

# Rural Community Participation in Scenic Spot -A case study of Danxia Mountain of Guangdong, China

Yu Haifeng, Luo Jing, Zhang Mu

Shenzhen Tourism College of Jinan University, China

**Abstract:** As a concept with extensive connotation, community participation in tourism can be understood as relevant activities between community and tourism, it is an interaction model as well. The research on community participation in tourism does not only involve tourism participation, it also needs intense discussion on participation degree and initiative etc. 292-square-meter Danxia mountain scenic spot is renowned as a national scenic resorts, nature reserve, geographical park and 4A-grade tourism spot. It was ratified as World geographic park by United Nations Educational, Scientific and Cultural Organization (UNESCO) on 13th February, 2004. What's more, China Danxia has been officially qualified as World Natural Heritage by the world heritage committee of UNESCO in August 2010. Since it is ranked as the first natural heritage in Guangdong province; it has witnessed a great increase in the number of visitors in Danxia Mountain. Owing to the large area and numerous residents, tourism development brings tremendous impact on the community, and people there also participate in the development. Therefore, the authors went to several villages in the scenic spot to have the interview or talk to the farmers at their homes, or design the questionnaires for residents and visitors to collect local information on tourism development history. It proves to be feasible to gain the residents' awareness on tourism development by communicating with them, because they have the deepest feeling on the impact range and degree of Danxia Mountain's tourism planning and development and know their interests well. In terms of investigation, the authors adopted Fishbein's Theory of Reasoned Action and the method named as Attitude Model to firstly attain basic data by household survey, and secondly they had statistical analysis on residents' influential effects on economy, society and environment to comprehensively understand local people's awareness effect on tourism development. Finally, the author proposed basic model on Danxia residents' participation in tourism with studying its operation mechanism and strategic suggestions.

**Key words :** Community residents; community participation in tourism; Fishbein Attitude Model, tourism awareness effect, development model

## 1. Research background

Danxia Mountain locates in the northeast of Shaoguan city Guangdong province. It is in the first place in the four top mounts Guangdong. It is also the national key resorts, geographical natural reserve, geo-part, national 4A

tour zone. What's more, it is certificated as first world geo-park by UNESCO in 2004. Though Danxia Mountain is abundant of national resource, it is still in the backward economic situation for its remote position. Moreover, because of severe resorts competition and its own development, there is weak evidence to show Danxia's pull effect on improving residents' life. Therefore, Danxia Mountain confronts with a lot of problems. In order to get out of this trouble, in 2006, under the permission of construction Bureau, Danxia Mountain applied for "World natural heritage" to world national protection league by cooperating with other 7 Danxia geographic scenic spots such as Langsha in Hunan province, and it eventually was permitted as the nominated destination in 2008. It takes advantage of the scheme of "citizen's leisure plan" and transportation plan of high speed rail which strongly promotes transportation in Shaoguan city and regional economy to partially better the development environment of Danxia Mountain. With the improvement of overall natural and economic environment, there is an increasing global awareness, number of visitors and income for Danxia Mountain. Owing to the success of Danxia's heritage application, the reform of scenic spot has been put forward. One of the key issues is how to deal with the relationship between Danxia mountain development and rural community participation tourism. As there is interaction between them, tour development in Danxia Mountain should base on active participation of rural community whilst the development of rural development will take increasing tourism effect of Danxia Mountain as the precondition. Therefore, it is a problem for its development to combine tourism development with rural community to achieve win-win solution.

Hence, authors attempt to figure out following issues: (1) the understanding of residents' willingness to participate in tourism development can offer assistant evidence for strategy-making of community participation tourism development by local government. (2)The authors will analyze the main factors of affecting residents' participation tourism in Yaotang and Duanshi villages of Danxia Mountain, and summarize the relationship between various influential factors and participation tourism so as to conclude Danxia Model of local community participation tourism.

## **2. Literature Review**

The issue of community participation in tourism has been concerned early by foreign scholars, Murphy put forward the concept of "community participation" in 1983 <sup>[1]</sup>. After 1990s, John Westlake thought is necessary for tourism stable development to fully respect residents' willingness and encourage community's participation in long-term planning <sup>[2]</sup>. David G Simmons David G Simmons suggested tourism planner should pay more attention to residents' participation <sup>[3]</sup>. George Taylor George Taylor holds the idea that development of tourism should integrate with community growth <sup>[4]</sup>. Tazim B. Jamal and Donald Getz proposed to apply cooperative principle to the plan and development of tourism destination <sup>[5]</sup>. After analysis of positive and negative effect from over-interference of government into tourism, C.L. Jenkins worked out "government-community" cooperation model, that is, government should concern long-term development target, while community finished the specific tasks <sup>[6]</sup>. Brian Keogh discovered in his research that satisfaction of information demand from destination residents may encourage them participate community tourism planning more effectively <sup>[7]</sup>. Cevet studied the limitation of developing countries' participation in tourism which focuses on operation, construction and culture <sup>[8]</sup>. What's more, he discussed their development stage and approach according to social economy, culture and politics <sup>[9]</sup>. Mark P. Hampton pointed out that many communities in developing countries had the problem of benefit and payment when accounting on scenic spots in community <sup>[10]</sup>, While in terms of community perception on tourism influence, Getz D researched on residents' perception on tourism's economic and environmental impact <sup>[11]</sup>. Courtney worked on residents' awareness on tourism culture and social influence <sup>[12]</sup> Timothy J. Macnaught insisted residents should have more power in tourism development so as to reduce negative influence from tourism effectively <sup>[13]</sup>.

The research of community participation in China started in 1990s. Liu Weihua concludes community participation in tourism is a indispensable mechanism in macro-system of tourism stable growth <sup>[14]</sup>. Zheng Xiangmin and Liu Jing summarized that there were three levels in community participation in tourism that is preliminary level, active level and mature level <sup>[15]</sup>. Bao Jigang regarded tourist, foreign tour agent, commercial branch,

local residents and government management sections as main stakeholders<sup>[16]</sup>. Luo Yongchang discussed benefit distribution of minority community participation in the angle of present condition of benefit distribution, reason and guarantee mechanism<sup>[17]</sup>. Tang Shuntie proposed to guide community tourism in the aspects of community interaction, evolution, and structure optimalization<sup>[18]</sup>. Bian Xianhong constructed the integration model of tourism and community<sup>[19]</sup>.

Generally speaking, Chinese academic circle witnesses a late start in tourism effect perception from residents in tour destination. What's more, the research on tourism community participation focuses more on theoretical and macro aspects than field investigation and case study. And there is a shortage of theory study for Chinese present situation. Therefore, the authors try to further this job with investigation of rural community participation in tourism in scenic spot.

### **3. Theory and method**

#### **3.1 Doxey anger index theory**

In 1975, According to the investigation in Barbados and Niagara Lake zone in Ontario of Canada, Doxey found that there was increasing tendency from residents attitude towards tourism development along with the growth of tourism development, then he worked out an overall model on residents attitude to tourist: excitement, indifference, hatred and confrontation, which is well-known as "Anger Index" theory [20]. It says at the initial stage of tourism development, residents will hold a positive attitude, but it will change for the increasing number of tourists with the threatening of their original lifestyle.

#### **3.2 Social Exchange Theory**

The social exchange has become a worldwide social theory since it started to be popular in 1960s [21]. This theory insists all the human behaviors will be dominated by some exchange activity with bonus and payment, therefore all human social activities can be regarded as an exchange, so is social relationship. At the end of 1980s, it was utilized in tourism research. And Epp figured out social exchange process model to explain the whole



process of residents starting to participate in tourism exchange, continuing the exchanging and quitting it, he also thought individual had connected with evaluation and profit of the exchange. If the profit is more than the cost, residents will hold a positive attitude; whilst people will be against to it if it is opposite. Hence, social exchange theory can be used to explain residents' attitude to tourism. Because there must exist resource exchange in tour destination, that is tourist will exchange residents' friendliness and service with economic resource.

In terms of research method, authors plan to have field investigation, and Fishbein Attitude Model will be adopted in quantitative part to evaluate social, economic and environmental effect from Danxia Mountain tourism development so as to know residents' attitude.

#### **4. The Profile of Studied area**

Danxia Mountain locates in the boundary area between Renhua County and Zhen River zone of Shaoguan city, Guangdong province (113°36'25"E~113°47'53"E, 24°51'48"N~25°04'12"N) with the size of 29200 hectares. It is renowned as the national key resorts, geographical natural reserve, geo-part, national 4A tour spot. Among 800 Danxia landforms in China, It is the district with most typical, completed, resourceful and beautiful Danxia views. As it is made by more than 680 red sandy conglomerate hills, the highest top is 619.2 meters. So far, it has developed 5 scenic spots, which are Danxia, Bazhai, Shaoshi, Aizhai and Jing river gallery.

In terms of tourism income in Danxia Mountain, there are two big growth periods since the opening of new scenic spot in 1995. The first is happened after the opening of Yangyuan stone and Xianglong lake scenic spots, it changed its old and shabby image which suffers the declining market, the number of visitors increased from 210,000 in 1996 to 654,000 in 2002 with 21% growth, and admission income raises from 8,300,000 RMB in 1996 to 17.076 million RMB in 2002, that is, it increases 28.4% per year. The second one occurs after the successful application of Danxia world geo-park, the year of 2004 witnessed a sharp increase of visitors to 1144000, 59% more than that of in 2003; and the admission income increased by 81% to 29,090,000 RMB, and in 2005, the number of visitors went up to

1,180,000, and admission income is 26,044,500 RMB; and in 2006, it increased by 9.81% to 28,600,000 RMB.

There is a population of 31193 around scenic spot, and 11500 in the area, and all of them are farmers. So far, except Danxia Mountain as tour district, the farmers in and around Yangyuan stone zone has realized transformation of industrial construction. So tour economy takes larger proportion, most farmers in the district still focuses on traditional agricultural activity. As tillage still plays main role in agricultural economy, the land is mainly locating in the plain along the river and miry field in mountains. Paddy field is more than 80%, crop production is 600-900kg per person. Main economic plants include sugar cane, peanut, fruit, silkworm and vegetable etc. What's more, the average income in village enterprise is about 3200 RMB, lower than that of in Guangdong province, 5079 RMB in 2006. The tendency proves that the situation in scenic spot is better than the one around undeveloped aera; the peripheral place is better than inner district.

Two selected communities are village of Yaotang and Duanshi which are managed by Huangwu village committee of Ren Hua County in Danxia scenic spot. Yaotang village is in the crossroad near gate of Danxia Mountain, While Duanshi village locates just at the entrance of scenic spot in the alluvial plain along Jing River in Yangyuan stone scenic spot. Before 1992, at the initial stage of Danxia Mountain development, though two villages had participated in tourism, they were at the preliminary stage with low degree of participation and poor profit. And main income is still from agriculture. With the development of tourism in Danxia Mountain, especially the introduction of community participation in tourism changed two villages tremendously. Since 21st century, tourism has played an important role in farmer's income. In 2009, the average income in two villages was more than 5000 RMB. In spite that it is lower than Guangdong farmer's average income, 6400 RMB, it is more than national average income, 4761 RMB, higher than most farmers' income in Shaoguan city. Therefore, it is concluded that tourism development plays a significant role in encouraging village community growth (See Tab. 1).

Tab. 1 Income distribution Tab. in Yaotang and Duanshi village of 2009

	Population	Total Income (10,000RMB)	Income for agriculture ( in10,000 RMB)	Income from tourism ( in 10,000 RMB)	average income per person ( RMB)	Proportion of tourism income
Yaotang	156	82	34	48	5256	58.6%
Duanshi	172	103	46	57	5988	55.3%

Note: Committee of Huangwu Village

## 5. The analysis on present situation of rural participation in tourism: the investigation of Yaotag and Duanshi villages

Community participation in tourism contains participation in tourism decision-making, development, tour service, planning, supervision and management etc. At present, Chinese rural community participation in tourism focuses on tourism development, service involvement etc. And tourism participation in Yaotang and Duanshi villages is mainly in tourism development and operation without involvement in tour decision-making and supervision.

### 5.1 The method of community participation under the tourism development settings

#### 5.1.1 Land-based participation

##### (1) Yaotang village

Since the opening of Danxia Mountain in 1980, the scenic spot has bought the land from Yaotang village 22.06 hectares, leased land 3.99 hectares. Among them, paddy fields is 2.52 hectares, hill forest 14.67 hectares, hill 3.99 hectares, dry land 3.99 hectares, barren hill and land 3.97 hectares, fish and lotus pond 1.07 hectares. Till 2007, Yaotang village got compensation and rent 746300 RMB, and people can get 297.68 RMB after 2006. If this money could distribute to farmer, then every family can gain 17000 RMB as requisition income.

(2) Duanshi Village

Since 1994, Danxia scenic spot has leased the land from Duanshi village in 186.9 hectares, among them, the bought land 76.15 hectares, the leased land 110.73 hectares. It includes paddy field 0.46 hectares, dry land 0.02 hectares, hill forest 184.27 hectares, river shoal 0.04 hectares, dam field 0.25 hectares and wasteland 1.33 hectares. So far, Duanshi village has got compensation 557100 RMB, and 218.19 per person after 2006, that is 10500 RMB per family. Generally speaking, the required land in Duanshi village is more than that of Yaotang village. All these lands are arranged by government, and some are in the way of partial lease or buying a share. However, in terms of compensation, the price is in a low level, and Duanshi village has far more lower compensation than Yaotang village (See Tab. 2).

**Tab. 2** Survey of land utility in Yaotang and Danshi village

item	unit	Yaotang village		Duanshi village	
		1980	2008	1998	2008
1.Cultivated land area in beginning of the year	hec tare	9.93	11.93	42	51.8
2.Cultivated area at the end of the year	hec tare	9.93	11.93	13.67	51.8
1) Paddy field area	hec tare	9.07	8	12	13
2) Grain area	hec tare	-	11	-	10.87
3) Operation by collective ownership	hec tare	9.73	-	13	-
3.Farmland water conservancy					
4) Effective irrigation area	hec tare	4.0	11	6.67	14.33
5) Guaranteed crop area	hec tare	4.0	0.11	2.0	12.07

Note: data comes from Committee of Huangwu village.

### 5.1.2 The participation in tour service project

The participation of tour service project mainly involves the construction of new farmers' house of two villages and stores in Duanshi village. These new farmer villages have two attributes: it is firstly farmer's house; it can secondly offer accommodation and catering service for visitors.

#### [1] Yaotang new village

It locates along Jing River and it is the pass-through route between new and old scenic spot in planned Yaotang service district. There are 36 buildings in Yaotang new village which bears villagers' modification of plan

scheme into account, and it has opened to receive visitor since 1st, May, 1999.

## [2] Duanshi New village

It is along Jingjiang river neighboring old Duanshi village, opposite to Yaotang new village. As it locates in Yangyuan stone scenic spot, its construction is scrutinized by professionals and management committee. Till 2004, this work has started and 47 buildings have been finished and begun to receive visitors in 1st, May, 2008. New village adopts grey tiles as the roof, white outer wall and wood-like rail. Differing from the flattened building, new buildings express distinguished local characteristics by natural appearance.

## [3] Stores in Duanshi village

These stores are at the entrance of village and built in the same period of Duanshi new village, now it is put into use. Before the construction of Duanshi new village, its stores are built by scenic spots and used by them for free.

## **5.2 Operation and participation of tourism development**

The main approach to tourism participation in Yaotang and Duanshi villages are accommodation, catering service and tour products sales. Others include residents working as staff in Danxia scenic spot, movable stall, souvenir selling etc. As less population and income and influenced to Danxia Mountain, the authors will not describe the in details.

### **5.2.1 Tour-enterprise-oriented participation**

In the aspect of quantity, there are 47 tourism enterprises in Duanshi village while 34 in Yaotang. In terms of fixed assets, the highest one has reached to 1 million RMB in 2008, they are farm food restaurant of Yaotang village and Tianlai restaurant in Duanshi village; there are less than 10 restaurants with the assets about 500000 RMB, and most of them are less than 200000 RMB which are called small tour enterprise.

**Tab.3** Investigation on some tour enterprises in Yaotang and Duanshi Villages

The name of tour enterprise and legal person	Year of establishment	Assets (in 10 thousand RMB)	Income per year (in 10 thousand RMB)	The Number of employees	Reception capacity (the number of table and room)	Operation method (Independent, cooperation)	
<b>Yaotang Village</b>							
1	Farm food restaurant Liu Yongqiang	1998	20	5	2	10tables/4rooms	independent
		2010	60	10	12	20tables/10rooms	independent
2	Huangsheng Restaurant Liu Huasheng	1999	15	10	2	10tables/10rooms	independent
		2010	100	20	4	10tables/ 12rooms	independent
3	YangRMB Hill restaurant Liu Junqiang	1998					
		2010	20	8	5	10tables /10rooms	lease
4	Longxing restaurant Yi Tuanzhang	1998					
		2010	10	1	0	5tables/12rooms	lease
5	RMB Ying restaurant Huang Yunahong	1998					
		2010		3	0	3tables/4rooms	lease
6	Xin Hua restaurant Zhang Xinhua	1999	20	6	0	4tables/4rooms	independent
		2010	50	4	0	4tables/4rooms	independent
<b>Duanshi Village</b>							
7	Da Chun Restaurant Wu Chunqi	2005	30	3	0	7tables/7rooms	independent
		2010	50	1	0	10tables/7rooms	independent
8	Tian Lai Restaurant Wu Tianlai	2000	30	15	0	16tables/16rooms	independent
		2010	100	18	4	28tables/23rooms	independent
9	HuiRMB restaurant Zhong Xiaojun	2007	30	4	2	10 tables/10rooms	cooperation
		2010	50	5	2	10tables/10rooms	cooperation
10	Farm food Restaurant Wu Haibin	2007	7	12	2	8tables/0	cooperation
		2010	25	6	2	8tables/0	cooperation
11	Hongxing Restaurant Wu Hongwen	2006	15	3	0	0/6rooms	independent
		2010	35	3	0	0/6rooms	independent
12	1+1 restaurant Wu Wenfeng	2006	30	3	0	5tables/6rooms	independent
		2010	50	3	0	5tables/6rooms	independent
13	Jewelry Shop Wu Yongjia	2005	6	3	0	---	independent
		2010	8	2	0	---	independent
14	Tong He restaurant Liu Mintong	2006	10	4	0	0/8rooms	independent
		2010	30	4	0	0/8rooms	independent
15	Jin Cheng Restaurant Zhang Guihua	2000	15	2	无	10tables/0	lease
		2010	30	6	6	15tables/23rooms	independent

From the number of employees, Farm food restaurant has most people, that is 12 people in 2010, whilst only 5 people in other restaurants, and most of them are run by the couple. In 13 interviewed tour enterprises, in 2010, 53% of them hired part-time workers, 33% of them hired 1 to 5 people, 14% hired 6 to 12 people. Averagely speaking, every enterprise employed 2.33 people. Facts proved that investigated tour enterprises in two villages are at their initial development stage with small and loose characteristics. According to the statistics, in 2010, pure tour income in Yaotang village is about 20000 RMB per family, and there are profit dividends from stores in Duanshi village, villagers' income has reached to 30000 RMB (See Tab. 3 and Tab. 4).

**Tab. 4 :** Statistics Table on tour enterprise scale and net profit in Yaotang and Duanshi village

Tour village	Number of tour enterprise	Hotel or family Inn	Tour product store	Net profit of a year (10000 RMB/family)
Duanshi Village	47	21	26	3
Yaotang village	34	30	4	2
Total	81	51	30	48

### 5.2.2 Tour-store-oriented participation

Tour store of Danxia Mountain is mainly in Danshi village, they locate in the central scenic spot of Yangyuan stone zone. In 2004, semi-fixed prosperous stalls could get 4000 RMB per month while 2000 RMB for those poor ones. However, the profit rate is relatively low, net income every month for each family is about 1200 RMB. The best can reach 30000-40000 RMB, and worst is around 10000 RMB. Therefore, averagely speaking, tour income is 15000 RMB per family. After Duanshi stores have been built, the store owner has to pay the rent for village, the one in favorable place has to pay 180000 RMB, for those in worse place is 30000 RMB. Though store street is larger, there is no visible improvement for the operation. Instead, as the cost increases, store owners suffered declining income than before. It is found that the best-seller of tour product is Yangyuan stone woodcarving, jequirity necklace and revives grass; all these are most special products in Danxia Mountain. And sellers think the jade, jade bracelet and china with the worst sales because they can be bought in other scenic

spot without competitiveness (See Tab. 5) .

**Tab. 5 :** Summary table of tour product sales in Yaotang and Duanshi village

Item	Tour handicraft	Tour souvenir	Tour daily necessity	Local Specialty and food	Antique and duplicate
Type of tourist commodity	Stone, jade carving, wood carving, bamboo carving, wood toothpick box etc	Danxia postcard, Danxia poker, necklace bracelet etc.	Umbrella, sunglasses, sunhat, paper fan, walking stick, massage hammer	Tomato chip, tee, mushroom, dried bamboo shoot, revive grass, dried vegetable, fruit, dried fish	China
Best-seller	Yangyuan stone wood carving	jequirity	-	revive grass	-
Worst-seller	jade	jade bracelet	-	-	China
Local-processed product	Wood carving, bamboo carving	Postcard, jequirity	paper fan	all of them	none

So far, villagers have not involved directly in tourism planning. And their requirement to planning is mainly depend on professional tourism planning, so it is indirect involvement. As there is no relevant policy and regulation to support community participation in tourism planning in Danxia Mountain. Major approach is the exchange between professionals and government. What's more, Danxia scenic spot sets up Management committee of Danxia Mountain whose decision is made by the negotiation among villagers and professional, that is, villagers involved tourism planning indirectly. However, only a few villagers are able to participate in the job, so people are short of the awareness of participation.

### 5.3 The problem in Danxia community participation in tourism development

Comparing with community participation in Chinese geo-parks, Danxia community participation in tourism is successful in the aspects of economy, social culture and environmental safeguard. And its development model has gained acceptance which has been proved by "world heritage" nomination. But nominated place is not the real "world heritage". The authors think Danxia's community participation in tourism is still in a low level comparing with same type of geo-park of other countries, and its limitation is regularly working on the development. So it is vitally important to break through this bottle necks. So far, Danxia rural community participation in tourism exists following questions:



### **5.3.1 The absence of decision-making role in community participation**

At present, except few villagers in Yaotang and Duanshi villages, most of families have participated in tourism. What's more, there are 70 families have opened couple-oriented hotels, restaurants or tourism stalls. In terms of age structure, most of them are in the age of 25 to 44, so main tourism participators are middle-aged people. But it has to admit that the participation in tourism is still in a low level, for the main approach includes family inn, restaurant, stall and store etc, and most of them are run by couple. Moreover, the accommodation is far from satisfaction, the content of operation is too simple and dull, and it is hard to match with the name of "world heritage" nominated place. It seems that their participation mainly involves in tourism operation and relevant activities, while less in tourism decision-making, planning, management and supervision. What's more, they are quite active in tourism operation, whilst passive in other activities.

### **5.3.2 Simple benefit-motive mechanism in community participation**

Now Danxia mountain development has enter the entity stage, the core system of marketing operation should include community residents, management section of Danxia Mountain, tourism Development Company and tourists. However, the reality is that it is made up by Danxia management committee, tourism investment limited company of Danxia Mountain and tourists. As the owner of tourism resource in Danxia Mountain, residents, on the one hand, have not power to participate in the management; on the other hand, they have no chance to involve in tourism development in the way of stock system or buying a share.

Therefore, community residents without discourse power will firstly confront with the problem of uneven profit distribution. Working as the dominate role in market system, Danxia management committee and Danxia investment limited company have absolute power in inviting investment, using poverty supporting capital, and distributing tourism income. On the contrary, residents can gain some benefit only by leasing land or participating in tourism operation.

Secondly, there is the problem of unreasonable compensation mechanism. So far Danxia mountain has not established complete ecology compensation mechanism, and residents' compensation is the only way for land expropriation. What's more, land compensation is too low. Take Duanshi village as an example, from 1980, Danxia scenic spot expropriated land 186.0 hectares, and they got the total compensation of 557100 RMB that is 2981 RMB per hectare. As different time of expropriation, ten years is set to be a period, Duanshi village has 298.1 RMB per hectare in ten years. Suppose 4 acreages of land are expropriated in each family, then every family will get 74.52 RMB per year. But the compensation standard in Guangli freeway of Shaoguan city in expropriation is 6000 RMB per acreage. Such simple compensation system and unreasonable land expropriation rule makes residents over-dependant on tourism operation, so family income fluctuate and unstable.

Thirdly, it is a headache of reducing tourism income and obvious gap between the rich and poverty. Danxia Mountain's development results in decreasing of cultivated land in two villages which lead to reduction of agricultural income, so benefit from tourism has become the main part of village's income. However, with marketing development in Danxia tourism, there is a declining tendency in tourism income for increasing external competitive factors and global economic depression. According to the statistics in 2005, tourism income for every family in two villages is 50000-60000 RMB, while in 2009, it dropped to 20000-30000 RMB. Other survey shows there are 18 families in the old Yaotang village, and 10 in Duanshi, these 28 families is 25% of the all the families, their income is less than 10000 RMB per year which mainly comes from agriculture. The visible income gap between villagers in new and old village negatively affects harmonious development of Danxia community to bring discontent among people.

### **5.3.3 The absence of guarantee system of community participation**

It firstly indicates poor residents' training and education which is the key to community participation. As people there have weak participation awareness and the poor participation performance, education can help to

change their sights and improve their knowledge structure. Most people in two villages are poor-educated, so they are not well-equipped with the knowledge in the aspects of tourism operation, environment safeguard and self-legal right protection. In order to help them gain more benefit from development, it is urgent to offer them a series of training and education to guide them in tourism participation.

Secondly, there is incomplete law system in Danxia community participation. As far as we know, there is no law or regulation on residents' participation in tourism in Danxia, nor any guidance for community participation in tourism. Hence the absence in law system lead to slow development of Danxia community, residents' disorder participation and increasing conflict between residents and management section. Therefore, it is quite necessary to make law or regulation on community participation to achieve the goal that law plays the only role to standardize people and organization's behavior to protect legal right of Danxia community participation.

Danxia's present management mainbody includes government of Renhua county, Danxia management committee and Danxia mountain investment limited company which is called government-enterprise-cooperated mechanism. It enjoyed dominate power at the beginning stage. But with development of market economy and Danxia Mountain's growth, it shown its weaknesses as follows: 1) it has the poor supervision for the mixture of operation and management power. 2) It is hard to set up long-term supervision mechanism to achieve positive circle of Danxia's ecological environmental protection with economic development of scenic spot. 3) It might bring blind area in management for too much overlap in administration. Both of two villages have old and new part, and the new has been an important role in Danxia tourism operation. But the old village becomes a burden because of weak economic situation and no cares from government; it might be the potential risks for resource reservation and social stability in Danxia Mountain. This double burden lags Danxia development behind. When tourism enterprises in Danxia mountain paying tax for government, they are also responsible for building, developing and managing the community as well. Enterprise are forced to pay those irrelevant with business by limited profit, Therefore, we can see, public service is poor, social guarantee system

is incomplete, the infrastructure is bad, people's life is dissatisfactory and the social business is backward.

## **6. Field investigation and analysis**

The description on Danxia's resident's participation in tourism indicates that though Danxia's participation model is successful, there are a lot of difficulties comparing with the ones in other countries which affect its sustainable development. Hence, questionnaire for residents seems to be necessary to collect stakeholder's attitude toward tourism development, and it is also helpful for figuring out relevant solution.

### **6.1 Design of questionnaire and interview**

The quantitative and qualitative approach is mainly adopted to design the questionnaire. There are two types of questionnaire; one is the quantitative household survey for residents about their attitude and perception degree on economic, community and ecological change after Danxia Mountain's tourism development. The other is open interview for other stakeholders on their community participation awareness and concerned aspect.

### **6.2 Method of statistic analysis**

As the design of questionnaire based on residents' willingness and attitude to participate in tour activity, it refers to Ma Yan's method <sup>[22]</sup>, Formula 1 can help to achieve quantitative analysis on Danxia mountain's tourism effect on community.

$$A_i = \sqrt{B_i} \sqrt{C_i} \quad (\text{Formula 1})$$

It is deduced from Fishbein Attitude Model and adopted in case studies by many Chinese scholars who are named as the method of attitude model.  $A_i$  is effect value of tourism influence of the investigated object, is the people's attitude toward Number item's change brought by Danxia tourism planning and development.  $C_i$  is residents' preference toward  $B_i$ ,  $C_i$ , as the geometric mean of  $B_i$  and  $C_i$ , can reflect the object's influenced degree by tourism planning and development, it can also indicate residents' preference, that is, social value of tourism effect, whether it is positive or negative. It is proper to get influence evaluation result of Danxia community tourism

development by the means of interview with local residents, because they can actually know about influential range and degree from Danxia's tourism development, and know they own benefit quite well.

We can get  $B_i$  and  $C_i$  by formula 2.

$$D = \sum_{n=1}^n E_n F_n \quad (\text{Formula 2})$$

$D$  is the value  $B_i$  of  $C_i$ ,  $E_n$  is the proportion of every attitude or preference.  $F_n$  is the value of every attitude and preference. According to the adopted method, 's evaluation scale will use 5 rank assessment method, 5=greatly increased (improved, positive) or very much welcome (prefer, satisfy); 4=increased (improved, positive)or welcome(prefer, satisfy) 3=no change or do not care; 2=decreased (deteriorate, negative)or antipathy (discontent dissatisfy); 1=greatly decreased (deteriorate, negative) or great antipathy (hate, dissatisfy. The increase here contains the growth of positive effect of tourism influence and decrease of negative effect, whilst decrease means the increase of negative effect and reduction of positive effect. The value of decrease and increase will only be decided by residents' preference. If their preference is positive, then the value is more than 3, if it is negative, the value is less than 3.

The score of influential effect of Danxia mountain's tourism development should be 1 to 5. The formula tells that evaluation standard of community influence can be exceptionally high (4.25-5.00) relatively high (3.50-4.25) medium (3.00-3.50) relatively low (2.00-3.00), rather low (<2.00) the score boundary is 3.00, higher than3.0 it is positive effect, instead, negative effect.

### 6.3 Statistic analysis on survey result

The objects of household questionnaire include 97 families in Yantang and Duanshi villages, 92 pieces have been sent out, the interview form is one on one communication, interviewee will tell, and interviewer fill out the form. Therefore, the validity of this questionnaire reaches 95%, valid questionnaire is 83. While quantitative statistics from other stakeholders are gained from interview.

### 6.3.1 Profile of household survey objects

This survey involves 83 people with 48 men, and 34 women. 54.22% of them are at the age of 25-44 which indicates middle-age people are the main body in two villages. It is found in the survey, most residents are poor-educated, the number of people who received education lower than middle school is 60, that is 72.29% of all the people. 8 people, 9.64% of objects, finished college education which is the highest education background. Poor education background restrains the width and depth of community participation which creates negative effect to its development. What's more, the survey shows most families' net income is less than 50000 RMB per year, those who earn more than 50000 RMB is only 10.84% of the whole population. And the source of family income is mainly from restaurant, accommodation, and local food sales which occupy 82.72% of the whole income (See Tab. 6).

**Tab.6** : Brief information of residents in Yaotang and Duanshi village

Item	Category	number of people	proportion (%)
Gender	male	48	57.83
	female	34	42.17
Age	Younger than 25	12	14.46
	25-44	45	54.22
	45-64	19	22.89
	Elder than 64	7	8.43
Education	Under than preliminary school	17	20.48
	Middle school	43	51.81
	High school	15	18.07
	Technical school	8	9.64
	university		0
Family net income	Less than 10000 RMB	21	25.30
	10000-20000 RMB	15	18.07
	20000-30000 RMB	22	26.51
	30000-40000 RMB	10	12.05
	40000-50000 RMB	6	7.23
	More than 50000 RMB	9	10.84
Main source of family income	work in scenic spot	7	7.78
	Farm restaurant, accommodation	43	47.78
	local specialty sales	29	34.94
	work in other place	7	8.43
	others	4	1.07

### 6.3.2 Statistical analysis on household survey for community residents

#### (1) Economic influence analysis in Danxia community

Generally speaking, the effect value of economic influence change in Danxia community is at a medium level. For preference effect value, except income change effect value is better than medium, rest of them are low. From the quantitative result of comprehensive economic influence, only income and capital in village have reached medium level, employment opportunity is still at a low level (See Tab. 7 and Tab. 8).

**Tab. 7 :** The statistic Tab. on economic influential effect in Danxia community

change and preference item	Greatly increase	increase	No change	decrease	Greatly decrease	Change A
	Very welcome	welcome	Don't care	antipathy	Great antipathy	Preference B
Income change	2	47	9	23	2	3.29
Attitude on income change	2	42	3	34	2	3.09
Employment opportunity	1	20	51	11		3.13
Attitude on employment opportunity	2	17	21	41	2	2.71
Village capital	4	46	21	12		3.51
Attitude on using the capital	4	44	15	20		2.84

**Tab. 8 :** Quantitative result of economic influence

Survey item	awareness change	attitude preference	influential effect
Income	3.29	3.09	3.19
employment opportunity	3.13	2.71	2.91
Capital of village	3.51	2.84	3.16

Specifically speaking, 49 objects think there is an increase or great increase for income, it is 59.04% of the total. While 34 people, 40.96%, think there is no change, decrease or great decrease for income. In terms of attitude to income change, 44 people, 53.01% of the total, like or very much like income increase. 37 people, 46.99%, hold the attitude of don't care, disliking, or very disliking of no change, decrease or great decrease of income. That is the people with optimistic attitude to income change (increase or greatly increase) is a bit more than those with pessimistic attitude (no change, antipathy, greatly decrease), only 10% in difference.

In terms of economic influence, Danxia Mountain's development doesn't necessarily turn out positive effect on economic influence for Yaotang and Duanshi village. Comparing with the survey from Chinese scholars done several years ago, economic influence declines visibly. As for income, relevant survey proves that in 2005, average net income for farm family there was about 50000 RMB every year, but now is 30000 RMB, decreased by 20000 RMB. It results from macro reason of poor economic performance, increasing external competitors and weak residents' competitiveness.

In the aspect of employment opportunity, even awareness change has reached medium level, attitude preference is still in a low level which causes negative effect of the whole influential effect. Poor employment is always the main reason of the conflict between villagers and Danxia management. As most of lands in two villages have been expropriated by the sightseeing office of Danxia management committee for tourism development, residents' traditional agricultural income decreased regularly. Income distribution Tab. of Yaotang and Duanshi village in 2009 shows, tourism income in Yaotang and Duanshi village is 58.6% and 55.3% of the total income respectively. As the reduction of agricultural and tourism income, the residents, as the owner in Danxia core scenic spot, urged to participate in the work of management. But Danxia management committee always holds the conservative attitude toward residents' involvement. The policy that 3 people will be recruited to management team every year is the most the committee can do. But it arouses big discontent among residents which causes increasing severe conflict with Danxia management section.

As for community public asset, residents' awareness has reached a high level which connects with store establishment in two villages recent years. Take Duanshi village as an example, there are 47 stores, they can gain some rent for different location, then at the end of a year, some part of rent will be put in public fund. However, this public fund has not benefited villagers yet, and many people don't know its function. It indicates, on the one hand, residents pay less attention to village's financial situation, on the other hand, it reflects two villages' financial situation is not transparent for the absence of scientific management.



## (2) Analysis of social influence in Danxia community

The survey of social change degree and preference indicates a high level ???which proves a positive effect for social influence change and villager's preference.(See Tab. 9 and Tab.10)

**Tab. 9** : survey on social influential effect in Danxia community

Change and preference Item	Greatly increase	increase	No change	decrease	Greatly decrease	Change A
	Very welcome	welcome	Don't care	antipathy	Great antipathy	Preference B
Traditional custom		21	59	3		3.21
Attitude to traditional custom change	1	38	36	4	4	3.33
Lifestyle and habit	2	23	56	2		3.3
Attitude to lifestyle change	3	28	48	1	3	3.32
Family structure	1	19	48	15		3.07
Attitude to family structure change	1	25	41	16		3.13
Cultural quality		55	17	11		3.53
Attitude to cultural quality change	12	45	13	13		3.67
External communication	3	60	15	5		3.73
Attitude to External communication change	3	63	13	4		3.79
Village view	17	59	7			4.11
Attitude to village's view change	28	42	7	6		4.1

**Tab. 10** : quantitative result of social influence

Survey item	awareness change	attitude preference	Influence effect
Traditional custom	3.21	3.33	3.27
lifestyle and habit	3.3	3.32	3.31
Family structure	3.07	3.13	3.01
Cultural quality	3.53	3.67	3.60
External communication	3.73	3.79	3.76
Village view	4.11	4.1	4.10

To sum up, quantitative result of social influence of Danxia Mountain's development is positive effect. And cultural qualities, external communication and village view are in a high level. It is concluded that tourism development plays a positive role to two villages' social influence.

Survey results indicate that traditional custom, life habit and family structure remain in a medium level; the number of people with the idea of no change toward above three is 59, 56, and 48 respectively that is 71.08%,

67.47%, 57.83% of the total. There are 36,48,41 people hold "don't care" attitude toward the three, that is 43.37%,67.46%,57.83% of the total. It can be known that there is no change in traditional custom, life habit and family structure in two villages recent years, and villagers don't care this change. According to quantitative result of social influence, comprehensive influential effect of cultural quality, external communication and village view have reached a high level, and villagers' attitude preference is better than other items. Specifically speaking, in the survey of villagers' cultural quality awareness change and external communication awareness change, 55 people think there is an increase for residents' cultural quality, that is 66.27% of the total, 63 people, 75.90%, think external communication increases; And 57 people is optimistic to cultural quality change, 68.67% of the total; 66 people, 79.52%, is optimistic to external communication. All these awareness and change has partially reflected positive effect of Danxia scenic spot to Yaotang and Duanshi village. Increase of village cultural quality and strengthening of external communication will promote better participation in tourism development.

**(3) Analysis of environmental influence in Danxia community**

The survey in ecological change degree and its preference indicates, influential effect in environmental pollution, animal and plant growth, noise pollution are at positive effect rank of more than 3, whilst only natural resource has negative effect of less than 3. It shows that Danxia Mountain's ecological protection has gained residents' acceptance. Satisfactory safeguard of Danxia Mountain's ecological environment will benefit its long-term and sustainable development. (See Tab. 11 and Tab.12)

**Tab. 11** Survey on influential effect of environment in Danxia Mountain community

Chang and preference Item	Greatly increase	increase	No change	decrease	Greatly decrease	Change A Preference B
	Very welcome	welcome	Don't care	antipathy	Great antipathy	
Environment pollution	1	20	25	37		2.81
Attitude to change of environment pollution	5	47	16	15		3.51
natural resource			29	48	6	2.28
Attitude to natural resource change	2	14	17	42	8	2.6
Animal and plant growth		38	32	13		3.3
Attitude to animal and plant growth change	14	37	20	12		3.19
noise pollution	2	34	33	14		2.88
Attitude to noise pollution change	3	26	25	28	1	3.35

**Tab. 12 :** Quantitative result of environmental influence

Survey item	Awareness change	attitude preference	influential effect
Environment pollution	2.81	3.51	3.14
Natural resource	2.28	2.6	2.43
animal and plant growth	3.3	3.19	3.24
noise pollution	2.88	3.35	3.11

The result tells that people of two villages hold positive attitude to Danxia environment influence. 37 people, 44.58% of the total, think environment pollution decreases recent years. And 52 people, 62.65% of all, hold positive attitude. 38 people, 45.78%, found a favorable growth for animal and plant in Danxia Mountain, and 51 people, 61.45%, think it is good. In terms of noise pollution, 14 people, 16.86% of all, think noise pollution has reduced recent years, and 33 people, 39.76%, found no change at all, there are 29 people, 34.94% of all, have positive attitude.

**Tab. 13** protection expense and income of Danxia scenic spot in 2007-2009

Year	protection expense (in 10000RMB)	Income (in 10000 RMB)
2007	689.81	3449.05
2008	1353.96	4513.21
2009	1994.06	5539.08

Note: overall planning of Danxia mountain scenic spot

The survey indicates the natural and social resource such as landscape, creature, plant, antique and historic site have been protected hardly since the foundation of Danxia scenic spot. There is special safeguard fee every year which is more than 20% of Danxia mountain's income. And people can see the increasing proportion of income has been put in protection. In 2008, the protection cost is one third of the income, so it gained "ISO14001 certificate of international environment management system authentication" that year (See Tab. 13).

Besides investing money, Guangdong province, Shaoguan city and Danxia mountain management section have drawn out a series of policy

and regulation including "Management regulation on the safeguard of Danxia mountain in Guangdong province", "Study on tourism development planning of Shaoguan city", "Management of ancient and famous tree in world geopark", "Protection strategy of vegetation resource in Danxia world geopark" etc, it effectively stops disorder disforestation, and the closed forest helps the recovery of ecological environment. After several years' hard work, Danxia Mountain has reached the first rank in air quality, noise index, surface water quality etc. And the amount of money put in ecological protection is also the top in China. Therefore, it is so exciting to discover residents hold a positive attitude toward environment protection, animal and plant growth which can barely found in other place.

However, in terms of the survey on awareness change and attitude towards natural resource (land), most residents are pessimistic. 54 people, 65.06% of all, think land is decreasing or decreasing sharply. 50 people, 60.24% of all, is pessimistic to natural resource (land) in the village.

30 years' Danxia mountain development leads to continuous reduction of cultivated land in two villages, so residents' agricultural income goes down (See Tab. 14).

**Tab.14** Development procedure and community land utilization change in Danxia scenic spot

Time	Event
1980, before reform and opening policy	Construction in Danxia forest is simple, which keeps natural view, farmers have lands.
1980-1989	Farmers' land has been expropriated in low price, urban building appeared.
1989-1994	It is an integrated planning stage of expropriating a lot of lands with low compensation.
1994 till now	Planning is renewed with setting up Yaotang and Duanshi new village and leasing community land (50 years)

So far, Danxia scenic spot has opened 5 spots, they are Zhanglao peak scenic spot, Yangyuan stone scenic spot, Xianglong Lake scenic spot, Bazhai Scenic spot, Jingjiang river scenic spot. And Yangyuan stone scenic spot, Zhanglao peak scenic spot and Xianglong Lake scenic spot belong to Yaotang and Duanshi village in the past, but now Danxia mountain management committee has owned the operation right and ownership of all these spots,

two villages can get little financial compensation every year. Residents who have lost the land are dissatisfied with low agricultural compensation. Recent years, the contradiction form land expropriation has become the bigger issue between Yaotang, Duanshi village and Danxia mountain management section.

## **6.4 The summary of community participation investigation**

On the one hand, social exchange theory thinks whether residents have social exchange activities depends on residents' perception on tourism influence. Positive perception is apt to have social exchange activity; instead, passive perception attitude is not to exchange. The investigation on residents' awareness on economy, society and environment shows a very positive tendency though some problems exist. Recent years, there is a big economic change in Yaotang and Duanshi village, and people's life improved a lot. What's more, as for social influence, residents' cultural quality and community view changed greatly. In terms of environment protection, Danxia Mountain increased its attention on it, which has gain residents' acceptance. Therefore, most residents hold supportive attitude toward Danxia Mountain's development with positive effect on tourism influential awareness.

On the other hand, according to Doxey anger index theory, residents' attitude in tour destination toward tourism will experience harmony, indifference, discontent, confrontation to the final accept stage. The awareness survey on economic, social and environmental influence of Danxia community indicates that so far residents are at the transitional stage from indifference to discontent. In this stage, as the arrival of large number of visitors, the contact between residents and visitors tends to be commercialized; most of activities are marketing and sales. Residents start to concern about tourism, and pay attention and anger to price rise, crime, rudeness and damage of cultural standard. Decision-maker increasing the establishment of infrastructure is not to restrain tourism development. Residents' attitude results from the fact that after they lost lands, most people have no chance to join in Danxia Mountain's management especially the part closely connected with their life. The investigation tells though there is a continuous increase in visitor and tourism income, even a sharp increase during 5 years after it got the world-class rank, residents don't

have similar profit improvement, they even suffer declining situation. This reality mirrors the tendency of community marginalization. It may be a potential threat for Danxia Mountain's long-term and sustainable growth. Hence, in process of Danxia mountain development, residents' attitude change should be taken into account to guarantee harmonious development in scenic spot and community.

## **7. Study on community participation model of tourism development in Danxia Mountain**

### **7.1 The establishment of main body in community**

#### **(1) Government**

In foreign tourism planning, drawing out community participation plan is an important part. The organizers of community participation tourism committee made up by relevant government branch and civil organization cooperating with some important stakeholders. This committee plays the organizing and serving role for community participation in tourism. Because of political system, Chinese government is always dominating tourism development and operation. On the one hand, government has macro-control for community tourism in the function of guidance, organization, encouragement, coordination and supervision; on the other hand, it involves operation management and profit distribution. So its dominant role works in the whole process of community tourism development, that is, from planning, decision-making, operating, managing to final profit distributing.

#### **(2) Community organization**

It is grouped by community residents' representatives which are organizer and leader of community. In the process of community participation, the role of community organization is as follows: community representatives will negotiate with other stakeholders on the issue of development direction of tourism community, development project, and profit distribution. Community residents should be gathered to have knowledge and skill training to improve their participation ability. They are responsible for keeping community's life and production order. What's more, they are in charge of managing environmental hygiene, and they also encourage

people to participate in tourism development so as to guarantee the smooth work of community participation in tourism.

### **(3) Tourism Enterprise**

After development of tourism development, tourism enterprise should be responsible for unified operating management for tourism community. No matter they are foreign investor or local developer, they are an indispensable part for community tourism development as main stakeholders of community participation. They invest in tourism community and have operating management. When they are working for profit, they help community's development to offer residents' employment opportunity and improve people's life.

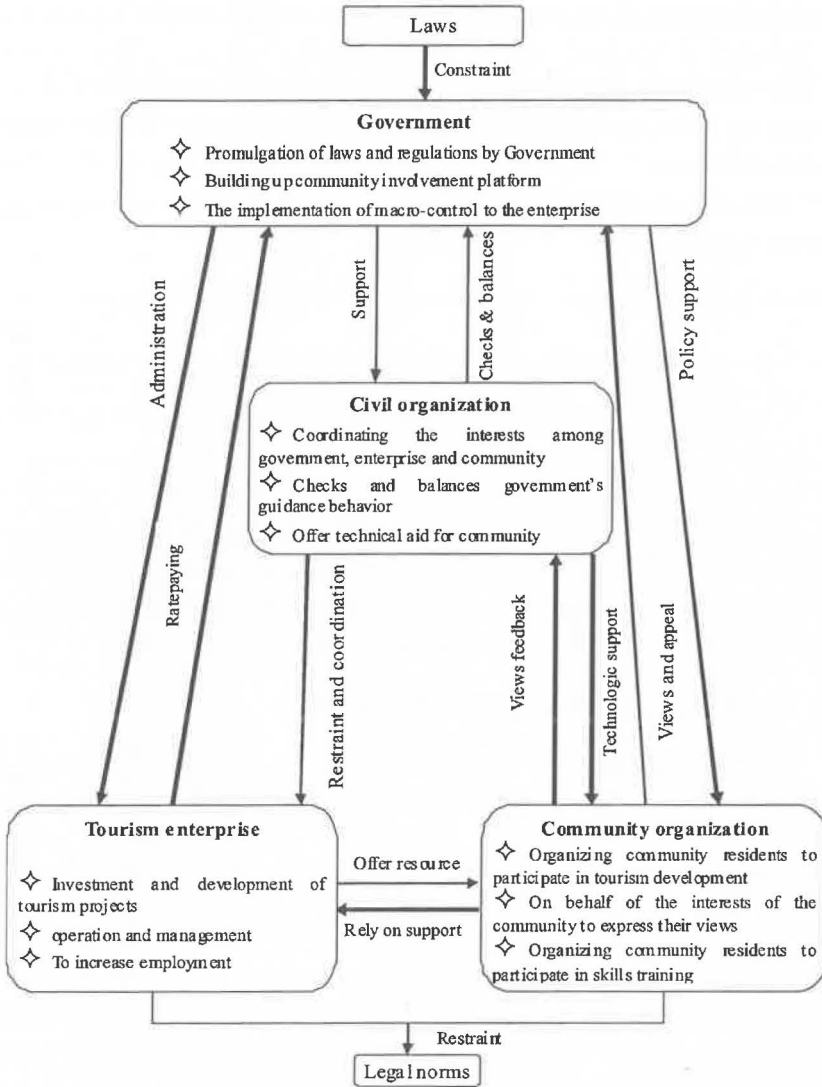
### **(4) Civil Organization**

Civil organization refers to those trade associations with the trait of non-government and non-profit organization independent from government and differing from market branch. The development of these groups is the indication of social democracy. It is vitally important for civil organization's interference. Its main role is as follows: the job of coordination among government, enterprise and community. As non-profit organization, civil group is about to coordinate the relationship among all stakeholders more objectively to balance government dominant behavior. In community participation, there is a huge power between community and government. As the third party, civil organization's restraint role guarantees smooth growth of tourism in the way of technical support. Civil organization not only offers knowledge and skill training for community, it also inputs the idea of participating development. Therefore, it encourages residents' participating in tourism actively and initially in the aspect of ideology and technique.

## **7.2 The construction of basic model**

Danxian mountain community tourism development requires mutual cooperation and restraint among 4 major participants. On analyzing interaction of these 4 objects, authors designed the basic model of Danxia mountain community participation in tourism (See Fig.1).

Fig. 1 : Community participation mode in Danxia Mountain



The basic structure of this model including the following factors: government, community organization, tourism enterprise, civil organization, law and regulation. Various participating objects are relevant and interacted. Most stakeholders have to be restrained by law, which is the precondition



on securing fair and democratic community participation. Various lawful approaches should be taken to protect residents' legal right. As Danxia community residents in a weak social status, contract can be regarded as an approach or channel to safeguard community benefit; what's more, it secures reasonable operation and development by government and tourism enterprise. With gradual maturity of community participation in tourism, relevant law has to be improved to regularize participating activity of various stakeholders so as to secure sustainable growth for Danxia community and tourism development.

## **8. Managing framework of community participation**

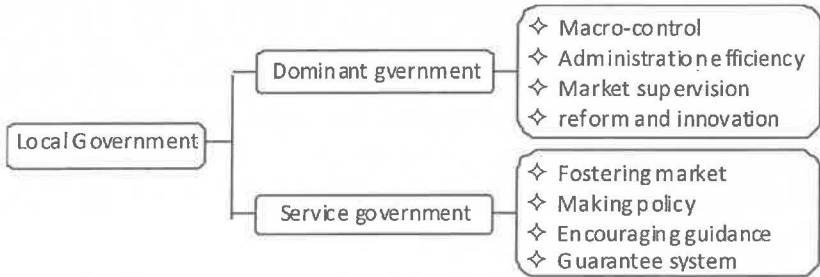
### **8.1 Macroscopic managing design of community participation**

It is actually a new government-enterprise management model to establish macroscopic leading system in Danxia Mountain's tourism development community participation. It can not only manage community tourism, it also realizes the separation of ownership, management and operation. Hence, it is able to improve the efficiency of tourism development and operation, and it is good at supervising mutually to achieve management diversification and operation marketization.

#### **(1) Repositioning of government's function**

The operation mechanism of community participation in tourism is a complex system. The role of government should be tailoring with circumstance. Specifically speaking, it is impossible for Danxia mountain's sustainable development by only relying on scenic spot or community. So the government plays the leading role to guide community participation. This function suggests that under market-based resource distribution, government lead, guide and standardize visitors behavior to bring optimal or approximately optimal situation for arrangement of tourism productive element. So in this circumstance, local government needs to set up a service government to hold main developing direction with macroscopic coordinative function. Government will have limited guidance instead of daily operation in tourism which refers to fostering market, shaping market main body, creating agreeable tourism development settings. A series of favored policies on finance, tax will be made to encourage quick and prioritized growth of

tourism, and relevant regulation of community participation will be set to guide residents' behavior and guarantee community's benefit (See Fig. 2).



**Figure 2 Local governments positioning in Danxia Mountain**

### **(2) Constructing community organization**

Community residents is more than the objects of being concerned, it is the active participants as well. Especially, when they are organized, they may be more enthusiastic than before. Their role is mainly in decision-making and supervision on public opinion, they are also constructors of community. At present, it is very hard for residents in two villages to participate in tourism development strategy planning for the separated individuals. By setting up community organization, they are able to participate in the decision-making. The organized residents can participate in the process of tourism planning, execution and management with collective power, and they can help to use poverty-supported capital and other economic resource more effectively.

### **(3) Deepening tourism enterprise reform**

Now there are many weaknesses in management mechanism of Danxia's tourism enterprises. It is obvious that the present local system of enterprise fails to meet development of tourism section and sustainable development of Danxia Mountain. Therefore, it is full of necessity to carry out reform in Danxia's tourism enterprise. It firstly refers to the investment on community. There are many approaches to investment, such as helping community set up small enterprise or looking for more work opportunity for people. And it should be an institution that enterprise is responsible for motivating local employment guided by government. It can increase

residents' income, enhance their quality, and save enterprise's investment as well. Hence, it is a win-win strategy to connect enterprises' obligation with their interest. Moreover, enterprise can work with community organization in Danxia Mountain to have tourism training and technology assignment. For example, offering free consultant or training service for local small enterprises or self-employed store etc. The purpose is to foster community's capacity on developing tourism by professional ability of tourism enterprise.

#### **(4) Establishing civil organization**

Facts prove macroscopic tourism development planning drawn by Renhua county government and relevant sections usually fail to be carried out in Danxia community. But civil organization can not only coordinate the relationship between government and community to achieve the execution of policy, it can also offer technical aid to help people benefit more from practical tourism planning by adjusting the work according to various special tourism resource, economic development situation of community and quality of community residents.

## **8.2 Operating mechanism of community participation model**

### **8.2.1 Mechanism of decision-making participation**

It is suggested to set up a civil organization which includes representatives of community residents, academic organization, law consultant and tourism professionals. Its goal is to achieve integration of Danxia Mountain's tourism development and community growth. Specifically speaking, the features of this decision-making mechanism should be as follows: (1) Veto power. Voting on all the policies and decisions of tourism development is to make sure they tailor with community's need. (2) Supervision power. This organization can supervise all parts of Danxia's tourism planning, development, operation, activities even farming work with pollution to environment. As long as any activities could be found harmful to community ecology and tourism development, committee can be gathered to vote on and to stop such development activities.

(3) Management power. It includes participation in discussing significant

tourism project, negotiating over final profit distribution plan and evaluating tourism development.

### **8.2.2 Motivating mechanism**

Owing to weak economic foundation, large poverty population, overall poor-educated situation, late tourism development, poor tourism awareness for residents in Renhua County, the system community participation in tourism is still at the passive and theoretical research stage, it is unable to offer adequate inner driver for operation and growth [23]. Therefore, inputting of outer drive is needed to maintain system's stability to enable them to have self-operation and self-development.

#### **(1) Setting up reasonable profit distribution mechanism**

Complete and workable distribution rule may affect whether residents can actively participate and support ecological tourism development or not. In fact, improvement of distribution rule is to solve the problem of efficiency and fairness in tourism development. There exist many problems on uneven distribution, so the principle of "Efficiency and fairness" should be observed. It can help various main bodies to gain benefit and improve economic efficiency as well, so they can get rid of simple and backward operation approach to benefit from more healthy and effective way in tourism development. The core of profit distribution mechanism is to organize residents to have different tourism activities based on their participating willingness, and then design different distributing level to meet all people's needs. At present, Danxia mountain's measures on supporting residents' participation in tourism operation can be an example. Yaotang and Duanshi village in Danxia community have built new villages with unified planning and stores which encourages full development of community participation in operation activities. However, experience of community participation in other countries tell us, it takes huge risks carrying out residents' participation in tourism operation activities by mere means of encouragement and guidance. Because there are too many uncontrollable factors in operation, it is easy to be influenced by national macroscopic policy and scenic spot development, so income fluctuates greatly.

#### **(2) Improving profit compensation regulation**

Residents' profit should be protected if they are asked to participate actively in tourism development. But in fact, tourism development requires strict safeguard to environment which may sometime negatively affect

residents' interest. Hence, a workable ecological tourism compensation mechanism is desirable to pay some cost for residents in transitional tourism development. From economy aspects, the essence of ecological compensation is internalization of external economic characteristics of ecological product. There are many compensation methods, capital support and feedback is the direct choice. And offering share is the indirect one. Employment opportunity and infrastructure are other choices. What's more, tourism development of Danxia Mountain needs to expropriate residents' land which leads to the fact that most of residents therefore lost life guarantee. So government should compensate this expropriation whose standard should accord with new plan of land expropriation reform, that is, it will observe market rule to enter land trading market with the unified land, price and right to decide usage price of collective land.

### **(3) Operating with stock system or setting up a company with shares**

The first problem for this issue is to realize the reform of ownership and operation right of tourism resource to increase residents' occupation proportion on tourism resource. In order to change unfair income distribution result, it should begin with changing original resource distribution situation. Community tourism resource can be divided into state-owned, collective-owned and individual-owned. Tourism resource, land, government policy and workload can be converted into equity, and profit is the combination of dividend by shares with the one by work.

## **8.3 Supervision mechanism of community participation model**

A reasonable supervision and evaluation system is needed to secure effective work of community participation mechanism in Danxia Mountain. It can report to relative government section, it will also cooperate with civil organization to make residents' feedback or viewpoint closely concerned, and solved eventually. In addition, government should perfect special law enforcement and supervision branch to scrutinize the whole process of ecological tourism planning, development and operation to guarantee residents' right in tourism participation and development.

At present stage, Danxia mountain dominants environment protection, so the environment is favorably reserved. However, sustainable development of Danxia Mountain needs an environment supervision team grouped by professionals, operators, representatives in local government branch and residents' representatives. They are obliged to periodically monitor the surface water, air and noise in Danxia Mountain based on "technical regulation of environment monitoring" by SEPA. In this way, it can evaluate

community's environment quality, monitor the change, predict change tendency and propose the improvement strategy to avoid potential hazards.

## 8.4 Guarantee mechanism of community participation model

### 8.4.1 Resident's quality

Improvement of community main body's participation ability is a must for residents' smooth participation in tourism operation. And bettering their decision-making ability is mainly to raise their literacy level, help them to grasp certain skill. Therefore, it is quite necessary to set up a community organization to coordinate government, management organization of Danxia Mountain, tourism enterprise and training sections to carry out tourism training for community residents. It contains mass training and enhancement training. The former is for all residents in community, they are asked to learn tourism general knowledge, local information and community autonomous ability; while the latter is for the residents who directly participate in tourism including service awareness, basic service skill and special development techniques. (See Tab. 15)

**Tab. 15** Tourism training content in Danxia community

Training level	Knowledge category	Main content	Training method
Mass education	Tourism basic knowledge	Introduction to tourism, environment protection and tourism planning in Danxia mountain	Organizing by community; the third party have classes or lectures
	Local knowledge education	Historic culture, language custom, traditional techniques in Shaoguan city	The third party organizes the training; villagers' communication; education in preliminary and middle school
	Autonomous management skill	Democratic knowledge, trade law, state's and local law	Organizing by community; the third party holds relevant training; education from medium
Enhancement education	Service awareness	Commercial economy awareness, service attitude, life ideology, commitment, hygiene viewpoint	Hold by community organization; the third party has special training; communication in the village; enterprise training
	Basic service skill	Tourism etiquette, mandarin and English training, sales skill, product processing technique	Hold by community organization; the third party has special training; enterprise's training; investigation; learning; tour guide training
	Special development skill	Product's processing and packing technique, product design ability, investment ability, special skill, marketing skill, enterprise management knowledge	Hold by community organization; the third party has special training; investigation; learning; medium propaganda; technique competition

Note: Third party refers to professional tour training organization

## **8.4.2 Guarantee mechanism**

Tourism sustainable development needs a series of reasonable protected measurement to take ecological environment's capacity into account. It should also work with local economic development and social ethical standard which requires a complete guarantee mechanism of Danxia Mountain.

### **(1) Law guarantee**

It is suggested that government determine community participation in tourism in the form of law which clearly rules its purpose, nature, content, right, procedure, channel, organization, function and penalty etc. The law can secure residents' right and content of participation. It sets a legal procedure for resident to participate in tourism. And it will accordingly punish those sections and people who break the law. So far, Danxia's lawful guarantee is a set of rules such as "Protection and management rule of Danxia Mountain, Guangdong province", "Overall planning of Danxia mountain scenic spot" based on its main tourism resource. But there is no rule for community participation in tourism development.

### **(2) Guarantee of policy and system**

The role and position of Renhua county government, Danxia mountain management committee, and Danxia Mountain tourism investment limited company should be clarified and prioritized. And it needs to set up a new government-enterprise model to achieve separation of government and enterprise, of ownership, management power and operation power. That is, the natural resource in Danxia Mountain is state-owned, Renhua county government branches are irresponsible for management while Danxia mountain tourism investment limited company has operation power. Meanwhile, it will set a complete and efficient monitoring and protection system to check their work. In terms of policy guarantee, local government should create a favorable climate for community participation. When making the policy, interest of community should be closely concerned which includes regarding community participation as a part of tourism development, offer favorable policy for residents' employment? Renhua County is a national impoverished county, Danxia Mountain is also ranked as the key object of

"poverty-alleviation by tourism" in Guangdong province, Renhua County should seize this opportunity to make relative policy to invite investment actively to promote positive circulation of Danxia economy.

What's more, the proposed model of Danxia mountain community participation is based on the survey on current Danxia model with referring to other advanced model in the world. But as the changeable environment of Danxia mountain community participation, the model should be a dynamic and open structure. Therefore, it is wise to adjust this model in different period with the development of theory and practice to achieve harmonious development of Danxia community.

## **Conclusion**

The authors made an in-depth investigation on Yaotang and Duanshi villages' participation in Danxia scenic spot's tourism development with field survey to study residents' awareness effect toward tourism influence and present situation of residents' participation in tourism. The conclusion indicates that these two communities are still at the preliminary stage in tourism participation. Their activities involve more on participating in tourism operation, whilst less in tourism planning, development and management. The authors attempt to analyze a new model for Danxia community participation from the aspects of government, residents, tourism enterprise and civil organization.

Owing to limited research condition, this study is still working at qualitative analysis without further quantitative discussion. As the weak traditional cultural characteristics in Danxia community, the authors do not involve too much about tourism development's influence on local culture which can be improved in future research.

## **References**

- [1]Peter E. Murphy. Tourism as a community industry-an ecological model of tourism development. *Tourism Management*, 1983, 4(3):180-193.
- [2]John Westlake. Tourism and Communities Process Problems and solutions. *Annals of Tourism Research*, 1982,( 2): 281-283.
- [3]David G Simmons. Community participation in tourism planning. *Tourism Management*, 1994, 15(2):98-108.
- [4]George Taylor. The community approach: Does it really work?.*Tourism Management*, 1995, 16(7):487-489.
- [5] Tazim B. Jamal, Donald Getz. Collaboration theory and community tourism planning



Annals of Tourism Research, 1995, 22(1):186-204.

[6] C.L. Jenkins, B.M. Henry. Government involvement in tourism in developing countries. Annals of Tourism Research, 1982, 9(4):499-521.

[7] Brian Keogh. Public participation in community tourism planning. Annals of Tourism Research, 1990, 17(3):449-465.

[8] Cevat Tosun. Limits to community participation in the tourism development process in developing countries. Tourism Management, 2000, 21(6):613-633.

[9] Cevat Tosun. Expected nature of community participation in tourism development. Tourism Management, 2006, 27(3):493-504.

[10] Mark P. Hampton. Heritage, Local communities and economic development. Annals of Tourism Research, 2005, 32(3):735-759.

[11] Getz D. Models in Tourism Planning toward Integration of Theory and Practice. Tourism Management, 1986, (7):21-32.

[12] Paul Brunt, Paul Courtney. Host perceptions of socio cultural impacts. Annals of Tourism Research, 1999, 26 (3):493-515.

[13] Timothy J. Macnaught. Mass Tourism and the Dilemmas of Modernization in Pacific Island Communities. Annals of Tourism Research, 1982, (3):359-381.

[14] Liu Weihua, the thoughts on community participation in tourism development. Tourism Journal, 2000, (1):47-52.

[15] Zheng Xiangmin, Liu Jing. Three levels of community participation in tourism development. Journal of Huaqiao University, 2002, (4):12-18.

[16] Bao Jigang, Sun Jiuxia. Eastern and western difference between community participation in tourism development. 2006, (4):84-85.

[17] Luo Yongchang. Profits guarantee mechanism of community participation tourism development in minority village. Journal of Management. 2004, (1):32-36.

[18] Tang Tieshun. The study on community tourism and communitization of tour destination. Geography research 1998, (2):145-149.

[19] Bian Xianhong, Sha Run, Zou Limin, Huang Zhenfang. Study on integration development of tourism and community. 2005, (5):71-76

[20] G.V. Doxey. A causation theory of visitor-resident irritants: methodology and research inferences. The Impact of Tourism, Proceedings of the Travel Research Association Sixth Conference, San Diego, 1975, pp. 195-198.

[21] John P. Residents' Perceptions Research on Tourism Impact [J]. Annals of Tourism Research. 1992, (2):665-690

[22] Ma Yan, community participation study in tourism development of Niubeiling Forest park. Dissertation of graduates. Xi'an: Northeast University. 2008. pp.74-83.

[23] Peng Hua. Tourism Development Plan in Renhua County (2002-2020), 2002, pp. 11-17.

## About the Authors

Yu Haifeng, Luo Jing, Zhang Mu are faculty members in Shenzhen Tourism College of Jinan University, China