clear, the lake surface is vast, and it has high ornamental value (Wen et al., 2016).

2.2 Ecological Environment

Lugu Lake, China belongs to the lake ecosystem, the water quality is in the class I standard all year round, and it is a migratory bird migration channel and habitat in southwest China (Zhao et al., 2017), which has important ecological significance.

2.2.1 Plants

Plants are primarily producers in ecosystems that fix solar energy through photosynthesis and transmit energy along the food chain and food web to other populations, all of which relies directly or indirectly on plant energy to maintain normal life activities.

2.2.1.1 Aquatic Plants

In the plateau wetland ecosystem, aquatic vascular plants play an important role in adsorbing impurities, purifying water quality, increasing dissolved oxygen, etc., and are also the habitat and breeding ground of many animals. Lugu Lake, China is rich in aquatic plants, and there are currently 32 species of aquatic vascular plants in the lake, including 11 species of

water plants, 1 species of floating-leaved plant, 2 species of floating plants and 18 species of submerged plants, those who are sensitive to pollution such as *Ottelia*, *Charophyta*, *Potamogeton perfoliatus* and other rare species have a large area of distribution (Li, 2015).

Caohai is one of the important components of Lugu Lake in China, located on the east side of the lake, with an area of about 7km². The aquatic plant communities of Caohai are dominant, mainly black triangular communities, triangular communities, reed communities and shallot communities; the distribution range of floating-leaves plants is larger, there are more floating-leaves vegetable distributing on the surface of Caohai lake, and the upper reaches of the Marriage Bridge are covered with wild ling; floating plants are mainly distributed in the lower reaches of the Grass Sea, and only purple pings are found at present, and the distribution of purple pings in the upper and middle reaches is very small; submerged plants are mainly distributed in areas without standing water plants on the lake surface, mainly goldfish algae and yellow flowered algae. The biome of Caohai has a relatively obvious horizontal distribution, the vegetation coverage rate is high, and there are many birds inhabiting the reeds on the lake, which has high ornamental value.

2.2.1.2 Terrestrial plants

The natural conditions in Lugu Lake, China are superior, there are few human activities, little pesticide pollution and factory sewage, which is suitable for the growth and reproduction of terrestrial plants. The area is widely forested, ranging from around the lake to the surrounding mountains (Wang, 2009). In the mountains below 3000 meters above sea level, a large area of Yunnan pine forest grows, and above 3000 meters above sea level, spruce and fir forests are mainly distributed, and there are often long pines growing on the canopy (Li & Xu, 1979). According to the records, there are 104 families of terrestrial seed plants in the Lugu Lake area, China, with nearly 650 species (Liao, 2015).

2.2.2 Animals

Animals belong to the consumers of the ecosystem, they can help plants spread seeds, loosen the soil, and their carcasses and feces can provide nutrients to microorganisms, playing an important role in the material circulation and energy flow of the ecosystem.

After investigation by Liao (2015), it was found that the species diversity of Lugu Lake Nature Reserve in China was relatively rich, of which there were 65 species in 56 genera of birds, accounting for about 5.2% of birds in China; and there were 29 species in 26 genera of the mammal species, accounting for 4.9% of the national mammal species; there are 8 species in 5 genera of amphibians, including 5 species in the frog family; there are 8 species in 8 genera in the reptile distribution, of which 5 species are in the nomadic snake family; and there are 4 species in 2 genera in the fish distribution (Xu et al., 2018). In winter, the number of migratory birds inhabiting the lake is as high as 18,000.

Table 1 The iversity of Lugu Lake Nature Reserve

Category	Genera	Species
Birds	56	65
Mammal species	26	29
Amphibians	5	8
Reptiles	8	8
Fish	2	4

2.3 Culture

The main indigenous people of Lugu Lake, China are the Mosuo people, after the first ethnic identification, the Mosuo people in the Lugu Lake area of Yunnan, China are classified as Naxi, and the rest in the area of Sichuan, China are classified as Mongolian (Baidu Baike, n.d.). The Mosuo people have their own living system, retaining the customs of the matriarchal clan society, developing the family with women as the core, and are known as the “women’s land of the East”.

The marriage system of the Mosuo people emphasizes freedom and equality in love in marriage relations. During the love period, both men and women carry out productive labor at home during the day, and at night the man will go to the woman's flower house to stay, and in the early morning when the chicken crows for the first time, he will leave the flower house to return to his home, without being bumped into by the elders in the woman's family, this period is called “dark marriage”, and both men and women can end the love relationship at any time during the dark marriage. After the woman is pregnant, it is time for the man and the woman to begin the “open marriage”, the man can live in the woman's home, and both of them can end the marriage relationship at any time.

The main food of the Mosuo people is buckwheat, potatoes and corn, and they like to eat rice dumplings, butter tea, pork belly, and Surima wine, forming a diet with national characteristics. The ancestors of the Mosuo people were nomadic peoples, and their animal husbandry has a long history of development, with great breeding experience, so their food also includes yak beef, yak milk and other animal husbandry products (Guo, 2017).

The houses inhabited by the Mosuo people are mainly wooden structures, and because of the Mosuo people’s religious belief, their houses usually contain frescoes, yak skulls and other religious and cultural objects, and they are often equipped with various silver jewelry. The Mosuo people have strong skills and experience in forging silver jewelry and making woven goods, with the development of tourism, the excellent handicraft ability of the Mosuo people has laid a good foundation for the development of handicraft industry in the region.

3. The Current Situation of Tourism Construction in Lugu Lake

3.1 Part of Yunnan, China

Since 1995, the Ninglang County Tourism Bureau has begun to develop the Lugu Lake area, forming a tourist attraction integrating scenic tours along the lake, Mosuo folk sightseeing, and comprehensive service entertainment (He, 2001). At present, the development of Lugu Lake

Scenic Area in Yunnan, China is generally mature. There are clean and tidy public toilets spread in the scenic spot, and there are maps, road signs and other signs on the side of the roads, and warnings such as fire preventions and anti-huntings. There are architectures like homestays, hotels, restaurants, cafes and other buildings around the lake area, and also greening facilities in the complex. The water of Lugu Lake is introduced into the complex to form a pond that can be visited, which is mainly operated by locals.

There are many pig trough boat docks in the Lugu Lake Scenic Area in Sichuan and Yunnan, China. Pig trough boat is a kind of wooden boat, which can carry about 6-10 people. Each boat has a staff responsible for distributing life jackets and mooring boats, sending tourists to the island in the middle of the lake for a visit, during the cruise tourists can watch the birds on the lake and feed them. There is currently no policies prohibiting birds feeding in the lake. The wharf is operated by locals, and the pig trough boat wharf in Sichuan, China is uniformly managed by the Yanyuan County Navigation and Maritime Development Center, which has formed a relatively complete tourism industry.

Figure 1. Safety warning signs set up at the pig tank boat terminal in Lugu Lake, Sichuan. There are ten boat notices written above, for the passengers' safety



3.2 Part of Sichuan, China

After the author's field investigation, it is found that the monitoring system in the Lugu Lake Scenic Area of Sichuan, China is relatively perfect, and there are many monitoring facilities on both sides of the road; the security work is in place, and the alarm positioning board can be seen along the road; there is a mature sewage treatment system, and the construction of the “Lugu Lake Wooden Collapse, Duoshe and Shegu Part of the Village Sewage Pipe Network Project” is set; there is a large amount of Mosuo cultural dissemination work, and the Mosuo Museum has been established in Lugu Lake, Sichuan, China, and some Mosuo ancient villages have been developed for tourists to visit. During the visit, the relevant person in charge would explain the local Mosuo culture and customs to visitors all.

Compared with the more mature and commercial tourism industry in Lugu Lake, Yunnan, Sichuan Lugu Lake has less tourism development and retains a more primitive state. Taking

accommodation as an example, the Lugu Lake area in Yunnan, China is mostly hotels and homestays, the decoration style is more modern, the interior is clean and tidy, and there is a more systematic operation mode; the accommodation in Lugu Lake, Sichuan, China is mainly for the inns, the decoration is more primitive, most of the local people's own houses have been modified and began to operate, the facilities in the house are relatively simple, and some inns do not provide disposable towels and toiletries. After the author conducted a field trip, some of the problems that currently exist are summarized:

- 1) There is a lack of public facilities in the scenic spot, such as garbage cans, public toilets, etc., and some sections of the road do not have street lights, and the line of sight is blocked after dark.
- 2) Inaccessibility and lack of public transport. The way of travel of locals in The Lugu Lake area of Sichuan, China is mostly walking, and there are few motor vehicles, which is different from the habits of most tourists, causing tourists to travel inconveniently.
- 3) The warning message carrier is not conspicuous enough. There are fewer warning signs in the Lugu Lake Scenic Area in Sichuan, China, and warning information about fire prevention is printed on a small red flag and inserted in the scenic area. The local Mosuo people in the lake have the custom of hanging prayer flags, and small flags are easily confused with prayer flags, thereby reducing the effect of warning information dissemination.

Figure 2. Fire warning flag in Lugu Lake Scenic Area, Sichuan Province, China. The slogan written on the flag goes that “to make mountains evergreen, fire protection cannot be neglected”, with a local fire telephone number printed on it



3.3 Impact of Tourism on the Ecosystem of Lugu Lake Area

The development of tourism has made human activities in the Lugu Lake area in China more frequent. Although tourism is considered by the international community to be an environment-friendly industry, the impact of human activities on the ecological environment cannot be ignored. In order to build scenic spots and develop large-scale tourism in the area, it

is necessary to build roads, recreational facilities, public facilities and other behaviors, but at the same time, the construction of roads will bring damage to the surrounding vegetation ecosystem, cause soil erosion, and the separation of vegetation ecosystems, which would weaken the ecosystem function of vegetation. The increase in human activities has made the environment in the region polluted, the garbage littered by tourists, the exhaust gas left by the driving of private cars, and the untreated sewage after the development of scenic spots will cause damage to the local environment. Taking the Lugu Lake Scenic Area in Yunnan, China as an instance, the villages around the scenic spot are like a “construction site”, and the “two violations” of buildings are repeatedly prohibited (Zhang, 2021). If tourism develops too quickly and ecological protection runs too slow, in the long run, the damage to the ecosystem would exceed the threshold of the self-regulation capacity of the ecosystem in the region, which is bound to cause serious consequences.

In recent years, with the gradual development of tourism in the Third Pole, many areas have cut down forests and destroyed vegetation in order to earn income and operation, destroying animal habitats and plant living conditions, affecting the normal operation of ecosystems in the region. In an ecosystem, where individual populations are closely connected to each other through intraspecific and interspecific relationships, no external influences can be completely eliminated. Moreover, the ecosystems in the Qinghai-Tibet Plateau area, are generally fragile, the resistance stability is low, and once destroyed, it is very difficult to restore. In the construction of the Qinghai-Tibet Plateau, economic development is important, but if a large number of local ecological environments are destroyed in order to develop the economy, and then a large amount of funds and manpower is used to restore the ecology, it is likely to outweigh the losses. Therefore, the development of eco-tourism on the Qinghai-Tibet Plateau and the completion of the transformation from the traditional tourism model to the eco-tourism model are of great significance to the ecological protection and economic development of the Qinghai-Tibet Plateau region in China.

4. Ecotourism

With the continuous development of tourism, while the economy has been rapidly improved, problems such as over-exploitation, waste of resources, environmental pollution, and ecological damage have also begun to appear. How to coordinate the relationship between regional economic development, ecological environmental protection and tourism resource development has become a common concern of academic circles in various countries (Zhou & Feng, 2016). In 1983, Ceballos Lascurain, the special adviser of the International Union for Conservation of Nature, proposed the concept of ecotourism, which aimed to respond to and reflect on the phenomenon of ecological damage caused by traditional tourism (Zhong et al., 2016). Ecotourism, which integrates environmental protection, community participation and sustainable development models, emphasizes the protection of natural areas on the basis of traditional tourism, and has attracted wide attention as soon as it was proposed (Zhang et al., 2018).

At the heart of ecotourism is the description of the relationship between the tourist and the environment of the destination. The Qinghai-Tibet plateau has a high and cold climate, with an average altitude of more than 4,000 meters, its unique geographical conditions, rich natural landscapes, and relatively backward overall development, animal husbandry and tourism have become the main industries driving the economic development of the Qinghai-Tibet Plateau. However, the ecosystem of the Qinghai-Tibet Plateau is fragile and sensitive to environmental changes (Wu et al., 2007), and the ecological stress in the ecological barrier area is severe, and the natural stress is generally low, mainly human stress. Under such circumstances, the development of eco-tourism on the Qinghai-Tibet Plateau, not only increases economic income, but also makes the public aware of the importance of ecological protection and enhances the public's enthusiasm for ecological protection, which is of great significance to the sustainable development of the region (Mou & Rao, 2015).

5. Questionnaire Survey

In addition to the main purpose of this research to understand the development of eco-tourism in the Qinghai-Tibet Plateau region, another secondary purpose of this report is to understand the new media publicity of eco-tourism in the Qinghai-Tibet Plateau.

This part will use the combination of questionnaire and new media platform investigation to understand the current publicity effect of tourism on the Qinghai-Tibet Plateau. In view of the high popularity of new media among people, there should be no one who has not heard of "Qinghai-Tibet Plateau", so the sampling method is voluntary sampling. The questionnaire design is as follows:

1. What is my permanent city
2. I had the idea of traveling to the Qinghai-Tibet Plateau
3. I conceived the idea of traveling to the Qinghai-Tibet Plateau because I received new media in this aspect
(To those who choose "agree", "more agree" to the second question)
4. I have learned about tourism information on the Qinghai-Tibet Plateau through new media channels
5. I made a detailed guide to travel to the Qinghai-Tibet Plateau
6. I got most of the ideas from new media channels when I was doing a detailed tour guide to the Qinghai-Tibet Plateau
(To those who choose "agree", "more agree" to the fifth question)
7. I have traveled to the Qinghai-Tibet Plateau
8. My friends and relatives have a comprehensive understanding of the Qinghai-Tibet Plateau tourism projects

9. My friends and relatives know the Qinghai-Tibet Plateau tourism project through new media publicity

10. In my opinion, the new media's promotion of tourism on the Qinghai-Tibet Plateau is in place

The questionnaire designing method of Likert scale was selected for this questionnaire survey. All the above nine questions (except the first question) have five options, including “agree”, “agree”, “neutral”, “disagree” and “disagree”. After completing the questionnaire, the author will see through the data.

6. Suggestions and Discussions on the Development of Ecotourism on the Tibetan Plateau

The Qinghai-Tibet Plateau is located in the southwest of China, with an area of about 2.5 million km², accounting for about 25% of China's total land area %, is the largest plateau in China, the youngest in the world and the highest altitude in the world, and enjoys the reputation of “the third pole of the earth”. The Qinghai-Tibet Plateau region of China is sparsely populated, and its unique plateau climate, complex and changeable terrain, fragile ecology and rich mineral resources make the region have a unique tourism environment, and has become a hot spot for tourism. Taking the Cambra National Geopark, China as an example, in 2004, the park received 35,000 tourists and 4.2 million yuan in tourism revenue, and in 2009, the number of visitors was 63,500. The tourism revenue is 11.55 million yuan, which is growing rapidly and is an important tourist area in Qinghai Province in China (Xiao et al., 2011). Eco-tourism in the Tibetan Plateau region can boost the local economy, provide employment positions for locals, and spread the national culture of the Qinghai-Tibet Plateau to the outside world. From this point of view, ecotourism has high economic prospects in the future sustainable development of the Qinghai-Tibet Plateau region of China.

The average altitude of the Qinghai-Tibet Plateau is above 4,000 meters, and the ecosystem is vulnerable to destruction, which makes it difficult to carry out ecotourism in the Tibetan Plateau area. From the perspective of tourists, high altitude areas are prone to altitude sickness, and if tourism is to be developed systematically, oxygen points and first aid stations need to be established on a large scale in the area, and oxygen inhalation equipment, first aid facilities and basic drugs need to be produced or transported on a large scale. The above behavior is likely to cause overexploitation of resources, damage to the living environment of animals and plants, and fragmentation of animal habitats, thus destroying the ecosystem of the region; in the case of the Tibetan Plateau itself, the population carrying capacity of the region is very limited, and the number of indigenous people has risen in recent years, and the entry and sightseeing of tourists will further increase the pressure on the ecological environment. The development of tourism has brought improper development, overload operation, tourists not complying with relevant laws and regulations and the increase in private cars to the Third Pole, which has had a bad impact on the climate, ecology and local culture of the region (Cai & Lu, 2017). While developing eco-tourism in the Qinghai-Tibet Plateau, ecological problems should also be effectively solved, and since the development of eco-tourism will inevitably cause harm to the

ecosystem, ecological losses should be reduced to a controllable range as much as possible. Only when the economic benefits of ecotourism exceed the loss of the ecological environment and other aspects can the Tibetan Plateau meet the requirements of sustainable development.

In 2012, the State Council approved the promulgation of the National Ecological Protection and Construction Plan (2013-2020), which clearly identified the ecological barrier of the Qinghai-Tibet Plateau region of China as one of the strategic priorities for ecological protection and construction at the national level. Ecotourism in the Third Pole must be based on the goal of sustainable development. Therefore, in terms of policies and laws, the author believes that the following conditions must be met (State Council, 2014):

- 1) Popularize and assess the knowledge of ecological protection for the person in charge of the scenic spot. Many scenic spot principals do not understand the consequences of certain measures in the development and construction of scenic spots, and popularizing this knowledge will help enhance the sense of responsibility of principals and reduce or avoid harm to the ecosystem in the construction process of scenic spots (Xiao & Zhong, 2018).
- 2) Establish a sound supervision network system, and introduce a penalty mechanism for environmental ecological protection. Many tourist attractions will over-develop resources in order to obtain greater economic benefits during the development period, causing serious ecological damage and waste of resources to the local environment. The ecosystem of the Tibetan Plateau is of great significance to the climate and environment of the whole world, and once damaged, it is very difficult to restore, and the local ecological resources must not be destroyed for temporary wealth.
- 3) Develop detailed ecotourism environmental protection agreements and make electronic versions that tourists are required to sign before entering scenic spots. The ecological environment of the Qinghai-Tibet Plateau region of China is really vulnerable, and tourists without plateau tourism experience may not think that some of their behaviors will bring more serious consequences to the area than ordinary tourist attractions, such as littering plastic bags. Ecotourism environmental protection protocols can reduce such behavior by allowing tourists to have a general understanding of this knowledge.
- 4) Establish an online tourist database to record the violations of tourists, and once the violation records of tourists exceed the critical value, restrict the tourists from entering the scenic spot (Zhang et al., 2015).

In terms of the management and operation of scenic spots, the author believes that the following conditions should be met:

- 1) Establish oxygen inhalation stations and first aid points, and systematically dispose of garbage generated by medical treatment, and recycle oxygen tanks and other items.
- 2) Raincoats and umbrellas are available for rent, and rain shelter is provided. The climate of the plateau region is changeable, and locals often sell disposable rain gear at the entrance of the scenic spot. Disposable rain gear is large in size and difficult to recycle,

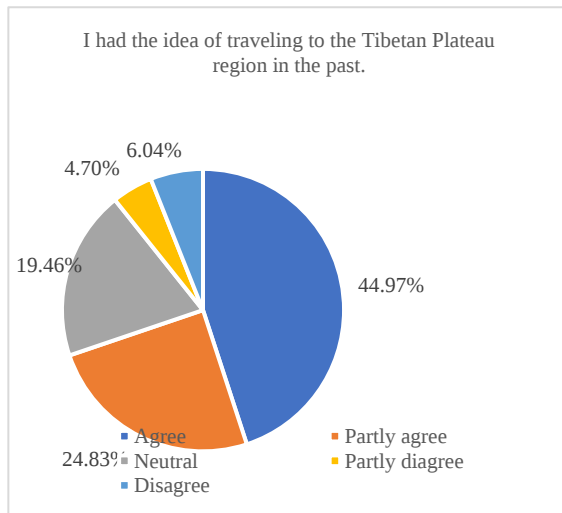
the number and volume of garbage cans in scenic spots are limited, and tourists often fill up garbage cans after use, so that the remaining rain gear and other garbage have nowhere to put. This service can not only recycle rain gear, reduce waste of resources and environmental pollution, but also help to the garbage disposal and garbage classification of scenic spots.

- 3) Arrange enough staff or volunteers to patrol the scenic spot. Once it is found that tourists have feeding, provoking and other behaviors of local wild animals, they will be stopped immediately and warned.
- 4) Limit the number of visitors who visit each day. The ecological environment of the Qinghai-Tibet Plateau is fragile, the population carrying capacity is low, and some scenic spots in the plateau area will overload scenic spots for economic benefits, increasing the ecological pressure in the area. Controlling the number of visitors allows the human coercion that comes with tourism to be controlled.

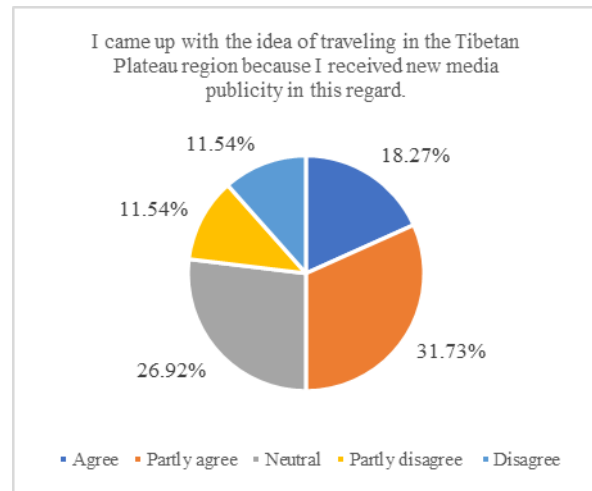
In addition, the author believes that the development of eco-tourism in the Qinghai-Tibet Plateau region of China can be publicized by means of new media. In order to understand the degree and effect of public awareness of tourism in the Qinghai-Tibet Plateau region of China, the author designed a questionnaire for random distribution, and finally recovered 149 valid data. According to Form 3-7, the survey found that of the 149 respondents, 69.8% had the idea of traveling to the Tibetan Plateau region of China in the past, 52% of the 104 people came up with the idea of traveling to the Tibetan Plateau region of China after receiving new media propaganda. In addition, 26.85% of the respondents do not believe that the new media's publicity for tourism on the Qinghai-Tibet Plateau region of China is in place. In other words, the consequence is telling us that the media has the ability to promote publicity, which could help a lot in the field of tourism to the Qinghai-Tibet Plateau, and people are willing to receive the related information.

According to the data, the author believes that the promotion of new media is of great significance to the development of tourism. New media can help the public understand the Qinghai-Tibet Plateau, enhance the public's enthusiasm for tourism to the Qinghai-Tibet Plateau area, and also disseminate the relevant knowledge and needs of eco-tourism, so that the public can understand the importance of ecological protection to the Qinghai-Tibet Plateau region of China, and thus call on the public to cooperate. Scenic spots can develop official accounts on social platforms, and at the same time cooperate with photographers to publish relevant pictures, videos, etc. on the platform for publicity.

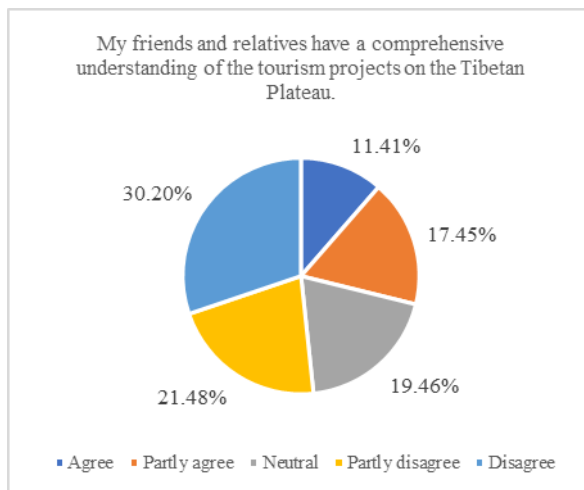
Form 3. A total of 149 pieces of data



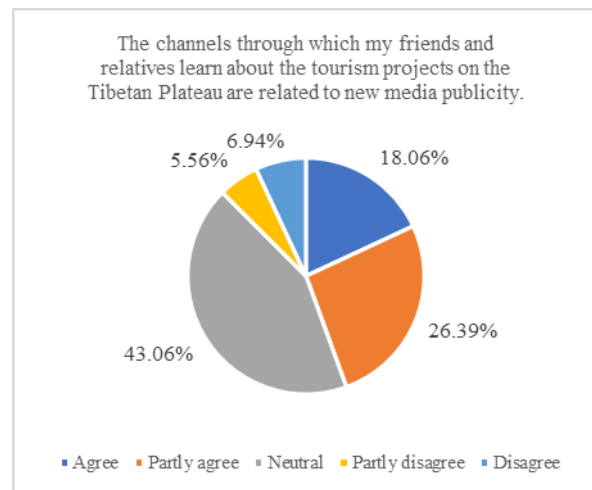
Form 4. A total of 104 pieces of data



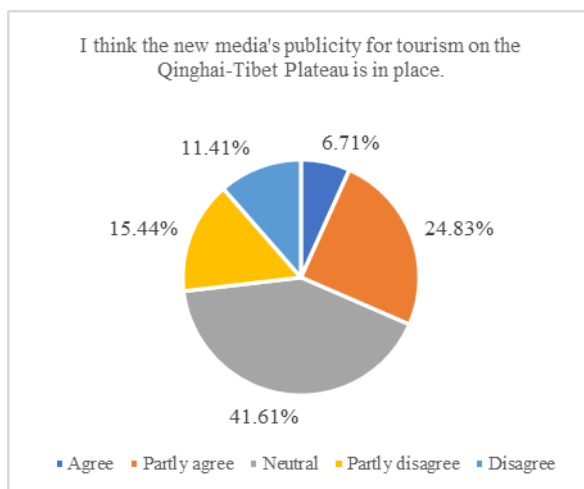
Form 5. A total of 149 pieces of data



Form 6. A total of 72 pieces of data



Form 7. A total of 149 pieces of data



7. Conclusion

The Qinghai-Tibet Plateau is large and sparsely populated, and modern scientific and technological resources in the plateau region are relatively poor, so it is still difficult to establish a professional eco-tourism scenic spot. Moreover, the education level of local herdsmen is relatively backward, and they can't even speak Chinese, so there is a certain generation gap in communication. If we can show the local people the convenience of new media, let the local people benefit from it, it may be able to mobilize their enthusiasm to use new media. Taking animal husbandry as an example, the region has complex terrain and inconvenient transportation, so it is difficult for animal husbandry products such as yak milk and fresh beef to be transported from the place of origin to the place of sale within the shelf life period, which easily leads to resource waste and cost increase, etc. At present, the online live broadcasting industry is developing rapidly. If the local herdsmen are popularized to learn Chinese and relevant policies or programs are introduced to encourage them to live broadcasting and carry goods, Combining livestreaming with modern animal husbandry, expanding the influence of local animal husbandry, making feeding, breeding and other links transparent, and gaining the trust of buyers, will not only help promote the modernization of grassland animal husbandry, alleviate human stress brought by population growth on the ecological environment of the Qinghai-Tibet Plateau, but also promote the new media publicity of the region and help the development of ecological tourism.

Acknowledgment (TNR 12pt. bold)

This paper is an output of the science project...

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