

ADB RETA 5771
Poverty Reduction & Environmental Management in Remote Greater
Mekong Subregion Watersheds Project (Phase I)

**REPORT ON THE VILLAGE SURVEY OF SHUANGJIANG LAHU,
 WA, BULANG AND DAI NATIONALITIES AUTONOMOUS COUNTY**

Special Report

By

Mr Fan Jian

I. Background Information

Belong to Lincang Prefecture, Shuangjiang Lahu, Wa, Bulang and Dai Nationalities Autonomous County is located in the southeast of Yunnan Province. There are 750 kilometers from Shanghaing Autonomous County to Kunming City, the capital of Yunnan Province. Shuangjiang Autonomous County covers 2,165.03 square kilometers, and its geographic location at $99^{\circ}35'25''$ to $100^{\circ}09'33''$ of eastern longitude, $23^{\circ}11'58''$ to $23^{\circ}48'50''$ of northern latitude.. Shuangjiang Autonomous County is waisted by the Tropic of Cancer. The Lancangjiang River is the east border river between Shuangjiang and Jinggu Dai and Yi Nationalities Autonomous County, the Xiaoheijiang River (little black river) is the south and southwest border river with Lancang Lahu Nationality Autonomous County and Cangyuan Wa Nationality Autonomous County. 'Shuangjiang' means two rivers in Chinese saying, stands for two rivers (Lancangjiang river and Xiaoheijiang River) jointing place.

This is a mountainous county with the mountain area covering 96 % of whole county's area. There are 106 big and small rivers within the territory of Shuangjiang Autonomous County, all of these rivers belong to the water system of Lancangjiang River (Mekong River). The Lancangjiang River flows 41 kilometers aside Shuangjiang with 542.2 square kilometers of runoff area. The Nanmenghe River, a branch of Xiaoheijiang River is the largest river of Shuangjiang Autonomous County; it flows 61 kilometers through the county with 1,311.46 square kilometers of runoff area. There are 5 waterpower stations (Gagao, Overseas-Chinese Farm, Dahewan, Shuangjiang Farm, Xiaoheijiang) built at the main stream of Nanmenghe River with 3,540 kilowatts of installed capacity in total.

In 1997, Shuangjiang Autonomous County has a population of 158,928(male: 81,763, female: 77,265), the non-farm rate of the population is 7.52% only. It has the ethno-population of 70,637 and 44.45% in whole population. Of the county's ethnic residents, there is 46.56% of Lahu, 17.88% of Wa, 17.47% of Bulang, 12.87% of Dai and 5.22% of other minority nationalities, such as Yi, Bai, etc. The Population density of Shuangjiang Autonomous County is 73.4 persons per square kilometer. Its natural population growth rate is 10.47 per thousand in 1997.

Shuangjiang Lahu, Wa, Bulang and Dai Nationalities Autonomous County is one of 73 national poverty counties in Yunnan Province. Its 5 (Bangbing, Dawen, Heliu, Mangnuo, Mengku) of 7 townships in the whole county are listed in 506 most poverty townships in Yunnan. In 1997, the rural people's net income of whole county was 478 *yuan* (about US \$59) per person and each rural people owned 309 kilograms of food a year. There were 47 administrative villages which rural people's net income under 500 *yuan* in 1997, the rural people's net income of 22 administrative villages (Baha, Bangbing, Banghong, Bangjie, Bangtuo, Bangwai, Daliangzi, Damangbang, Dananai, Fuwang, Guangang, Huangtian, Huna, Kangtai, Mangmao, Mangnuo,

Nanlang, Nanmahe, Nanxie, Qingping, Taiping, Xiaobazi, included 8,367 families, 41,369 people) was 201-300; of 17 administrative villages (Baka, Banggai, Bangmai, Bindao, Dawen, Chaqing, Dahusai, Daji, Gongnong, Liangzi, Najiao, Nankang, Xiabaha, Xixie, Yakou, Yijia, included 625 families, 3,018 people) was 301-400; of 8 administrative villages (Bangdu, Banuo, Chenjia, Hongtuzhai, Nanzhi, Nasai, Pingzhang, Qianxin, included 1,835 families, 13,433 people) was 401-500. Only 26 administrative villages (included 12,324 families, 57,228 people) let their villagers had year-income over 500 *yuan*.

This is a real poverty county with obvious mountainous, multi-ethnic and remote characteristics

Shuangjiang Autonomous County has plentiful natural resources such as land, forest, waterpower and tropical crops. In 1997, Shuangjiang has 3,240,000 *Chinese mu* in general area, 830,000 *Chinese mu* adapting tropical crops, 262,073 *Chinese mu* cultivated land including 93,359 *Chinese mu* water-rice field and 168714 *Chinese mu* dry land. The county has 981,258 *Chinese mu* state-owned forest, among the forest, 579,591 *Chinese mu* of state-run tree farm, and 401,667 *Chinese mu* of state-owned scattered woody sites. There are 5,045,600 cubic meters of living wood storage capacity in Shuangjiang. The coverage rate of forest is 38.42%. The general quantity of water resource is 2.035 billion cubic meters. The theoretical storage capacity of water power is 382,000 kilowatts, among the water power, 79,900 KW of Xiaoheijiang River's main stream, 68,200 KW of Nanmenghe River's main stream, 153,390 KW of Nanmenghe River's branches, 49,400 KW of Lancangjiang River's branches. Shuangjiang Autonomous County has 22 reservoirs bigger than small 2 type, 35.83 million cubic meters of the storage capacity of the reservoirs. The installed capacity of local power station is 4,584 KW, generating 37.7 million kWh energy a year.

II. Selection of Sample Villages

The surveying team chose four villages as the surveying targets. The four villages are:

1. Bujing, a village of Wa people, located in Shahe Township.
2. Gongnong, a village of Bulang people, located in Mengku Township.
3. Mangguocun, a village of immigrants after 1988, part of Han and part of Wa people, located in Bangbing Township.
4. Xiaobazi, a village co-resident of Lahu and Han people, located in Mangnuo Township.

Located in the west of Shuangjiang Autonomous County, Shahe Township is not one of 506 most poverty township of Yunnan Province, but it is one of the Lincang Prefecture's poverty township. Shahe has 5,389 of rural families, 24,930 of rural people, 5,251 of male labor and 4,841 of female labor. There are 53,909 *Chinese mu* of farmland in Shahe Township, among the farmland, 18,826 *Chinese mu* of water field, and 35,083 *Chinese mu* of dry land. Shahe Township's main crops are water rice, corn, sugarcane and tea, etc. In 1997, Shahe Township gained 12.162 million kilograms of total food production, 30.96 million *yuan* of total economical income and completed 60,355 *Chinese mu* of **Green Project**, including 13,000 *Chinese mu* of walnut, 7,644 *Chinese mu* of Huashan pine, 5,300 *Chinese mu* of fruit, 10,000 *Chinese mu* of tea, 24,000 *Chinese mu* of bamboo and 29,400 *Chinese mu* of sugarcane. Shahe Township has one of middle school, 14 of completed primary school, 33 of uncompleted primary school and there are 3,718 of pupils and students learning in these schools. There is one of township hospital in Shahe Township. 10 of administrative villages have satellite-TV-receiving station.

Bujing is located at west of Shuangjiang Autonomous County's capital town, Mengmeng Town, and the distance is about 30 kilometers, about a half of the way is uncovered, narrow just fitting a jeep, up and down suddenly, swirling along mountains, difficult to go to, in short saying. Bujing Village has 2,214 of villagers with 2,196(99.18%) of Wa people. 100% of area is mountainous.

Mengku Township is situated at the north of Shuangjiang Autonomous County, one of 506 most poverty townships in Yunnan Province, about 20 kilometers from the capital town. Mengku has 5,952 of rural families, 28,413 of rural people, 6,837 of male labor and 6,196 of female labor. There are 44,876 *Chinese mu* of farmland in Mengku Township, among the farmland, 18,014 *Chinese mu* of water field, and 26,862 *Chinese mu* of dry land. Mengku Township's main crops are water rice, corn and tea, etc. In 1997, the total food production of Mengku was 8.771 million kilograms and the total income of rural economy was 22.15 million *yuan*, including 3.797 million *yuan* from tea, 2.584 million *yuan* from sugarcane.

Gongnong is a village of Bulang people. There are 87 of families, 360 of people residing in Gongnong village. The village is 29 kilometers away from Shuangjiang Autonomous County's capital town, about 10 kilometers apart from Mengku Town with a narrow-and-bumpy way for tractor. Bulang ethnic group accounts for 97.78% of residents.

Bangbing Township is located in the south of Shuangjiang Autonomous County, about 60 kilometers from the capital town of Shuangjiang Autonomous County. Xiaoheijiang River is Bangbing Township's southern and western border with Lancang Lahu Nationality Autonomous County and Cangyuan Wa Nationality Autonomous County. Bangbing Township has 3,475 of rural families, 17,113 of rural people, 3,833 of male labor and 3,205 of female labor. The main ethno-groups of Bangbing Township are Bulang (37.24%) and Wa (15.18%) people. The amount of farmland in Bangbing Township is 41,356 *Chinese mu*, 32,178 *Chinese mu* of dry land and 9,178 *Chinese mu* of water field only. The main crops in Bangbing are rice, corn, tea, shellac, sugarcane and subtropical fruit. In 1997, each of the rural people living in Bangbing Township had 285 kilograms of food and 385 *yuan* of net income.

Manguocun Village is an informal village of immigrants and the local government has not recognized it. The village has only 7 of families, 3 from Chaqing Village, 4 from Nanxie Village; the two villages also belong to Bangbing Township. One of immigrating reasons was a big earthquake in the joint area of Lancang, Gengma and Shuangjiang Autonomous County at Nov. 6, 1988. The shock was of 7.2 magnitude and made about 210 million-*yuan* of direct loss to Shuangjiang Autonomous County. Manguocun Village is located near the meeting spot of Xiaoheijiang river and Nanmenghe River. When the 7 families came here was uncultivated-hilly land yet. Nowadays the mountainous land has been cultivated into coffee plantation and other food planting land.

Located in the east of Shuangjiang Autonomous County, Mangnuo Township is on the left side of Lancangjiang River. Mangnuo Township has 4,151 of rural families, 20,490 of rural people. The Han people accounts for 73.53% in Mangnuo Township's residents. The second ethno-group is Lahu people (5,271 in 1997). Mangnuo is 51 kilometers away from the capital town of Shuangjiang Autonomous County and the road also is uncovered, narrow, winding through mountains. In 1997, the rural people's per capita income was 425 *yuan*; each of them had 246 kilograms of food. It is one of 506 most poverty townships in Yunnan Province. The main crops in Mangnuo township are water rice, corn, tea, and forest products. There is a state-owned tree farm (Dalangba Tree Farm, 5368 hectare of forest region, one of Provincial forest park) in Mangnuo.

Han and Lahu people live together in Xiaobazi Village. The village is 6 kilometers apart of Mangnuo Township and about 45 kilometers from capital town of Shuangjiang Autonomous County. Han people came here at the end of 19 century, a few Lahu people no time run off then stayed and inhabiting with the Han, so the Lahu people in Xiaobazi being called as 'lou laohe', means slipping-through Lahu.

The surveying team chose four villages scattered at four directions of Shuangjiang Autonomous County. The four villages cover the mountainous people (Lahu, Wa, Bulang and Han) in Shuangjiang.

The surveying instruments used were **Village Profile**, **Problem Analysis Chart**, and **Questionnaire for Household Interview**, **Country Fact Sheet to Identify Women's Role in Agriculture and Food Production**, **Division of Labour by Task and Division of Labour by Sex** supplied by Dr. John V. Dennis and Dr. Leena Kirjavainen. The Team completed four Village Profiles and related Problem Analysis Chart, 20 Questionnaires for Household Interview and related Country Fact Sheet to Identify Women's role in Agriculture and Food Production, Division of Labour by Task and Division of Labour by Sex.

The Team got some other materials from interviewing with institutions like the Office of Reducing Poverty, the Women Union, the Office of Local Records, the Bureau of Hydraulic Engineering in Shuangjiang Autonomous County, etc. Some small meetings with officers working in townships were held and a lot of help for understanding the features of Shuangjiang Autonomous County was thus gained.

III. Rough and Elementary Opinions

A.

There has been a basic system of primary education till now in Shuangjiang Autonomous County, every administrative village has a completed primary school and nearly every natural village has an uncompleted primary school. The gross enrollment primary education of school-age children was 97.93% and the adult illiteracy rate was 2.8% in 1997. Every administrative village has a cultural room for local people using. 69 of

satellite-TV receiving station have been built in whole county, covering 81.8% of county's population.

The elementary health care has been carried out in rural area of Shuangjiang Autonomous County. 70 rural clinics have been established, covering 95.89% of administrative village. In 1997, The infant mortality was 45.69 per 1,000(54.5 per 1,000 in 1996) and the maternal mortality was zero (108.93 per 100,000 in 1996). There is one health worker in every administrative village at least; he or she can treat some simple and common diseases in local rural clinic. The health worker in rural clinic put most of epidemic prevention from upper health institution into effect. They are main forces of the elementary health care system in Chinese rural area.

In Shuangjiang Autonomous County, every administrative village has an agricultural technician and a veterinarian to provide appropriate service for local farmer. The local government and the department of professional management take the task of providing extending service for farmer, such as introducing good seeds, spreading new agricultural technique, holding special training course, etc. In 1997, they held 72 training courses of controlling plant diseases and insect pests for 4,009 people, 602 training courses on different technique of agriculture for 36,120 people, introduced 175,481 kilograms of good seeds and spread the good seeds planting area accounting for 35.9%.

Rural credit condition is a weak point in Shuangjiang Autonomous County. None of village has any rural credit institution or worker. The lowest level institution of rural credit is the Rural Credit Cooperative at township's government seating place. Common rural people hardly acquire some loan from the Rural Credit Cooperative of township. The People's Government of Yunnan Province worked on the reducing poverty through micro-credit method with 900 million *yuan* from 1998 to 2000, but Shuangjiang Autonomous County only shared about 2 million *yuan* in 1998. There were 2,062 of rural families acquired the governmental micro-credit, accounting for 6.94% of total rural families. One feature of poverty in Shuangjiang Autonomous County is that the rural people have not enough money for developing, so they can not improve their low level of food production.

B.

After 1980, Shuangjiang Autonomous County, as same as all around of China, has implemented the contract system of crop-yield responsibility, i.e. the contract of farmland using. Every household in rural area has several *Chinese mu* of farmland, including irrigated field, dry land and some woody-hilly land, which being controlled by farmer. The term of the contract of farmland using is extended for 30 years from 1998. Farmer or villager can plant any kind of crops as his or her wish and gain any profit from the land of responsibility.

According to our investigation, a rural family may has 3 to 8 *Chinese mu* of irrigated field and dry land, about 3 to 5 *Chinese mu* of 'ziliushan' and 30 to 40 *Chinese mu* of 'zerenshan'. 'Ziliushan' and 'zerenshan' are woody-hilly land, usually called 'liangshan' for short, ('liangshan', two kind of hilly land in Chinese saying, including responsible -- 'zerenshan' -- and personal-needing -- 'ziliushan' -- woody-hilly land). We saw some fallow land at Xiaobazi Village (about 1280 *Chinese mu*), Mangnuo Township, Gongnong Village (about 400 *Chinese mu*), Mengku Township and Bujing Village (about 200 *Chinese mu*), Shahe Township. Now the fallow land should be changed into forest again as the reason of environment protection. Many villagers usually catch fish in nearby little river while slack season in farming and an adult or teen-age boy may get 2 to 3 kilograms per day. Catching wild fish may not be a viable economic option in the mountainous region in Shuangjiang Autonomous County, but a kind of leisure behavior. The total yield of wild fish fishing was only 12 tons in the whole county in 1997.

The people inhabited in mountainous region can do some collecting work in the state-owned tree farm, for example, collecting dead limbs as firewood and some side products, such as mushroom, pine resin, etc., but they have no any right to lumber in there. The people inhabited in mountainous region of Shuangjiang Autonomous County usually lumber some tree for their own house building, but they hardly slash out a piece of forest into the bald. If a farmer's 'liangshan' (two kind of hilly land) does not have appropriate trees for house building, the farmer usually can gain some timber from other 'liangshan' belonged to his village-mate as exchange, so that the forest around village is maintaining for long term. This is a kind of local custom of people living in Shuangjiang Autonomous County.

For the reason of reserving environment and forest, the hilly land over 25° gradient should be reforesting under government requests. The government has contributed some fund supporting farmer to improve their land, such as terracing of the land on slopes, changing low-yield land into high-yield. The target of improving land measure is that every rural people possess 1.08 *Chinese mu* of high quality field in the whole county till 1999.

C.

In Shuangjiang Autonomous County, the percentage of forest cover was 66.7% in 1958 and now 38.4%. In 1973, the forest cover rate was 32.7%, the lowest in the history of Shuangjiang Autonomous County. The main causes of deforestation list below:

- i. Some erroneous policies during 'The Great Leap Forward' (the end of the 1950's) and during 'The Great Revolution of Culture' (the end of the 1960's to the initial period of the 1970's) – 'To take food as the key link';
- ii. Enlargement of population led to increasing land for food production – from 1958 to 1997, the population from 71.2 to 159 ten thousand people, the arable land from 239.9 to 262.1 ten thousand *Chinese mu*
- iii. Forest fire – from 1956 to 1990, 2,984 of forest fire occurred in Shuangjiang Autonomous County, the accumulated area destroyed was 179,330 hectare, about two times of forest area existing now

After the family responsibility system was implemented in the 1980's, the mountainous farmer had their own 'liangshan', they began to do afforestation as the profit of forest could be shared, so the vegetation in Shuangjiang Autonomous County has been increasing gradually.

Table of Forest Area

Unit: thousand hectare

	General area of forest	Among the forest area		Percentage of forest cover(%)
		Sparse-tree land	Shrub land	
Bangbing	10.1	0.9	6.7	30.0
Dawen	9.7	1.3	2.8	31.9
Heliu	7.2	0.5	1.5	40.7
Mangnuo	5.2	1.0	2.5	22.9
Mengku	21.1	1.2	4.1	46.6
Mengmeng	10.8	1.5	2.4	43.0
Shahe	18.9	0.6	4.3	45.8
Total	83	7	24.3	38.4

Source: **The Irrigation Annal of Shuangjiang Lahu, Wa, Bulang and Dai Nationalities Autonomous County**, Edited by the Irrigation & Electric Power Bureau of Shuangjiang Lahu, Wa, Bulang and Dai Autonomous County, 1993

The most of soil in Shuangjiang Autonomous County is sandy loam. If no protection of vegetation, the floating away of sandy loam is very easy. Up to the end of the 1980's, the area of soil erosion in Shuangjiang Autonomous County was 846.8 square kilometers, about one third of the total territory. The details fill in the under table:

The data of soil erosion area

Unit: square kilometer

	Bangbing	Dawen	Heliu	Mangnuo	Mengku	Mengmeng	Shahe	Total
Slight	119.3	86.2	46.8	66.8	55.6	18.7	26.2	414.6
Medium	83.1	86.8	51.8	75	71.2	12.5	51.8	432.2

Source: **The Forestry Annal of Shuangjiang Lahu, Wa, Bulang and Dai Nationalities Autonomous County**, The Press of Chengdu Sci-Tech University, 1993

The flow capacity in dry season was 9.44 cubic meter per second in 1961, 4.59 cubic meter per second in 1983. The flow capacity reduced was 4.85 cubic meter per second through 22 years. After 1979, the most dry

flow capacity was reduced 10% in average than before 1979 and the flow capacity per year reduced 3.6% (according to a study by Yunnan Design & Research Academy of Hydraulics and Hydropower in 1996). This phenomenon is hardly treated as the result of deforestation within Shuangjiang Autonomous County because the territory of Shuangjiang Autonomous County is too small for the changes of natural situation, such as air temperature, rainfall, etc.

Shuangjiang Autonomous County may be one of the least-damaged-by-human watersheds in the valley of Lancang River. In 1997, there are only 47 manufacturing enterprises upper-township level and 145.9 million *yuan* of gross output value in the whole county, but 221.3 million *yuan* of gross output value of agriculture. It was announced at the end of 1997 that Shuangjiang Papermaking Factory should be bankruptcy in next year. It sounds like a real good news to the protection of forest in Shuangjiang Autonomous County.

D.

The population of female accounts for 48.6% in Shuangjiang Autonomous County and about 50% of labor force. There is 54% of women among the illiterate people, over 77% of ethnic women illiterate. In 1997, all seven townships have established the basic level union of women and all 73 administrative villages have the women's representative assembly. There are 12 full-time women cadres in charge of women's fair.

According to the interview held with the county's Women Union and our own investigation, women's status is not even with men, especially in the mountainous and ethnic-group-living area. Women in Shuangjiang Autonomous County are not only sharing work on the basic needs of household, e.g. working for food and cash income, but also responsible on nearly the entire domestic chores, e.g. cooking, washing, cleaning and taking care of children or old people. They are still lack of the right to speak about the big things of family, such as which crop should be planted, how to consume and children's education, etc.

Some measures special to women should be adopted to promote the status of women in Shuangjiang Autonomous County, e.g. productive assistant through micro credit to the hostess of rural family, special technique training course to women, etc. The "Reducing Poverty Action Through Circulating Finance", organized by the Yunnan Provincial Union of Women, Lincang Prefectural Union of Women and Shuangjiang County's Women Union, may be appropriate to promoting status and reducing poverty of women. This is a micro-credit-like action to aid rural women planting some cash crops.

The action scheme is: a) selecting one model family and four families to be helped as an action group; b) training them planting technique three times during the term of crop growing; c) the model family should use her family property as pledge during the term of whole action. Now the Women Union and the People's Government of Shuangjiang Autonomous County could not provide enough finance to popularize the action.

E.

Proposals:

- i. The inconvenience of traffic is the most difficult problem in Shuangjiang Autonomous County. There do nearly not exist one kilometer of road asphalted. To support the construction of local highway may be the first thing for reducing poverty in Shuangjiang Autonomous County. No road, no progress. This is a truth also in Shuangjiang Watershed.
- ii. Forestry may be the best choice for development of Shuangjiang Autonomous County. The lack of the traditional manufacturing seems one of good factors for coordinated developing of the economy, society and environment. Shuangjiang Autonomous County should avoid many abuses of traditional industrialization as much as possible.
- iii. The geographic location of Shuangjiang Autonomous County is close to the famous 'Golden Triangle' region, so the local people's stable and comfortable life will be a very good thing for that few people had the incentive going out of home to make money. An investigation done by our institute does show up that some Chinese girls serving in the sexual industry of Thailand, Malaysia, etc. were from Lancang County, Cangyuan County, the neighbor counties of Shuangjiang Autonomous County. This is the sight of local community, and of the relations of neighbor nations also.

BUJING VILLAGE

Name of Village:

Bujing, Shahe Township, Shuangjiang Autonomous County

Date: Jan. 20, 1999

Prepared by: Fan Jian in discussion with: Sha Hongming, position: Deputy Chief of Bujing Village and with Sha laoda, position: villager, etc.

Native language(s) of informants: Wa language (Chinese while interviewing)

1. Village Location including distances from nearest paved road and from nearest market town.
30 kilometers away from the capital town of Shuangjiang Autonomous County, rough road, the nearest market is the capital town
2. Village Population: no. of families (with approximate ethnic breakdown), no of people including male/female, age groups breakdown if available
population: 2714, families: 479, above 99% of Wa people, male: 1158, female: 1056
3. Village History
too long, not very clear. 'Bujing' is the name (in Wa language) of officer managing several villages during 1715 – 1904 A.D.
4. Resource base (ask key informants to sketch a map)
 - total area of paddy land (rainfed, wet-season irrigated, dry-season irrigated)
irrigated: 2249 *Chinese mu* (at the south to west of village, along the Longpiapai river), rainfed: 180 *Chinese mu*,
dry rice: 450 *Chinese mu*
 - hilly land: 8640 *Chinese mu* (at the north to east of village, 3 or 4 kilometers)
 - total area of natural forest land (now and 30 years ago)
natural forest land: 77270 *Chinese mu*,
30 years ago: not clear in ownership
 - total area of plantation forest land, if any none

 - total area of slash and burn agriculture in a most recent year
about 200 *Chinese mu*
 - water supply, access to drinking and bathing water, to water for irrigation
drinking and bathing water: river water (Longpiapai River, 'longpiapai', Wa language, means water floating rapidly) purified simply and channelled into village,
water for irrigation: river water (Longpiapai River)
 - total livestock figures for village
draught animal: 1530 (include cattle and horse),
pig: 1678, sheep: 60
5. Resource Tenure and Management Incentives
 - Is forest state-owned, community owned, or household owned?
besides 77270 mu of forest collective owned, 69126 mu of forest state owned, none forest household owned
 - What incentives for rapid/pre-emptive extraction of forest resources exist?
planting sugarcane, enlargement of village
 - What incentives for sustainable management of forest resources exist?
there is state-owned forest nearby
 - Describe traditional tenure and management practices and how these may have broken down.
after 1982 ('liangshandaohu' policy implementing), forest extended gradually, a lot of deforestation while forest ownership not been identification
6. Availability of government/private sector services
 - health service
a clinic room, three health workers in village
 - nearest school, to what level, use of indigenous languages in primary school
a completed primary school in village, using 'putonghua'(standard Chinese pronunciation) in class
 - veterinary services
one veterinarian in village
 - agricultural extension
one agricultural technician, two assistants for sugarcane planting,
an agency of food purchasing in village
 - agricultural credit
none

-availability of electricity
normal

7. Livelihood Strategies (time may allow only brief coverage of these topics)
 - occupations (by gender, by socioeconomic group)
 - each natural village has one woman cadre in charge of local women's fair, but none at the level of administrative village
 - labor patterns for meeting basic needs (by gender, by socioeconomic group)
 - nearly equal
 - use and control of resources and benefits (by gender, by socioeconomic group)
 - mainly by man
 - income and expenditure patterns (by gender, by socioeconomic group)
 - decided by man
8. Development Priorities
 - key problems (by gender, by socioeconomic group)
 - adopting agricultural sci-tech measures as much as possible;
 - to promote the educated level
 - proposed development activities (by gender, by socioeconomic group)
 - extending the area of sugarcane plant;
 - collecting and processing rosin may be one of development activities
 - Best Bet Action Plans (by gender, by socioeconomic group)
 - credit without interest may be the best

Problem Analysis Chart of Bujing Village

Problem	Causes	Coping Strategies	Opportunities
Health & Sanitation	None striking out		
Animal health	None striking out		
Education	Some children do not want to reading	Not to think of	
Erosion	Not serious		
Water	Normal		
Drought	When dry year, few occurred		
Energy	Lack of firewood	Should use wood-saving cooking stove	
Unemploy-ment & low income			
Female headed households			
Markets & marketing			
Housing	Each family has own house		

GONGNONG VILLAGE

Name of Village:

Gongnong, Mengku Township, Shuangjiang Autonomous County

Date: Jan. 22, 1999

Prepared by: Fan Jian

in discussion with: Feng Zhengwen, position: Chief of Gongnong Village

and with Li Benguang, position: Deputy Chief of Gongnong Village, Li Zicheng, etc

Native language(s) of informants: Bulang language (Chinese while interviewing)

1. Village Location including distances from nearest paved road and from nearest market town.
29 kilometers away from the capital town of Shuangjiang Autonomous County, rough road, the nearest market is 9 kilometers away
2. Village Population: no. of families (with approximate ethnic breakdown), no of people including male/female, age groups breakdown if available
population: 360, families: 87, 352 people and 84 families of the Bulang
3. Village History
many years ago, moved here from Dapingzhang (another place in Shuangjiang Autonomous County), 'gongnong' is Dai language pronunciation
4. Resource base (ask key informants to sketch a map)
 - total area of paddy land (rainfed, wet-season irrigated, dry-season irrigated)
irrigated: 60 *Chinese mu* (at the northeast of village), hilly land: 500 *Chinese mu* (around the village, 1 or 2 kilometers)
 - total area of natural forest land (now and 30 years ago)
natural forest land: 1200 *Chinese mu*,
30 years ago: 2000 *Chinese mu*
 - total area of plantation forest land, if any
none
 - total area of slash and burn agriculture in a most recent year
about 400 *Chinese mu*
 - water supply, access to drinking and bathing water, to water for irrigation
drinking and bathing water: mountain spring (about 2 kilometers apart from the village) purified simply and channelled into village,
water for irrigation: river water (Gongnong River)
 - total livestock figures for village
draught animal: 35 (include cattle and horse),
pig: 250
5. Resource Tenure and Management Incentives
 - Is forest state-owned, community owned, or household owned?
forest collective owned, none forest household owned
 - What incentives for rapid/pre-emptive extraction of forest resources exist?
forest no rapid deforestation
 - What incentives for sustainable management of forest resources exist?
villagers exchange timber each other, so none woody land to be bald
 - Describe traditional tenure and management practices and how these may have broken down.
not very clear
6. Availability of government/private sector services
 - health service
a clinic room, two health workers in the village
 - nearest school, to what level, use of indigenous languages in primary school
a completed primary school in village, using 'putonghua'(standard Chinese pronunciation) in class
 - veterinary services
one veterinarian in village
 - agricultural extension
one agricultural technician
 - agricultural credit
none
 - availability of electricity
normal
7. Livelihood Strategies (time may allow only brief coverage of these topics)
 - occupations (by gender, by socioeconomic group)
the village has one woman cadre in charge of local women's fair, but none at the level of administrative village
 - labor patterns for meeting basic needs (by gender, by socioeconomic group)
nearly equal
 - use and control of resources and benefits (by gender, by socioeconomic group)
mainly by man
 - income and expenditure patterns (by gender, by socioeconomic group)

mainly decided by man

8. Development Priorities

-key problems (by gender, by socioeconomic group)

weak in the side of agricultural sci-tech measures;

want to develop livestock farming, but lack of finance

-proposed development activities (by gender, by socioeconomic group)

planting walnut and mandarin orange, local soil very suitable for mandarin orange planting

-Best Bet Action Plans (by gender, by socioeconomic group)

credit without interest may be the best

Problem Analysis Chart of Gongnong Village

Problem	Causes	Coping Strategies	Opportunities
Health & Sanitation	None striking out		
Animal health	None striking out	There is the planned activity of epidemic prevention each season. Veterinarian has the responsibility to villager's animal	
Education	Some families hardly support school fee of children reading for economical reason. Female children have no equal educated right as strong traditional feudal idea	Not to think of	
Erosion	Not serious		
Water	Normal		
Drought	When dry year, few occurred		
Energy	Lack of firewood	Should use wood-saving cooking stove	
Unemployment & low income			
Female headed households			
Markets & marketing			
Housing	Each family has own house		

MANGNUO VILLAGE

(It is a supplement for Mangguo Village not an authorized village)

Name of Village:

Mangnuo, Mangnuo Township, Shuangjiang Autonomous County

Date: Jan. 25, 1999

Prepared by: Fan Jian, Yang Wenhui in discussion with: Li Meide, position: Chief of Mangnuo Village and with Qiu Taiming, position: official clerk of Mangnuo Village, Dong Huafu, position: Deputy Chief of Gongnong Village

Native language(s) of informants: Chinese

1. Village Location including distances from nearest paved road and from nearest market town.
49 kilometers away from the capital town of Shuangjiang Autonomous County, rough road, a market in the village
2. Village Population: no. of families (with approximate ethnic breakdown), no of people including male/female, age groups breakdown if available
population: 2170, families: 451, the most of the Han Nationality
3. Village History
many years ago, moved here from inner region of China, a few people dwelled in here in that time and the Dai headman controlled this place, 'Mangnuo' is Dai language pronunciation, 'mang' stands for village and 'nuo' for pool
4. Resource base
 - total area of paddy land (rainfed, wet-season irrigated, dry-season irrigated)
irrigated: 1130 *Chinese mu* (near around village), hilly land: 1281 *Chinese mu*(including 750 of terrace, half around village from west to northeast, about 10 kilometers or so),
grassland: over 5000 *Chinese mu* (at the northeast of village, 20 kilometers away)
 - total area of natural forest land (now and 30 years ago)
natural forest land: over 20000 *Chinese mu*,
30 years ago: too many
 - total area of plantation forest land, if any
3000 *Chinese mu*
 - total area of slash and burn agriculture in a most recent year
1281 *Chinese mu* (scattered at the west and northwest of village, over 10 kilometers away)
 - water supply, access to drinking and bathing water, to water for irrigation
drinking and bathing water: mountain spring (about 2 or 3 kilometers apart from the village) purified simply and channelled into village,
water for irrigation: reservoirs (Dalangba and Huanghe) channelled into village
 - total livestock figures for village
draught animal: 444 (cattle),
pig: 2012, sheep: 220, poultry: 3355
5. Resource Tenure and Management Incentives
 - Is forest state-owned, community owned, or household owned?
forest collective owned, none forest household owned
 - What incentives for rapid/pre-emptive extraction of forest resources exist?
forest no rapid deforestation, some ten thousands *Chinese mu* of forest divided into the state-owned tree farm
 - What incentives for sustainable management of forest resources exist?
after 'liangshangdaohu'(1982 or 1983), villagers have incentive for tree raising, some rules villagers made themselves forbidding felling trees freely
 - Describe traditional tenure and management practices and how these may have broken down.
not very clear, some special village's cadre might effect the forest ownership of collective
6. Availability of government/private sector services
 - health service
a clinic room, one health workers in the village, one person in charge of family planning
 - nearest school, to what level, use of indigenous languages in primary school
a completed primary school in village, using 'putonghua'(standard Chinese pronunciation) in class
 - veterinary services
one veterinarian in village
 - agricultural extension
one agricultural technician, one accountant
 - agricultural credit
none
 - availability of electricity
normal
7. Livelihood Strategies (time may allow only brief coverage of these topics)
 - occupations (by gender, by socioeconomic group)
the village has one woman cadre in charge of local women's fair, two women of 7 clerks working at the office of administrative village
 - labor patterns for meeting basic needs (by gender, by socioeconomic group)
nearly equal

-use and control of resources and benefits (by gender, by socioeconomic group)

70% by man

-income and expenditure patterns (by gender, by socioeconomic group)

mainly decided by man

8. Development Priorities

-key problems (by gender, by socioeconomic group)

want to develop livestock and poultry farming, but lack of finance and related technical capability

-proposed development activities (by gender, by socioeconomic group)

planting hybrid rice and crossbred corn to enlarge the product of limited irrigated field

-Best Bet Action Plans (by gender, by socioeconomic group)

credit without interest may be the best, also micro credit

Problem Analysis Chart of Mangnuo Village

Problem	Causes	Coping Strategies	Opportunities
Health & Sanitation	Common cold	Herbal medicine	Township's hospital
Animal health	None striking out	There is the planned activity of epidemic prevention each season. Veterinarian has the responsibility to villager's animal	
Education			
Erosion	About 1500 <i>mu</i> hillside land too slope to conserving water and soil	To give up cultivating and reforest	Some policy forced
Water	Normal		
Drought	Not serious		
Energy	Lack of firewood	Should use wood-saving cooking stove	About 100 families using wood-saving stove
Unemployment & low income			
Female headed households	About 10% of female headed households for the hostess' ability higher than the host		
Markets & marketing			
Housing	Each family has own house		

XIAOBAZI VILLAGE

(2070 meters above sea level)

Name of Village:

Xiaobazi, Mangnuo Township, Shuangjiang Autonomous County

Date: Jan. 24, 1999

Prepared by: Fan Jian, Yang Wenhui in discussion with: Li Rongping, position: Chief of Mangnuo Village and with He Zhentang, position: official clerk of Mangnuo Village, Tian Rongqing, a 71 years-old villager

Native language(s) of informants: Chinese

1. Village Location including distances from nearest paved road and from nearest market town.
43 kilometers away from the capital town of Shuangjiang Autonomous County, rough road, the nearest market in Mangnuo Township, 6 kilometers away
2. Village Population: no. of families (with approximate ethnic breakdown), no of people including male/female, age groups breakdown if available
population: 1442, male: 761, female: 684; families: 307, the most of the Han Nationality
3. Village History
the Han people came here at the end of 19 century, a few Lahu people no time run off then stayed and inhabiting with the Han, so the Lahu people in Xiaobazi being called as 'lou laohe', means slipping-through Lahu
4. Resource base
 - total area of paddy land (rainfed, wet-season irrigated, dry-season irrigated)
irrigated: 781 *Chinese mu* (most at the southeast of village), hilly land: 1320 *Chinese mu*(most at the south and southwest of village, about 5 - 6 kilometers),
 - total area of natural forest land (now and 30 years ago)
none
30 years ago: not clear
 - total area of plantation forest land, if any
about 4000 *Chinese mu*
 - total area of slash and burn agriculture in a most recent year
none
 - water supply, access to drinking and bathing water, to water for irrigation
drinking and bathing water: mountain spring tubed into village and purified simply,
water for irrigation: reservoirs (Huanghe) channelled into village
 - total livestock figures for village
draught animal: 689 (including cattle, buffalo, donkey),
pig: 1023, sheep: 742, poultry: 2100, some bees (180 kilograms of honey a year)
5. Resource Tenure and Management Incentives
 - Is forest state-owned, community owned, or household owned?
forest collective owned, none forest household owned
 - What incentives for rapid/pre-emptive extraction of forest resources exist?
natural bamboo forest rapid deforestation at 1995 and 1996, as the raw materials of Shuangjiang Papermaking Factory
 - What incentives for sustainable management of forest resources exist?
after 'liangshangdaohu'(1982 or 1983), villagers have incentive for tree raising, some rules villagers made themselves forbidding felling trees freely
 - Describe traditional tenure and management practices and how these may have broken down.
not very clear
6. Availability of government/private sector services
 - health service
a clinic room, one health workers in the village, one person in charge of family planning
 - nearest school, to what level, use of indigenous languages in primary school
a completed primary school in village, using 'putonghua'(standard Chinese pronunciation) in class
 - veterinary services
one veterinarian in village
 - agricultural extension
one agricultural technician, one accountant
 - agricultural credit
none
 - availability of electricity
normal
7. Livelihood Strategies (time may allow only brief coverage of these topics)
 - occupations (by gender, by socioeconomic group)
the village has one woman cadre in charge of local women's fair, no female clerk in the office of administrative village
 - labor patterns for meeting basic needs (by gender, by socioeconomic group)
nearly equal
 - use and control of resources and benefits (by gender, by socioeconomic group)
mainly by man
 - income and expenditure patterns (by gender, by socioeconomic group)

mainly decided by man

8. Development Priorities

-key problems (by gender, by socioeconomic group)

should increase the investment into planting crops, but lack of technical capability and finance

-proposed development activities (by gender, by socioeconomic group)

planting cash forest, such as walnut

-Best Bet Action Plans (by gender, by socioeconomic group)

assistant finance may be the best

Problem Analysis Chart of Xiaobazi Village

Problem	Causes	Coping Strategies	Opportunities
Health & Sanitation	None striking out		
Animal health	None striking out	There is the planned activity of epidemic prevention each season. Veterinarian has the responsibility to villager's animal	
Education			
Erosion	Not serious		
Water	Normal		
Drought	Not serious		
Energy	Lack of firewood	Should use wood-saving cooking stove	About 100 families using wood-saving stove
Unemployment & low income			
Female headed households			
Markets & marketing			
Housing	Each family has own house		

Demography

Unit: 10 thousand

Year	Families	Population	Male	Female	Agr. Population
1950	13.3	59.3	28.1	31.2	58.8
1951	13.4	60.5	29.1	31.4	59.9
1952	13.6	61.7	30.2	31.5	61.2
1953	13.4	63.0	31.0	32.0	62.5
1954	13.7	64.4	32.1	32.2	63.2
1955	13.9	65.9	32.5	33.4	65.3
1956	14.4	67.6	35.8	31.8	65.4

1957	14.4	69.3	34.3	35.0	65.8
1958	14.6	71.2	36.1	35.2	66.3
1959	14.6	72.3	36.6	35.7	69.1
1960	15.4	71.5	35.0	36.6	67.7
1961	15.8	72.0	36.8	35.2	68.8
1962	16.0	75.6	38.1	37.4	71.8
1963	16.1	78.2	40.0	38.2	74.9
1964	17.0	81.3	41.5	39.8	76.5
1965	17.1	84.5	41.0	43.4	80.7
1966	16.9	87.1	43.9	43.1	80.2
1967	17.3	89.2	44.7	44.5	82.4
1968	17.6	91.8	45.6	46.2	85.3
1969	18.0	94.5	46.8	47.8	87.8
1970	18.4	97.4	48.1	49.3	90.5
1971	18.8	99.6	49.1	50.5	94.8
1972	19.5	101.2	49.9	51.4	95.2
1973	19.7	104.1	51.4	52.7	98.6
1974	19.2	107.1	52.9	54.2	101.3
1975	19.5	109.7	54.3	55.4	103.7
1976	19.9	112.5	55.5	56.9	106.4
1977	20.0	115.7	57.6	58.1	109.4
1978	20.3	117.3	58.0	59.2	110.9
1979	20.6	120.2	59.5	60.8	113.8
1980	21.3	122.2	60.6	61.5	115.4
1981	22.2	124.5	62.4	62.0	117.2
1982	23.4	127.9	64.5	63.4	121.0
1983	23.9	130.1	65.7	64.4	123.0
1984	24.7	132.7	66.9	65.7	125.1
1985	25.7	135.9	68.6	67.3	123.0
1986	26.4	138.7	70.0	68.7	130.5
1987	25.0	141.4	71.4	67.0	132.8
1988	28.0	144.4	73.3	71.1	135.2
1989	29.4	147.2	75.0	72.3	137.7
1990	30.2	150.1	76.9	73.1	140.6
1991	-	152	78	74	142
1992	-	154	79	75	144
1993	32.3	155.3	79.8	75.5	145.1
1994	33	156.3	80.3	76	145.8
1995	33	157	81	76	146
1996	34	158	81	77	147

34	159	82	77	147
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Source: The Annal of Shuangjiang Lahu, Wa, Bulang and Dai Nationalities Autonomous County, The Yunnan Publishing House of Nationality, 1995 and The Yunnan Statistics Year Book, 1992, 1993, 1994, 1995, 1996, 1997, 1998

Demography in Ethnic Group Breakdown

Unit: person, %

Ethnic group	1964		1982		1990		1997	
	Number	percent	number	Percent	number	percent	number	Percent
Chinese	44937	56.14	71662	56.81	83326	55.30	88291	55.55
Lahu	16950	21.18	25829	20.48	31734	21.05	32890	20.69
Wa	6315	7.89	10007	7.93	11888	7.88	12633	7.95
Bulang	6314	7.89	9509	7.54	11725	7.78	12337	7.76
Dai	4102	5.13	6685	5.30	8391	5.56	9094	5.72
Yi	1104	1.38	1612	1.28	2294	1.52	2353	1.48
Other	317	0.40	836	0.66	1327	0.88	1330	0.84
Total	80039	100.00	126140	100.00	150685	100.00	158928	100.00

Source: **The Annal of Shuangjiang Lahu, Wa, Bulang and Dai Nationalities Autonomous County**, The Yunnan Publishing House of Nationality, 1995 and **The Statistics of National Economy and Development of Society of Shuangjiang Lahu, Wa, Bulang and Dai Nationalities Autonomous County, 1997**, The Statistic Bureau of Shuangjiang Autonomous County, May, 1998