

## Research on the Choice of Travel Mode under the Low Carbon Economy

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**Abstract:** *With the birth of low carbon economy, low carbon tourism has been widely concerned by all sectors of the community, the development of low-carbon tourism has become inevitable. This paper introduces the way of low carbon tourism traveling, analyzes the types and characteristics of bicycle travel mode, discusses the promotion and effect of bicycle traveling mode. The author thinks that bicycle tourism development with the "low pollution, low energy consumption" concept, can not only make the tourists effectively accept the environmental education in the practice of ecological tourism and practice the concept of ecological tourism, but also keep physical fitness, and promote the development of Tourism.*

**Keywords:** *Low Carbon Economy; Travel Mode; Bicycle Tourism.*

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### Preface

With the sharp change of the global climate, people's awareness of environmental protection, green travel mode is highly respected. The development of China's economy, people in China constantly improving the material life, and continue to pursue individual psychological needs, such as traveling, which has become a way to ease the tension of life, rich personal vision, enjoy the natural scenery of life experience is gradually popular. This kind of travel mode just meet the individual needs of self realization and the ultimate challenge.

### 1. LOW CARBON TRAVELING MODE

Two kinds of low carbon bicycle traveling mode in common:

#### 1.1. Carbon Emission Free Travel Mode, Such as Hiking, Riding Electric Cars, Sailing, Solar Powered Aircraft Traveling and Bicycle Traveling

##### 1.1.1. Hiking

It means tourists walk to fitness as the main object, take exercise and sightseeing together. Hiking is a kind of flexible, ages of tourism, which is also the least effect to the environment.

##### 1.1.2. Riding electric cars

It means tourists ride electric cars as of transporting, get the riding experience and fun for the important purpose. Riding electric cars which is a way of safe, freedom, economy, save money, energy conservation, emission reduction and environmental protection.

##### 1.1.3. Sailing

It means tourists choose the way to travel by sailing. Today, the wind sailing, non-carbon dioxide emissions of sailing have become a reality, sailing, in addition to romance, adventure, also increased the "environmental protection" of charming.

##### 1.1.4. Solar powered aircraft traveling

It means of transportation with solar powered aircraft. March 9, 2015 by the Swiss made "the sun power 2", making solar aircraft tourism become a reality.

### *1.1.5. Bicycle tourism*

It means tourists take the bicycle as of transporting, and for the riding experience and pleasure.

## **1.2. Ways of Reducing Carbon Emission**

### *1.2.1. Travel mode combined with various of transport*

A variety of transport combined traveling, is to promote self-driving, by public transport and hybrid cars, riding electric cars, riding bicycles and other low-carbon or non-carbon ways. Improve operational efficiency, and timely and comprehensive introduction of energy-saving technologies to reduce carbon consumption, finally form the whole industry chain of circular economy mode. That not only enriches the tourism life, but also increases the tourism projects.

### *1.2.2. Low emission environmental protection of automobile travel mode*

Low emission environmental car travel way is to advocate the use of low emission, environmental protection, energy saving. At present, low emission environmental cars are getting a huge policy support. As the main feature of the new economic development of low emissions, low energy consumption, low pollution model is being respected.

### *1.2.3. Carpool travel mode*

Carpool travel mode, which can reduce the number of cars on the road, reducing traffic congestion, can not only reduce the cost of travel, but also reduce air pollution.

## **2. BICYCLE TOURISM**

### **2.1. The Ways of Bicycle Tourism**

#### *2.1.1. Bicycle tourism is divided into bicycle tourism and bicycle package tour*

Bicycle tourism is the way that tourists riding a bicycle just like the backpacking, which is a self-arranged experience of travel mode, but with a difference of transport. bicycle package tour means a certain number of tourists organized by travel agencies or other social, in accordance with the planning and fixed route of travel, groups of travel activities, the necessary equipment and supplies provided by the back-up car when tourists on their ways.

#### *2.1.2. According to the mode of bicycle tourism, which can be divided into sports mode, outdoor adventure mode, weekend outing mode, team travel mode*

Competitive tourism mode refers to people participates as a single player, using their own professional sports bicycle, and the bicycle maintenance is completed by themselves. Outdoor adventure mode refers to the people participates more than one, using their own professional sports bicycle, bicycle maintenance is completed by their own, tourism is to stimulate and enjoy the hard. Weekend outing mode refers to that this mode basically belongs to the popular leisure activities, with the largest number of participants, often begins on weekends or holidays, the destination to the suburb park and countryside, basically as a day trip tour. Team travel mode refers to the choice of the bicycle sports tourists, not for the competition and adventure, but as a way of leisure and fitness.

#### *2.1.3. According to the distance of bicycle tourism, it can be divided into short distance bicycle tourism and long-distance bicycle tourism*

Short bicycle tourism refers to the riding time limited in one day or two days. Long-distance bicycle tourism refers to the rider determines the schedule, travel time continued in 3 days or more, with long distance riding, and camping outside, accommodation for more than two days of riding tour.

### **2.2. The characteristics of bicycle tourism**

#### *2.2.1. Accompanied with exercise*

Bicycle tourism is the way that tourists depend on their own physical to complete tourism. Therefore, on the one hand, tourists need to have a healthy body and enough strength; on the other hand, tourists can also by activities to get strengthen. In real life, there is no clear line between bicycle enthusiasts and bicycle tourism enthusiasts, and there is a close link between bicycle tourism and sports fitness.

### *2.2.2. Spontaneity and self-help*

Because the market is not perfect, there are few service items for bicycle tourism, and existing bicycle tourism activities are basically in a spontaneous state. Whether travel alone or in the form of a club group travel, bicycle tourism has the characteristic of spontaneity. In the process of riding and riding scenic tourists are required to the height of their participation, and equipment from the route selection, maintenance and accommodation arrangements are required by tourists themselves, bicycle tourism has obvious self-help.

### *2.2.3. Middle way of tourism occupies an important position*

In bicycle tourism, riding occupies a lot of time, and tourists have to spend a lot of strength and energy, and the proportion of the time spent in the tourist destination is significantly less. The experience and fun that tourists riding from the tourism are far greater than the other ways of transport, which is a major reason for many bicycle enthusiasts, are keen on this activity. Therefore, the tourists in the choice of travel routes, the environmental situation and the purpose of tourism are equally important.

### *2.2.4. With friends, cultural exchanges*

Bicycle tourism has become an important part of the life for many cycling enthusiasts, and gradually developed into a social and cultural phenomenon. With a variety of riding organizations come out, members of the organization through regular travel activities to establish a more stable relationship, which becomes a friends and social channel ways. Through the website, modern communication and network ways to build a platform for communicating with each other, and thus gave birth to a literature, photography and other forms of unique bicycle tourism culture media, greatly enrich people's leisure life. Moreover, between the different regions of the bicycle tourism enthusiasts, through the friendship activities, but also enhance the friendship, the exchange of cultural.

## **3. BICYCLE TOURISM TRAVEL DEVELOPMENT PROMOTION**

### **3.1. Great Efforts to Build the Green Road**

#### *3.1.1. Construction of the green road in developed countries*

Japan's land area is small, natural resources are scarce, but this country can still use the construction of the green road network to preserve precious, beautiful, with local characteristics of the natural landscape.

Singapore green network construction was built in a series of national green space and water in 1991, connecting with mountain, forest, the main park, sports and leisure venues, isolated green area, coastal area etc.

The east coast greenway is about 4500 kilometers, with the nation's first leisure entertainment, outdoor activities and cultural heritage tourism in one of the green road, passing through 15 states, 23 city and 122 towns, with important state university campus, national parks, historical and cultural relics.

#### *3.1.2. Green road construction in the Pearl River Delta*

At present, some cities in the Pearl River Delta have carried out the exploration of the green road in different ways, which provides rich practical experience for the construction of the green road network. Shenzhen planning to build a connection from Shatoujiao, Yantiangang to Dameisha waterfront coastline, it's about 19.5 kilometers long corridor walk and bicycle lanes, with the mountain view, sea view, elements harbor, ecological island, seafood street, designed a self-driving along the road station and rental. According to the Guangdong Provincial Department of housing and urban and rural construction of the "Pearl River Delta overall planning framework", the Pearl River Delta will be fully started the main building of the green road in 2010. According to the plan, Guangdong from 2010 onwards, with about 3 years time to build a total length of about 6 km of the 1678 Regional Green Road in this area. At the same time, cities will be planning and constructing urban green road and community green road, and Unicom with 6 Regional Green Road, build the Pearl River Delta cities and villages in the multi-level green road network system. In 2012 after the guide of Pearl River Delta greenway network will extend to the east, west and south in Guangdong

province. The Pearl River Delta regional greenway line series will build more than 200 main Forest Park, nature reserve, scenic areas and parks, waterfront park and historical and cultural relics, Linking Foshan, Guangzhou, Zhaoqing area, Shenzhen, Dongguan, Huizhou area, Zhuhai, Zhongshan, Jiangmen area of three major metropolitan areas, serving a population of 25 million 650 thousand people. Guangdong province has been built six green roads.

### *3.1.3. Chengdu Sichuan Green Road construction*

Building bicycle Green Road swept the world, Chengdu, Sichuan is in. In order to build a world of modern garden city, Chengdu will build 9 of I grade health greenway and spread in the center of the city and district city county II grade of health greenway. Chengdu has built such as Cuiyong Jincheng, Baishui Guanshan, Yundong Tiaozhan, Zaihou Xinsheng, Shuiyun Tianyuan grade backbone health greenway, for as long as 192 kilometers, single ride time up to 10 to 13 hours.

9 of I grade backbone health greenway will cover around Chengdu historical and cultural towns, the main scenic spots, the reconstruction point, agricultural demonstration garden and various theme parks, to achieve a comprehensive docking, to build global coverage of Chengdu with urban and rural areas, to connect "the world of modern garden city" landscape health green corridor system.

#### *3.1.3.1. Pixian-Shaxi Green Road construction*

Pixian green road planning phase three, which has opened a green road with two riding the line at phase one, green road phase two would be expected to complete recently, that will cover the sand west area, with a total length of 52 kilometers, with Shaxi as the main line, via Anjing, Tuanjie, Sandaoyan, Gucheng, Tangyuan, Tangchang of six towns. Organic series of new rural areas, ecological park, characteristic industry area, ancient villages, historical monuments, better connect the new countryside, ecological park, industrial zone, ancient villages, and historical monuments. Green road phase three had been built in 2012; it makes Pixian green road reaches more than 200 kilometers, covering Pixian and Chengdu, global city center, adjacent counties greenway health system interoperability.

#### *3.1.3.2. Shuangliu Green Road construction*

Shuangliu green road length up to 237.6 kilometers, including I grade bicycle trails and II grade bicycle trails.

Shuangliu bicycle green road pass through huanglong brook ancient town, Dalin Lake National Scenic Area and Hejiang strawberry base, Sanxing red bayberry base, organic rice and loach base of modern agricultural demonstration zone, via Xincheng sports park, China modern five events center and other places. When riding, tourists can fully enjoy the beautiful scenery of Songlin-Xinyuan, Lihuagou, Guantang ecological purification pool, organic rice and loach base of the beautiful scenery, tourists can also go to the pond to catch the loach, lobster fishing, wild fish, and enjoy the fresh fruit, such as Yongxing Loquat at April, Hejiang strawberry at May, Sanxing peach at June, Zhengxing pear at July, and also enjoy the experience of rural agricultural.

## **3.2. Promotion Effect of Green Road on Bicycle Tourism Mode**

### *3.2.1. Construction of the green road promotes the development of bicycle tourism.*

The construction of the green road promotes the rise and development of bicycle tourism. Green road fulfill the traffic information system, reducing the threshold of tourists to join in, so that a wide range of self-help travel has been carrying out.

### *3.2.2. The construction of the green road provides a great traffic environment for riders, and improves the safety factor of tourism.*

A warning line is on the boundary of the green road, and the passage of motor vehicles, such as automobiles, motorcycles and other vehicles are prohibited. Green road travel safety facilities are available, with the necessary fire, fire equipment; dangerous sections of the warning lines, warning signs have be warned. Operators guarantee to the safety of the rental bicycle every day, every time to check the bicycle rental safety before and after.

### *3.2.3. The green road's rest and recreation function, leisure function, the economic development function and the social esthetics and the beautification function has enriched the bicycle traveling activity, and also increasing the riding pleasure.*

#### 4. CONCLUSIONS

Green road has improved the quality of tourism, it mainly reflects in the health and comfort, close to the natural area; enter the leisure opportunities and community proud. Riding in the greenway, enjoy the local unique natural scenery and humanistic characteristics in the green road are presented – enjoy the scenery wild, historical monuments, enjoy the noisy and quiet, so that tourists can enjoy nature, history, geology, landscape and cultural activities. Green Road constitutes a unique landscape.

Note: "Sichuan province social science research base on- Sichuan Tourism Development Research Center Project (No. LYM1110) results"

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