

## Section Three

# Analysis of social and economic development and poverty cause of 4 counties in Guizhou and Gansu Provinces

Our survey team went to Guizhou province and Gansu province and made 19 days of survey in January, February, and March in 2005. With guidance of JICA, we made detailed work plan and questionnaire prior to the survey. During the actual survey, we talked with leaders of Poverty Relief Office and related department in Guizhou and Gansu. And we visited provincial Poverty Relief Office, Development and Reform Committee, Agriculture Department, Education Department, Health Department, Women Joint Committee, Birth Control and Planning Committee, and other related departments. And we also collected data from Statistics Bureau, Xinhua Bookstore, and library and surveyed poverty relief work in the whole province.

We directly went to Sandu, Daozhen, Leishan, Hui County, and Zhangjiachuan County to make survey through: organize forum of leaders of related departments, visit related departments, distribute questionnaire, discuss with peasants, survey by questionnaire, and visit peasants. According to pre-made standard, we chose 2 villages in each county and 10 household in each village, among which 3 have sound economic condition, 4 have medium economic condition, and 3 have poor economic condition.

Number of households with village leaders shall not be over 3. And number of households with women representatives shall not be less than 4. For summary of actual survey result, please read Table 3-1. Please read questionnaire and peasant's questionnaire in the appendix. After the survey ended, we exchanged opinion with leaders of the county and Xiang and leaders of related departments.

**Table 3-1 Summary of on-site survey of peasant households**

County (C for short)	Village (V for short)	Household	Household with women representative	Ratio of their income level (High to medium to low)	Household with village leader (or religion leader)
Sandu Autonomous C of Shui Nationality in Guizhou	Xinhua V Dingzhai V	18	7	3: 6: 9	5
Daozhen Autonomous C of Gelao and Miao Nationality in Guizhou	Dagan V	12	9 (3 households of couple)	4: 4: 4	2
	Qunxin V	10*	5 (3 households of couple)	3: 3: 4	3

continued

County (C for short)	Village (V for short)	Household	Household with women representative	Ratio of their income level (High to medium to low)	Household with village leader (or religion leader)
Leishan C in Guizhou	Huangli V	10	3	3: 4: 3	3
	Zhongzhai V	12	6	4: 3: 5	1
Hui C of Gansu	Huguang V	17	5	5: 5: 7	5
	Heping V	10	5	2: 2: 6	2
Zhangjiachuan Autonomous C of Hui Nationality in Gansu	Yuanshuliang V (Dadi) V	9	2	2: 3: 4	3
	Zhangba V	10	5 (2 households of couple)	1: 4: 5	3
Total	10 V	108	47 (8 households of couple)		27

\* (Actually 11 households were surveyed, but data for 1 household is not complete)

### 3.1 Daozhen Autonomous County of Gelao and Miao Nationality in Guizhou

#### 3.1.1 Natural condition

Located in the most northern end of Guizhou province, Daozhen Autonomous County of Gelao and Miao Nationality borders Wuchuan county and Zheng'an county of Guizhou province in the east, southeast, and southwest. And it borders Chongqing in the north and west, so it is called "Door Gate of Qian Shu(Guizhou and Sichuan)". The county covers totally an area of 2,156km<sup>2</sup> with 23,573 hectare of farming land, 5,806 hectare of which is paddy land and 17,767 hectare is dry land. Lowest altitude here is 317.9m and highest is 1,940m. It is obviously perpendicular climate and the climate changes great in different areas. It is tropical monsoon humid weather in middle Asia. The county is suitable for planting economic crops such as flue-cured tobacco, cole, and tea and medicinal herbs such as *Gastonia tuer*, *Coptis chinensis*, and *Luodang*, so it is a typical agricultural county in mountain area.

#### 3.1.2 Social and economic condition

Daozhen Autonomous County of Gelao and Miao Nationality was set up in 1987 with approval of the State Council. Belong to Zunyi city in Guizhou; the county is one of the only 2 autonomous counties of Gelao and Miao Nationality in the whole country, the autonomous county of minorities with largest population of Gelao Nationality, and one of the major counties to be helped by State 21<sup>st</sup> Century Poverty Relief Program. The county consists of 10 towns, 4 Xiang, 93 villages, 5 communities, and 2,450 villager teams. The population was 336,000 at the end of 2003 and population density is 148.6 people/km<sup>2</sup>. Rural population was 305,000, accounting for 90.7% of the total population. And the population of minorities was

261,000; accounting for 77.6% of the total population, have which 193,000 were Gelao Nationality accounting for 45. % Of the total population, 84,000 were Miao Nationality accounting for 19.6%, and 24,000 were Tujia Nationality accounting for 7.14%. These ethnic groups are united and in harmony, with abundant inside implication of nation culture, and simple folkway and feeling, honored as “ Native land of Gelao”

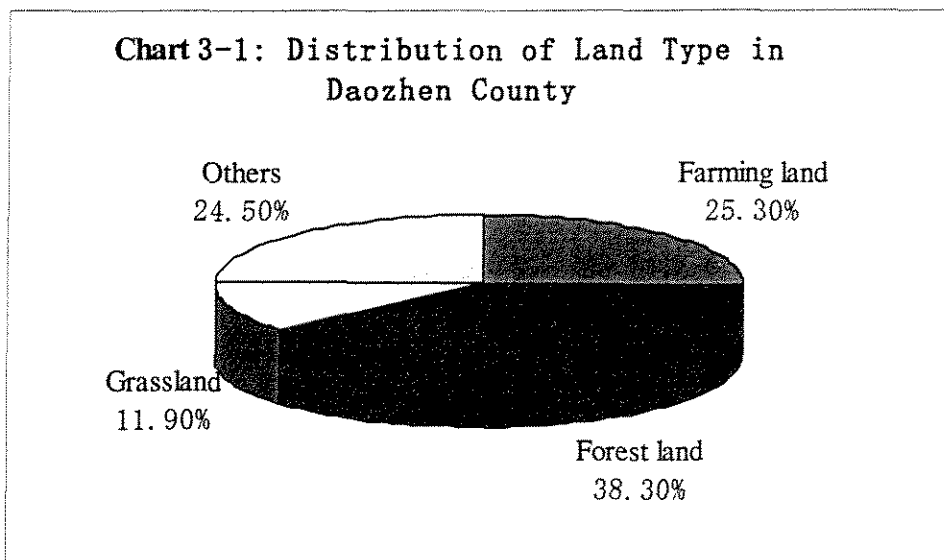
Daozhen Autonomous County of Gelao and Miao Nationality boasted 0.763 billion Yuan of Gross National Product (GNP) in 2003, ranking No. 58 in all counties and cities of Guizhou province and accounting for 0.567% of GNP of Guizhou province. The peasant had net income of 1,461 Yuan, ranking No. 45 in all counties and cities of Guizhou and the last one of the 13 administration areas of Zunyi city.

Poor population of Daozhen Autonomous County of Gelao and Miao Nationality mainly live in 8 towns and cities far from the city at county level, namely Sanqiao, Dagan, Sanjiang, Longxing, Zongping, Jiucheng, Yangxi, and Hekou. Poor people in the major poor villages account for 90% of the total poor population and poor people in non-poor village account for 10%.

### 3.1.3 Analysis of poverty cause

#### 3.1.3.1 Poor natural condition and barren land

Located between mountains, Daozhen county consists of the following land types: 25.3% of farming land, forest land of 38.3%, grassland of 11.9%, and other land of 24.5%(Chart 3-1). Almost all farming land, forestland, and grassland are sloping land, especially farming land. Because of deep slope, farming land is rare, with average farming land of just 0.0693 hectare per head. And the farming land is lean and most land has low and medium yield. Self-sufficient ratio of crops is 50.6%. Among the 23 surveyed households in Daozhen County, 2 households have foodstuff just enough for 4 months and 20 households for half a year. Only 1 household does not worry about foodstuff.



**Scattered distribution of farming land:** For example, there are 4 people in the family of Liang Xianbi (female) in Chaomen Group in Dagan Village. The family has 0.04 hectare of paddy farming land consisting of 3 lots and 0.067 hectare of dry farming land consisting of 4 lots. And the family of Zheng Maorong in the same Group has 4 people. They have 0.03 hectare of paddy farming land and 0.087 hectare of dry farming land consisting of 4 lots. And they also rent 0.2 hectare of dry land to grow Kaoyan, which

consists of 3 lots.

### 3.1.3.2 Far from center city and inconvenient transportation

Daozhen Count is far from outside center cities. The capital town, Yuxi town is 250 kilometers away from Zunyi government and 450 kilometers from Guiyang, the capital city of Guizhou province. The nearest big city is Chongqing, over 200 kilometers away from Daozhen county. Transportation of the whole county depends on road, covering a distance of 1,344 kilometers, 150 of which are hardened road and the hardening ratio is 11%. Quality of road is poor with a lot of twist in mountain area. It takes time to drive here. Households are quite scattered and transportation is quite inconvenient.

### 3.1.3.3 backward medical and health facilities. More female patients

The vast majorities of peasant are unwilling to see the doctor for slight disease and unable to see the doctor due to economic reason. Sick poor people are trapped into the vicious circle: they either get into debt because of spending money in seeing the doctor. Or they don't see the doctor until they gradually lose labor ability, which in turn adds burden to the family. Daozhen Autonomous County of Gelao and Miao Nationality has an outstanding health problem, gynecologic disease. In the two surveyed villages, 85% of women in Dagan Village and 95% in Qunxin Village have gynecologic disease at different level.

### 3.1.3.4 Low level of education and poor ability to accept science and technology knowledge

Among the workforce of 159,000 people, 30% have education over junior middle school. Nearly 60,000 young people with comparatively high level of education go outside to work. Those working in rural areas have low qualification. For peasants going outside to work, they lack necessary labor skill due to low level of education, so their employment means is quite limited and they can only take up heavy work with low payment. In the surveyed Dagan Village and Qunxin Village, education level is all under senior middle school. Education level of Dagan Village is higher than that of Qunxin Village, with 36% with junior middle school education in Qunxin (Chart 3-2) and as high as over 80% in Qunxin village with education level of primary school and lower (Chart 3-3)

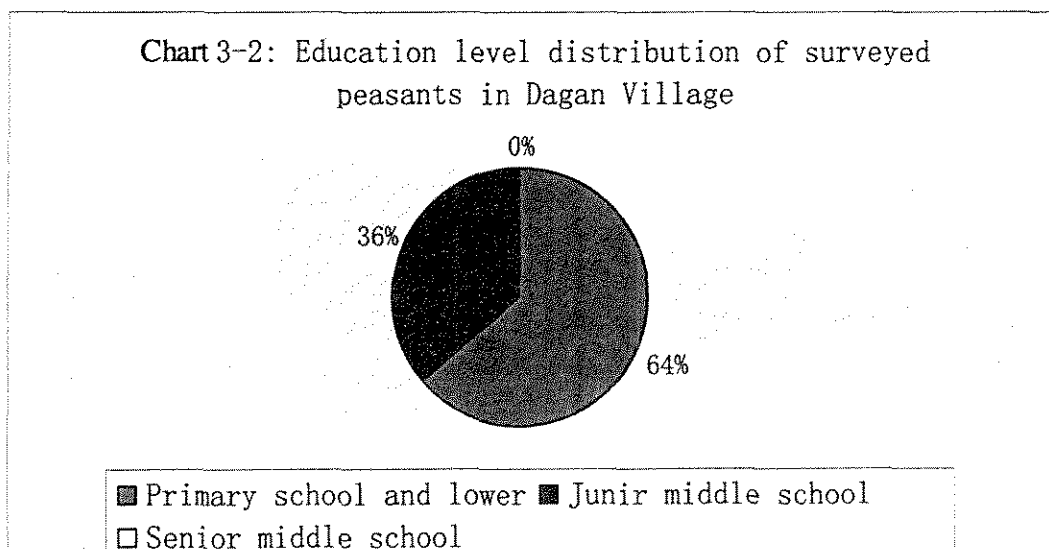
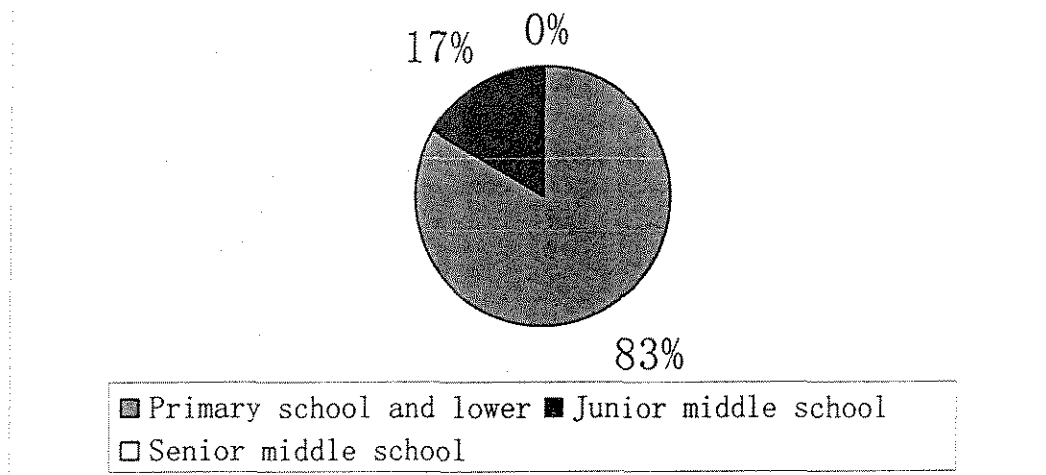


Chart 3-3: Education level distribution of surveyed peasants in Qunxin Village



### 3.1.3.5 late start up of poverty alleviation development

Daozhen Autonomous County of Gelao and Miao Nationality hadn't been listed in the major counties of state poverty alleviation program until 2000. In the five years from 1996 to 2000 the whole county just had a project worthy of 7.76 million Yuan as a kind of state aid. It was listed as one of the major counties for state poverty alleviation and development program in March 2002. Only then did the poverty alleviation work really begin, which mainly focused on improving infrastructure of transportation, energy, and communication. But effort to increase income of peasants, improve living environment, strengthen survival ability, and improve living standard is far from adequate.

## 3.1.4 Analysis of basic condition and poverty cause of Dagan Village of Dagan Town and Qunxin Village of Sanjiang Town

During our on-site survey, we found that administrative villages decreased because Guizhou province made reform of "combining villages and groups". The 277 administrative villages in Daozhen County has dropped to 93 ones. Meanwhile, scale of village and group expands. Villagers in a village increased from former a few hundred or a little more than a thousand to current 4 thousand or 5 thousand. Such expansion adds the difficulty to execute projects. Therefore, after discussion with various departments in Daozhen County and after research with surveyed village, survey of Dagan Village of Dagan Town in Daozhen County will be based on the former Sanjiao Village (a natural village belong to Dagan Village with a population of 1,365). (Note: village refers to administrative unless explicitly pointed out. An administrative consists of several natural villages).

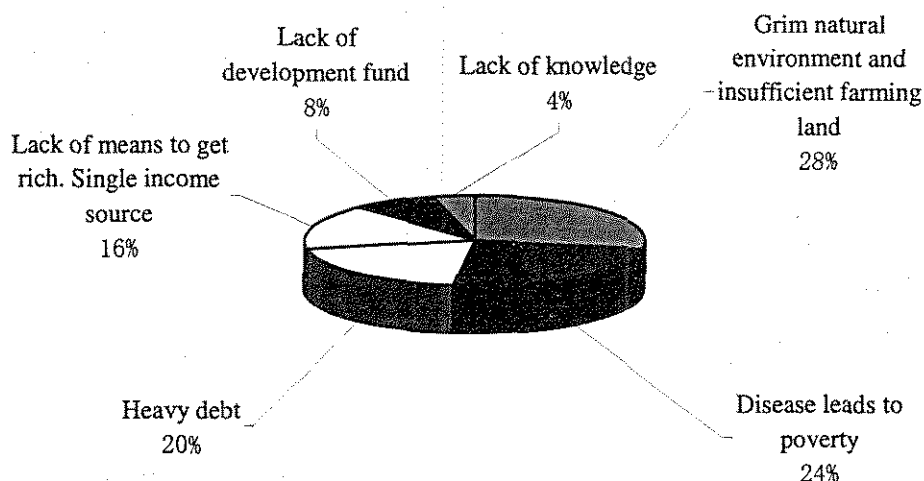
### 3.1.4.1 Dagan Village of Dagan Town (the former Sanjiao Village)

The former Sanjiao Village is located in the north west of Dagan Town and in the north of Daozhen County, bordering Dayou Town in Nanchuan city (county-level) in Chongqing. Currently it consists of 319 households and 1,365 people, of which 898 are Gelao Nationality, 425 Miao Nationality, and 42 Han Nationality. At present it consists of Shengli Village, Chaomen Village, Ganziping Village, and Tiantaisi Village with 100 hectare of farming land and average annual net income of 518 Yuan per person.

According to feeling of villagers of the former Sanjiao Village, poverty causes shall be the following in turn: 1) Grim natural environment, especially insufficient of farming land(accounting for 28%); 2)

Disease leads to poverty (24%); 3) Heavy debt (20%); 4) Lack of means to get rich and single income source (16%); 5) Lack of development fund (8%); 6) Lack of knowledge (4%)。 (Read Chart 3-4, 11 households were surveyed)

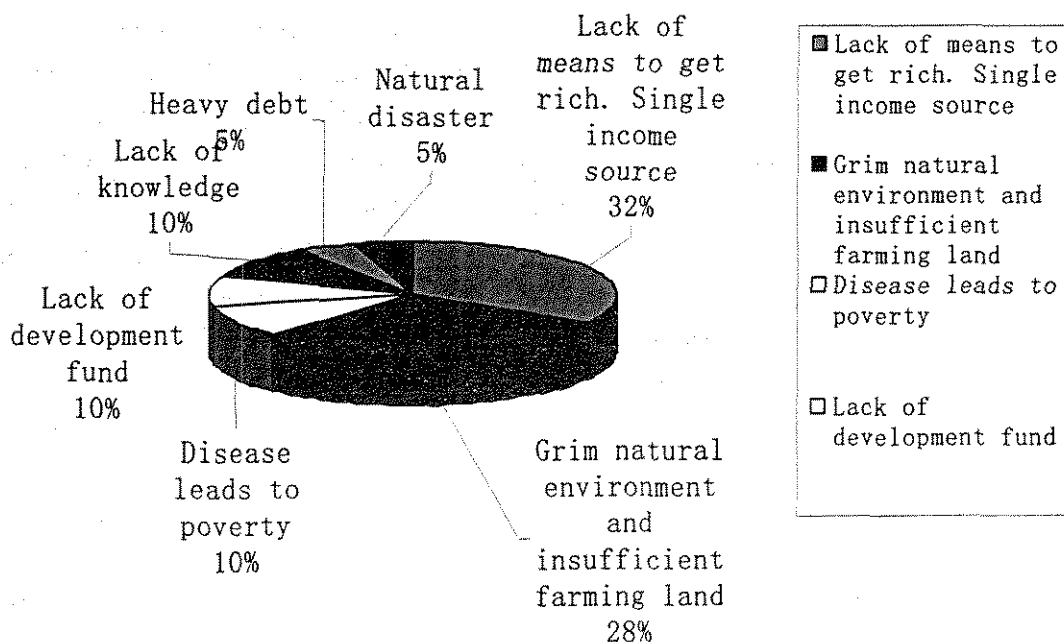
Chart3-4: Analysis of Poverty Cause of Villager in Dagan Village



3.1.4.2 Qunxin Village of Sanjiang Town

Located to the northeast of Sanjiang Town and in the south of Daozhen County, Qunxin Village consists of 17 villager groups, 358 households, and 1,442 villagers. It is 20 kilometers from the capital city of the county and it covers totally an area of 19.57km<sup>2</sup>, with forest coverage as high as 50%. There are aluminum mines and coalmines worthy developing for over 30 years. And there are traditional projects to grow crops. It is a major area to develop Kaoyan, pasturage, and forestry planned by Sanjiang Town. Average annual net income is 370 Yuan per person. We surveyed 12 households in Qunxin Village. And their analysis of poverty cause is as the following chart 3-5:

Chart3-5: Villager's analysis for poverty cause in Qunxin Village



According to survey of the two villages, villagers think the major cause for poverty is their lack of money and they have heavy debt. Among the surveyed 23 households, 22 have debt. There are 5 households depending on only civilian loaning (borrow from relatives and friends), 2 households depending on only commercial loaning of poverty alleviation loaning, and 15 households depending on both means. 4 households have debt less than 5,000 Yuan, 12 households between 5,000-10,000 Yuan, 3 households between 10,000-15,000 Yuan, and 3 households over 15,000 Yuan. (Table 3-2).

**Table 3-2 Statistics of Debt**

Loan amount (Yuan)	No. of household	%
0	1	4.3
1-5,000	4	17.4
5,000-10,000	12	52.2
10,000-15,000	3	13.05
15,000	3	13.05
Total	23	100.00

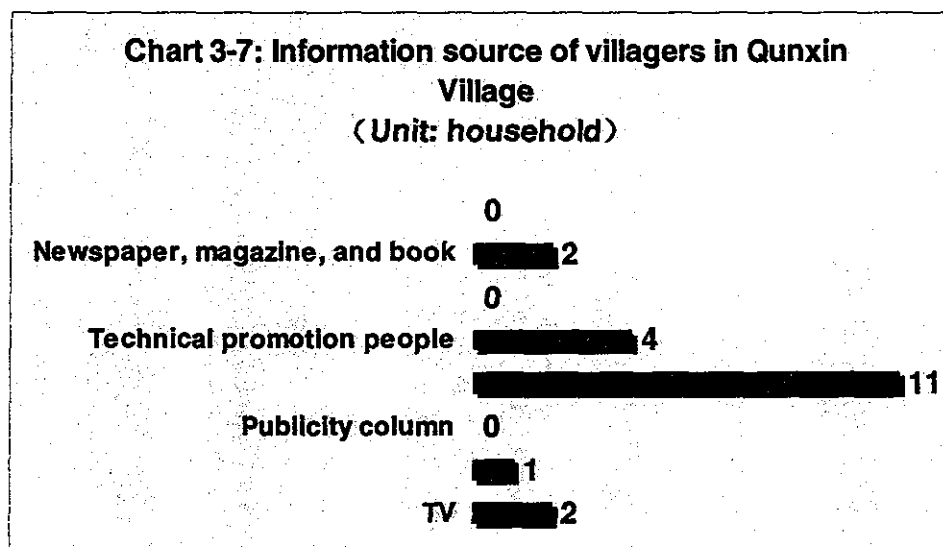
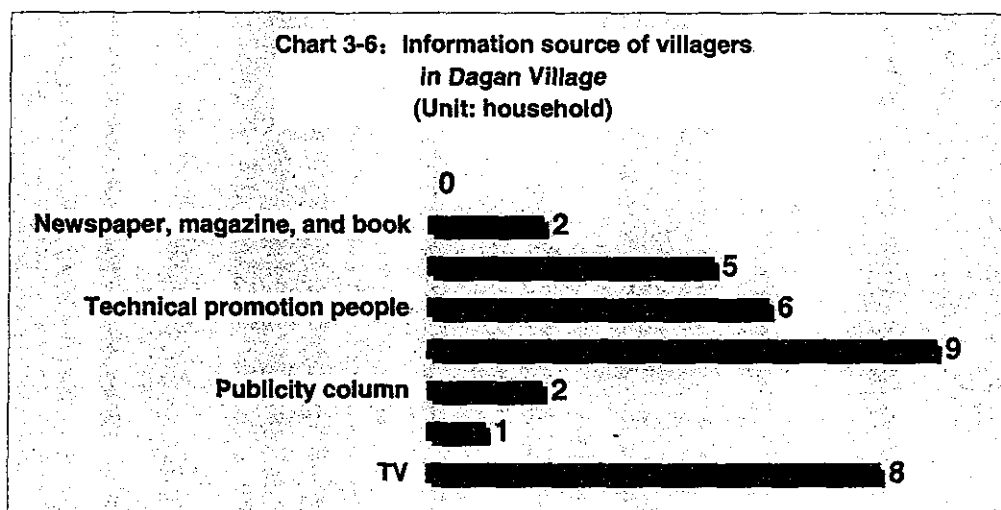
According to survey, money from loaning of villagers is mainly used for the following 3 parts: 40% for children's education, 30% to cure disease, and 20% to build house. Only 10% of loaning is used for business or developing growing crops. Since loaning money is mainly used for consumption instead of creating new channels of income, peasants have to pay interest to banks so that their mortgaged house or land shall not be confiscated. Therefore, the loaning meant to encourage productivity development changes to one-time living relief. Although it solves short-term difficulties, it becomes villager's burden again from the long-term view.

From spending of loaning money, the phenomenon of "poor education leads to poverty" shall be paid sufficient attention. The major causes for the phenomenon include: education investment in rural areas is not enough, compulsory education system is not perfect, extra charging for education is general, and there is no social guarantee system, etc. At present financial system for compulsory education is that local government undertakes financial investment for compulsory education. Because government investment is not enough, education fee and incidental expense can't be completely exempted. Education fee is only a little more than 10 Yuan in rural area, but incidental expense can be over a hundred. This is a burden for a poor family who want to send their children to school. But in the vast west area, education expense is a major financial burden for the already tight finance of local government. It is because of insufficient rural education investment that burden of poor family in rural area increases.

The basic reason for long-term poverty of local villagers is that villagers lack knowledge and practical and effective technology information. Compared with Qunxin Village, education level of surveyed households in Dagan Village is comparatively high, so they're easy to find ways to rid off poverty and get rich. But the majority of Qunxin Village think, "lack of means to get rich and single income source" when analyzing poverty cause. This is also in conformity with difference between Information Source Distribution charts (Chart 3-6 and Chart 3-7). Villagers in Dagan Village have wider information sources.

Major channel to get information is from neighbors and acquaintances in both Dagan Village and Qunxin Village. Dagan Village is 33 kilometers from capital city of the county. Since it is near Dagan Town,

about 3 kilometers away, and there are a lot of markets, it a major information channel for villagers to know market. Qunxin Village is 20 kilometers from the capital city of the county and 17 kilometers from town center of Xiang, both far away. And transportation is mainly by foot. It takes about 4 hours for a villager in Qunxin Village one way to market without carrying anything. Therefore, most villagers go to market once every half-year and some villagers once a year. TV set is also another obvious difference in information source between Dagan Village and Qunxin Village. Qunxin Village has less TV sets and their economy is more backward.



## 3.2 Leishan County in Guizhou Province

### 3.2.1 Natural condition

Located in the north of Guizhou and the south east of Qiandong Autonomous Region of Miao and Tong Nationality, Leishan County is a typical mountain area, with 6,879.1 hectare of farming land and average 0.05 hectare per person. It is typical tropical monsoon humid weather in middle Asia. Annual rainfall is 1,200mm with most rainfall from May to August accounting for 70% of that of the whole year.



Because water conservancy facilities and agricultural irrigation are poor, anti-drought and anti-flood ability is low. Major natural disasters include Autumn Wind, Drought, Second-time Spring Cold, and Heavy Rain.

### **3.2.2 Social and economic condition**

Leishan County consists of 157 administrative villages and is one of the poor counties helped by the state. The population was 149,300 in 2003 and rural population was 133,000, accounting for 91.66%. There are Miao Nationality, Han Nationality, Shui Nationality, Tong Nationality, Buyi Nationality, Yi Nationality, and Yao Nationality. Miao Nationality is accounting for 82.45% of the total population, and Han Nationality for 10.72%. There are a lot of festivals of those nationalities, so there is a saying that "Occasional big festival like New Year and small festivals every day". Celebration of Chixin Festival, Miaonian Festival (New Year of Miao), and Guzang Festival is quite long. All this has great impact on production and living of peasants.

According to statistics bureau of Leishan County, GNP was 232.5 million Yuan in 2003, with average net income of 1,348 Yuan per peasant, which is 212 Yuan lower than that of the whole province. There are 21,400 people of absolute poverty with net income lower than 625 Yuan, accounting for 16.09% of the rural population. There is 37,200 people of low net income between 625~865 Yuan, accounting for 27.9% of the rural population. Those two groups account for 44.06% of the rural population.

### **3.2.3 Analysis of poverty cause**

#### **3.2.3.1 grim ecologic environment and serious agricultural and meteorological disaster**

Located in remote mountain area, production and living environment and condition are quite bad in the county. Labor intensity of farming is great and flow of agricultural products is not smooth. There are frequent agricultural and meteorological disasters, especially second-time spring cold and autumn wind.

The county totally covers an area of 12,185km<sup>2</sup>, of which 83.5% is mountain area, 14.4% highland, and even dam between mountains 2.1%.

#### **3.2.3.2 Low science, technology, literacy level of laborers**

Science, technology, and literacy level of agricultural laborers in the county is low; with average education time of the whole population in the county is 4.6 years. There are 1,419 illiterates and semi-illiterates (194 men and 1,225 women). Science, technology, and literacy level of female laborers is especially low. So it's hard to effectively integrate production resources. It's also hard for advantages of resources to turn to economic advantage and even hard to turn to market advantage.

#### **3.2.3.3 Weak infrastructure**

Agricultural infrastructure is weak in the county. Since it is located in mountain area, cost of infrastructure such as agricultural water conservancy and road transportation is high, which in turn leads to high cost of agricultural production and low productivity. Agricultural infrastructure is too weak to withstand natural disasters.

Primary health care facilities are weak. There are 72 medical organizations, with 4 at county level, 9 at Xiang level, 50 at village level, and 9 private clinics. Common disease among local residents is tuberculosis. Endemic mainly includes iodine-lacking disease. Disease leading to poverty is the major health problem to cause local resident poor.

#### **3.2.3.4 Agricultural economy hasn't formed pillar industry**

Because of insufficient investment, adjustment of agriculture and rural economic structure is difficult. It hasn't formed effective pillar industry and regional economy has no clear characteristics.

### 3.2.4 Analysis of basic condition and poverty cause of Huangli County and Zhongzhai County in Xijiang Town

Characteristics of Huangli County and Zhongzhai County in Xijiang Town: both are major villages helped by the state. Poverty coverage is high (over 70% are poor people with average income lower than 865 Yuan per person). They are second-tier villages in the county. Located in the hinterland scenery spot in Leigong Mountain. And people here are all Miao Nationalities. Villagers usually talk in Miao language. Many people can't speak or understand standard Chinese. It has deep nationality feature and is one of the most frequent places for tourists.

#### 3.2.4.1 Huangli Village in Xijiang Town

##### 1) Basic condition and social and economic condition

Located by the road from the capital city of Leishan and Liangjiang Town, it is 17 kilometers from the capital city of the county and 18 kilometers from Xiang government. So transportation is convenient. It totally covers an area of 9.4km<sup>2</sup>, of which 63.97 hectare is farming land with average 0.04 hectare for one person, 667.3-hectare forestland, 466.7-hectare grassland, and 266.7-hectare wasteland. The village consists of 16 villager groups, 348 households, and 1,400 residents. There are 954 laborers accounting for 68.1% of the total population here. 257 villagers go to outside to work accounting for 26.9% of all the laborers. Average net income is 1,150 Yuan per head among all villagers. For detail please read the appendix.

210 men in the village go to outside to work accounting for 48% of male laborers (534) and 4/5 of all the laborers going out (257). And 47 women in the village go to outside to work accounting for 11% of female laborers (420 men) and 1/5 of all the laborers going out (257). There are 110 households with men going out to work and women as major production workforce, accounting for 34.3% of all households (321). Women are the main agricultural workforces and their health and ability shall directly impact effect of poverty alleviation program. Major diseases of women are gynecological diseases and tuberculosis. According to survey, there are 10 tuberculosis patients and only 6 of them receive medical treatment. Reason for the disease of women is that they know little about condition of disease, the village lack doctors and medicines, the family has economic difficulty. Because of poor medical facilities, they just use traditional health care. 30% of women are hit by disease.

##### 2) Major cause for poverty

According to village leader, major causes for poverty of the village include: 1) lack of literacy; 2) lack of science; 3) lack of technology; 4) lack of fund.

According to 9 surveyed households in Huangli Village, they think poverty cause of their village is as the following summary (based on the number of households to mention it and in this order)

**Table 3-3 Poverty causes acquired by surveying households in Huangli Village**

Poverty cause	Household	Percentage to all surveyed people (%)
Lack of fund	6	66.7
Lack of science and technology	5	55.6
Lack of information and poor market flow	4	44.4
Insufficient land and foodstuff and inadequate planting and breeding	3	30.0
Lack of facilities and difficulty of drinking water	2	22.2
No poverty alleviation program	1	11.1

### 3.2.4.2 Zhongzhai Village of Xijiang Town

#### 1) Basic condition and social and economic condition

The Village is 1 kilometer away from Huangli County with convenient transportation. It covers an area of 63km<sup>2</sup>, of which 30 hectare is farming land, 300-hectare forestland, 100-hectare grassland, and 18-hectare wasteland. The Village consists of 8 villager groups, 132 households, and 677 residents. There are 401 laborers, accounting for 59.2% of the total population. There are more men than women in the village partly because young women marry outside and young men can't get married due to poverty. There is no primary school, so it's hard to go to school. There are 121 children in the village, with 10 children dropping out of school, namely 9 girls and 1 boy. 158 villagers go outside to work, of which 120 are men and 38 women. There are 86 households with men going outside to work and women as the major labor of the household, accounting for 65.2% of all the households (132) in the village. Average net income is 1,175 Yuan per person in the village. For details please read the appendix.

There is no medical facilities in the village, so their health and medical condition is quite poor. Many households have patients with serious disease and chronic diseases, who can't get medical treatment in time. Incidence of gynecologic disease is 30%. There are 12 households without electricity, who still use oil lantern for lighting. Pavement is quite narrow in the village. Villagers use timber for major energy source. Toilet and pen for livestock are quite simple. So living environment is very bad. There is no infrastructure such as training room at village level.

#### 2) Major poverty cause

According to leaders of Zhongzhai Village, major poverty causes include: 1) Villagers' low level of literacy; 2) Lack of information and poor transportation; 3) Lack of launching fund for development.

Opinion of households in Zhongzhai Village: according to the 11 surveyed households, poverty cause of their village is as the following table (based on the number of households to mention it and in this order).

**Table 3-4 Poverty causes acquired by surveying households in Zhongzhai Village**

Poverty cause	Households	Percentage to all surveyed people (%)
Lack of technology	10	90.1
Lack of fund	5	45.5
Lack of literacy or low level of literacy	4	36.4
Insufficient land	1	9.1
Heavy burden from sending children to school	1	9.1
Market is far. Poor transportation and lack of information	1	9.1
Lack of facilities	1	9.1

### 3.2.4.3 Analysis of poverty cause of the two villages

Based on opinion of all parties at different level such as county, village, and household and from different angle (Table 3-3), survey team makes comprehensive analysis and thinks that major poverty causes of the two villages include:

#### 1) Poor condition of resource

Medium and low productivity farming land is the most land. Irrigation condition is poor. And ecological condition is grim, with a lot of natural disasters such as flood and drought. Most households have insufficient foodstuff and have difficulty to support their existing family members.

## 2) Backward science, education, and literacy

Peasants have low level of literacy. They lack technology to grow crops and breed livestock. And qualification of laborers is low. So it is knowledge poverty shown by poor ability to rid off poverty and to get rich.

**Table 3-5 Opinion toward poverty cause of all parties**

	Leishan county government	Huangli village committee	Zhongzhai village committee	Huangli village household	Zhongzhai village household
Poverty cause	Grim ecological condition	Lack of literacy	Low level of literacy of the whole village	Lack of fund	Lack of technology
	Low level of literacy of laborer	Lack of science	Poor transportation and lack of information	Lack of science and technology	Lack of fund
	Lack of attention to gender	Lack of technology	Lack of fund for development	Poor transportation and lack of information	Low level of literacy
	Lagging subsequent management	Lack of fund		Insufficient land and foodstuff and inadequate planting and breeding	Inadequate land source
	Weak infrastructure				Burden from schooling
	Insufficient investment of fund			Lack of facilities and drinking water	Poor transportation and lack of information
				No poverty alleviation project	Lack of facilities

## 3) Poor health condition

Lack doctor and medicine. Have difficulty in drinking water. Development of female laborer resources is not adequate. It is welfare poverty shown by low level of health (especially health care problem of women) and poor living quality.

## 4) Poor infrastructure

Located on mountain slope, transportation is poor. People carry all production and living goods to Zhongzhai Village. Road inside the village is not hardened. It's hard to go by. Drinking water is also difficult. Water conservancy facilities haven't been repaired. And anti-fire facilities are poor. All in all it is facilities poverty.

## 5) Backward economy

There is no money to develop economy, no money to make production, no money to see the doctor, and no money to send children to school. Sick villagers often can't see the doctor because of economic difficulty. Children are willing and active to go to school, but they have to drop out because of poverty. During our survey we met several junior middle school students who are still in school. But they shall not

go to senior middle school because of poverty.

### **3.3 Hui County in Gansu Province**

#### **3.3.1 Natural condition**

Located in the south of Gansu province and at the southern foot of Qinling, Hui County is a typical poverty-stricken mountain area at forest edge. The whole county covers a total area of 2,722km<sup>2</sup> and 30,000 hectare of farming area. Topography is inclining from northwest toward southeast, with average elevation at 1,604m. The north part is the medium rippled North Qinling. And the north part is deeply rippled South Qinling. Loss of soil and water is serious. And it is continental monsoon climate of temperate zone. Affected by terrain and altitude, weather changes a great deal. With uneven rainfall around the year that is not synchronous with farming, drought in spring and winter and heavy rainfall to the extent of water logging in summer and autumn continues for many years, so natural condition for farming is quite poor.

#### **3.3.2 Social and economic condition**

The county consists of 7 towns, 8 rural areas (Xiang), 249 administrative villages, 1,224 villager teams, 10 community committees, and 54,000 households with a population of 220,000, among which 189,000 are rural residents. There are 9,269 of minorities, accounting for 4.31% of the total population. There are 9 towns and Xiang that need help to relieve poverty, 8 of which are in the forest edge in the northern and southern mountain area. Production and living conditions in those areas are very hard.

According to data of statistics bureau of the county, GDP in 2003 was 0.73 billion Yuan with the average net income of peasants of 1,305 Yuan, total production of foodstuff of 132,300 ton and average foodstuff per head of 412 kilogram. There were totally 36,000 people under basic line of dressing warmly and eating enough and 78,000 people unstably around the line in the whole county. Production and living conditions of the poor people were not improved. And medical and health condition is especially poor, with short supply of doctors and medicines, so poverty caused by disease is quite a common phenomenon and the health level of women is very poor.

#### **3.3.3 Analysis of the cause for poverty**

##### **1) Grim natural condition, susceptible ecological environment, and poor farming and production base and condition**

Except several towns and Xiang in the middle part with typical basin characteristics of mild climate, rich land, and good farming condition, other towns and Xiang in the northern and southern mountain area generally have dongas and slopes, with little area suitable for farming, barren land, and low production of crops. Mountains, dongas, and watercourse take up most area. The weather is chilly and dank. And frost, hailstone, and beasts are serious natural disasters. In some villages and teams people and animal have difficulty in drinking.

##### **2) Poor economic foundation and poor investment**

Long-term poverty led to poor economic foundation of poor villages. Besides, the county is not a state-level poor county, so relief fund allocated to it is little. And financial department of the county is also hard, so government investment is insufficient. Moreover, economic foundation of peasants is also poor, so

they are unable to afford much fund to improve farming, production, and living condition. Therefore farming facilities and production and living of peasants can't be fundamentally improved quickly.

### **3) Single production structure with grain as the major income source**

In recent years, much effort has been put on changing production structure of the peasants. But the majority still keeps the traditional operation mode and structure with grain as the major means. The vast majority still depends on selling grain for income, with peasants' income from grain accounting for 60% of their net income. In recent years, production of grain can't improve due to natural disasters such as drought for years in consecutive. In 2003 production of wheat dropped a great deal. And some places in the northern and southern mountain areas generally had no harvest. In 2004 soybean in the whole county basically had no harvest. Besides, price for grain was not stable, so farming investment increased and production cost increased. Therefore, peasants' income can't increase although their production increased. Their income even dropped. They went back to poverty line even after they reached the line to dress warmly and eat enough. So new poor people often show up.

### **4) Backward education and poor qualification of workforce**

Culture, education, and health are comparatively backward, qualification of workforce is poor, and science and technology investment is insufficient. In some poor villages and Xiang, due to long-term poverty, social development is low and development of education is greatly restraint. The general education of peasants is low. Their cultural qualification is low and their thought and concept are backward. They have poor ability to accept news things and new science and technology, so promotion of new products and new technology is very hard.

### **5) Slow development of transportation, communication, and broadcasting & TV industry**

Peasants lack information and market consciousness. There is no road in many poor villages and teams. Inside and outside transportation mainly depends on human and livestock carriage. Labor intensity of peasant is high. They consume a great deal of strength but nutrition supply is far from sufficient and their health is directly impacted.

### **6) Poor medical and health condition**

The whole county generally has poor medical and health condition. Poor family gets into debt because of illness in mountain area. Illness leads to poverty. It is quite common that peasants are too poor to see doctor and to buy medicine. Fragile economic condition can't get the blow of disease.

## **3.3.4 Analysis of basic condition and poverty cause in Huguang Village in Mayan Township and Heping Village of Chengguan Town**

Huguang Village in Mayan Xiang and Heping Village of Chengguan Town has the following characteristics: they are all major poor villages to be helped listed out by the province. Poverty coverage is large (accounting to over 50% of the total population). Single channel of peasant's income, poor medical and health condition, poor consciousness of science and technology, and poor consciousness of market. Meanwhile, they're all villages in the northwest of China that will be helped by World Bank Loaning Project. Some projects of World Bank have been executed, so they have some base for the execution of World Bank projects. The two villages are both major prevention and control area to keep water and soil in the upper river of Yangtze River. The difference lies in: Huguang Village in Mayan Xiang lies in forest edge area and remote area. There are more mountains and less land. And land is barren. Loss of land and water is serious. Transportation in village and team is poor. And Huguang Village in Mayan Xiang and Heping Village of Chengguan Town lie in hilly area and in the mixture area of Hui Nationality and Han

Nationality. Local disease is ramp, so poverty caused by disease is prominent. Although it is near the county city, it is still poor. The two villages basically represent the current situation and type of poor villages in the Hui County.

#### **3.3.4.1 Huguang Village in Mayan Township**

##### **1) Basic condition**

Huguang Village lies in the north west of Mayan Xiang at the most northern party of Hui County, 15 kilometer from Xiang government and 80 kilometer from the county government. The total village covers an area of 259.3 hectare, with farming land of 133.3 hectare and average farming land of 0.14 hectare per head. There is forest of 65 hectare, grassland of 31 hectare, and Barren Mountain or slope of 23.3 hectare. The village consists of 5 villager teams, 200 households, and 961 residents. Average net income per peasant is 750 Yuan, with about 30% of households with insufficient food to eat. The whole village has one primary school with 108 students and 10 classrooms, which are tile rooms of land and wood structure. The classroom hasn't been repaired for many years, so they are all dangerous. There is no village clinic. But there are 4 private clinics with 4 practitioners.

There are 92 residents in the village going out to work with male laborers in 40 households to work outside. Women are the major workforces. Plantation land lies on the hill or riverside. Besides limited livestock, planting and harvesting mainly depend on pick aback and back carriage. Usually it is even hard to pick firewood on the mountain. So labor is very intense in production and living for the women.

The village belongs to forest edge in the northern part. Production and living condition is quite tough. 3 seasonal rivers divide the village into 4 residential parts. It is impossible to cross the river when river water goes up. Mountain is high and slope is steep in the village, so loss of water and land is serious.

Since launching World Bank project in the village in 2002, 31 households have got subsidiary fund from World Bank with total amount of 121,000 Yuan. Projects such as breeding cow and ewe, planting Chaihu, and planting grass have been initiated.

##### **2) Major cause of poverty**

According to visit and interview in the county, Xiang, and villages, based on the order of attention degree in the survey, major cause of poverty is bad transportation, poor land quality, single structure of farming product, grim ecological environment, poor medical condition, and low level of education in turn.

Based on survey to 17 households, major cause of poverty in turn is bad transportation according to 11 households, poor natural condition according to 4 households, and lack of technology according to 3 households, lack of information according to 2 households, and lack of capital fund according to 1 household.

**Bad transportation:** Besides far distance from county road and poor road condition, major reason for bad transportation is that road to market outside the village is blocked by Mayan River and Sucheng River. Villagers can cross the river in seasons without rain. But in rain seasons, villagers can just look across the river.

**Poor quality of land:** mainly because some farming land is on the mountain and is the land to be changed from farming to forestry. But because of insufficient foodstuff, peasants still use the land for farming. And other part of land is on the riverside and is land with more sand and less soil, so production of foodstuff is low. The 17 households surveyed have an average of 0.12 hectare per head.

**Single structure of farming product:** farming way here is one season per year, with wheat, corn, and potato as the major crops. Other economic crop and stock rising is little.

[Case: the family of Bai Yu'e of 54. 7 family members. 0.91 hectare of farming land, 0.28 hectare to

plant wheat, 0.28 hectare for corn, 0.14 hectare for potato, and 0.14 hectare for nut. There are one donkey and one pig, with donkey for transportation and pig to be eaten at the Spring Festival. If they need money urgently, they will sell the pig]

Poor medical condition: there are 4 private clinics with 4 practitioners. But they are all simple clinics and the practitioners have no good training. The 17 households surveyed all think they can't see doctor in time if they are ill. The major reason is that they are economically difficult (16 households). And the second reason is that they are far from hospital (7 households).

Low level of education: Among the 17 household's surveyed; average age is 41.8 with the youngest at 33 and the oldest at 59. 6 of the 17 people surveyed have primary education, 7 junior middle school education, and 4 senior middle school education.

### **3.3.4.2 Heping Village of Chengguan Town**

#### **1) Basic condition**

Heping Village lies on 10 kilometer east to Hui County, covering an area of 1,790.5 hectare and with elevation of 1,150 meter. There are dongas crossing all over the village. Hill slope takes up over 70% of total farming land, where plantation is poor and loss of water and soil is serious. The village consists of 9 resident teams, 353 households, 1,455 people, and 680 laborers. Farming land is 261.33 hectare. Average farming land per head is 0.18 hectare. There is 41.21 hectare of fruit garden and 42.54 hectare of grassland. There are 2 primary schools of 6 grades with 170 students. Schooling rate for school age children is 100%. Peasant has low income and their income source is single, with average net income of 800 Yuan per head, which is the lowest of the whole town. There are totally 178 poor households and 806 poor people.

There are 212 residents in the village going out to work with male laborers in 70 households to work outside. Women are the major workforces. Because they drink water lacking iodine and they are under great work intensity for many years, most people over 50, especially women, have various diseases: condole and knee pain, bone hyperplasia, trachoma, and gynecologic disease. The villagers are mainly Han nationality and Hui nationality.

#### **2) Major cause of poverty**

According to visit and interview in the county, Xiang, and villages, based on the order of attention degree in the survey, major cause of poverty is bad transportation, low level of technical and cultural qualification of laborers, poor education and medical condition, barren land, single structure of farming product, and wide planting with little harvest.

Based on survey to 10 households, major cause of poverty is poor living environment according to 2 households and bad transportation, low productivity, single structure of the industry, little source for income, lack of technology, backward production, old/weak/sick/disable, and backward culture according to 1 household respectively.

### **3.3.4.3 Analysis of poverty cause of the two villages**

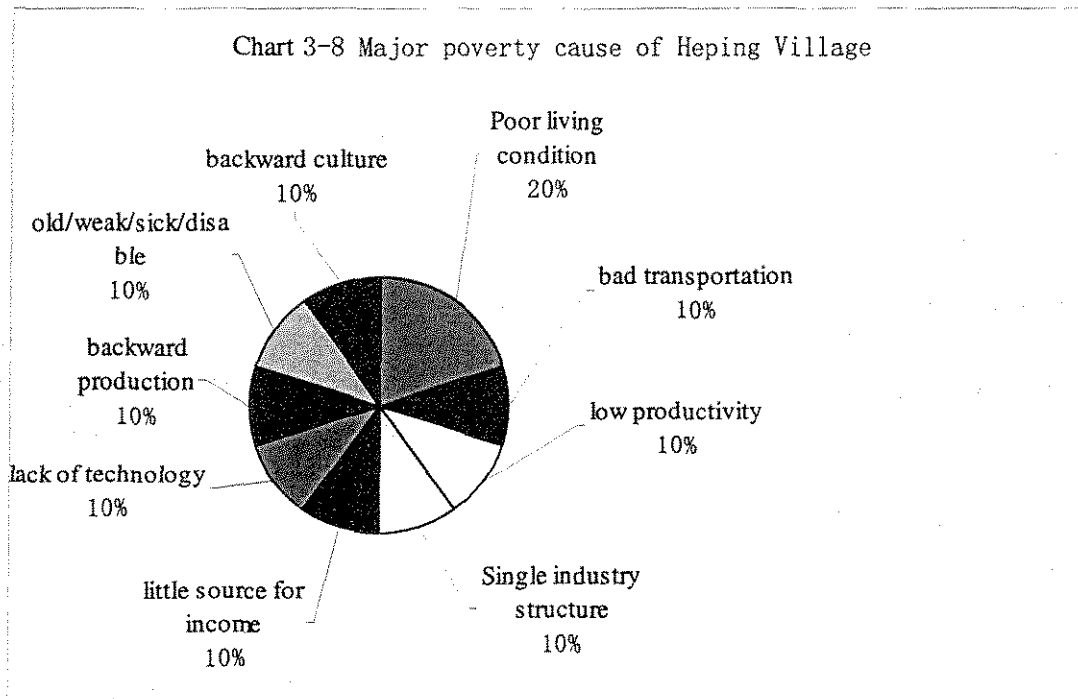
Based on our survey, we think poverty cause of the village is the following in turn:

1) Poor transportation. The village extends 15 kilometer along the mountain valley. Road is not hard enough. Road is full of mud on rainy days and dust flies on sunny days. It is difficult for villagers to walk, so it greatly affects production and living of villagers. By-products and living materials both have transportation difficulty. And it is not easy for children to walk to school. After the survey team reached the village, they have to stopped at midway due to muddy road after snowfall and walked to residents teams of Heping Village.

2) Backward science and technology and poor qualification of laborer. Pillar industry depends on



raising cow and ewe. But the cow and ewe are mainly local type and lack market strength. Plantation is mainly backward means and foodstuff is the major source for income. According to villagers, the village also planted apple tree. But it won't sell due to poor quality and inconvenient transportation.



3) Low level of education and health condition. Classrooms of the schools are all tile house of poor quality. And they haven't repaired for many years. The schools lack basic facilities and teaching quality is low. Medical and health condition in the villages are poor. And there is no village clinic, so it is not easy for villagers to see a doctor. A few households become poor because of their illness. Health environment is poor in the village.

4) Barren land, single industry structure, and wide planting with little harvest. Foodstuff production is low, with total production of 378.3 ton and average foodstuff of each person is 260 kilogram. Some households don't have enough to eat.

## 3.4 Zhangjiachuan County in Gansu Province

### 3.4.1 Natural condition

Zhangjiachuan Autonomous County of Hui Nationality is one of the 7 autonomous counties of minorities. Located in the south east of Gansu Province and at the west foot of Longshan Mountain. The whole county covers an area of 1,311.8km<sup>2</sup>. There is 39,000 hectare of farming land with average farming land of 0.22 per head. The whole county is continental monsoon climate of mild temperature. Middle west is semi-dry area with mild climate, sufficient sunshine, and long time without frost. But rainfall is little and drought in spring and dog days is obvious. The northeast is semi-humid area with cold weather, poor sunshine, short-term of frost, and enough rainfall. Major natural disasters include frost, low temperature, hailstone, and autumn water logging.

There are plenty of forest and grass and rich biology resources. The county has forestland of 4.2 hectare, accounting for 32.9% of total land area. Forest coverage is 21.6%. It has grassland of 3.71 hectare, of which 1.27 hectare is in large lot. Large area is used for growing horse bean, pea, and clover of purple flower, which have high nutrition value. The county boasts of good condition to develop stock rising.

## **3.4.2 Social and economic condition**

### **3.4.2.1 Basic condition**

Zhangjiachuan County governs 3 towns and 12 Xiang (2 towns and 17 Xiang in the application. Because China is carrying reform of combining Xiang and village, it's hard to get accurate number of Xiang and town.), 269 villages, and 1,295 villager groups. There was a population of 317,955 at the end of 2004, of which 220,298 people are Hui Nationality accounting for 69.27% of the total population and 97,700 Han Nationality accounting for 30.73%. 301,781 people are rural residents, accounting for 94.91% of the total population. There are 203,589 of rural laborers. There are totally 220 poor villages in the whole county. At the end of 2004, there are 20,200 people at poverty level, accounting for 6.7% of the total rural population.

### **3.4.2.2 Economic condition**

Based on statistics annals of 2004, Zhangjiachuan County had total production output of 592.62 million Yuan in 2004 and financial revenue of 19.82 million Yuan. Its comprehensive strength ranked No. 63 in the 72 counties in the whole province. Agriculture output of the whole county was 215.07 million Yuan and pasture output 129 million Yuan. Average net income was 1,238 Yuan per peasant. The whole county had a total foodstuff output of 84,718 ton with an average of 280 kilograms per person. Foodstuff crops are mainly wheat, corn, and potato and economic crops are mainly benne, hemp, and cole seed.

## **3.4.3 Humanities and living environment**

### **3.4.3.1 History and culture**

Zhangjiachuan County boasts of long history. Far back in New Stone Age there were humans living here. There are a lot of cultural relic and ancient sites. And 97 ancient sites have been discovered such as ancient cultural site, ancient castle site, ancient tomb site, fossil site, and carved stone. And a lot of cultural relic has been unearthed, including stone axe, stone shovel, and colorful pottery basin of New Stone Age and copper Ding (an ancient cooking vessel), copper kettle, and copper mirror of Shang Dynasty, Zhou Dynasty, Qin Dynasty, and Han Dynasty. As for folk culture, Flower of Hui Nationality in Zhangjiachuan County is most famous. And there is other unique craftwork such as paper-cut, needlework, sculpture, and fabric works.

### **3.4.3.2 Religion and living custom**

There are Islam, Daoism, and Buddhism here. There are totally 382 mosques of Islam and 3 temples of Buddhism. Hui Nationality has unique national customs because of Islam influence. Hui Nationality has the following major festivals such as Erde Festival (a festival to resume a meat diet), Gu'erbang Festival (a festival to kill livestock), and Shengji Festival. According to Islam custom, women of Hui Nationality is forbidden to touch men other than their husbands, so most women stay at home and raise children. Hui Nationality is forbidden to eat all fierce birds and beasts. And they dislike such animals as pig, horse, donkey, and mule and meat of all dead animals. Their major diet is corn and grain. They pay great attention to hygiene of drinking water. People of Hui Nationality especially love tidiness and hygiene. They often take shower. They must wash hands before dining and after going to toilet. This custom greatly reduces

incidence of intestine infectious disease. Therefore, Hui Nationality has higher requirement for water than Han Nationality.

### **3.4.4 Analysis of poverty cause**

#### **3.4.4.1 grim natural condition, scarce natural resources, and fragile ecological environment**

Poor people are mainly distributed in dry mountain area and cold forest edge area, where natural condition is poor and resources is scarce. Loss of water and soil is serious, ecological environment is grim, and climate is complicated and capricious. Natural disasters are frequent such as drought, cold, hail, mudflow, and insect pests. Foodstuff output is low and some villagers can't support themselves. Because of hewing woods and trees and burning straw, vegetation is seriously destroyed. Sunshine is long, so it makes more water vaporize, which aggravates drought.

#### **3.4.4.2 backward transportation facilities and poor living and production condition**

Located in remote area, infrastructure is backward. Road leading to villages and living and production condition are quite bad. And the ability to fight natural disasters is also poor. Both people and livestock have difficulty in drinking water. Seeing the doctor, childbearing (laboring), and schooling are all inconvenient. *Transportation, energy, communication, education, and health can't meet the requirement of living, production, and economic development.* Although roads between villages have been built in recent years, the road condition is quite bad, with dust on sunny days and mud on rainy days. It greatly impacts villagers' basic activities such as production, living, see the doctor, children schooling, etc.

#### **3.4.4.3 backward education, science, and technology**

##### **1) Low education level of villagers**

There are totally 318,000 people in the whole county. And there are 1,339 with university degree accounting for 0.42% of the total population, 2,621 with college degree accounting for 0.82%, 4,382 with technical secondary school degree accounting for 1.38%, 11,717 with senior high school education accounting for 3.68%, 40,829 with junior middle school accounting for 12.84%, and 178,324 with primary school education or getting rid of illiteracy accounting for 56.08%. There are 175,200 laborers between 16 and 60. 35,000 people are illiterate or half illiterate. Rate of dropping out of poor students in junior middle school and primary school is 9.03% and the rate of poor girl students is 9.7%.

##### **2) Lack of production skill and backward consciousness of science and technology**

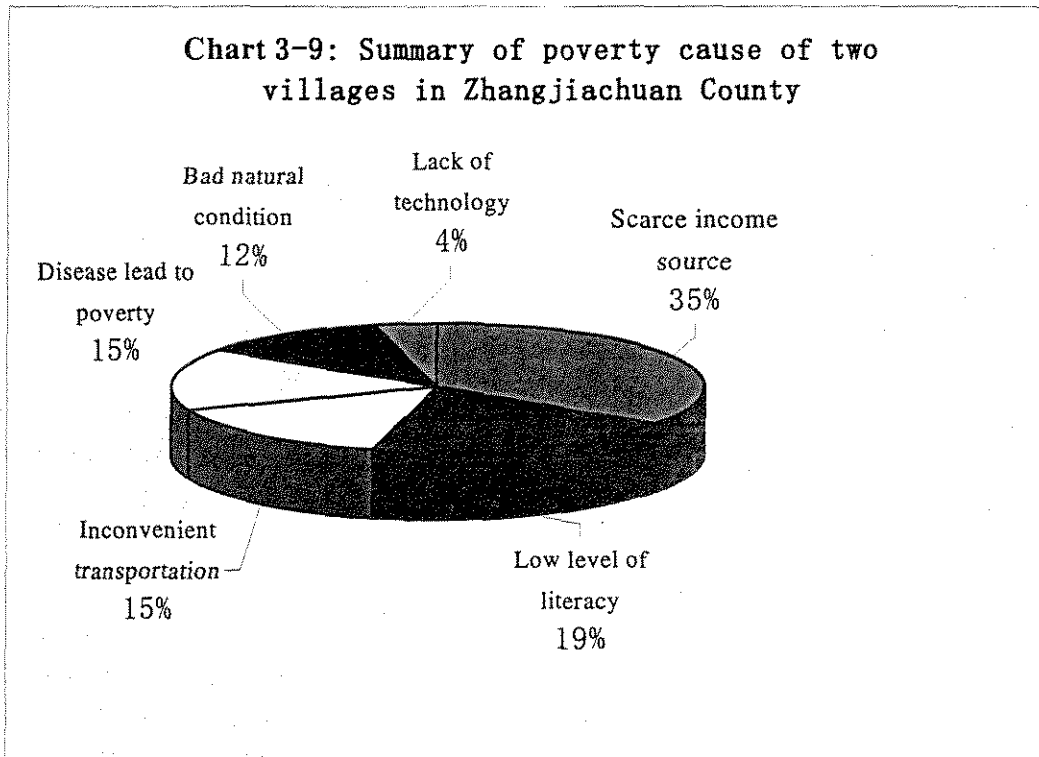
Vast majority of villagers have no professional and technical training. They have low level of science and technology. Many villager leave village to work outside and over 80% are men. But they generally have low comprehensive qualification. So the vast majorities take up preliminary work in catering industry. Villagers lack science and technology knowledge. And their breeding and planting are still traditional rough way with low content of science and technology. For example breeding cows, many people don't know the fact that artificial insemination can improve the speed to breed cows.

#### **3.4.4.4 Poor medical and health care condition. Disease leads to poverty**

Health facilities are poor. There is no clinic at village level. And hospital at town level lack medical equipment. They still use traditional three medical instruments, namely *stethoscope, blood-pressure meter, and thermometer* in village and Xiang. Most hospitals have no stomach pump, X-ray machine, cardiogram instrument, and basic testing machine in Xiang and town. So auxiliary diagnosis is hard. Graduates from college and technical secondary school can't apply their knowledge here. Village doctors have out of date knowledge. Disease prevention and control and medical treatment are quite limited. Clinics at village level can just cure small disease such as cold and fever. All those are potential to lead to poverty.

### 3.4.5 Analysis of basic condition and poverty cause in Zhangba Village and Yuanshuliang Village

According to the 20 surveyed households, their major income sources include 41% from livestock breeding, 33% from working outside, 13% from growing foodstuff, 10% from growing vegetable and economic crops, and 3% from other source such as trafficking fur. Read Chart 3-9 for the poverty cause that they gave.



#### 3.4.5.1 Zhangba Village in Gongmen Town in Zhangjiachuan County

##### 1) Basic condition

Located in the south west of Gongmen town in Zhangjiachuan County, Zhangba Village is 14 kilometers away from capital city of Zhangchuan and from Gongmen Town government, respectively. The average altitude is 1,900 meters, annual rainfall is around 600mm, sunshine time is over 2,000, and time without frost is 180 days. The village consists of 4 natural villages. Villagers are distributed on two sides of a dam with 3 kilometers away from one side to the other. There are 162 households and 823 villagers. This is a pure Hui Nationality village with more land and less people. There are totally 281 hectare of farming land, 232 hectare of foodstuff land, 10 hectare of forestland, and 27 hectare of grassland.

The village is a major poor one with over 110 poor households, which account for 70% of the total households of the whole village. The village can basically support themselves regarding foodstuff. There are 280 cows (also as meat cow). Young people in the village mostly don't raise cow. Only family with old people like to rise cow and sell calf (a calf can sell about 940 Yuan). Usually men go to work outside and women are the main work force in the village. During seeding and harvesting seasons, men come back to work at fields. There is one primary school of 5 grades with 175 students. There is no village enterprise, no reading room, and no radio. Management fee of the village is transferred. Average annual income is 538 Yuan per villager.

## 2) Analysis of poverty cause

① Lean land, backward skill, dry weather, and difficult drinking water. They depend on weather for food. Their production skill is backward, so they harvest little with a lot of planting and output is little per Mu of land. There are no field irrigation facilities. Without paddy fields, they mainly depend on rain. There are some small ponds. Drinking water is difficult and mainly from water at the earth surface. 162 households have water vault (capacity for each vault is 14m<sup>3</sup>.) sufficient for drinking half a year. It is difficult to get water from other places. They have to get water from far away by tractor.

② Poor infrastructure such as transportation. There is only a trunk road of 2 meters wide in the village. It is difficult to walk. All this seriously impact production and living activities such as production, going to market (goods exchange market), going to hospital, childbearing, getting water, and children schooling.

③ Low level of literacy of villagers and laborers. Party Secretary in the village didn't finish junior middle school. There are 280 illiterates, 70% of which are women. Those who go to work outside have to find jobs by themselves and they haven't any training.

④ Women have low social position and they seldom participate in production and living decision. Impacted by local cultural and national custom, women have low consciousness to participate production and living decision.

⑤ the whole village hasn't participated in medical cooperation and they lack of doctors and medicines. There is no clinic in the village. There is just one barefoot doctor (village doctor, over 60, out of date knowledge, limited ability. It's urgent to develop young female doctor for the village). Many households become poor or go back to poverty because of disease.

⑥ Lack of launching fund. Average annual net income is just 538 per villager (according to county and Xiang statistics). They lack fund accumulation, so they can't launch projects to shake off poverty and get rich. The major way to shake off poverty is going out to work. They depend on labor investment to shake off poverty.

### 3.4.5.2 Yuanshuliang (Dadi) Village in Zhangchuan Town in Zhuangjiachuan County

#### 1) Basic condition

Yuanshuliang (Dadi) Village in Zhangchuan Town in Zhuangjiachuan County is 5 kilometers away from capital city of the town. There are 6 villager teams, 231 households, 1,223 people, and 452 laborers. Farming land is 119 hectare, of which 92 hectare is for foodstuff. And average land for each person is 0.2 hectare. Physiognomy is mainly mountain beam. Land is lean with drought and little rain.

The village is a poor one where Hui Nationality resides. Planting and breeding are the major industry. They mainly plant foodstuff, with 20 hectare for corn, 60 hectare for wheat, 6.7 hectare for potato, and 5 hectare for economic crops (mainly winter cole and benne). They mainly breed cow and sheep. Average net income is 1,400 Yuan per villager. 382 people (time) go outside to work.

There are 2 primary schools in the village with 213 students. There are no cultural and sports facilities. There is 2 health care staff. But there is no village clinic; no medical facilities, so basic medical and health care of the villagers can't be guaranteed.

#### 2) Analysis of poverty cause

Village committee think that the following problems are quite obvious: bad natural condition, grim environment, backward education, low qualification of laborers, backward infrastructure, difficult drinking water, and difficult road. Industry structure is single. Output is little despite large amount of planting. Foodstuff output is low and unstable. There is no village clinic, no doctor, and no medicine, which can't guarantee the basic medical and health care of villagers. There is no information communication. Most

peasants lack fund to buy basic production materials.

Villagers think poverty causes include: inconvenient transportation, disease leading to poverty (especially women, old people, and children), lack of water, low level of literacy, lack of means, lack of money, lack of laborer, low output, no income source from other industry, etc. The most outstanding 3 poverty causes are also the ones that impressed us greatly during our survey:

① inconvenient transportation. The surveyed villagers specially pointed out that inconvenient transportation had greatly impacted their production and living (agriculture product trade, visiting friends and relatives, going to hospital, and going to school, etc). When the survey team went to Zhangba Village for survey, it happened to rain. Road was too muddy for car to enter the village. So the survey team had to walk inside. Without any burden, it took about 40 minutes to walk into the village one way. (See the photo)



**Picture 3-10 Road to Zhangba Village**

② Low level of literacy. The survey 19 households have low level of literacy. Illiterate account for 42% and people with primary school education and lower account for 42%. Because of lack of social participation, they couldn't understand and answer content of many items in the survey, especially women. It's hard to communicate with them.

③ Drinking water difficulty for both people and livestock. They mainly depend on water deposited in water vault. And secondary source for water is fountain and pond. Sanitation and safety of drinking water can't be guaranteed.

## **3.5 Comprehensive analysis of poverty cause of the 4 counties**

### **3.5.1 Basic condition of the 4 counties**

We summarize basic condition by Table.

**Table 3-6 Comparison of basic information of 4 counties in Guizhou and Gansu**

Category		Daozhen County in Guizhou	Leishan County in Guizhou	Hui County in Gansu	Zhangjiachuan County in Gansu
Economy and population	Area (km <sup>2</sup> )	2,156	1,219	2,722	1,312
	Population (In 10,000)	33.8	14.9	22	31.8
	Density (people/ km <sup>2</sup> )	148.6	122.5	79.4	242.4
	Farming land (hectare)	23,573	6,879	30,000	39,000
	Farming land per person (hectare)	0.070	0.046	0.136	0.123
	GDP (100 million Yuan)	7.6	2.6	7.3	5.9
	Average net income of peasant (Yuan)	1,461	1,348	1,305	1,238
Climate	Type	Tropical monsoon humid weather in middle Asia	Tropical monsoon humid weather in middle Asia	Continental monsoon climate of temperate zone	Continental monsoon climate of temperate zone
	Annual temperature (°C)	15.4	15	12	7.5
	Rainfall (mm)	1,196	1,375	756	592
	Time without frost (day)	282	250	202	163
	Annual sunshine time (hour)	1,200	1,225	1,726.4	2,044
Geography	Physiognomy	Casita terrain Mountain and valley at plateau	Mainly upland Miaoling mountain area	Qinling mountain area	Stone upland, loess upland, and loess plateau
	Average altitude (m)	1,000	700	1,604	2,011

continued

Category		Daozhen County in Guizhou	Leishan County in Guizhou	Hui County in Gansu	Zhangjiachuan County in Gansu
Nationality	Population of minorities (In 10,000)	26.1	13.33	0.93	22
	Percentage (%)	77.60	89.28	4.31	69.27
	Major nationalities and their percentage to total population	Gelao (45.5%) Han(27.8%) Miao(19.6%) Tujia (7.1%)	Miao (82.5%) Han (10.7%) Shui (3.6%) Tong (2.2%)	Han (95.7%)	Hui (69.3%) Han (30.7%)
Major poverty cause		Scattered farming land and insufficient average farming land per person; Far from central city and poor transportation; Backward medical and health facilities; disease lead to poverty; Low level of education; Late beginning of poverty relief work.	Grim ecological environment and serious agriculture weather disaster; Low science and literacy level of laborers; Weak infrastructure; Agriculture economy has not pillar industry	Fragile ecological environment, poor agricultural production condition; Weak poverty relief investment; Backward education and low qualification of laborer; Slow development of transportation, communication, and TV broadcasting; Poor medical and health condition;	Grim natural condition, scarce natural resource, and fragile ecological environment; Backward transportation facilities and poor living and production condition; Backward education and science. Poor medical and health care condition. Diseases lead to poverty.

### 3.5.2 Understanding of poverty cause from county, Xiang, and villager

Table 3-7 Analysis summary of poverty cause from people at various level

	Major poverty cause
Related provincial departments	1) Poor natural condition, such as remote location, inconvenient transportation, more people with less land, lean soil, and poor basic production and living condition. All those cause regional development gap.
	2) Backward social, economic, and cultural development and backward infrastructure. It causes time gap with modern civilization during development.
	3) Backward education, especially low level of education among minorities. They have low science and literacy level. All those cause gap in self-development.
Related provincial department	1) Poor natural condition, inconvenient transportation, and slow to accept outside things;
	2) Low qualification of poor communities and households and backward thought. They have thought "content with small richness or even content even they're not rich";



	Major poverty cause
Related provincial department	3) Insufficient input and backward infrastructure;
	4) Backward social and economic development and poor ability for self-development. Few years of education, endemic, and lack of practical technology and skill. They are even blind and conservative. They lack commodities and economy concept, etc;
Town and Xiang leader	1) Finance of Xiang is poor;
	2) No water, electricity, and road;
	3) Grim ecological environment;
	4) They don't know how to lead peasants to market;
	5) Peasants have low qualification and lack technical guidance;
Village and communities leader	1) Poor environment and lack of living and production water;
	2) Low qualification of people, poor education background, and lack science knowledge;
	3) No initiator to get rich and no information communication. They don't know how to develop family economy after solving foodstuff problem.
	4) Inconvenient transportation;
	5) Insufficient government effort and lack of loaning;
	6) Grim condition and poor medical condition;
Ordinary Villager	1) There is no laborer in the family;
	2) Lack of land or poor quality of land;
	3) No capital money for production;
	4) Children's schooling fee and incidental expense are high;
	5) Family member become ill;
	6) They can't get project help;
	7) They don't know skill of planting and breeding;
	8) Unstable and unsafe work outside;
	9) Destroy by natural disaster;
	10) Insufficient government support, etc.

From the above we can see that people at different level have different understanding toward poverty cause. This is because they care about different things. From upper level to lower level, analysis of poverty reason is more and more microcosmic. Ordinary villagers pay more attention to specific and independent reason that causes them greatest difficulty. Meanwhile they long for fund support from upper level or the outside. But they also show a tendency to look for poverty cause from objective factors but not subjective factors. From lower level to higher level, analysis of poverty cause is more and more macro. The higher the level, the more unspecific cause they consider, which is shown by the fact that they like to summarize relation and common aspect of various causes. They stress natural and history factor and subjective factor of low personal qualification, but they lack sufficient analysis of their own policy.

### 3.5.3 Different and common point of poverty cause between the 4 counties

#### 3.5.3.1 Different point of poverty cause between the 4 counties

From Table 3-6, we find that different point of poverty cause between the 4 counties consists of:

1) Daozhen County, Leishan County, and Zhangjiachuan County are all central places where minorities live and also major counties that are helped by poverty alleviation program of the state. But Hui County is just a major county to be helped by poverty alleviation program at provincial level and there are more Han nationalities. According to poverty alleviation program of China, poor area included in poverty relief program list of the state shall have more fund support to shake off poverty.

2) Because of different cultural and national custom, women in minorities seldom participate social and production activity, which is especially obvious in Zhangjiachuan County.

3) Due to different geographic location, natural conditions are grim in different aspects. For example, 2 counties in Guizhou Province both have annual rainfall over 1,000mm, so they have sufficient water resource. But land is lean and scarce and average land per peasant is very small. Gansu Province lack water resource, but their land resource is comparatively good.

4) Great difference in population density. Population density in Hui County is 79.36 people/km<sup>2</sup> while that in Zhangjiachuan County is 242.42 people/km<sup>2</sup>. Under the condition of limited resources, large population density shall bring a lot of poverty relief work.

### **3.5.3.2 Common point of poverty cause between the 4 counties**

From Table 3-6, we find that common point of poverty cause between the 4 counties consists of:

1) Grim natural condition and scarce average resources per person. Located in mountain area, the four counties have poor local resources and belong to regional poverty.

2) Far from center city, inconvenient transportation, and poor infrastructure. Despite that fact that the two counties in Guizhou Province have annual rainfall over 1,000mm, people still have difficulty in water for living and production.

3) Backward economy development and single agriculture structure. They are typical agriculture counties with poor ability of self-development.

4) Backward education, science, and technology. And laborers have low level of literacy.

5) Bad medical and health condition. Phenomenon of diseases leading to poverty is common, especially Daozhen County in Guizhou Province.

## **Section Four**

# **A guiding evaluation on Integrated Poverty alleviation in four counties of Guizhou, Gansu Province**

During the investigation process, we have asked the principal of local government and relative department for directive opinion on integrated poverty alleviation in four counties of Guizhou, Gansu Province and listened to the opinion of 10 farmers in each village. Bases on the situation of investigation, our opinions on integrated poverty alleviation are as follows:

### **4.1 Daozhen Autonomous County of Gelao-Miao nationalities**

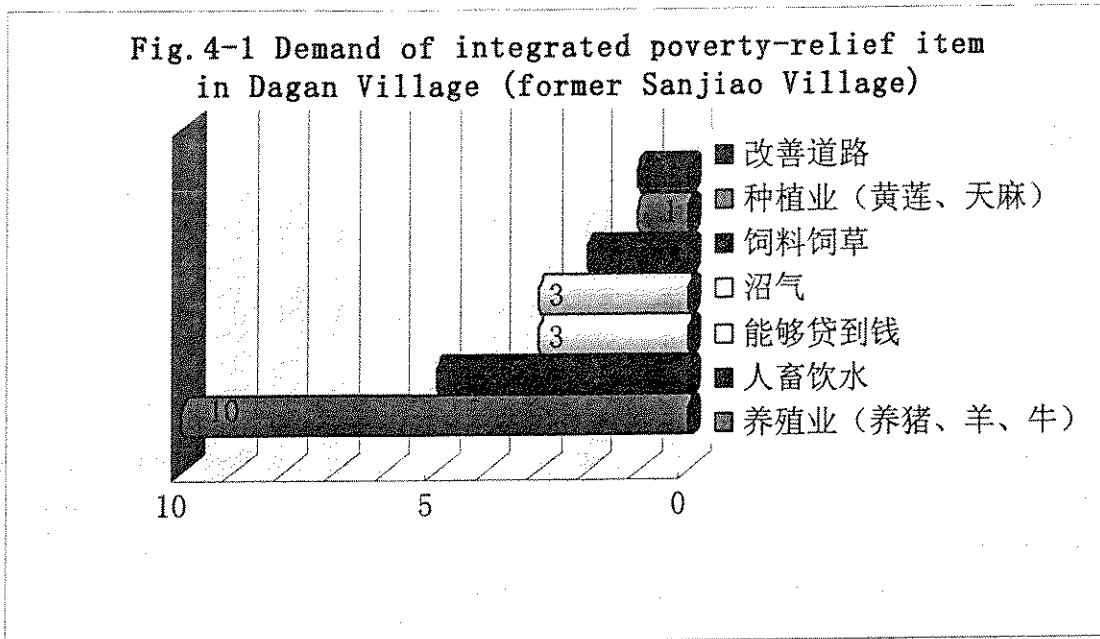
#### **4.1.1 Orientation of integrated poverty alleviation**

Through field survey the main poverty alleviation measures implemented by local government and poverty alleviation department are: enhance infrastructure construction, such as road, water conservancy, electric power, etc; develop ecological poverty alleviation, return the grain plots to forestry and grass, and construct biogas generating pit; quicken the construction of commodity base and develop commodity production; launch cultural poverty alleviation to realize the communication of TV radio and telephone in every village; promote the scientific and educational poverty alleviation work and family-planning, spread practical technology and popularize elementary education to eliminate illiteracy, improve medical condition to avoid endemic; allopathic migration and relief. The county and township poverty alleviation departments think that it's most important to invest to improve the living and producing condition of poverty areas, and this project is the most successful one.

##### **4.1.1.1 Orientation of integrated poverty alleviation in Dagan Village (former Sanjiao village)**

We conduct field survey, carry out questionnaire towards farmers, and listen to the opinion of village cadres. Among 12 households in Dagan village, ten of them bring forward the idea of raising pigs to shake off poverty; three of them ask for settling drinking water for human beings and animals, three to develop biogas, and two to settle feedstuff and hillside grass planting. Although we investigate that many farmers didn't have enough food to eat, settling the food problem isn't the one concern about most by villagers and cadres, what they want most is to develop commodity production and breed industry, to improve the cultivation condition and supply technical services for planting and raising industry; to adjust the planting structure of crop, change the slope to terrace, build small water conservancy facilities and so on to boost productivity of land. Synthesizing the demands of Dagan villagers, the feature of integrated poverty alleviation project is ecological poverty alleviation aspect centers on grass planting, pig rising, and biogas.

(Graphic 4-1)



**Fig.4-1 Demand of integrated poverty alleviation project in Dagan Village (former Sanjiao Village)**

改善道路 Improve road condition

种植业 (黄连、天麻) Plant industry (Coptis, rhizome gastrodiae)

饲料饲草 Feedstuff and forage grass

沼气 Biogas

能够贷到钱 Support by a loan

人畜饮水 Drinking water for human beings and livestock's

养殖业 (养猪、羊、牛) Cultivation and breeding Industry (raise pig, sheep and cattle)

#### 4.1.1.2 Orientation of integrated poverty alleviation in Qunxin Village of Sanjiang Town

From the survey results of Qunxin villagers, seven families in ten propose pig rising, six of them ask for settling living and producing water, and four of them want to improve habitation. They also mention the development of planting industry, village industry, sanitation and technical training. This is because the Qunxin villagers live on slopes of mountainous area that has a high coverage of forestry, with a relatively low density; some villagers want to develop characteristic planting industry. Some village cadres and villagers are enthusiastic about exploiting local mineral resources. Furthermore, only 2 households among 26 farmhouses in Kucaotang villager team have TV set, so it's normal for the villagers to expect acquiring more information through TV. (Graphic 4-2)

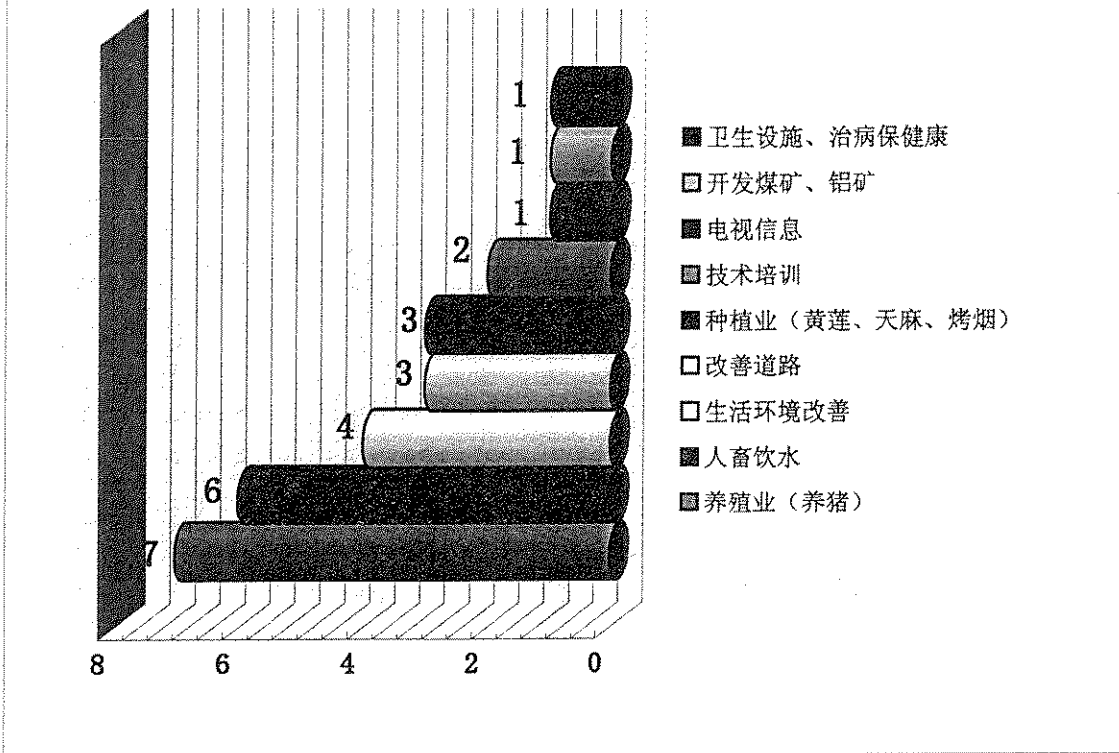
#### 4.1.1.3 Integrated analysis on developing direction of poverty alleviation in two villages

Bases on the investigation of township, village and household, combining with the advice proposed by relative department of county, we conclude the integrated poverty alleviation direction of two trial villages in Gelao-Miao Autonomous County of Daozhen (Form 4-1) :

##### 1) Implement ecological engineering, energetically develop stock raising

Plant grass on hillside and raise forage crop, Develop cultivation industry with pig raising as the essential point; Build biogas generating pit and dispose the castoff of farming and livestock; provide clean energy.

Fig. 4-2 Requirement to Poverty Alleviation Project of Qunxin Villager



Graphic 4-2 Demand of Qunxin villagers on poverty alleviation project

- 卫生设施、治病保健康 Sanitary facilities, disease curing and health care
- 开发煤矿、铝矿 Exploit coalmine and aluminum mine
- 电视信息 TV information
- 技术培训 Technical training
- 种植业（黄连、天麻、烤烟） Plant industry (Coptis, rhizoma gastrodiae, flue-cured tobacco)
- 改善道路 Improve road condition
- 生活环境改善 Improve habitation
- 人畜饮水 Drinking water for human beings and animals
- 养殖业（养猪） Cultivation and breeding Industry (raise pig)

## 2) Construct habitation suitable for humans to live

Start the construction of water cellar to provide drinking water for human beings and animals;

Improve water, toilet and kitchen by combining with biogas project; improve courtyard.;

Enhance the propaganda and training of sanitary knowledge, change bad sanitary habits and construct health center.

Expand technical training;

Improve traffic road.

## 3) develop the economy with local feature, increase farmers' revenue

Mainly develop traditional Chinese medial materials, Zanthoxylum bungeanum and peanut, try to form characteristic industry.

## 4) Develop industry

Exploit mineral resources, establish village enterprises and develop Weis' aluminum mine resources and Xianglanping coal mine resources.

**Form 4-1 Orientation analysis of integrated poverty alleviation development in Daozhen County**

	Contents	The problem settled and function
Country ecology	Hillside grass industry	Settle water and soil loss, preserve water resource, livestock feedstuff
	Biogas project	Avoid picking and deforesting indiscriminately, protect mountainous area timber; provide clean energy, reduce emission of greenhouse gas; create sanitary environment, provide conditions for improving water and toilet.
Farmers' Lives	Drinking water project for human beings and animals	Supply sanitary and convenient water for living and producing use, establish good sanitary habits; meet the demands of living and producing
	Improve water and toilet	Create good environment for human habitat
	improve medical and sanitary facilities; popularize and train health and disease-prevention knowledge ; Survey, prevent and cure gynecological disease, children's vermin sis.	Safeguard health and basic human rights
	Improve education facility	Make schools the education places for children, also cultural training and technical educating bases for adults and women. Improve cultural quality and labor technique of poverty population.
	Harden the road	Provide convenient traffic, also provide basic guarantee for logistics and information flow
	Establish traditional festival celebrating activities; build cultural library and so on.	Protect Minority culture; promote economic trade and tourism by protecting unusual culture.
Agricultural production	Improve middle and low yield farmland	Meet the demand of basic agricultural products, increase the ability to resist natural hazard
	Technical training for planting and cultivating industry	Improve laborers' technique, do well in agricultural field management, and increase agricultural output and self-support ratio of food.
	Sustained financial credit	Settle the problem of development capital shortage.

#### 4.1.2 Feasibility of integrated poverty alleviation Project

1) Representative ness. Dagan Village and Qunxin Village in Daozhen County is selected, as the pilot villages of poverty alleviation development, the reason for that is the two villages are second-rank poverty villages, which have representative ness and typical ness in local area. The villagers and cadres strongly wish to cast off poverty and become well off, they are active in participating in this project.

2) Technology and resources are feasible. The technical maturity of poverty alleviation project centers on biogas engineering, can not only protect mountain timber, but also supply clean resources, and create sanitary environment, which had the function of integrated poverty alleviation.

The village is located in Sanjiang Town, the South Gate of Daozhen County; Sanjiang is the township for Daozhen County to enhance communication with other cities and districts of Guizhou Province, with a convenient traffic. Qunxin Village possesses mineral resources and characteristic planting industry basis such as excellent Chinese medical materials, flue-cured tobacco and so on, having some exploitation potential.

3) Local government and relative department attach great importance to the project.

Gelao-Miao Autonomous County of Daozhen is the district in Guizhou that had a good family-planning work foundation, a comparatively complete family-planning team, and a family-planning association with strong working ability.

Nowadays, 1 county family-planning association, 14 township (town) family-planning association, 98 village (neighborhood committee) family-planning association, 2450 family-planning association team, 33,680 family-planning association member, accounting for 10.05% of total population of county, so implementing the integrated poverty alleviation development project, especially changing the disease-cause-poverty situation in local area, will have better work foundation and human resource foundation. Provincial family-planning association and County government attach great importance to this project, they told the investigation team several times that if the project can be implemented in the county, the added working cost due to long-distance will be settled by them.

The above three points tell us that this poverty alleviation project has good working foundation guarantee, location advantage and resources. The conceiving preposition and design, arrangement of relative contents for directivity of integrated poverty alleviation development project are reasonable and feasible.

## **4.2 Leishan County**

### **4.2.1 Orientation of integrated poverty alleviation**

#### **4.2.1.1 Huangli Village of Xijiang Town**

Huangli Village is a typical Miao village; the wooden Diaojiao House is one of the national characteristics of it. But because of the denseness of house, the backward of water conservancy and fire fighting facilities, the hidden trouble of fire exists. So the village committee pays special attention to water conservancy and fire fighting poverty alleviation projects. Meanwhile, in order to develop national scenic spot tourism, the villagers are yearning to improve village environment, repair traffic road and improve water and toilet and so on. What the ordinary farmers concern about most is planting and raising industry related to their benefit and production. Some farmers propose to develop village enterprise, establish tea-processing factory by making use of local good-quality tea. The local area has good natural resources and land resources suitable for tea to grow, many farmers plant tea, but due to the limited capital investment, the scale is comparatively small. The investigation results can be seen in form 4-2.

**Form 4-2 The Summary Sheet of poverty alleviation orientation in Huangli Village**

Village committee	Villagers		
Poverty alleviation direction	Poverty alleviation direction	Number of households	Percentage accounting for investigated households (%)
Water drinking For people and fire Fighting	Cultivation (Include grass Planting Cattle and pig Raising, technical training)	5	71.42
Biogas	Plant (Include planting economic crop and technical training)	4	57.14
Planting and Raising project	Biogas	2	28.57
Farmland water Conservancy	Water drinking	2	28.57
Village group pavement and convenient bridge	Pavement	1	14.29
Build village Clinic	Water conservancy	1	14.29
Anti-flood dam	Infrastructure	1	14.29
	Run tea processing factory	1	14.29

**4.2.1.2 Zhongzhai Village of Xijiang Town**

Zhongzhai Village abuts on Huangli Village; their need for poverty alleviation project has great consistency. The main difficulty is, there is no primary school in Zhongzhai village, and the children have to go to Huangli village to attend class, so in poverty alleviation aspect, the attention is paid specially on education issue such as constructing village primary schools. The poverty alleviation project direction proposed by 11 households of investigated farmers (total number is 12, 1 is village committee director) is arranged as form 4-3 according to frequency and order of being mentioned. Four of them propose general idea of "poverty alleviation development project", which reflects that although some farmers want to shake off poverty, they don't know what to do and what they need.

**Form 4-3 The Summary Sheet of poverty alleviation orientation in Zhongzhai Village**

Village Committee	Villager		
	Poverty alleviation direction	Number of households	Percentage accounting for investigated households (%)
Build village road	Cultivate	5	45.45
Equipped with fire Fighting facilities	Road	5	45.45
Harden village road	Plant	4	36.36
Plant, raise and technical information	Technical Management Training	4	36.36
Repair road of remote natural village	*Poverty alleviation project Exploitation	4	36.36



continued

Village Committee	Villager		
	Poverty alleviation direction	Number of households	Percentage accounting for investigated households (%)
Farmland water Conservancy	water (drinking water And water conservancy)	1	9.1
Build village primary school	Biogas	1	9.1
Train village medic	Medical sanitation	1	9.1
Working place of Village committee	Architecture and Machinery	1	9.1

#### 4.2.1.3 Integrated analysis of integrated poverty alleviation orientation

According to the talk with relative departments of county, township and village and villagers questionnaire, the overall opinion of Leishan County on integrated poverty alleviation directivity is in form 4-4.

Form 4-4 Survey Summary of integrated poverty alleviation orientation in Leishan County

County and Town government	Huangli Village Committee	Zhongzhai Village Committee	Huangli villager	Zhongzhai villager
(1) Biogas, improve toilet and pen (2) Ecological agriculture demonstration (3) Harden and improve road surface of two villages (4) Road to access Zhongzhai village and small road construction of Huangli (5) Drinking water for people and fire fighting project (6) Convenient bridge for Zhongzhai Village (7) Anti-infiltrate improvement of Farmland water conservancy ditch (8) Broadcast, cable TV construction of Zhongzhai Village (9) Training of participative management method, notion and practical technology for community development	(1) Drinking water for people and fire fighting (2) Biogas (3) Poverty alleviation of planting and raising project (4) Dyke (5) Village group pavement (6) Anti- flood dam (7) Clinic complementary: (1) Convenient bridge (2) Run pasture (3) Improve low and medium yield farmland	(1) Build road to access village (2) Fire fighting (3) Harden village road (4) Planting, raising and technical information (5) Access remote village road (6) Farmland water conservancy (7) Village primary school (8) Village medic (9) Working place of village committee	(1)cultivation (Include Grass planting cattle And pig raising, technical training) (5/7); (2) Plant (Include planting economic crop and technical training) (4/7); (3)biogas (2/7); (4)water drinking (2/7); (5)pavement (1/7); (6)water conservancy (1/7); (7)infrastructure[road/bridge] (1/7); (8)run tea processing factory (1/7).	(1)raise (5/11); (2)road (5/11); (3)plant (4/11); (4) Technical Management Training (4/11); (5)poverty alleviation project development (4/11); (6)water(drinking water or water conservancy) (1/11); (7)biogas (1/11); (8)Medical sanitation (1/11); (9) Architecture [Infrastructure] and machinery (1/11)

## **1. Analyze demands of various levels for poverty alleviation project according to project priority ordering**

### **1) Projects of highest fitness ( five levels/ aspects are all mentioned):**

① Ecological agriculture/plant/raise: Planting and rising is traditional agricultural project, which is the main economic income of farmers. Farmers of both villages regard planting and raising industry as the primary project.

② Road: Road is ranked first and second by Zhongzhai Village Committee and villagers, so we can see that Zhongzhai Village attach great importance to road, they live on the mountainside, it's not convenient for them to live and go out, and the producing and living materials have to be carried on shoulder or back. The cadres of county and town separate pavement for two villages and Zhongzhai village road access to two projects and list them as the third and fourth, fitting with villagers' wishes.

③ Water conservancy: Huangli village committee pays more attention on water conservancy than on other projects. The county government put combined drinking water for humans and fire fighting, Zhongzhai convenient bridge ahead of water conservancy project. Huangli villagers put life related projects such as biogas (third place), drinking water for humans (fourth place) and pavement (fifth place) ahead of water conservancy. Zhongzhai villagers put technical training (fourth place), poverty alleviation project (fifth place) and projects related with agricultural revenue increasing and agricultural development capital ahead of water conservancy.

### **2) Projects with comparatively high fitness (four aspects are mentioned):**

① Biogas: Ranking No.1 in county, No.3 and No.7 in Huangli, and No.7 in Zhongzhai farmers. The county government attaches greatest importance to biogas, in order to replace cutting down firewood to provide living fuel, protect ecology, preserve water resources and foster tourism resources. This is consistent with the recognition degree of Huangli village. Zhongzhai village does not mention biogas, and it's also consistent with villagers' placing biogas rearward.

② human drinking water: Ranking No.5 in county, No1 and No.4 in Huangli, not mentioned by Zhongzhai, No.4 in farmers of Huangli, and No.6 in farmers of Zhongzhai. The most concerned project in Huangli village is human drinking water.

③ Training: Ranking No.9 in county, not mentioned in Huangli, ranking No.2 and No.4 in Zhongzhai, the farmers of Huangli are not listed alone, but being blended in raise (the first one), plant (the second one), ranking No.4 in zhongzhai farmers. Zhongzhai village and its villagers pay special attention to training. Training is software; to investigate the level of governmental surface will pay more attention to facilities and hardware.

### **3) Projects of fitness exceeding half (three aspects are mentioned):**

① clinic/gynecological health care/village doctor: Not mentioned by county, but mentioned by three levels of Huangli, Zhongzhai, and farmers of Zhongzhai, while the sanitary project is placed rearward.

② fire fighting facilities: Ranking No.5 with human drinking water in county, No.1 with human drinking water in Huangli, No.2 in Zhongzhai, not mentioned by farmers of Huangli and Zhongzhai.

③ bridge: County government lists Zhongzhai convenient bridge into agenda, while Zhongzhai and its villagers don't have such request. Huangli and its villagers are eager to build convenient bridge, and they show investigation group around to reconnaissance the field.

### **4) Project with a low fitness (two aspects are mentioned):**

① Infrastructure/architecture: The concept of infrastructure facility is too vague to list project.

② processing/machinery: Villagers of Huangli Village refer to Tea Processing Factory; it can be

launched if condition qualified.

## **2. Directive opinion of integrated poverty alleviation**

Upon the above analysis, we conclude the directive opinion of integrated poverty alleviation directivity of the two villages of Leishan county:

1) Biogas, improve toilet and livestock pen, develop cultivation industry(pig- raising),playing a distinct role in promoting the appearance of villages, the cleanness of household's environmental sanitation and ecological protection, and also actively promote biogas new energy project and the construction of ecological park county.

2) Ecological agriculture demonstration. Conduct scientific pig-raising demonstration project for 250 households of farmers who build biogas-generating pit, construct 3 hectares demonstration base of high yield good-quality tea garden.

3) Harden and improve the village group road surface. To provide safe and convenient traffic condition for 480 families, 2079 people of the two villages. Meanwhile, establish good foundation for tourism by improving environmental sanitation of fenced village.

4) Construct Zhongzhai village access road and road to primary school of Huangli village. The beneficiaries are 677 people of 132 households, and settle the problem of 710 pupils who can't be guaranteed safety on the way to school. Meanwhile, it can also accelerate commodity circulation, promote economic trade and technological, cultural and knowledge communication of villages.

5) Construct human drinking water and fire fighting project, which can settle the problem of drinking water shortage, safety and sanitation for 2079 people of 480 households, at the same time, effectively prevent fire.

6) Zhongzhai convenient bridge. After being constructed, it can settle the difficulty for villagers to cross channel for living and producing, the villagers are provided with a convenient way, so the laboring productivity can be increased.

7) Anti-infiltrate improvement of Farmland water conservancy ditch, which can effectively settle the problem of more than 30 hectares farmland of two villages, which depends on the rain to irrigate for a long time, ensuring the increasing of production and efficiency of grain.

8) Culture broadcast, cable TV construction of Zhongzhai Village. The beneficiaries are 677 people of 137 households, letting villagers learn about national policies and guidelines, domestic and international information, enrich and improve cultural lives and spiritual appearances of villagers.

9) Training of participative management method, notion and practical technology for community development

### **4.2.2 Feasibility of integrated poverty alleviation project**

There are 26,100 people, 5,613 households of 31 villages in Leishan County that live in hinterland of Leigong Mountain natural protective zone. Due to the limits of resources exploitation and utilization, and the high-mountain-cold-water district location, the yield level of grain production is low, family economic income is single and unsteady, with high poverty-return ratio and high difficulty of poverty alleviation development. The chose two villages border upon each other, the poverty alleviation impact can generate overlapping-effect, not only improve local producing and living conditions, attract tourists to increase villagers' income, help villagers shake off poverty as soon as possible, and set sample for villages of Leigong Mountain area and other mountain areas to conduct poverty -relief development based on local reality; but also in virtue of tourism advantage, can it better propagandize experience and achievements of

JICA project.

1) Both villages, Huangli and Zhongzhai are second-rank representative poverty villages in the county, they are 17 kilometers away from county and both abut on each other, with relatively convenient traffic and villagers live not far away from each other, the implementation and management costs of project can be lowered properly.

2) The local governments attach importance to it, with the cooperation of several departments; The villagers earnestly wish to participate, with high participation degree. Township and village cadres possess some organizing ability in favor of project implementation.

3) Two villages have potential of location advantage and poverty alleviation development. Especially the abundant tourism resources with the location advantage of attracting tourists (located in hinterland of Leigong Mountain, picturesque scenery, with rich cultural characteristic of Miao Minority); 500 hectares barren hill and grassland have not been used. Integrated poverty alleviation of two villages has prosperous demonstration foreground.

The above three points state that this poverty alleviation project has good safeguards of policy base, organizing prevalence and location advantage. Combined with the poverty alleviation condition and advantage of various aspects mentioned in the analysis of project direction, illuminating that it's suitable to choose Leishan County as the project county, Huangli Village and Zhongzhai Village as the project points, the conceiving preposition and design, arrangement of relative contents for directivity of integrated poverty alleviation development project are reasonable and feasible.

## **4.3 Hui County of Gansu Province**

### **4.3.1 Orientation of poverty alleviation project**

According to the talk with relative departments of province, county, township and village, and questionnaire of 10 households of Heping Village and 17 households of Huguang Village, according to order, the poverty alleviation direction of Hui County in turn is improving traffic condition, energy construction, good-quality pasture and warm shed livestock raising (mainly are cattle and pig) and technological training, building biogas generating pit, developing economic forests (mainly is walnut tree) and technological training, clinic establishment and technical training, school constructing.

#### **4.3.1.1 Improve traffic condition**

##### **1) Heping Village of Chenguan Town**

The Heping Village Committee is 10 kilometers away from Hui County; the distance between each of nine natural villages of Heping administrative village is 15 kilometers. The road access construction project of Chinese government in each village is the road accessed to village committee, it doesn't mean the road can access every natural villages. The road from Qiangshan natural village-the farthest village of Heping Village away from county- to village committee is mud road, which can be pass through when no rain, no snow. Once it rains or snows, the vehicles cannot drive on, also it's hard to walk on foot. We surveyed there on Feb. 27<sup>th</sup>, the first day after snowing, the road to natural villages of Heping Village can hardly be stepped on. See the following picture.



**Graphic 4-3 the inside-village road of Heping Village after snowing**

Poor traffic not only affects daily life of villagers, what more important is that it affects sales of agricultural products. Because of bad road condition, seldom have people went they're to purchase, and because of not being sold in time, many agricultural products often decomposed at home. To Heping Village, improving traffic condition mainly is to harden inside-village road properly, so as to let villagers go out on rainy and snowy days, especially for transporting agricultural products and agricultural production materials.

## **2) Huguang Village of Mayan Township**

To Huguang Village, improving traffic condition mainly is to build hanging bridge connecting Mayan River and Sucheng River. Without bridge, the villagers can neither across the river to the opposite farmland, nor go to the market on the opposite bank. Without bridge, students cannot go to school very well. When asked about whether there are any dropouts, some villagers drolly say that sometimes there are, sometimes there aren't, because of river rising, the students have to suspend from school for 5 to 7 weeks every year. The villager Bai Yu'e express sorrow that every year when the river is rising, she have to see hopelessly the mature pears decomposed in the orchard on the opposite bank of river. Among 17 households of questionnaire, 10 of them answer the future direction of poverty alleviation project, 7 think the primary project is bridge and road.

### **4.3.1.2 Energy construction and ecological environment protection**

Energy construction mainly includes "three improvement" project of improving cook stove, kang, and toilet, and introduce sun cookstove. Nowadays, the main energy of heating and cooking for villagers of Hui County is firewood, but burning firewood will seriously destroy the ecological environment of Hui County that lies on the upper reaches of Changjiang River." Three improvement" can save energy. The sunlight of Hui County is plenty, so introducing sun cookstove can take full advantage of solar energy, consequently replace abundant firewood, so as to meet the energy needs of villagers and protect environment.

To Huguang Village, it also includes the consolidation of riverbank. The riverbank of Huguang Village has not been repaired for many years. On one hand, every river rising season, the large areas of farmland and many houses are threatened by it; on the other hand, if the riverbank is consolidated, about 5.5 hectares of farmland can be cultured continuously, i.e., expand plow land area.

### **4.3.1.3 Heated shed livestock raising (cattle and pig) and training**

There are lots of hill fields in Hui County, and a great many grassplot resources that can develop good-quality pasture. The plow land and grain are comparatively more. If the good-quality forage grass can be planted by using pasture resources, and develop stock raising industry making use of warm shed, this will take advantage of local resources, as well as increase farmers' revenue.

From the investigation results of 10 households of Heping Village, 9 think the main plan of getting rid

of poverty is to develop planting and raising industry and seek for technological training. While 8 out of 17 households questionnaire in Huguang Village think their main plan of getting rid of poverty is to develop planting and raising industry and seek for technological training.

#### **4.3.1.4 Construct biogas generating pit**

Constructing biogas generating pit can not only make full use of flotsam of cultivating industry, but also save energy, which is good for ecological environment, and improve sanitation environment of community and families, it's a good thing with many advantages.

#### **4.3.1.5 Develop cash-making forest (mainly is walnut tree) and training**

Planting walnut tree has a very long history in Hui County, also with natural condition advantage. At present, the walnut industry is of relatively large scale in many villages of Hui County, and has steady reputation and market. To expand development of walnut and tea can protect ecological environment and increase revenue of farmers.

#### **4.3.1.6 Clinic construction and villagers' health care training**

27 households farmers of the two villages surveyed think that the main reason for family members who cannot see a doctor in time is the long-distance road and economic difficulty. Although there are personal clinic, the condition of them is humble and not receiving good medical training. To construct clinic is to improve the condition of clinic, train medic, and make inoculation and epidemic prevention and some small illnesses can be cured in village.

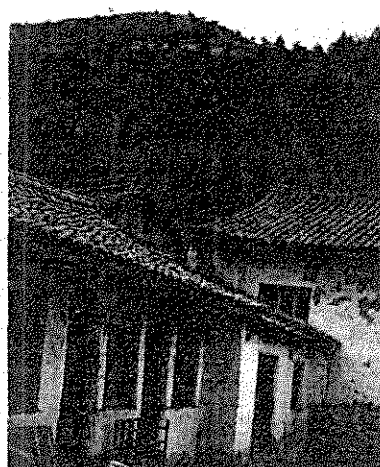
The health care sense of villagers is relatively low; they think the small illness can be cured by itself. Some women are more indifferent in gynecological health care; the health care means are backward. It's necessary to enhance health care training.

#### **4.3.1.7 School construction**

The pictures below show a corner of Heping Village and Huguang Village primary schools



**Picture 4-4 A corner of Heping Village primary school**



**Picture 4-5 A corner of Huguang village primary school**

Local people consider the schools of both villages, disrepair for years, as endangered house. Especially on rainy days, parents are worried about children's safety. As this kinds of school buildings are so many in Hui County that the forces of government is limited, they cannot finish repair and improvement of all schools in short term.

Among investigation results of farmers, 7 of 17 households farmers in Huguang Village think schools need governmental or other aid to improve.

### **4.3.2 Feasibility of integrated poverty alleviation project**

The poverty alleviation projects affirmed preliminarily by the two chosen villages are respectively: improve traffic condition, energy construction, good-quality pasture and warm shed livestock raising and technological training, biogas generating pit construction, develop economic forest and technological training, clinic construction and training, school construction.

1) improve traffic condition: Major projects are hardening inside-village road and constructing hanging bridge. As they are badly needed by villagers, the villagers are willing to offer labor, and make the best use of local materials. Thus, not needing much outside capital aid, the traffic condition meeting the demand of villagers can be achieved to meet daily lives and agricultural product sales needs of villagers.

2) Energy construction: Because it's harder and harder to cut firewood, furthermore, climbing mountain and cutting firewood is restricted by related policies and regulations of government, the villagers strongly wish to conduct energy construction. Villagers wish to offer labor, so it doesn't need large foreign aid capital.

3) Good quality pasture and warm shed livestock raising: The villagers not only strongly wish to develop livestock industry, both villages have hill fields resources to develop good quality pasture, if excellent breed and technical training can be provided by this project, to develop good quality pasture and warm shed livestock raising is feasible. Villagers welcome the cultivating loan project of World Bank in the two villages, but they reflect that the power of loan is too small to meet their demand of developing raising industry. Now, one qualified farmer can be provided with a loan of 2,500 Yuan (which is 4,500 Yuan before), the villager calculates that buying one ox with 2,500 will have some surplus, but not enough for two oxen. While villagers can make profits by raising more than two oxen, one ox will not have payoff. But the project loan is not enough, and it's difficult for villagers themselves to collect money. To develop good quality pasture and heated shed livestock rising in the two villages possess natural condition advantage and feasibility, also with villagers' strong subjective demand and feasibility.

4) Construct biogas generating pit: Nowadays, sealing mountain pass and planting trees, returning the grain plots to forestry and grass, make numerous farmers with firewood as main energy feel energy shortage, they are urgent to develop biogas generating pit. If developing raising industry, the construction of biogas generating pit is necessary and feasible. Now, World Bank project financed cattle-raising project of many farmers, this increases the necessity and feasibility of developing biogas-generating pit.

5) Develop economic forest and technological training: Hui County possesses natural resources advantage of planting walnut; it has formed walnut market already. So developing walnut industry possesses natural conditions, technical and market feasibility.

6) Clinic construction and training: Villagers have demands and are willing to offer labor, plus suitable capital aid for project to improve medical condition and technical training of village, to meet the demand of inoculation, epidemic prevention and common disease curing, it's feasible in economy, market, technique and capital.

7) School construction: Villagers have demands and are willing to offer labor, plus suitable capital aid for project to let construction of village primary school possess feasibility of capital and labor force.

## 4.4 Zhangjiachuan Hui Autonomous County

### 4.4.1 Orientation of Integrated poverty alleviation project

The survey group holds forum with leaders of county and township and the principals of related departments, and sent out questionnaires to farmer households and the cadres of the two villages. The survey result is seen in table 4-5

**Table 4-5 The Survey Summary Sheet of integrated poverty alleviation orientation in Zhangjiachuan County**

The commission of Zhangba village	The commission of Dadi village	Farmer household (19)	
		Direction Opinion	Account ratio (%)
(1) Install solar kitchen stove, construct half-enclosed winter warm shelter and pen;	(1) develop cultivating industry;	(1) develop breeding industry(cattle, sheep);	67
(2) Biogas	(2) Purchase twisting machine, grass cutter, film paving machine and other mechanic facilities, establish construction materials enterprise;	(2) develop education and technology training;	
(3)construct village clinic;	(3) Construct agricultural machinery roads through village and group;	(3) construct road, drinking engineer and school house;	37
(4) plant alfalfa 100 hectares as fodder;	(4) enlarge primary school;	(4) develop agriculture such as grass planting;	27
(5) harden the agricultural machinery road from Incan Village to Zhangba Village;	(5) establish new clinic and cultural station;	(5) attract investment .	18
(6) difficulties in the drinking water of people and livestock;	(6) Improve lavatory, stove, water and biogas generating pit;		9
(7) agricultural technology training;	(7) afforest barren hills and hillsides;		9
(8)construct the cultural center of the village.	(8) technological training.		

From the result of above survey, the directivity of the two poverty alleviation villages in Zhangjiachuan County is:

1) Develop the cultivating industry mainly of cattle and sheep. It relates to the living customs of the local Hui population. They wish to improve the pasture breed, plant advanced grass, reform the pen, introduce the livestock machine and develop stock raising.

2) Construct the road through the village, improve the condition of transportation. Zhangba Village hopes to harden the agricultural machinery road from Yinshan Village to Zhangba Village, which is 3 kilometers long, 6 meters wide, so as to solve the problem of transporting difficultly. Dadi Village hopes to construct the agricultural machinery road through the village and group

3) Develop education and training. The two village commissions both refer to enhancing the technological training. Dadi Village propose that there are 222 children of school age, 213 students on campus, the primary school is uncompleted and still need to enlarge to full-time system school.



4) Construct clinic and train young female doctor to solve the problem of villagers' difficulty to see the doctor. The Hui woman doesn't allow man to touch her body, except her husband. The two-village put forward strengthening the popularization and education of planned immunization, women and children health care, and reproductive health. Increase the opportunity and standard of woman to participate in the social production and life.

5) Reform the lavatory, stove, water and establish the biogas generating pit. Take full use of solar energy to build solar stove, solar schoolhouse and warn shelter.

6) Solve the drinking water problem of people and livestock. Construct the water diversion project and water cellar. Basically solve the difficulties of drinking water for villager and livestock. Zhangba Village proposes to establish one pumping station engineer, construct 5 culvert caves and drainage channel 3,000 meters long.

7) Construct village cultural center. The two villages both refer to this project showing the local people attach great importance to the cultural life. Meanwhile, alleviating the problem of irrigating the corps to increase the per unit area output.

In addition, some propose to continue the work of afforesting the hill and hillside, administer the water and soil resources loss and develop transportation.

#### **4.4.2 the feasibility of integrated poverty alleviation**

1) The governments at province, city and township all give strong support to the project. The local government and related departments have the experience of developing poverty alleviation work; the villager have the strong will to shake off poverty and high initiative of participation; the work basic is fairly well.

2) The county is the key poverty alleviation county; the two villages are both key poverty alleviation villages. The local coordinate poverty alleviation fund is ensured.

3) The local sunshine time of a year is over 2000 hours, as for the western poverty region which is dry and has abundant solar resource and less rain; it has demonstration effect of using bio-energy and solar energy to improve the production and living environment. The technology of solar stove, warming and lighting is mature and feasible. And it is also suitable in cost and the scale of construction.

4) Zhangjiachuan County has the situation of developing livestock industry. And the local also has the experience of planting alfalfa and other forage grass. Planting forage grass as the fodder to breed cow and sheep could save grain and the increase 200-300 Yuan of the market value comparing with the per unit area output of planting grain. The villagers and village cadres have high initiative of planting forage grass. If the poverty alleviation could gain the instruction and support, it could have better development potential.

## 4.5 The typical ness of integrated poverty alleviation direction in these four counties

Table 4-6 the comparison table of the typical ness of the comprehensive anti-poverty direction in these four Counties County

	Daozhen County	Leishan County	Hui County	Zhangjiachuan County
Typical ness	1) Ethnic minority autonomous county; 2) key poverty county in the country; 3) Typical mountainous region in Unguis plateau	1) Ethnic minority gathered place; 2) Key poverty county in the country; 3) Key tourism development region	1) Key environment protection region 2) Non-key poverty county 3) Qinling mountainous region	1) Ethnic minority autonomous county; 2) key poverty county in the country; 3) Typical Huangtu plateau region
	Poor hygiene condition of woman, high illness rate; large expenditure of education; mineral resource.	Famous hometown of Miao; great potential of tourism development, large area of uncultivated land	Non-key poverty county; lack of capital support; conflict between poverty and ecology is prominent	Hui gathered region; education backwards and low people quality; low standard of woman social participation
The different character of comprehensive anti-poverty direction	Family health care and woman health; education support; mineral industry; special tradition Chinese medicine; biogas, pig raising and eco-breeding	Develop the Miao tourism, improve the road of village; health care; fire control; develop barren hills and grass land; tea producing and processing	Small river basin administration; water ecology protection; plant fruit tree like walnut; biogas; transportation; immigrants development	Planting grass and raising cow, water facility, comprehensive utilization of solar energy; improve the opportunity of woman social participation; construct village culture center

### 4.5.1 Daozhen Autonomous County of Gelao & Miao Nationalities in Guizhou Province

DaoZhenGelao Miao autonomous county is one of 47 autonomous counties in Guizhou province, gaining the name of "the homeland of GeLao", listed in the key national poverty alleviation counties. The ethnic minorities account for about 72%, quite a large proportion in the poverty population, among which: 38% Gelao, 27.8% Miao, 6.2% Tujia. In the poverty population, the woman problem is especially prominent. Due to the low income of the poverty population, poor quality and environment of life and bad hygiene habit, 80% women have gynecological and other diseases. Many women have no money to check or cure, thus results in bereaving of working ability, and diseases lead to poverty these situation are outstanding. Some were not treated and cued in time, leading disease changes to serious illness and death without money to cure. If the male labors go out to work, the staying female has to undergo heavy physical work; some women are decrepit before old age, bereaved of the work ability too early.

The main character of the Daozhen Autonomous County of Gelao & Miao nationalities integrated poverty alleviation direction is setting family health care and woman health and education support as core. Meanwhile, it combines with the local natural resources to develop planting industry with the character of traditional Chinese medicine and tap the mineral resources. Considering the limited cultivated land in the local, not to cause the field struggle between fodder and grain, develops the biogas and pig raising appropriately.

#### **4.5.2 Leishan County in Guizhou Province**

Leishan County seats in the Leigong mountainous region, it is the key poverty alleviation region of Guizhou province. Leishan County is the ethnic minority county with Miao population gathered, it also the fairly big Miao hometown at the level of county, containing abundant folklore and culture. The whole county surrounds the main crest of Leigong Hill with the character of grotesque peak; canyon, primitive vast forest, mountain and fountain create the abundant place of historic figures and cultural heritages. It combines visiting; enjoying the sight, vacation, having leisure with the activity of technology and culture. In October 2004, China TV Artist Association, Tour TV Commission, National TV Tour Program Association and the "Tour of Golden Line" column of CCTV appraised it as one of "The most interesting places in China 2004". The advantage of the tourism region is prominent, reserving the developing potential of ecology tourism and folklore tourism resources.

The main character of Leishan County Integrated poverty alleviation direction is the protection and reconstruction of the village living environment, representing the special tourism developing poverty alleviation. No matter the water conservancy, fire fighting, road reconstruction and the construction of hygiene environment are all around the center of Miao hometown tourism industry. Meanwhile, develop grass planting and livestock raising by making use of the local grass hillside resources. The local tea production could develop the tea garden and tea processing.

#### **4.5.3 Hui County in Gansu Province**

Hui County is defined as the key county of ecology protection and administration on the upper reaches of Changjiang by Chinese government. The poverty alleviation in Hui County should take into consideration of both the poverty alleviation of the impoverish population and the protection and administration of ecology environment. It has great potential in taking practical advantage of the local mountainous resources. The poverty alleviation project that implemented in the county is a typical example for the protection of the protection and administration of Changjiang and Yellow River's upper reaches (the peak of Huguang Village, Mayan Township in this county is the watershed of Changjiang and Huang River) .

Hui County is not a national key poverty alleviation county, the government capital investment in fairly less. The fiscal revenue of the local government is limited; its small investment could hardly meet the dual goals of shaking off poverty and protecting the ecology environment. The project implementation is an example for national non-key poverty alleviation counties.

The main character of Hui County Integrated poverty alleviation direction is surrounding the ecology poverty alleviation environment protection; combine with the small river basin administration. Use the faecal and urine of the livestock to develop biogas and provide clean resources, instead of cutting firewood on the hills. Improve the transportation. Develop plant and breeding industry according to the practical situation. Promote the economy and trade logistics. The region belongs to water system protection region; it

is not fit for industry development.

#### **4.5.4 Zhangjiachuan Hui Autonomous County in Gansu Province**

Zhangjiachuan County is the focal point poverty county and key ecology protection region of the country. It has cruel nature condition, poor economic basis and backward basic instruction. In the 71 counties of the whole county, its economic strength ranks 63 that could hardly combine the poverty alleviation with the protection and administration of the ecology environment. The local Huis have the tradition of going out for work.

Zhangjiachuan County is the Hui autonomous county. It has backwards education, low quality of people, low degree of woman participating in social activity and a certain degree of representativeness in the western Hui region in china. It also has abundant solar resources and the traditional advantage to develop livestock husbandry.

The character of Zhangjiachuan County Integrated poverty alleviation direction is the combination of the Hui's customs and habit with religion character, carrying out national developing poverty alleviation of cattle and sheep rising and the training of labor skills. It gives the opportunity for Hui's women to participate in social activity, *establishing village cultural center.*