People's Republic of China
State Forestry Administration

ETHNIC MINORITIES DEVELOPMENT PLAN (EMDP)
for the
Sustainable Forestry Development Project (SFDP)

March 2001
CONTENTS

1.0  An Overview of Objectives
  1.1  Objective of SFDP
  1.2  Objective of EMDP
  1.3  Principles Guiding the EMDP

2.0  Ethnic Minority Nationalities in China: A General Introduction

3.0  Legal Foundations & Framework Concerning Ethnic Minorities

4.0  Ethnic Minority Nationalities Living In SFDP Project Areas: An Overview
  4.1  Ethnic Beneficiaries of SFDP

5.0  Ethnic Minority Nationalities Profiles As Assessed Via the SA Process
  5.1  Vulnerability & Ethnicity
  5.2  Vulnerability & Gender
  5.3  New Forestry Laws & Policies Affecting Ethnic Minorities
  5.4  Literacy, Languages and Communication.

6.0  Ethnic Minority Nationalities: Profiles As Assessed By the SA Process
  6.1  Li
  6.2  Tibetan
  6.3  Qiang
  6.4  Tujiia
  6.5  Miao
  6.6  Yao
  6.7  She
  6.8  Lisu
  6.9  Nu
  6.10  Dulong
  6.11  Bai
  6.12  Naxi
  6.13  Pumi
  6.14  Yi
  6.15  Dong
  6.16  Hui
  6.17  Mongol
  6.18  Manchu

7.0  Project Site Profiles (Containing Ethnic Minority Nationalities)

  Natural Forest Management (NFM) Component Sites
  7.1  Wangxia township and Bawangling SFE, Hainan Province
  7.2  Ceyuan & Shidou townships, Yanling county, Hunan Province
  7.3  Xiaoxi & Zhenxi townships, Yongshun county, Hunan Province
  7.4  Longdong and Yongfu townships and Jiajinshan SFE, Baoxing county, Sichuan Province
  7.5  Baima and Muzuo townships and Pingwu SFE, Pingwu county, Sichuan Province
  7.6  Mouni township, Songpan county, Sichuan Province
  7.7  Xiaoxing township and Songpan SFE, Songpan county, Sichuan Province
Protected Areas Management (PAM) Component Sites
7.8 Baishuijiang NR, Gansu Province
7.9 Fanjingshan NR, Guizhou Province
7.10 Jianfengling NR, Hainan Province
7.11 Houhe NR, Hubei Province
7.12 Badagongshan NR, Hunan Province
7.13 Hupingshan NR, Hunan Province
7.14 Baiyang NR, Sichuan Province
7.15 Piankou NR, Sichuan Province
7.16 Si’er NR, Sichuan Province
7.17 Tangjiahe NR, Sichuan Province
7.18 Xiaozhaizigou NR, Sichuan Province
7.19 Nujiang NR, Yunnan Province
7.20 Baimaxueshan NR, Yunnan Province

8.0 SFDP Development Activities Supporting Ethnic Minorities
8.1 General Project Features Facilitating Ethnic Minority Participation
8.2 Specific Support for Ethnic Minority Participation in Project
  8.21 NFM Component
  8.22 PAM Component

9.0 Participation of Ethnic Minority Nationalities in SFDP Preparation & Implementation
9.1 SFDP Preparation
9.2 Recommendations for Implementation

10.0 Design of Project Activities As A Result of SA Process
10.1 Natural Forest Management
10.2 Balanced Land Use
10.3 Tourism Development
10.4 Gender
10.5 Conflict Resolution Mechanism
10.6 Policy Framework
10.7 Process Framework

11.0 Supervision, Monitoring and Evaluation

12.0 Estimated Budget & Financing Plan

Annexes:
Annex 1: Songpan County Tibetan & Qiang Ethnic Groups Investigation Report (25 pages)
Annex 2: Tables: Ethnic Minority Site Profiles

Tables
Table 1: Population in Minority National Autonomous Areas (1995)
Table 2: Geographic Distribution of Minority Nationalities
Table 3: Chinese Regulations on Ethnic Minority Nationalities by Category
Table 4: Provincial Government Regulations & Laws
Table 5: Distribution of Ethnic Minority Nationalities by SFDP Component

Table A2.1 Ethnic Groups in NFM Project Counties
Table A2.2 Ethnic Minority Beneficiaries - NFM Component
Table A2.3 Ethnic Minority SFE Workers - NFM
Table A2.4 Ethnic Groups in PAM Nature Reserves
Table A2.5 Ethnic Groups in PE Project Counties
Table A2.6 Ethnic Minority Beneficiaries in Pilot PE Counties
1.0 An Overview of Objectives

This section (ii) summarizes the objectives of the Sustainable Forestry Development Project (SFDP), and (ii) outlines the objectives of the Ethnic Minorities Development Plan (EMDP) under the project.

1.1 Objective of SFDP: The objective of the Sustainable Forestry Development Project is to ensure that innovative management approaches (which significantly involve community based initiatives) are widely adopted in selected natural forests and protected areas to relieve pressures on unsustainable exploitation of forest resources and to protect the natural environment. In addition, the project seeks to establish plantations that would support increasing wood production to meet the growing gap between domestic supply and demand, to generate employment opportunities and farm income. These new approaches developed and applied for the protection and sustainable management of natural forest resources in pilot areas in China would provide models for wider replication under the government's Natural Forest Protection Program (NFPP).

The project is supported by three key components which integrate forest conservation with improved economic opportunities for mostly poor ethnic minority groups and more vulnerable populations inhabiting project sites. In China, the remaining natural forest areas tend to be located in more remote areas inhabited by minority nationalities. Moreover, it is also well recognized that in order to successfully protect China's remaining natural forests, minority nationality populations must be effectively engaged in project activities. As a result, the clear majority of SFDP beneficiaries belong to one of fifteen ethnic minority nationalities, particularly in two of the three project components—the Natural Forest Management (NFM) component and the Protected Areas Management (PAM) component. Project preparation process thus far has therefore attempted to involve these communities as much as possible in designing the various project activities. It is further recognized that ethnic minority groups would be involved in the on-going project preparation process and eventual implementation of this 6 year project.

The three components of the project that would support the project's main objective include: (i) Natural Forest Management Component (NFM) which would support the development and dissemination of improved techniques of sustainable management of natural forest areas protected under the Government's NFPP and community development activities targeting selected rural communities in the project forest management areas who are most affected by the NFPP restrictions because of their reliance on forest resources for their livelihood; (ii) Protected Areas Management Component (PAM) would support improved management of biodiversity of global importance in selected, high priority nature reserves in natural forest areas and support sustainable livelihood opportunities to improve the economic welfare of poor communities that rely on nature reserves for survival; and, (iii) Plantation Establishment Component (PE) would support increasing production of wood to meet the growing gap between domestic supply and demand, to generate new employment and income for forestry farms and rural households and to improve environmental management.

1.2 Objective of EMDP: The core objective of the Ethnic Minorities Development Plan (EMDP) is to ensure that the process of development generated by the Sustainable Forestry Development Project (SFDP) fully respects the dignity of ethnic minorities, their cultural rights and their cultural identity. In this document, "Ethnic Minorities," "Minority Nationalities," "Ethnic Minority Nationalities," are used interchangeably. The term "Minority Nationalities" is the officially recognized term by the Chinese Government for what the World Bank refers to as Indigenous Ethnic Minorities or Indigenous People.

---

1 In this document, "Ethnic Minorities," "Minority Nationalities," "Ethnic Minority Nationalities," are used interchangeably. The term "Minority Nationalities" is the officially recognized term by the Chinese Government for what the World Bank refers to as Indigenous Ethnic Minorities or Indigenous People.
particular, the objective of this plan is to ensure that the ethnic minority populations do not suffer negative effects of the project and that they receive social and economic benefits compatible with their culture. This is accomplished by a participatory and consultative process engaging ethnic minority stakeholders to ensure that the concerns of ethnic minorities have been taken into account in project design. Moreover, specific areas for further investigation flagged by the Social Assessment (SA) process, the provincial, national, and international social assessment experts, and raised in this document would serve to hone the project more toward meeting the development objectives of peoples classified as ethnic minority nationalities. The preparation process to date would suggest that the strategy adopted by SFDP would allow these objectives to be achieved.

1.3 Principles Guiding the EMDP with respect to SFDP’s Protected Areas Management component.

- If there is any decline in imputed income or decline in the livelihood of project affected peoples as a result of (a) changes in zoning, (b) changes in regulations, and/or (c) enforcement of existing regulations or strengthening enforcement of existing regulations under the project, the project affected peoples would be eligible for mitigation assistance in accordance with the Process Framework.

- Proposals for changes in zoning, changes in regulations, and/or additional enforcement of existing regulations under the project would be incorporated into the Nature Reserve Management Plan. This Management Plan is subject to Bank review. Therefore, any potential adverse livelihood impact on project affected peoples as a result of this project would be mitigated in accordance with the Process Framework and subject to Bank Review.

2.0 Ethnic Minority Nationalities in China: A General Introduction

Approximately 8.2 percent of China’s population, or 91 million people, are members of fifty-five officially designated Chinese “national minority peoples” or “minority ethnic groups” (shaoshu minzu). They inhabit every province and municipality of China, but are concentrated in the border regions in China’s northern, northwestern, western, and southwestern sectors. About two-thirds of the members of minority nationalities inhabit “nationalities autonomous areas” (minzu zizhi quyu), including five province-level autonomous regions (Tibet, Xinjiang, Inner Mongolia, Ningxia, and Guangxi), thirty autonomous prefectures (zizhi zhou) in ten provinces and autonomous regions, and 13 autonomous counties (zizhi xian) in eighteen provinces and autonomous regions. Over 90 percent of China’s international borders and virtually all areas within 200 kilometers of those borders belong to minority autonomous areas. Despite their relatively sparse population, minority autonomous areas contain over 60 percent of China’s total land area, and approximately 14 percent of the total national population. In addition, most minorities live in strategic border areas and areas rich in natural resources.

The table below illustrates the number and proportion of minority nationalities inhabiting designated ethnic minority autonomous areas in the listed provinces. In SFDP project provinces (designated in bold italics below), the population of ethnic minority nationalities is approximately 50% of the total population living in those minority nationality autonomous areas.

![Table 1](image-url)

2 The section is based on the following reports: China Minority Profiles (1997); Legal Research on Indigenous People in the People’s Republic of China (1997); SFDP Social Assessment Report (2000).
<table>
<thead>
<tr>
<th>Region</th>
<th>Total Population in Officially Designated Minority Areas (10,000)</th>
<th>Minority Population in Officially Designated Minority Areas (10,000)</th>
<th>Minority Population as a % of Total Population in Minority Areas (%)</th>
<th>Region</th>
<th>Total Population in Officially Designated Minority Areas (10,000)</th>
<th>Minority Population in Officially Designated Minority Areas (10,000)</th>
<th>Minority Population as a % of Total Population in Minority Areas (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>16038.9</td>
<td>7281.81</td>
<td>45.4</td>
<td>Guangxi</td>
<td>4455.1</td>
<td>1719.3</td>
<td>38.6</td>
</tr>
<tr>
<td>Hebei</td>
<td>190.1</td>
<td>103.5</td>
<td>54.4</td>
<td>Hainan</td>
<td>229.7</td>
<td>100.3</td>
<td>43.7</td>
</tr>
<tr>
<td>Inner Mongolia</td>
<td>2260.4</td>
<td>434.0</td>
<td>19.2</td>
<td>Sichuan</td>
<td>842.2</td>
<td>456.2</td>
<td>54.7</td>
</tr>
<tr>
<td>Liaoning</td>
<td>386.8</td>
<td>184.1</td>
<td>47.6</td>
<td>Guizhou</td>
<td>1393.4</td>
<td>785.2</td>
<td>56.4</td>
</tr>
<tr>
<td>Jilin</td>
<td>318.8</td>
<td>117.1</td>
<td>36.7</td>
<td>Yunnan</td>
<td>1975.0</td>
<td>1060.8</td>
<td>53.7</td>
</tr>
<tr>
<td>Heilongjiang</td>
<td>24.4</td>
<td>5.1</td>
<td>20.9</td>
<td>Tibet</td>
<td>228.9</td>
<td>222.4</td>
<td>97.6</td>
</tr>
<tr>
<td>Zhejiang</td>
<td>17.4</td>
<td>1.72</td>
<td>9.9</td>
<td>Gansu</td>
<td>287.9</td>
<td>156.9</td>
<td>54.5</td>
</tr>
<tr>
<td>Hubei</td>
<td>433.8</td>
<td>204.1</td>
<td>47.1</td>
<td>Qinghai</td>
<td>284.3</td>
<td>163.6</td>
<td>57.6</td>
</tr>
<tr>
<td>Hunan</td>
<td>530.0</td>
<td>363.7</td>
<td>68.6</td>
<td>Ningxia</td>
<td>503.9</td>
<td>171.5</td>
<td>34.0</td>
</tr>
<tr>
<td>Guangdong</td>
<td>44.1</td>
<td>16.1</td>
<td>36.5</td>
<td>Xinjiang</td>
<td>1632.7</td>
<td>1016.2</td>
<td>62.2</td>
</tr>
</tbody>
</table>

Source: Wang (1997); Notes: SFDP project provinces in **bold italics**; Data on Henan, Shandong, Shanxi, Anhui provinces are not available.

Table 2 (below) illustrates the geographic location of all 55 recognized ethnic minority nationalities in China. This table is particularly noteworthy as activities financed by the China Sustainable Forestry Development Project cover twelve Chinese provinces spread throughout the country and would involve different ethnic minority nationalities.

### Table 2
Geographic Distribution of Minority Nationalities

<table>
<thead>
<tr>
<th>Ethnic Minority</th>
<th>Main Geographic Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mongolian</td>
<td>Inner Mongolia, Liaoning, Xinjiang, Jiangxi, Qinghai, and Gansu</td>
</tr>
<tr>
<td>Hui</td>
<td>Ningxia, Gansu, Henan, Xinjiang, Qinghai, Yunnan, Hebei, Shandong, Anhui, Liaoning, Beijing, Inner Mongolia, Tianjin, Heilongjiang, Shaanxi, Guizhou, Jilin, Jiangsu, Sichuan</td>
</tr>
<tr>
<td>Tibetan</td>
<td>Tibet, Sichuan, Qinghai, Gansu, Yunnan</td>
</tr>
<tr>
<td>Uyghur</td>
<td>Xinjiang</td>
</tr>
<tr>
<td>Miao</td>
<td>Guizhou, Hunan, Yunnan, Sichuan, Guangxi, Hubei, and Hainan</td>
</tr>
<tr>
<td>Yi</td>
<td>Yunnan, Sichuan, and Guizhou</td>
</tr>
<tr>
<td>Zhuang</td>
<td>Guixi, Yunnan, and Guandong</td>
</tr>
<tr>
<td>Bouyei</td>
<td>Guizhou and Yunnan</td>
</tr>
<tr>
<td>Korean</td>
<td>Jilin, Heilongjiang, Liaoning, Inner Mongolia</td>
</tr>
<tr>
<td>Manchu</td>
<td>Liaoning, Hebei, Heilongjiang, Jilin, Inner Mongolia</td>
</tr>
<tr>
<td>Dong</td>
<td>Guizhou, Hunan, Guandong and Guizhou</td>
</tr>
<tr>
<td>Yao</td>
<td>Guizhou, Hunan, Yunnan, Guandong and Guizhou</td>
</tr>
<tr>
<td>Bai</td>
<td>Yunnan, Guizhou and Hunan</td>
</tr>
<tr>
<td>Tujia</td>
<td>Hunan, Hubei, Sichuan and Guizhou</td>
</tr>
<tr>
<td>Hani</td>
<td>Yunnan</td>
</tr>
<tr>
<td>Kazak</td>
<td>Xinjiang and Gansu</td>
</tr>
<tr>
<td>Dai</td>
<td>Yunnan</td>
</tr>
<tr>
<td>Li</td>
<td>Hainan and Guizhou</td>
</tr>
<tr>
<td>Lisu</td>
<td>Yunnan and Sichuan</td>
</tr>
<tr>
<td>Va</td>
<td>Yunnan</td>
</tr>
<tr>
<td>She</td>
<td>Fujian, Zhejiang, Jiangxi, and Guandong</td>
</tr>
<tr>
<td>Gaoshan</td>
<td>Taiwan and Fujian</td>
</tr>
</tbody>
</table>
Lahu | Yunnan  
Dongxiang | Gansu and Xinjiang  
Naxi | Yunnan  
Jingpo | Yunnan  
Kirgiz | Xinjiang  
Tu | Qinghai and Gansu  
Daur | Inner Mongolia and Heilongjiang  
Mulam | Guangxi  
Qiang | Sichuan  
Biang | Yunnan  
Salar | Qinghai and Gansu  
Maonan | Guangxi  
Gelao | Guizhou  
Xibe | Liaoning and Xinjiang  
Achang | Yunnan  
Pumi | Yunnan  
Tajik | Xinjiang  
Nu | Yunnan  
Uzbek | Xinjiang  
Russian | Xinjiang and Heilongjiang  
Ewenki | Inner Mongolia  
Deang | Yunnan  
Baoan | Gansu  
Yugur | Gansu  
Jing | Guangxi  
Tatar | Xinjiang  
Drung | Yunnan  
Orqen | Heilongjiang and Inner Mongolia  
Hezhen | Heilongjiang  
Monba | Tibet  
Lhoba | Tibet  
Jino | Yunnan  

The next section, Section 3.0, provides an overview of the legal foundations and framework for ethnic minorities as stated in China’s Constitution and other laws and regulations. It briefly discusses the governance structure of designated ethnic minority provinces, prefectures, counties, and townships. Moreover, it briefly discusses the legal and legislative policies concerning economic, linguistic, educational, cultural and religious rights and responsibilities for ethnic minorities.

3.0 Legal Foundations & Framework Concerning Ethnic Minorities

The legal foundations of the current system of limited minority local autonomy are found in the Law on Autonomy in Nationalities Regions (Minzu Quyu Zizhi Fa, referred to as the Autonomy Law throughout this document), passed by the second session of the sixth National People’s Congress on May 31, 1984. This law provides for the establishment of minority nationalities autonomous areas on the basis of concentrated population of one or more minority nationalities in a particular area. It states that the establishment, boundaries, and naming of such areas should be undertaken by government authorities at the same and higher levels “in full consultation with representatives of the relevant nationalities.” Generally, the Autonomy Law establishes the right of minority nationalities in autonomous areas to “use special policies and flexible methods” adopted “in accordance with the actual situation in specific areas.”
to promote economic and cultural development. However, this is not the only law that targets minority nationalities.

In addition to the Autonomy Law, the Chinese Government at each administrative level (Central, Provincial, and Local) has established scores of laws and regulations specific to minority nationalities. Approximately 412 documents (which includes laws, rules, provisions, circulars, resolutions and regulations) contain references to governance within minority nationality areas or stipulates the rights of minority nationalities. The overarching objectives of these laws and regulations are eight-fold: (i) to realize the equality of all nationalities; (ii) to ensure the unity of all nationalities; (iii) to enforce the autonomy of minority nationality areas; (iv) to respect the culture and customs of all minority nationalities; (v) to guarantee freedom of religion and belief; (vi) to encourage the development of languages of minority nationalities; (vii) to use minority nationality cadres as much as possible; and, (viii) to promote economic development.

The number of different Central Government regulations by subject areas classified in the Collection of Regulations on Minority Nationalities edited by the State Ethnic Affairs Commission is presented in the table below (Table 3). This is followed by a table of regulations issued by thirty Provincial Government’s throughout the People’s Republic of China (Table 4).
### Table 3

Chinese Regulations on Ethnic Minority Nationalities by Category

<table>
<thead>
<tr>
<th></th>
<th>Laws</th>
<th>Rules</th>
<th>Provisions</th>
<th>Circulars</th>
<th>Other Regulations</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Comprehensive</strong></td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>8</td>
<td>13</td>
<td>28</td>
</tr>
<tr>
<td><strong>Political</strong></td>
<td>25</td>
<td>6</td>
<td>7</td>
<td>10</td>
<td>4</td>
<td>52</td>
</tr>
<tr>
<td><strong>Economic</strong></td>
<td>8</td>
<td>18</td>
<td>8</td>
<td>39</td>
<td>21</td>
<td>94</td>
</tr>
<tr>
<td><strong>Cultural &amp; religion</strong></td>
<td>8</td>
<td>8</td>
<td>9</td>
<td>24</td>
<td>24</td>
<td>73</td>
</tr>
<tr>
<td><strong>Education &amp; science</strong></td>
<td>4</td>
<td>4</td>
<td>16</td>
<td>35</td>
<td>64</td>
<td>123</td>
</tr>
<tr>
<td><strong>Health, Marriage and Family Planning</strong></td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>13</td>
<td>21</td>
</tr>
<tr>
<td><strong>Personnel</strong></td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>9</td>
<td>21</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>52</td>
<td>45</td>
<td>44</td>
<td>123</td>
<td>148</td>
<td>412</td>
</tr>
</tbody>
</table>

### Table 4

Provincial Government Issued Regulations on Minority Nationalities

<table>
<thead>
<tr>
<th>Municipality, Province and Autonomous Region</th>
<th># of Regulations</th>
<th>Municipality, Province and Autonomous Region</th>
<th># of Regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beijing</td>
<td>12</td>
<td>Henan</td>
<td>12</td>
</tr>
<tr>
<td>Tianjing</td>
<td>7</td>
<td>Hubei</td>
<td>7</td>
</tr>
<tr>
<td>Hebei</td>
<td>5</td>
<td>Hunan</td>
<td>7</td>
</tr>
<tr>
<td>Shanxi</td>
<td>3</td>
<td>Guangdong</td>
<td>4</td>
</tr>
<tr>
<td>Inner Mongolia</td>
<td>5</td>
<td>Guangxi</td>
<td>5</td>
</tr>
<tr>
<td>Liaoning</td>
<td>7</td>
<td>Hainan</td>
<td>7</td>
</tr>
<tr>
<td>Jilin</td>
<td>12</td>
<td>Sichuan</td>
<td>4</td>
</tr>
<tr>
<td>Heilongjiang</td>
<td>5</td>
<td>Guizhou</td>
<td>4</td>
</tr>
<tr>
<td>Shanghai</td>
<td>5</td>
<td>Yunnan</td>
<td>6</td>
</tr>
<tr>
<td>Jiangsu</td>
<td>3</td>
<td>Tibet</td>
<td>2</td>
</tr>
<tr>
<td>Zhejiang</td>
<td>7</td>
<td>Shaanxi</td>
<td>8</td>
</tr>
<tr>
<td>Anhui</td>
<td>5</td>
<td>Gansu</td>
<td>4</td>
</tr>
<tr>
<td>Fujian</td>
<td>5</td>
<td>Qinghai</td>
<td>6</td>
</tr>
<tr>
<td>Jiangxi</td>
<td>3</td>
<td>Ningxia</td>
<td>6</td>
</tr>
<tr>
<td>Shandong</td>
<td>7</td>
<td>Xinjiang</td>
<td>11</td>
</tr>
</tbody>
</table>

Note: **Bold** indicates a SFDP Project Province
Of the 55 recognized minzu ("nationalities" or ethnic minority groups) in China, a total of 18 of them, Li, Tibetan, Qiang, Tujia, Miao, She, Dong, Dulong, Hui, Mongol, Manchus, Yao, Bai, Lisu, Nu, Yi, Pumi and Naxi reside in SFDP project counties and sites. The table below presents the location (province) of each of these minority groups and within which component of SFDP each group falls.

### Table 5
**Distribution of Ethnic Minority Nationalities by SFDP Component**

<table>
<thead>
<tr>
<th>Ethnic Minority</th>
<th>By Location (Province)</th>
<th>By SFDP Component</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>NFM</td>
</tr>
<tr>
<td>Li</td>
<td>Hainan</td>
<td>*</td>
</tr>
<tr>
<td>Tibetan</td>
<td>Sichuan</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Yunnan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gansu</td>
<td></td>
</tr>
<tr>
<td>Qiang</td>
<td>Sichuan</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Yunnan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gansu</td>
<td></td>
</tr>
<tr>
<td>Tujia</td>
<td>Hunan</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Hubei</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Guizhou</td>
<td></td>
</tr>
<tr>
<td>Miao</td>
<td>Hunan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hubei</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Guizhou</td>
<td></td>
</tr>
<tr>
<td>Dong</td>
<td>Guizhou</td>
<td></td>
</tr>
<tr>
<td>Yao</td>
<td>Hunan</td>
<td></td>
</tr>
<tr>
<td>Hui</td>
<td>Sichuan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gansu</td>
<td></td>
</tr>
<tr>
<td>Mongol, Manchu</td>
<td>Liaoning</td>
<td></td>
</tr>
<tr>
<td>Yi, Bai, Lisu, Naxi, Nu, Pumi, Yi</td>
<td>Yunnan</td>
<td></td>
</tr>
<tr>
<td>She</td>
<td>Hunan</td>
<td></td>
</tr>
</tbody>
</table>

Note: NFM refers to the Natural Forest Management component, PAM refers to the Protected Areas Management component, PE refers to the Plantation Establishment component of the project.

Of the ethnic minority groups represented above, the largest number of ethnic minority nationalities that inhabit SFDP project areas include the Li, Miao, Tibetan, Bai, Qiang, Tujia, and Miao. The Yao, She, Yi, Nu, Lisu, Pumi, Bai, Dulong and Naxi are found in a very small number of project areas and in small numbers. With respect to SFDP project areas, Mongols and Manchus are only found in only 3 PE component counties in Liaoning province. The Hui people inhabit only a few SFDP project areas in Sichuan and Gansu provinces. They are mostly traders and live in township and county centers and are not found in specific project villages. Generally, ethnic minority beneficiaries of SFDP are located in remote areas where the remaining natural forests are located or adjacent to protected areas such as nature reserves. As a result, the project seeks to work with mostly ethnic minority communities in its attempt to achieve its sustainable development and biodiversity conservation objectives.

### 4.1 Ethnic Minority Beneficiaries of SFDP

The Social Assessment indicates that there would be approximately 687,500 household beneficiaries (2.75 million individuals) of the project, of which at least 3% (or 87,800 individuals) belong to one of the ethnic minority nationalities. The approximate number of beneficiaries of SFDP project areas includes the Li, Miao, Tibetan, Bai, Qiang, Tujia, and Miao. The Yao, She, Yi, Nu, Lisu, Pumi, Bai, Dulong and Naxi are found in a very small number of project areas and in small numbers.

---

3 Annex 2 contains six tables that present in tabular format, the number and percentages of each ethnic minority nationality in each SFDP project site. These tables further break down this information by component.
ethnic minority beneficiaries are found to be uneven across each of the three project components as reflected in the table below. This is a result of the fact that two project components, PAM and NFM, are located in remote natural forest areas where ethnic minorities reside, while the PE component is located only in areas suitable for commercial plantation establishment and participants have to be willing to borrow funds at commercial rates.

**Ethnic Minority Project Beneficiaries**

<table>
<thead>
<tr>
<th>Component</th>
<th>NFM</th>
<th>PAM</th>
<th>PE</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Beneficiaries</td>
<td>29,100</td>
<td>57,200</td>
<td>2,667,600</td>
<td>2,753,900</td>
</tr>
<tr>
<td>Ethnic Minority Beneficiaries</td>
<td>11,600</td>
<td>40,600</td>
<td>23,700</td>
<td>75,900</td>
</tr>
<tr>
<td>% Ethnic Minorities</td>
<td>45%</td>
<td>71%</td>
<td>1%</td>
<td>3%</td>
</tr>
</tbody>
</table>

- **Natural Forest Management (NFM).** An approximate total of 13,100 ethnic people inhabit SFDP NFM component villages of which 27% are Li (living in Hainan province), 31% are Tibetans (living in Sichuan province), 6% are Qiang (also living in Sichuan province), and 35% are Tujia (living in Hunan province). There are also She, Yao, and Miao people in very small numbers living in project areas in Hunan province. The ethnic population account for 54% to 100% of the beneficiary population in 9 out of the 13 NFM project townships, and only 5% in the remaining four sites (two in Sichuan province and two in Hunan province).

- **Protected Area Management (PAM).** Approximately 191,000 people belonging to one of the officially recognized ethnic minority/nationality groups reside in one of 78 project townships where thirteen project Nature Reserves (NR) are located. More than 50 percent of the ethnic minorities live within and around the two Yunnan province nature reserves, where they account for 81%-100% of the project township population. Most of the remaining ethnic minorities live in and around eight nature reserves and account on average for approximately 93% of population in 56 townships. A total of 230 administrative villages in these townships, mostly inhabited by ethnic minorities are located within nature reserve boundaries. However, twenty-six villages will participate in community based conservation activities, and another 39 villages will join fuelwood management or technical training activities. An additional 7 villages would be supported in community-based wildlife management projects. The exact numbers of ethnic minority beneficiaries will become more accurate once each of the project villages has been selected for this component. This would occur during the first year of implementation.

- **Plantation Establishment (PE).** Only 14 of the 107 PE counties or 13% of them contain ethnic minority populations (one county in Hainan, Sichuan, and Gansu provinces; two counties in Henan province; four counties in Hunan province; and, five counties in Liaoning province). In each of these counties, the ethnic minority population ranges between 5%-97% of the total county population. A process of formal application to join the project would continue to be carried out in each of the 107 project counties to ensure wide participation. A total estimate of 2,667,600 households would take part in the component, of which less than 34,000 (or 1%) would belong to one of the recognized ethnic minority nationalities.

5.0 **Summary of Issues Facing Ethnic Minorities in Project Areas**

This section briefly summarizes four key issues hypothesized to face ethnic minority nationalities in SFDP project areas and the SA findings.
5.1 Vulnerability & Ethnicity. The level of vulnerability is uneven across different minority nationality groups. While the Tujia are well integrated in the mainstream society in both north-west Hunan and Guizhou provinces, the Li, Miao and Yao people are generally in a more vulnerable and marginal position as compared to other minority nationalities in SDFP project areas. This is a result of the location in which they live and the livelihood opportunities in these areas. People of Tibetan and Qiang ethnicity benefiting from the project live on the eastern edge of the Tibetan plateau, a region where there has been more assimilation and integration between ethnic groups. For example, the two-storied houses have Han tile roofs, Qiang stone ground floor and Tibetan wooden upper walls. The Qiang people are integrated into the Han culture in Pingwu, and into the Tibetan culture in Songpan, Sichuan Province. Tibetans in Songpan are Amdo-Pa of the Drog Pa and Shar Pa tribes. The Tibetans in two Sichuan townships (which make up approximately 57% of the NFM Tibetan population) and one nearby PAM township (Baishujiang NR in Yunnan Province) are the Baima Tibetan polytheist sub-group. Natural villages in the project areas are inhabited by one ethnic group only, with Han, Hui or mixed households being the exception, and several townships in Hainan Province and Sichuan Province have only one ethnic group.

5.2 Vulnerability & Gender. The SA revealed that women of Li and Miao minority nationality were found to have a distinctly lower social status than women belonging to other minority nationality groups in SDFP project areas. Women were found to have longer working hours both at home and in farming operations than men in the same villages. Moreover, women of these minority nationalities are more likely to face problems with illiteracy (especially Chinese) than men.

5.3 New Forestry Policies Affecting Ethnic Minorities. Logging Ban, NFPP, Sloping Land Regeneration (SLR). Almost all of the ethnic minorities within the SDFP project areas reside in the upper reached of the various watersheds. This means that they live closest to the forest, and usually at higher elevations in mountainous areas. The restrictions on the collection of forest products and farming on sloped land induced by the new forestry policies are having a profound impact on them. The magnitude of this impact is due not only to their high dependency on forestry for their incomes and subsistence consumption, but also because communities and local governments generally lack the institutional capacity and leverage to negotiate local implementation of policies, adjust plans, resolve land tenure conflicts and access complex funding channels. Government revenue streams have sharply declined as a result of the logging ban. In some project areas, however, the logging ban is met with mixed blessings. This is especially true of Tibetan areas in Songpan County, Sichuan Province since there have been conflicts between Tibetan ethnic minority villages and logging companies over the unregulated logging in areas considered of religious and cultural significance. Ironically, while these groups are generally pleased that the logging companies have been forced to stop logging these areas, they are also now unemployed and without work. Other issues raised by ethnic minority groups as a result of the new forest policies are summarized in each project area profile (see Section 7.0).

5.4 Literacy, Languages and Communication. The lack of basic literacy would most likely be an issue throughout many project sites. Adult literacy remains very low in most of the ethnic minority groups in the project areas. Village leaders can typically only partially read simple written Chinese. While literacy rates have grown among young people, it is still limited. School attendance is sparse in project areas, and has been declining in Hunan and Sichuan due to higher school fees and lost forestry incomes. Fluency in spoken Chinese varies a lot and the situation of each project area has been documented by the Social Assessment. The Tujia have reportedly been Chinese speakers since the Ming dynasty and are unlikely to have a problem with written and spoken Chinese. The Baima Tibetans in the project area have basic to good fluency in spoken Chinese, sometimes both Sichuanese and standard Chinese. In the Tibetan communities in Songpan county, community leaders have high education levels but many community members do not have good understanding of Chinese. Qiang communities are diverse. Children do not speak Qiang anymore in some of them, and Qiang remains the main language in others. Primary school is legally and de facto bilingual in Aba prefecture, Sichuan province. In Hainan province, the Li
communities adjacent to State farms and other Han communities have a good command of standard Chinese. Elsewhere, they speak one of the five Li languages and can communicate in Hainanese. Television sets and satellite dishes are present and often in substantial numbers in all project villages except in poorer communities in Hainan province. TV and video have become the most efficient media to ensure communication.
6.0 Social Assessment Led Ethnic Minority Profiles

This section presents profiles of ethnic minority nationalities living within SFDP project areas. Specifically, it highlights (i) the location and population of the minority nationality; (ii) the different sub-groups, their language and levels of literacy; (iii) their use of land and means of livelihood; and, (iv) key measures being taken under the project to ensure cultural and location specific appropriateness.

6.1 Li

Location and Population Growth. The 1.2 million Li people (1998 population census) account for 95% of Hainan province’s ethnic minorities and approximately 80% of Hainan’s hillside farmers. They mostly inhabit the interior central and southern hills of Hainan island. From 1990 to 1998, the Li population has steadily increased by 5.6%. There are 9 (of 19 Counties) Li and/or Miao Autonomous Counties in Hainan of which 3 are identified to take part in SFDP. Overall, the rural population in the project townships are mostly Li with a smaller number of ethnic Miao.

Sub-Groups, Languages and Literacy. The Li languages are Kadai languages, with 30% lexical similarity with Northern Zhuang (Guangxi) and five distinct dialects: Ha/Lao (spoken by 70% of the Li population), Qi (spoken by 25% of the Li population), Rin, Meifu and Jiamao (spoken by the remaining 5% of the Li population). Approximately 70% of ethnic Li people located in the project area speak one of the many Li dialects. Communities adjacent to State farms or other Han communities (PE component in Tongza) have good command of standard Chinese. Hainanese is the common shared language between each of the sub-ethnic groups. Illiteracy is prevalent. The Li in Wangxia NFM township are from the Xiao branch.

Land Use & Livelihood Activities. Livelihood activities in Li areas comprise mostly of paddy (irrigated and rainfed) farming, rain-fed cassava, sweet potatoes, and maize cultivation and supplementary slash-and-burn cultivation, including upland rice. Paddy land has remained limited for communities resettled from reservoir areas (i.e. the Li people inhabiting areas adjacent to Jianfengling NR in Hainan province). Li settlements are usually compact, which leaves little room for home gardens. However, their natural villages are usually surrounded by small tree gardens (coconut, beetle nut, neem) and secondary forests which provide supplementary income. Pigs and chickens are raised around the house and cattle are usually left to graze within the forests. The Li are traditionally hunters and they also fish. [Note: Currently, the China-German Tropical Forest Rehabilitation and Forest Protection project is in the process of carefully documenting forest and land uses in the Wuzhishan nature reserve, which would be used by the project implementation team when the report becomes available].

Measures Being Taken to Ensure Cultural/Location Specific Appropriateness.

- **Communication.** Spoken communication in Hainanese; any additional CFA work would follow the existing methodology where pictures and drawings are used to convey key messages and solicit information; a facilitator of Li ethnicity fluent in the traditional language would be used to conduct this work.
- **Co-Management.** Li communities have been in a marginal position as compared to people working in large State Forest Enterprises in the same area. Economic development activities would help to provide sustainable livelihood opportunities for them and would be developed in direct consultation with them.
Leadership. Natural village heads tend to play a more important role in livelihood activities as compared to administrative village heads and the project will fully take them into account.

Microcredit & Training. Specific targeting of women: Meetings would be held in the evening, the time of day preferred by women.

Gender Sensitivities. Hunting, fishing, and bamboo/rattan weaving are traditionally male activities whereas drinking water collection and pig raising are among the traditional female activities. Significant attention would be placed on gender differentials when designing project activities such that activities were accessible to all.

Forest Zoning. The Li are polytheists. They believe in a mountain god and forest god.

6.2 Tibetan (see Annex 1) for a more detailed investigation of Tibetans in SFDP areas

Location and Population. The SFDP project area covers Southern Gansu province (Longnan prefecture), Western Sichuan province (Aba and Mianyang prefectures) and Northwest Yunnan province which contain the easternmost Tibetan settlements in China. Ethnic Tibetans inhabit each of the 10 NFM and all of the PAM project counties in these three provinces. They account for approximately 20% of the population in Wenxian township, Gansu province and approximately 80% of the beneficiary population in Songpan county, Sichuan province which is located within Aba Tibetan and Qiang Ethnic Autonomous Prefecture. Each of the project counties in Sichuan contain either purely Tibetan or a mix of Qiang/Tibetan ethnic townships. Approximately 4,100 Tibetan people reside within NFM project townships. The total Tibetan population in Sichuan province is approximately 1.1 million people; 0.9 million Tibetans reside in Gansu province; and, 0.4 million live in Yunnan province.

Sub-Groups, Languages and Literacy. Tibetans in the Sichuan project area have long had frequent communication with other ethnic groups, which has enabled more integration compared with Tibet. Tibetans in Songpan county, Sichuan province are referred to as Xifan (coming from the west) and may have integrated with aboriginal Songpan people at the beginning of the 7th Century. Bilingual (Tibetan/Chinese) and trilingual (Tibetan/Chinese/Qiang) areas have also emerged. The SFDP project area in Sichuan province is part of the Amdo-Tibetan region. In Mouni and Xiaoxing townships in Songpan County, people belong to the Drogo pa tribe (herders) and speak the Amo dialect. Tibetans in eastern Songpan (near Baiyang NR) are part of the Sharo pa tribe (oriental people) and speak a Tibetan language close to ancient Tibetan. Communication with other Tibetans, however, was not found to be a problem. In the Tibetans communities in Songpan county, community leaders have high formal education levels in Chinese but men above 60 years old and women above 50 years old do not tend to understand Chinese. Primary school is legally and de facto bilingual in the autonomous areas in the project area. In Si’er township, Pingwu county, Sichuan Province, Tibetans live among Han communities and have good command of spoken Chinese.

The Tibetans in two NFM townships (Baima and Muzuo, 57% of the NFM Tibetan population) and one nearby PAM township (Baishuijiang NR in Gansu province) are considered Baima. The Baima were confirmed as a Tibetan sub-group in 1979. The total Baima population in the area is slightly over 10,000 individuals with approximately half of them living in the project area and the other half living in Jiuzhaigou county and outside the project area. The Baima language has 37% lexical similarity with Tibetan. The Baima Tibetans in the project area have basic to good fluency in spoken Chinese, sometimes both Sichuanese and standard Chinese. However, illiteracy remains prevalent in all areas. Only 10% of the households are literate in written Chinese in Shibazi village, Songpan county.

Livelihood Activities & Land Use. Farming systems in the project area have long been based on cropping on valley floors, winter pasture at mid elevation and summer pasture at higher elevations. Cropping systems include the full range of traditional crops. Naked barley (qingke) is an important staple food in
Grazing pressure has increased due to higher numbers of yaks in villages with summer pastures and the development of goat raising at lower elevations. There is a growing issue of fodder deficit during winter ends. Prohibition of traditional pasture management with fire has also reduced grass availability in early spring.

Forest Uses and Local Culture. Most Tibetans in Songpan believe in Bon-po Tibetan Buddhism (i.e., Buddhism blended with polytheism), and the Baima Tibetans are polytheists. There are holy mountains in Songpan and Pingwu. Farmers in Mount township worship mountain gods. Logging was culturally strongly opposed by local people in Songpan. The Baima Tibetan protect forest areas at the rear of their villages where lives a mountain god. Furthermore, there are 19 Tibetan Buddhist monasteries with 1,042 monks and nuns in Songpan county. Three monasteries are in the two NFM townships. Most Tibetans in NW Yunnan are Gelugpa Tibetan Buddhists. In Baimaxueshan NR, 20 to 40% of households have at least one member serving as a monk in a monastery. The participation of monasteries has contributed enormously to the management of the nature reserve. Tibetans in the project area, particularly the Baima Tibetans who value white colour and animals, have a tradition of protecting pandas.

Measures Being Taken to Ensure Cultural/Location Specific Appropriateness.

- **Land Use Planning.** Balanced land use between forest and grazing, particularly of yaks, is of critical importance.
- **Forest Zoning and Management.** The following would be taken into account: (i) Religious activity sites would be fully respected and protected; (ii) The monasteries located within the project areas would be important stakeholders to help promote sustainable forestry management since there is a religious practice to preserve the forests and mountains.
- **Communication.** In Songpan County and in Baimaxueshan NR, NFM and PAM communication would occur in both Chinese and Tibetan languages, and when appropriate, drawings and pictorials would be used.
- **Gender.** Separate training courses will be organised for women in Songpan county, Sichuan province. Teachers would carry out functional literacy classes in the winter.
- **Equity.** Social differentiation is high in all project villages. This creates the opportunity to organise specialist skill training for the more educated. Conversely the project must pay attention to include the more vulnerable groups including the poor.

6.3 **Qiang**

Location and Population. The Qiang are a Tibeto-Burman group located in the cold and arid Minjiang valley in Western Sichuan. There are approximately 198,000 Qiang people according to the latest census. Approximately 80% of the Qiang people reside in SFDP counties (Songpan, Pingwu, Beichuan and 81,000 people in Maoxian), and all will be targeted through NFM and PAM information dissemination activities.

Sub-Groups, Languages and Literacy. Sichuanese is widely spoken and standard Chinese widely understood. There are approximately only 80,000 Qiang speakers left according to the 1990 census. The northern dialect is spoken in the project area. In some project villages, children do not speak the Tibeto-Burman Qiang language anymore, while Qiang remains the main language in Maoxian county. The Qiang in Songpan county communicate with ethnic Tibetans in the Tibetan language.

Livelihood Activities & Land Use. Cropping systems are shifting from diversified mountain agriculture to producing crops exchanged for staple food on the market and pig feed (plastic mulch maize at lower elevations, broad beans at higher ones). In Songpan county, Sichuan province, animal raising is limited to 1-2 pigs per household and cows rearing in approximately 50% of the households. The promotion of cut-
and-carry fodder under land conversion will be beneficial to livestock development. Seasonal employment in urban areas is important in Beichuan, but not in the Songpan project townships.

*Measures Being Taken to Ensure Cultural/Location Specific Appropriateness.*

- **Forest Zoning.** Rural communities have strong religious values related to forest protection. Influence of Tibetan Buddhism is high among the Qiang. The Qiang in Xinxiang township, Songpan, are Tibetan Buddhists, other communities are polytheists or Tibetan Buddhists. For example, in 1998, the Qiang people in Da'erbian village, Xiaoxing township in Songpan county tried to stop the SFE from cutting trees on village mountains.

- **Forest management.** The Qiang in Songpan county have rich indigenous knowledge in forestry, e.g., in natural re-growth management;

- **Preservation of homesteads.** Traditional housing is built with stone walls in lower elevations, but with wooden walls at higher elevations in the project area. Sustainable regimes for construction are needed. Preserving the beautiful, diversified housing styles is an important future asset in community-based tourism development, which Tibetan and Qiang villages in Songpan would be facing during project implementation.

6.4 **Tujia**

*Location and Population.* The Tujia people live in the Wuling mountains at the meeting point of Sichuan province, Hubei province, Hunan province (Xiangxi prefecture, 1.8 Million people) and NE Guizhou province (Tongren prefecture, with approximately 1 million Tujia people), with a total population of 5.7 Million (1990 census). The Tujia population increased by 101% between 1982 and 1990, which indicates that this is one of the nationalities in China that are gaining members in addition to population growth. There are ethnic autonomous Tujia and Miao areas in Hunan province (Xiangxi prefecture) and in Guizhou province (Yanhe and Yinjiang counties) and Sichuan province.

*Sub-Groups, Languages and Literacy.* Spoken and written Chinese are in use reportedly since the Ming dynasty. Only 200,000 speakers of the Lolo Tibeto-Burman Tujia languages remained in 1982.

*Measures Being Taken to Ensure Cultural/Location Specific Appropriateness.*

- **Forest Zoning and Management.** The Tujia are mainly Taoists (90% in Hupingshan NR). There are also well-known Buddhist temples in the Fanjingshan NR Tujia region. Temples in the project areas will be invited as co-management stakeholders. The Tujia have traditional wooden houses and have important construction timber needs to maintain them. Most Tujia in Hupingshan NR have a tradition of planting fruit trees or other trees in winter and spring. Traditional knowledge in fire prevention is also recognised.

- **Biodiversity Protection.** Some of the men and most of the women in Hupingshan NR do not kill or hurt animals. Moreover, ancient trees are protected. These cultural practices would be built upon in designing project activities.

6.5 **Miao**

*Location and Population Numbers.* The Miao in China spread over a large area from southern Yunnan province up to Hubei province in the North. The 1.6 Million Miao people in Hunan province account for one third of ethnic minority people in the province and mainly reside in Xiangxi Tujia and Miao autonomous prefecture and Huaihua prefecture. The NFM project area has a few Miao villages in
Yongshun county, but the potential dissemination area includes the whole mixed Tujia and Miao region in the Wuling mountains (Hunan, Guizhou and Sichuan). Fanjingshan NR in Guizhou has a substantial Miao population. The 60,000 Miao people in Hainan generally reside in Miao natural villages within Li areas in Li and Miao autonomous counties. The project area only includes 2 Miao natural villages (for PAM and PE components). The larger number of Miao residing in the project area are those in the four PE counties in Northwest Hunan province, where more than 10,000 Miao people are expected to become project beneficiaries.

Sub-Groups, Languages and Literacy. The Miao language is a mixed Miao-Yao language with various branches which are generally not mutually understood. The Xiangxi Miao are largely Red Miasos. The Sichuan, Guizhou and Hunan parts of the Wuling mountains speak different languages. Illiteracy is widespread. A roman script has been developed but is not widely used. Fluency in Chinese among the Miao is generally higher in Hunan and Hainan provinces than in south-western Chinese provinces.

Land Use & Livelihood Activities. Due to historical reasons, the Miao people tend to occupy less-favoured environments. These include upper parts of watersheds, limestone ranges with little farmland and drinking water resources, and locations remote from roads. This is the case in the NFM project area. The largely-maize based farming systems are adapted to these constraints.

Measures Being Taken to Ensure Cultural/Location Specific Appropriateness.

- Forest zoning will be respectful of religions activities. The Miao are polytheist, Christian.
- Forest management. The Miao have rich indigenous knowledge in agro-forestry, e.g., with Chinese fir. They often preserve or plant tree belts around their villages.
- Targeting. In mixed Tujia and Miao areas, the project will pay attention to fully include the Miao communities.

6.6 Yao

Location & Population. There are 2.12 million people of Yao minority nationality in China according to the 1990 Census. The Yao people are widely spread from Yunnan province to Hunan province. Some 460,000 people reside in southeast and southwest Hunan province. The NFM project area in Yanling county, Hunan, is the northern most limit of the Yao region. While the NFM forest site does not specifically cover Yao villages, the dissemination of project results will be relevant for the whole mixed Han/Yao area. One PE county in Hunan province contains Yao people.

Sub-Groups, Languages and Literacy. The Yao language belongs to the Miao-Yao language family. However the 1 Million Yao in Southern Hunan and Guangdong reportedly speak a Chinese language that is very close to standard Chinese. Illiteracy is prevalent.

Livelihood. The Yao people have a rich indigenous knowledge of forest management and agro-forestry. The Yao people generally live in marginal conditions and farm on small hillside crops. Illiteracy is prevalent among their community.

Religious Belief. The Yao in the NFM project area practice Taoism and Buddhism.

6.7 She
Location & Population. There are 630,000 people belonging to the She minority nationality in China (1990 Census). Approximately 45% of them live in Fujian Province, a south-eastern coastal province. Only a few isolated communities of She people live within the SFDP project area, specifically in Yanling County. Proficiency in spoken and written Chinese is common. Today, there are approximately only 1,000 individuals who speak their original language that belongs to the Miao-Yao family.

Land Use and Livelihood Activities. The She people are upland agriculturalists.

Religious Belief. Taoism.

6.8 Lisu

Location & Population. The total Lisu population in China was 575,000 in 1990 and 626,000 in 1996. The Lisu live in the upper reaches of the Salween and Mekong rivers, with 97% of them living in Yunnan Province and the remaining in Sichuan province. 231,600 Lisu live in Nujiang Lisu autonomous prefecture in which the Nujiang nature reserve and SFDP project site is located, and 95,468 in Diqing Tibetan autonomous prefecture in which Baimaxuejiang nature reserve is located. There are approximately 12,900 Lisu people living inside or around Nujiang nature reserve, and 22,500 Lisu people living inside or around Baimaxuejiang nature reserve. In addition, ethnic Lisu live in Sichuan province, Thailand and Burma.

Language & Literacy. The Lisu speak a Tibeto-Burman Lolo language with a roman script. There are several different dialects in Nujiang. The SA revealed that younger males and females in project villages tend to understand some basic Chinese, but only a few young men speak proficiently.

Religious Beliefs. According to the results of household interviews and informal discussions with villagers, in Nayidou village, a minority believe in Christianity, in Zhulida village, less than half believed in Christianity, while almost all the Lisu living in Qiada village practiced Christianity. A simple church was found in two of these villages.

Living Conditions. Lisu villages are mostly found in elevations between 1,000 and 3,000 meters above sea level. A natural village is composed of approximately 10-30 households which usually belong to the same family group. There are four principal types of Lisu houses found in the project area: those made from bamboo; those made from timber; dwellings with earthen and stone walls and a stone board roof, and the most popular, a bamboo house with a straw roof.

Livelihood Activities. Lisu villages are mostly found in elevations between 1,000 and 3,000 meters above sea level in Nujiang. In Nujiang, a natural village is composed of approximately 10-30 households which usually belong to the same family group. The main productive activities of the Lisu people inhabiting the adjacent areas of the nature reserves are upland farming, animal husbandry, hunting and collecting NTFPs. The most common crops found in Lisu areas were maize, upland rice, paddy and buckwheat. In Nujiang, three types of agricultural lands were found to exist: hillside crop land, shifting cultivation land and paddy fields. Among them, hillside farming activities take place on 70-80% of the available crop land. According to PRA surveys in three villages and secondary village data very few Lisu farmers can produce enough grains for their own needs. The majority of farmers in these areas, especially those people living in high and cold areas. Tree crops include walnut and lacquer trees for self-consumption of oil. There is some temporary migration for off-farm work in Baimaxueshan.

Forest Uses & Local Culture. Forest resources play an important role in Lisu people's life. (1) During periods of grain shortage, Lisu people often collect edible plants from the forest to meet family needs. The
edible plants include younger shoots, flowers, roots, and fruits. The local people call April to August “collecting months”. (2) Sales of NTFPs are the main cash income sources including collecting different kinds of wild edible mushroom, Chinese medicines and wild vegetables. (3) Timber is cut for fuelwood and house construction. Lisu houses in Nujiang are mostly made of bamboo with thatched roofs. In Baimaxueshan, houses are mostly made from spruce and fir planks, which requires large quantities of timber (2 cubic meters for the roof). According to the results of household interviews and informal discussions with villagers, some to all village members are Christians. A simple church was found in two villages surveyed. The Lisu people are also polytheist, and they have divine mountains where timber harvest is strictly prohibited.

6.9 Nu

Location & Population. The Nu minority ethnic group is mainly distributed throughout Nujiang prefecture, Yunnan Province. According to 1995 population statistics, the total population of Nu people is about 27,000. One fourth of them reside in four townships of Gongshan Dulong and Nu autonomous county within the Nujiang PAM protected area. They live in mountainous areas at elevations between 1,500-2,000 meters above the sea level. A small number live along the Nujiang river.

Sub-Groups, Languages and Literacy. In 1994, the Nu minority ethnic group had 9,000 speakers of the Nusu language and 5,500 speakers of the Drung language, two Tibeto-Burman languages. Education is poor and literacy is low. The Nujiang nature reserve staff has reported the existence of a roman script. The SA reveals that only a few males can speak Chinese while women and the older generation do not understand Chinese. The Nu people in Nujiang nature reserve live either in purely Nu villages or in mixed Nu and Lisu villages. Approximately 20-30 households of the same clan make up a natural village.

Land Use and Livelihoods. The main land use types are paddy fields, hillside cultivation, and land used for shifting cultivation. Fallows are enriched with Alnus nepalensis. Crops include maize, rice, buckwheat, potatoes, naked barley, sorghum and beans. Tree crops include tung, walnut, lacquer, tea and citrus trees.

Forest Uses and Local Culture. The forest is used by the Nu people for collection of wild edible mushroom collection, medicinal plants and wild vegetables, their main source of cash income, and livestock grazing. The most common housing style is with long timber stilts.

6.10 Dulong

Location & Population. There were approximately 5,800 people in the Dulong (or Drung) nationality in China in the 1990 census. They all reside within four townships in the Gongshan Dulong and Nu autonomous county within the Nujiang PAM project area. Ninety-eight percent live along the Dulong river. Only a few Dulong settlements are found along the Nujiang river. All 3,702 people in Dulongjiang township are Dulong.

Sub-Groups, Languages and Literacy. The Dulong river dialect of the Drung language, a Tibeto-Burman language, is spoken by the Dulong people in Gongshan county.

Land Use and Livelihoods. Most Dulong villages are located in sloping areas with a size of 20-30 households per natural village. The Dulong people mostly engage in shifting cultivation. Fallows are traditionally enriched with Alnus nepalensis. Collecting NTFPs, hunting and fishing are important household activities. Cash income from these activities is extremely limited and only covers salt, oil and clothes.

6.11 Bai
Location & Population. There are 1.6 Million people in the Bai nationality in China according to the 1990 census. They reside in NW Yunnan between the upper Mekong and upper Yangtze rivers, and in the Dali Bai autonomous prefecture. The Bai people account for 25% of the population living within or around the Nujiang nature reserve, Yunnan province. Approximately 8,100 people reside in 5 townships of the reserve.

Sub-Groups, Languages and Literacy. The number of speakers of the Bai language, a Tibeto-Burman language, was estimated to be 900,000 in 1990. The Naxi language has borrowed heavily from Chinese. A roman script has been developed. There is an old Bai script dating from around the 8th century based on Chinese characters.

Land Use and Livelihoods. Diversified upland agriculture and animal raising.

Forest Uses and Local Culture. Religious beliefs among the Bai include polytheism, Buddhism and Daoism, and some of them are Christian.

6.12. Naxi

Location & Population. There are 278,000 people in the Naxi nationality in China according to the 1990 census. Seventy-two percent reside in Lijiang Naxi Autonomous County, northwestern Yunnan, 8% are scattered through 8 other NW Yunnan counties, 7% live in 3 counties in Sichuan, and the remaining live in Tibet. Within the project area, very small numbers of Naxi people reside in 3 townships of Nujiang nature reserve (34 people) and in 4 townships of Baimaxueshan nature reserve.

Sub-Groups, Languages and Literacy. The Naxi language, a Tibeto-Burman language of the Yi/Lolo branch, is in use and the dialects are fairly unified. A roman script has been developed. The use of the ideographic ‘Dongba’ writing system is limited to reciting classic texts. The Naxi people resent the older denomination for their group, ‘Moso’. The Naxi are one of the nationalities in China that have a sophisticated elite.

Land Use and Livelihoods. Diversified upland agriculture and animal raising.

Forest Uses and Local Culture. Religious beliefs among the Naxi include Tibetan Buddhism and Daoism, and some of them are Christian.

6.13. Pumi

Location & Population. The Pumi nationality in China is limited to 24,000 people according to the 1990 census. Within the project area, Pumi people only account for a small proportion of the population in one village in Pantiange township, Baimaxueshan nature reserve.

Sub-Groups, Languages and Literacy. There were 54,000 speakers of the Pumi Northern and Southern Pumi languages in 1994 (Tibeto-Burman languages of the Qiang branch), including the Pumi themselves and 30,000 speakers in the Tibetan nationality.

Land Use and Livelihoods. Diversified upland agriculture.

Forest Uses and Local Culture. The Pumi practice Tibetan Buddhism.
6.14. Yi

_Location & Population._ There are 6.6 Million people in the Yi nationality in China according to the 1990 census, located throughout Yunnan province, where they are the most populous ethnic group with 4 Million people, in SW Sichuan and in NW Guizhou. Within the project area, only a few Yi individuals reside in Baimaxueshan nature reserve, mostly in Tacheng township.

_Sub-Groups, Languages and Literacy._ The Yi category is a diverse one, consisting of a variety of peoples distinguished by language, culture, and degree of integration with mainstream Han society. The official nationality includes at least 6 languages of the Tibeto-Burman family (Eastern, Central, Southern, Western, Southeastern and Northern, and possibly 20. Intelligibility between dialects is reportedly low. A written script has been developed. The SA has not specified whether the Yi in Baimaxueshan are Northern Yi (‘Nuosu’), who are less integrated in the mainstream society, not bilingual and live at higher elevations, or Western Yi (‘Lalu’), who are well integrated, often live at lower elevations and do not want to be mistaken for Nuosu people.

_Forest Uses and Local Culture._ Shifting cultivation was prevalent in upland areas until recently. The Yi are polytheists.

6.15. Dong

_Location & Population._ There are 2.5 Million people in the Dong nationality in China according to the 1990 census. They are located at the meeting point between Northern Guangxi, SE Guizhou and SW Hunan. Within the project area, Dong people reside in only one township of Fanjingshan nature reserve, Taiping, in Guizhou province.

_Sub-Groups, Languages and Literacy._ All members of the Dong nationality are speakers of the Dong language, with 62% speaking Southern Dong and 38% Northern Dong. These languages have reportedly 49% lexical similarity with the Northern Zhuang language. The Dong language has as an official script.

_Land Use and Livelihoods._ Paddy farming, tree crops (tung, oil tea). The traditional way of life and well-known architecture is relatively undisturbed, particularly for the Southern Dong. The southern Dong areas are receiving increasing numbers of tourists.

_Forest Uses and Local Culture._ Forestry is an important livelihood activity. The Dong are polytheists.

6.16. Hui

_Location & Population._ The 1990 census reported that there are a total of 17.6 million members of the ten mainly Muslim nationalities in China, with the Hui numbering 8.6 million, representing a 20 percent increase over 1982 figures. The Hui are the third largest minority nationality in China, the most numerous of the ten Muslim nationalities, and the most widespread nationality in the country. Urban Hui communities are found in 97% of counties in China. Within the project area, in addition to these urban communities, some 1,500 rural Hui people reside nearby each of the five PAM nature reserves of Sichuan province, where they account for up to 37% of township population. Approximately 800 Hui people could be project beneficiaries in two PE counties in Henan province. Gansu, the project province with overall the largest Hui population, has no Hui people residing within the project areas.
Sub-Groups, Languages and Literacy. The Hui in China share little in common other than the practice of Islam. They speak primarily the regional Chinese language used in their locality. The Hui are one of the nationalities in China that have a sophisticated elite. Many urban Hui take government positions at local and provincial level while others set up businesses.

Land Use and Livelihoods. The rural Hui living in remote upland areas in NW China practice diversified agriculture and animal husbandry. They have low incomes and suffer from lack of access to education and health. Gender issues are particularly acute.

Forest Uses and Local Culture. The Tangjiahe nature reserve staff have noticed that fuelwood consumption by the Hui people is limited.

6.17. Mongol

Location & Population. There are 4.8 Million people in the Mongol nationality in China according to the 1990 census. Thirty percent of them live out of the Inner Mongolian Autonomous Region in NE and NW China. Within the project area, Mongol people account for 5% of the population in three PE counties in Liaoning provinces. Should they apply for commercial loans to plant trees, up to 600 people are expected to be project beneficiaries.

Sub-Groups, Languages and Literacy. The Mongol language is an Altaic language of wider communication. In addition to Chinese, the Inner Mongolian script is used and there are radio broadcasts are in Mongolian.

6.18. Manchu

Location & Population. There are 9.8 million people in the Manchu nationality in China according to the 1990 census. They live in Heilongjiang, Jilin and Liaoning provinces. Manchu people account for 5 and 17% of the population in two PE counties in Liaoning provinces. Should they apply for commercial loans to plant trees, up to 300 people would be project beneficiaries.

Sub-Groups, Languages and Literacy. Very few speakers of Manchu, an Altaic language, remained in 1990. Written Manchu was once in use (old Manchu script), but now written Chinese is in common use. In China, the Manchu were once thought to be completely sinicised, yet their population numbers grew from 4.3 million in 1982 to 9.8 million in 1990, with Manchu autonomous counties being re-established and interest in Manchu culture and language learning sweeping the country. The Manchus are one of the nationalities in China that have a sophisticated elite.

7.0 Project Site Profiles

The project site profiles below provide a summary of key Social Assessment and PRA findings for confirmed project sites included in the Natural Forest Management and Protected Areas Management components of SFDP. It serves as a reference for those involved in the on-going project preparation and later implementation to take on board the specific recommendations arising from the social assessment and consultative process.

Each of the profiles of townships falling under the NFM component include (i) an overview of the typical livelihood patterns of people (mostly ethnic minorities) inhabiting the project site area; (ii) an Ethnic Minority Profile describing the extent to which each ethnic minority inhabits the project area; (iii) an
overview of how populations use natural resources, particularly the forests, for subsistence, commercial and other cultural purposes; (iv) the problems faced by these populations and (v) opportunities that exist for them under the project. Profiles for the following project sites are presented below:

- **Hainan**: Wangxia township and Bawangling SFE
- **Hunan**: Ceyuan and Shidou townships, Yanling county; Xiaoxi and Zhenxi townships, Yongshun county
- **Sichuan**: Longdong and Yongfu townships and Jiajinshan SFE, Baoxing county; Baima and Muzuo townships and Pingwu SFE, Pingwu county; Mouni township, Songpan county; Xiaoxing township and Songpa SFE, Songpan county

Profiles of all 13 Nature Reserves (NR) included in the Protected Areas Management component of the project include (i) A brief overview of the Nature Reserve; (ii) an Ethnic Minority Profile describing the extent to which each ethnic minority inhabits the project area; (iii) Impacts on ethnic minority households as a result of the nature reserve and project activities; (iv) Key threats to the nature reserve as discovered through the Social Assessment and PRA process; (v) Risks as a result of the project that would possibly impact populations, and a description of community needs as discovered through the SA process; and, (vi) opportunities as a result of project activities. Profiles of the following nature reserves by province are presented below:

- **Gansu**: Baishuijiang NR
- **Guizhou**: Fanjingshan NR
- **Hainan**: Jianfengling NR
- **Hubei**: Houhe NR
- **Hunan**: Badagongshan NR; Hupingshan NR
- **Sichuan**: Baiyang NR; Piankou NR; Si’er NR; Tangjiahe NR; Xiaozhaizigou NR
- **Yunnan**: Nujiang NR; Baimaxueshan NR

**7.1 Wangxia Township & Bawangling SFE, Hainan Province**
Overview. Wangxia is a 100% Li township, the closest to Bawangling. Some 3,500 people live in 5 villages. The impact of the logging ban and hill closure has been reportedly important. Income per capita decreased by 30% to ¥660 in 1999. This is the lowest township average income in Hainan. There are few paddy fields, maize on rainfed slopes, supplementary shifting cultivation of upland rice (0.8 T/ha), only 1-3 garden trees/household, and some off-farm employment in the county mine and in services. Bawangling is one of the three large SFEs in Hainan, under Hainan forestry bureau. Logging incomes have started to decrease in the 1980s. Diversification into pine resin, rubber, tropical fruit, hydropower has taken place in the 1990s. Among the 2,800-people enterprise population, many have sought urban jobs, but SFE has a job creation policy from further diversification. There is a small nature reserve in the SFE but tourism is not developing quickly.

Ethnic Profile. There are approximately 686 SFDP project households of which 100% are of the Li ethnic nationality. They have no written language.

Forest Uses. Supplementary shifting cultivation for food and feed production is practised by 100% of households in the more remote Hongshui and Dayan villages, where the PRA has been carried out, and is rather residual in other villages. This had been tolerated in the past but the ban is now being enforced. Enforcement on illegal trade (bonsais, timber, wildlife) remains weak. Cattle graze in the forest. Basket weaving from bamboo and rattan collected in the forest is now a main source of cash income. Other more minor uses are collection of fuelwood, medicinal herbs, palm leaves for roofing, and timber for modern housing beams. Past involvement in logging sector was limited after 1970s. Villages closer to SFE sold food products to enterprise population. This has stopped with the 1980s logging sector decline. A few villagers were forest guards for SFE.

Livelihood Patterns. Intensification of farming systems requires development of rainfed agriculture on the milder slopes, of tree crops on the steeper slopes, and development of pig and cattle raising. There is unclear and possibly limited potential for rubber and some other tree crops on slopes due to poor soils and low rainfall, but land use rights are the biggest issue on slopes. Households need individual long-term land contracts to develop sustainable activities on the rainfed farmland, but land use rights have remained collective. Land renting or contracting by outsiders for tree planting or hill closure is encouraged by provincial policies. Demarcation of sloped land belonging to individual villager groups is unclear, leading to some conflicts among villages. SFE management staff may seek to contract land from the communities, and agrobusinesses are developing mango plantations in the nearby Qi Xia township. Livestock development is hampered by disease problems. Farmers also want to improve the irrigation system but if statistical data is correct paddy area is only 0.3 mu/capita. Furthermore the SFE reservoir is siltated, paddy soils are sandy. Drought in 98 and 99 and water releases from the new SFE hydropower station have made the problem worse. Improved water management is a prerequisite to infrastructure upgrading.

Opportunities. Natural forest co-management could concentrate on overall improved land use planning, specifying lands allocated to grazing outside and within the SFE, to fuelwood collection, and to individual households for cash crops, tree crops and agroforestry. Demarcation of natural village boundaries should be made clear. Allocation of land should be reserved to households within the community, with attention to equity. A women-centred program for training and microcredit can help develop pig and cattle raising, and some tree and cash crops. The project will co-ordinate with the well-funded poverty reduction programs. Training topics should include infrastructure maintenance, environment awareness, primary health care, and specialist animal disease prevention skills. Drinking water should be planned in priority among village infrastructure needs. Much of the project's added value will come from using improved training methods adapted to the Li community, and building capacity and dialogue among the co-management partners.
7.2 Ceyuan, Shidou Townships & Yanling timber company, Yanling County, Hunan Province

Overview. The forest sites and adjacent communities occupy the upper half of Ceyuan and the upper fourth of Shidou. These are mostly Han communities. Road, electricity and drinking water facilities are fairly developed. There is no SFE but a county timber company. Two thirds of the 123 workers have become redundant. Only Ceyuan township has been visited by the consultant team during project preparation.

Ethnic Profile. Ceyuan holds approximately 827 project households of which only 11 households or (0.5%) are of the Yao ethnic nationality; Shidou contains approximately 897 project households of which 1% are Yao. There is even as smaller percentage of households classified as belonging to the She ethnic nationality.

Forest Uses. Forest is collective forest and has been entirely allocated to households in 1981 through responsibility contracts and no reallocation has taken place since then. Land use rights on forest land are as clear as they are in Yongshun county. Forestry accounted for 65% of farmer incomes in 1998. 84% of households derived more than 50% of their incomes from forestry. One half of this forestry income was coming bamboo timber and bamboo shoots collection and processing, 40% from other timber, 6% from fuelwood sales and the remaining from collection of mushrooms and other NTFPs. The total logging ban impact in annual incomes is 2.1 Million Y in Ceyuan township (45% for household income (78% of former forestry income), 33% for township fiscal revenue, 16% for forestry bureau revenue, and 5% for village collective revenue).

Livelihood Patterns. NFP is being implemented in a way that forbids most forest uses. Animal grazing is now forbidden in designated forest areas, although some villages such as Shangtong have substantial grassland areas. Marketing channels for NTFPs are not well developed. Fuelwood is less and less available, prices have gone by 150%. The bamboo plantations are ageing and need to be rehabilitated. Village infrastructure is not adequately maintained. Agricultural production mainly consists in paddy and sweet potatoes for self-consumption. Animal husbandry only provides 7% of farmer incomes. No training opportunities are available for households. Most households have access to short-term credit for amounts limited to Y500 and mainly for crop production.

Opportunities. This is the only NFP site where co-management schemes can be piloted for collective forest in a Han community. Farmers and local government are interested in a farmer training program in forest management. Since off-farm work in urban areas is limited, farmers, particularly poorer farmers, want to use microcredit for diversified farming activities. These include animal production (mainly pigs and poultry) and crop production (mainly cultivation of medicinal plants). Rural credit is already well developed and the project added value will be in twinning credit with training and with developing a microcredit scheme where farmers select how they want to use their loans. Farmers are also interested in rehabilitating the bamboo plantations. A substantial number of better-off households want to invest into small-scale processing (of bamboo, timber or medicinal plants), transportation and other services.

7.3 Xiaoxi and Zhenxi townships, Yongshun County, Hunan Province

Overview. Xiaoxi is a small township of 992 households and all villages are in or adjacent to the forest site. They are mostly of the Tujia ethnic minority. Two lower watershed villages from Zhenxi township are also included. The valley can only be reached by boat from the nearby Wangcun town, a tourism destination. Population density is only 30 people/km². 70% of households are registered as poor. The PRA survey has been carried out in Xiaoxi and Dapinggang villages. Yongshun has proposed a second forest site in Longzhai (lower watershed township, close to the county seat, more developed, with a high
population density) and Wanfu (upper watershed township). This second site has not been visited by the consultant team during project preparation.

**Ethnic Profile.** Xiaoxi township contains approximately 772 project households of which 63% are Tujia and less than 1% are ethnic Miao.

**Forest Uses & Livelihood Patterns.** Forest is collective forest and has been entirely allocated to households through responsibility contracts. Land use rights are clear, all households have forest land certificates issued by the county. The forest was until 1999 the main income source for 80% of households. Logging was providing 32% of farm incomes and NTFPs 20%. The Tujia wooden houses require large quantities of construction timber. Timber is also cut to grow mushroom on it, and some shifting cultivation was traditionally carried out.

**Problems.** As in State-owned forest areas, NFPP is being implemented by prohibiting all forest uses including fuelwood collection, the construction of wooden houses, as well as cattle and goat grazing on forest land. Farmers are not confident in the new forest policies and a lot of logging was taking place in May 2000. Land tenure is scattered among the households making forest management difficult. Village infrastructure is particularly underdeveloped. Only the township seat has a road access, and electricity supply is limited. Farmer priorities for community development are to access training, to diversify farm incomes, to build tracks to improve school access and market access, and solve the fuelwood problem.

**Opportunities.** The site offers an opportunity for co-management schemes between villager group representatives and the county forestry bureau. Sustainable regimes for construction timber have not been mentioned as an opportunity but they would help preserve the traditional Tujia construction style. Farmers have an opportunity to set up varied income generation activities related to the development of tourism. Agricultural income generating activities would include animal raising (mainly pigs and cattle), fruit and nuts, medicinal plant production and cash crops. A number of households wish to obtain credit to set up small timber, grain and feed processing operations. Training needs include crop and animal production, processing, transportation skills, marketing and infrastructure rehabilitation. The township forestry station provides technical support for afforestation and NTFP production.

7.4 **Longdong and Yongfu townships and Jiajinshan SFE, Baoxing County, Sichuan Province**

**Overview.** This is the only Han-populated NFM project area in Sichuan. Incomes, from county to households, have been relatively high until 1998 thanks to the logging sector. For example, some 75% of households have TV sets. Longdong, the lower township in the SFE watershed, is the only more populated township in the Sichuan project area with 5,700 people and 40 people/km². Elevation in the valley is only 1,100 meters above sea level. Yongfu is in the upper watershed and only 0.5% of its total land area is farmland. Cropping systems include maize, wheat and beans and crop production is already fairly intensified. Farmland is increasingly intercropped with nuts and medicinal tree crops. Animal raising consists on average in one cow and 3 pigs per household. PRA work has been carried out in Zongxing (Longdong) and Zhongguan, Yonghe and Ruobi (Yongfu), and a development plan has been drafted for Zhongguan. Jiajinshan SFE has a population of 2,600 who all reside in the project site. The enterprise is investing into new calcium bicarbonate plant, and wants to train its management and workers in that field. Workers and their households are also candidate for vocational training in all sectors.

**Ethnic Profile.** Of the 1379 project households in Longdong township and 443 households in Yongfu township, less than 1% of these households are ethnic Tibetans.

**Community Forest Uses.** Some 25% of forest land is under household responsibility, 5% has remained collective, and the rest is State-owned forest under the SFE. Shifting cultivation of medicinal roots has
been a main income source and it occupied a larger area than all other farmland. The NFPP has made this illegal. Fuelwood for home consumption and construction timber are mentioned as a secondary problem by both men and women (annual fuelwood consumption is around 4 tons/household), but restricted access to timber that fuel the medicinal plant dryers is an important issue (3.5 tons were consumed per ton of roots). The amount of other annual income loss due to the logging ban is estimated to be a total 9.5 Million Y in the two townships (4.9 million from off-farm employment, 2.9 Million Y from small-scale timber processing, 1.7 Million Y from timber transportation trucks—farmers had invested into 77 trucks for that), i.e., more than Y 5,000/household.

Problems. Problems ranked first by the rural community are the logging ban, the absence of maintenance of roads and power stations by SFE, lack of drinking water facilities in Longdong, lack of information, and the need for improved technology, both for animal husbandry and planting trees. Men rank credit access as an important need. The development of goats and cattle requires improved grazing management. There is a great demand for all types of village infrastructure. Villages had even started to build cement paths before the logging ban. Priorities include roads, bridges and school rehabilitation. Health services have deteriorated but this mainly affects the enterprise population. As in other Sichuan sites farmers want an improved electricity network but this problem cannot be solved by the project. Wildlife damage is an issue in Longdong.

Opportunities. NFM has an opportunity to pilot natural forest co-management in this site. There are no language barrier, education gap or other obstacles between the SFE and the community. The land conversion program is fully compatible with farmers’ own land use change strategy—cut-and-carry fodder and agroforestry. Farmers need to keep producing medicinal herbs, but to do so in a sustainable rotation. The forest management plan should assist with related zoning and sustainable regimes for dryer fuelwood, and the community development with technical support. Households wish to develop cow raising, goat raising based, and bee keeping, and need both credit and related training. Farmer entrepreneurs want to set up taxi services and a small shop, and are also the major medicinal plant producers.

7.5 Baima and Muzuo townships, and Pingwu SFE, Pingwu County, Sichuan Province

Overview. The Wanglang valley is another sparsely populated project site, with a total of 795 households in the two townships and only 3 people/km². The upper watershed township, Baima, has the largest population of all Baima Tibetan townships. Villages occupy the valley floor at an elevation of 1,900-2,300 meters and 10% of the total land area is pasture. The lower watershed township, Muzuo, is half Tibetan and half Han. There is little arable land in Muzuo, no high-elevation pasture and settlements are scattered along the main valley and other gullies. The PRA surveys have covered all villages and village development plans have been drafted for Yiwa in Baima and Heping in Muzuo. Baima is adjacent to Wanglang nature reserve where WWF has been carrying out a natural resource planning project and has supported a community-based tourism development plan. Pingwu forestry development company is a county SFE that was set up after the prefecture SFE shut down logging operations in 1994. A 2,600 people enterprise population has remained in the valley. The SFE has opened a carbonate calcium plant and hopes to provide NFPP subsidised jobs to one third of the workers. Most workers have family with rural resident permits in the Sichuan basin. Older staff plan to move there for retirement, and younger ones are candidate for alternative jobs.

Ethnic Profile. Of the 306 project households in Baima township, 99% of the households are Baima Tibetan.

Farmers’ Forest Uses. Past involvement in the logging sector was important until 1994. Farmers, particularly in Muzuo, took waged employment, and some operated small-scale processing enterprises. Forty-two households in Baima had purchased trucks, and many of them hold private contracts on
substantial areas of State-owned forest. They have now sold them to build guesthouses which they are just starting to operate. Annual income loss from the logging ban is estimated to be 5.5 Million Y (3 Million Y for truck owners for timber transportation, 2 Million Y for processing, and 0.5 Million Y from timber sales). Consumption levels of fuelwood and construction timber (for homes and guesthouses) are high (6 T/year of firewood), and NTFP collection is an important income source for poorer households. Some of the forest is collective forest under either the townships or the villager groups, and has been planted into timber.

**Problems.** Problem ranking by farmers has indicated that rural electricity, lack of technical and veterinary services, and road and bridge maintenance, are the main problems perceived. Health and education come next, as well as drinking water, and the absence of farmer market in the valley. Two potential project risks have been identified. First, social differentiation is high. The project needs to pay attention to working with all farmers and both townships. For example, improved drinking water facilities should not concentrate on guesthouses. Second, managing pastures with fires is now forbidden. The government is promoting improved pasture management with the use of fences in Baima. However, this is likely to take the form ofcontracting this common property resource to a few individuals. The project will not support any fencing.

**Opportunities.** The project has two key opportunities in this site. One is to support forest management in relation to the development of community-based tourism. Activities could focus on sustainable harvest regimes for fuelwood and construction timber, since consumption will remain high or increase as tourism develops. The Pingwu SFE is interested in a co-management approach. The SFE has set up co-ordination working groups with townships and is setting up responsibility contracts. The PRAs have identified pro-poor activities related to tourism, such as bee-keeping and honey wine-making, and diversified animal raising (cattle, pig, chicken). The second opportunity is to co-ordinate closely with the PAM component. Pingwu is implementing PAM in Si'er township. Baima township communities require appropriate regulations in the Wanglang experimental zone.

7.6 **Mouni Township, Songpan County, Sichuan Province**

**Overview.** Mouni township is a small valley close to the county seat. It is one of the fully Tibetan townships in the lower Southeastern half of the county. PRA surveys have taken place in Shibazi and Bozuo. The villages have moved down from the slopes to the valley floor in 1958. Households farm an average 2.6 hectare on the valley floor with broad beans, naked barley, potatoes and wheat and households are generally self-sufficient in grain. Seasonal employment in medicinal herb collecting teams in Qinghai has declined but remains important. Slopes are fully under State forest status and comprise forest, winter and summer pasture. Households are in the process of developing livestock. Better-off households raise larger yak herds, poorer households have started to develop goat raising.

**Ethnic Profile.** Of the 246 project households, approximately 95% are ethnic Tibetan.

**Forest Uses.** All forest land is State-owned forest. The forest is managed by villager groups under responsibility contracts with the county forestry bureau. Southern slopes are winter pasture and upper slopes are summer pasture. Fuelwood and construction timber consumption levels are important. Fuelwood cuts are now forbidden. Most households store fuelwood for 3-4 years but poorer ones do not, and are running short of fuelwood. Mushroom, fern vegetables and medicinal herbs are collected. Farmers have been actively involved in the logging sector until 1998. Annual income loss estimate is 2.2 Million Y: casual waged employment (1.2 Million Y/year), 41 trucks and tractors for timber transportation (0.9 Million Y/year), 3 wood processing plants (0.1 Million Y/year). Total income is assessed to have decreased by 60%.
**Problems.** The township has been listed one of the two national-listed tourism sites in Songpan in 1996, but the community shares few benefits, and environmental impacts are expected. The county tourism company has built a road, opened a fee collection gate and organises horse ride treks. The township government receives no share from the entrance fees. Horse owners are reportedly mostly from outside the township, and a conflict over horse grazing has appeared. Only two villages in the valley derive benefits from small shops. Pollution of the valley stream is already occurring. Private operators have tried to contract the Buddhist monastery. In addition, the valley faces both the general rural energy crisis and a real overgrazing problem. The township plans further development of yak raising but carrying capacity is already overstretched. In Shibazi village, annual fuelwood consumption is 8 T/household and only 45% of households have purchased improved stoves. Shibazi has solved the electricity problem by securing electricity supply with a direct line from the hydropower station. In Bozuo village conversely, 40% of households had purchased TV sets but are selling them back due to lack of electricity. Finally, social differentiation within communities is high. Poorer households and better-off ones have distinct livelihood and land use improvement opportunities.

**Opportunities.** Four of the 5 administrative villages have only one villager group. This is an opportunity to build up villager group capacity in forest co-management. Villager groups are already actively taking part in the protection of State forests under responsibility contracts, and forest protection is closely integrated with religious values and beliefs (see also Tibetan ethnic group profile on opportunity for participation of monasteries). The co-management team has to address two complex problems, tourism development and pasture management. In the short term, it might be appropriate to focus on an easier to solve issue such as construction timber and fuelwood. However the tourism stakeholders must be invited to attend co-management meetings at an early stage. Pro-poor activities will be included in village development plans. These are (a) clean drinking water, (b) sustainable fuelwood and NTFP collection regimes, (c) pig raising, and introduction of sheep as an alternative to goat raising, (d) teacher re-training and functional literacy courses. Communities have already started to develop alternative income sources: animal raising, NTFP sales and tree seedling nurseries. The project will lift the limiting factor, credit access.

**7.7 Xiaoxing township and Songpan SFE, Songpan County, Sichuan Province**

**Overview.** The valley floor is narrow and the township basin is occupied by the SFE. The 15 natural villages are established on shoulders above transversal gullies. Households farm only 1 hectare on average. There has been a shift in cropping systems from wheat to broad beans after the logging ban since village electrical milling machines have shut down. Slopes are mostly under State forest status and comprise forest and some pasture patches. Villager groups have limited areas of collective forest (15% of the county forest is collective forest). PRA surveys have taken place in Da'erbian and Aixi villages. Songpan SFE, under Aba prefecture, was still fully involved in logging when the logging ban was set up in 1998. Among 50 workers interviewed, only 20% have stated forest management as a training need, the majority is seeking alternative employment within the county or back in the Sichuan basin.

**Ethnic Profile.** Approximately 387 project households of which 92% are Tibetan and 8% are Qiang.
Farmers’ Forest Uses. Large quantities of fuelwood and construction timber are consumed. Fuelwood cuts are now forbidden even in collective forest, but most households had stored fuelwood for 3-4 years. Construction wood is becoming a priority issue. Some construction wood quotas will be released in 2000. Collection of high-value mushrooms at higher elevations and wild vegetable at lower elevations have become a major cash income sources after the logging ban. Involvement of farmers in the logging sector has been important until 1998. Annual income loss is estimated to be 2.6 Million Y (casual waged employment, 0.6 Million Y/year and timber transportation by truck, 2 Million Y/year). The SFE also stopped issuing forest guard allowances. Total income is assessed to have decreased by 71% after 1998.

Problems. The SFE hydropower that used to provide free rural electricity has not been maintained after 1994. Villages only have regular electricity supply 2 months a year and have to pay for it. Households had started to buy farm processing machinery and TV sets that they cannot use. They also lack skills in electricity maintenance. Households cite health as their main problem after the lack of electricity and timber construction timber. A complete ban on fuelwood and construction wood has been set up. Conversely NTFPs are intensively harvested without any regulation. Land conversion plans will be difficult to implement since farmland is already limited.

Opportunities. NFM has the opportunity in Xiaoxing to use the Qiang farmers’ rich indigenous knowledge in the management of natural forest stands. A farmer stated: ‘trees are like men, when they become old they need to give place to the younger ones’. Forestry training will be jointly organised for SFE and farmers. Specialist skill training needs also include teacher and health worker training, animal disease prevention, training in electricity and mechanics. Forest planning should seek improved planning of both forest and pasture. Pro-poor activities identified in village development plans are similar to those in Mouni. They include (a) clean drinking water, (b) sustainable fuelwood and NTFP collection regimes, (c) pig raising, and introduction of sheep as an alternative to goat raising, and (d) functional literacy courses. Finally, some community members have built assets (e.g., trucks) from their involvement in logging sector. They now wish to invest them into alternative enterprises. Several households may wish to pool their microcredit resources to do so. Conversely, attention to actual participation of poorer households is required.

7.8 Baishuijiang Nature Reserve - Gansu Province

Overview. Baishuijiang nature reserve is one of the three national panda reserves directly under the supervision of the State Forestry Administration (SFA). Baishuijiang nature reserve covers 2,137 km², of which 973 km² is core (state-owned forest) and 1,164 km² has been zoned experimental (mostly collective forests). Baishuijiang lies within two counties, Wen and Wudu. Fifteen townships have at least some of their areas within the nature reserve’s experimental area. Approximately 96,000 people live in the experimental zone of Baishuijiang. In conducting the social assessment, PRA surveys were conducted in nine locations in Wenxian county. Tielou township includes 2,078 Baima Tibetans (89% of township population). No other ethnic minority populations reside in or on the periphery of the nature reserve.

Threats. Threats to the biodiversity of Baishuijiang come from a variety of places within the reserve. Spatially, the main threats come from Tielou and Dapingshan. Other locations of concern are Pandixia (Pandi township) and along the border with Sichuan province and its Tangjiahe nature reserve. Key threats and conflicts affecting biodiversity include logging for fuelwood, illegal logging in the collective forests, poaching, and NTFP collection. The results of the social assessment indicated how uses of natural resources by rich, middle income, and poorer households are different and impact on the nature reserve. The biggest threat comes from middle income households, because fewer members of their families migrate for employment. Therefore, they have more labor in the household for utilization of natural resources for economic activities and are more dependent on income from natural resources than from labor.
Ethnic Profile. Tielou township includes 2,078 Baima Tibetans (89% of township population). No other ethnic minority populations reside in or on the periphery of the nature reserve.

Project Impacts
- Project activities will generally have positive impacts on the nature reserve and its communities. Community-based nature conservation sub-component focuses on developing co-management in two villages, providing extension training for the cultivation of higher value added forest products, training community committees and households on financial management and project management, thereby increasing the capacity of village institutions towards sustainability, and supporting energy conservation, specifically reducing the demand for fuelwood and working with better fuelwood and forest management. Additionally, Baishuijiang and Tangjiahe are being supported under the PAM to establish a joint planning process in order to deal with common threats and management issues.
- In revising the management plan under the PAM component, zoning for the nature reserve may change. A possible buffer zone may be added contiguous to the core zone. Buffer zones can be used for research and observation and all other activities are not allowed. Any addition of a buffer zone would cut into the collective forests of the experimental zone. As a result, people would be losing rights to sustainably harvest products from these collective forests. Because of the size of Baishuijiang, any proposed buffer zone could affect substantial numbers of people.

Opportunities. As in Tangjiahe, a unique opportunity exists for co-ordination and collaboration between the Tangjiahe and Baishuijiang nature reserves and their respective provincial offices. Funds are being provided to both nature reserves for annual collaborative planning workshops concerning common threats.

7.9 Fanjingshan Nature Reserve- Guizhou

Overview. Fanjingshan nature reserve covers 419 square kilometers in Guizhou province. The core area of the nature reserve is 246 square kilometers and the remaining area is divided between the experimental zone (133 km²) and tourism zone (40 km²). State-owned forests occupy 300 km² and collective forests 33 km² of the experimental zone. In the tourism zone, 78% of the land is state-owned. The tourism zone is a small zone running east and west and dividing the core north and south. No extensions to the nature reserve or major zoning changes are expected.

Fanjingshan nature reserve defines its project impact zone to include 7 townships and 25 administrative villages. The population of this area is 13,417 people.

Ethnic Profile. Ethnic minority households comprise 68% of the households. The main ethnic minority groups are Tujia, Miao, and Dong. The percentage of poor households ranges from 22% in Taiping township to 49% in Wuluo township. Average income ranges from 520 yuan/capita/year to 750 yuan/capita/year over the area.

Threats. Fanjingshan faces many threats and conflicts from local government and communities. Nature reserve staff discovered during the social assessment that more threats come from communities outside but near to the reserve than from communities located inside its boundaries. The threats to Fanjingshan are severe and they mainly result from charcoal production. logging on the border or illegally inside the nature reserve, mining, collection of NTFPs, firewood cutting and collection, trapping and hunting of wildlife, and fire. Overall, there is a great demand for natural resources in the area, with a large impact on the nature reserve. For example, to produce the 800 kilograms of charcoal needed by the average family, over 2 mu of land is required. Fanjingshan staff estimate that almost 16,000 tons of firewood is required each year to meet each household demand from residents in or near the nature reserve.
Impacts. Eight villages were surveyed using PRA during the social assessment. Impacts from the CBNC sub-component of SFDP, as determined by the Fanjingshan social assessment team, include:

1. **Improved institutional capacity of local communities.** Due to the co-management activities to be supported by SFDP, village committees will be strengthened and capable of lasting beyond the life of the project. They will have extensive experience managing community-based projects and community funds and they will be able to train other village groups.

2. **Community-based projects add to livelihoods.** Through the co-management activities, community funds will be established for community and household projects that improve conservation and livelihoods. Higher value added forest products will be targeted for cultivation instead of collection. Marketing networks and procedures will be established. Technical training will be provided for new and promising cultivation techniques. Local government technicians will also be trained to increase sustainability.

3. **Energy conservation reduces labor demands and household expenditures.** Targeted interventions will reduce the cutting of firewood for cooking. Surveys will also identify other critical uses of wood products for energy and prepare a strategy for identifying alternative technologies and making these available to households in critical areas.

4. **Increased protection through improved management.** Fanjingshan will implement a new management plan under the Protected Areas Management (PAM) component of SFDP that will improve its management capacity and lead to increased protection through more frequent and ardent patrolling and more reporting and enforcement of regulations and laws. This may have consequences for people conducting illegal activities in the nature reserve. Conflicts have been present since the early 1980s, and it is expected that the PAM component will, through public awareness and consultation during the management planning process, give more opportunities for residents and local government to discuss and resolve these disputes.

Opportunities

Two unique opportunities, identified in the social assessment, could be targeted during implementation.

1. **Improved tourism management and revenue sharing.** The small tourism zone of Fanjingshan runs along the road accessing the core. Conflicts exist between local government, Fanjingshan nature reserve and local communities over the level of tourism that should be allowed in the tourism zone and the sharing of revenue from tourism. This issue could be tackled by the nature reserve as a form of co-management between the nature reserve and local government and local communities. Funds are included to establish a working group and for the development of a tourism plan that specifies tourist levels, organizational roles of the partners, and a fair revenue sharing plan that includes local communities in exchange for conservation or other contribution to the tourism operations.

2. **Identification of technologies for higher value added forest product cultivation.** To reduce the threat to forest products in the nature reserve, the project will support improvement in the delivery of relevant forest product extension services. Training will be provided to staff, including township technicians, and linkages to research and extension institutes will be made within China and the rest of the east Asia region.

7.10 **Jianfengling Nature Reserve - Hainan**

**Overview.** Jianfengling nature reserve was created in 1976 and expanded form 5,300 to 7,762 hectares in March 1989. With the 1993 Hainan logging ban, Jianfengling National Forest Park was established and included the Jianfengling nature reserve within its boundaries. In 1999, the province decided to expand the nature reserve again to 12,391 hectares, based on the recommendations of a management plan prepared with assistance from the Asian Development Bank. Most recently, the reserve has been expanded to cover
all of the northern parts of the forestry park to contain 20,170 hectares. In December 1999, this expanded nature reserve was approved by Hainan province. This area includes plans for a 10,427 hectare core zone, an 8,382 hectare buffer zone, and 1,316 hectares of experimental zone. All of the land within the reserve is state-owned forest. The nature reserve falls within the jurisdiction of Ledong and Dongfang counties. Jianfeng (southern part of nature reserve) and Jiangbian (northern edge) townships surround the nature reserve. No communities are located inside the reserve, although there are 12 villages, four forestry farms and one tourist enclave surrounding the reserve.

Jianfengling has defined its impact zone as a five kilometer band concentric with the nature reserve. In that band are seven natural villages. PRA surveys for the social assessment were conducted in three locations – Jianfeng village (Dingsi subgroup), Tumei village (Miao sub-group) and Weidong forestry farm community. These communities are located in the southwest, northeast and southeast edges of the nature reserve respectively.

**Ethnic Profile.** The project site is populated with *Li* (and some *Miao*) ethnic minorities.

**Threats** to the nature reserve include illegal logging, collection of NTFPs (rattan, bamboo, and medicinal plants), slash and burn agriculture on steep slopes, firewood harvesting, and poaching wildlife.

**Project Impacts.** Two aspects of the project impact on the nature reserve – expansion of the nature reserve and change in regulations governing access to forest-based products will have adverse impacts while SFDP activities under the PAM component for community-based nature conservation activities will have positive impacts.

1. **Expansion leading to restricted access.** The expansion of the Jianfengling nature reserve occurred in 1999, just prior to the start of the SFDP preparation. The change in status from a national forest park to a nature reserve imposes some new restrictions on residents of surrounding communities. Forest parks are developed for tourism and other business enterprises, and trees and NTFPs can be cut or harvested, but one must have a permit from the forestry bureau. In a nature reserve core area, no activities are allowed, except specific and very few research projects approved by SFA. In a buffer zone, research, conservation education, and captive breeding are allowed, while in the experimental zone, sustainable use is allowed. People who want to harvest NTFPs must still apply for a permit. At least three communities could be affected by the change in status and rules – Tumei, Weidong, and Guojie. The area to which they will be able to collect NTFPs will be severely reduced in size, as a core zone is currently being proposed near to their residences. The management plan, prepared during implementation of SFDP PAM, will define the zoning of the nature reserve, in consultation with local communities affected by the proximity of the nature reserve.

2. **Establish and implement Community-based Nature Conservation.** The PAM component of SFDP will establish and implement two co-management projects in these communities. In all three of the above mentioned communities, SFDP will introduce alternative livelihood approaches to processing NTFPs, provide training on cultivation, processing, and marketing of their products, and introduce and install energy conserving stoves and prepare management programs for community wood lots.
Risks. Minority communities in the surrounding areas have little experience or skills in planning and implementing a community project. There is a risk that activities to be financed from the Community Conservation Fund (CCF) of the co-management projects could be used to establish larger-scale plantations for rattan or bananas, managed by outside parties, and hire villagers to work on the plantations. If that were to happen, village people would not managers of community projects and community institutions would not be empowered. To overcome this risk, extensive training will be done for village institutions on managing community projects and a CCF. Criteria for access and use of the CCF monies will be prepared and monitored.

7.11 Houhe Nature Reserve - Hubei Province

Overview. Houhe nature reserve is located in Wufeng county of Hubei province. Houhe spans the two townships of Wufeng and Wantan and a state forest farm. Houhe nature reserve currently covers about 40,900 hectares. Prior to 1999, the nature reserve contained 10,340 hectares, but the boundaries of the nature reserve were extended last year. Of the NR’s 40,000 hectare area, the core zone covers 13,109 hectares, the experimental zone covers 19,253 hectares, and the buffer zone covers approximately 8,603 hectares. The reserve also hosts a small tourism zone which spans approximately 900 hectares.

Ethnic Profile. The population in and around the NR is approximately 8,035 people in 2,391 households in 15 villages and two townships, Wufeng county. Among this population, the ethnic minority (Tujia) is 5,320 people, taking 66% of the total. Tujia people in Wufeng county, a Tujia autonomous county, have improved their livelihoods by a big margin in the 1990s; and their net incomes achieved 1,200 yuan per person in 1998, about 211% of what they had in 1990.

Land Use Classification in Extension. Before the 1999 extension, 71% of the land was under state-owned tenure. With the extension, 54% of the total land is located within designated state-owned forests. The area of community forest land has increased from 29% to 46% of the total land within the nature reserve.

Threats to Livelihood. Fifteen villages are located in the new extension area and approximately 8,035 people live in the nature reserve. Before the logging ban, households within the nature reserve got income from a variety of sources - logging, NTFP collection, and agriculture. Only firewood for cooking and heating can now be cut, and all other forest activities under the logging ban are not allowed both inside and outside the nature reserve. In the PRA surveyed households, approximately 1,000 RMB was gained from NTFP collection and sale, but only 3 of the sampled 24 households participated in the collection of NTFPs.

Impacts & Opportunities. Most welfare decreasing impacts on household livelihoods over the past year have been a result of the logging ban and not by the extension of the nature reserves. It is envisaged by the communities that the SFDP project activities would help to provide greater opportunities for income generation.

- Re-Zoning. Zoning of the nature reserve will be reviewed and finalized during the preparation of the management plan with SFDP PAM support. The re-zoning would be undertaken with the views of minimizing social risks to minority communities in the area.
- Management Planning under SFDP would emphasize enforcement of existing regulations, but households will probably not face additional restrictions on the use of natural resources or use rights.
- Community-Based Economic Development Activities would be introduced in five communities - two co-management villages and three villages receiving assistance to pilot community-based wildlife
management schemes to reduce impacts on crop damage from wildlife. household management and agro-forestry training, and conservation education. The impacts of these activities should increase community skills and organizational capacity, increase opportunities for sustainable financing of community projects through revolving loans, and decrease household crop losses.

- **Community Conservation** measures will reduce exploitation of natural resources, especially firewood, and decrease the amount of firewood needed for household use by introducing sustainable fuelwood use.

- **Training and Technical Assistance** will be provided in alternative livelihoods for NTFP cultivation, marketing, and sale.

### 7.12 Badagongshan Nature Reserve - Hunan Province

**Overview.** Badagongshan, covers parts of Wudashui, Bajiaoxi, Longtanping, Badagongshan, Hekou, and Sifang townships in Sangzhi county. Badagongshan nature reserve covers 44,900 ha., including a 7,000 ha. core, a 16,700 ha. experimental area, and a proposed 21,170 ha. expansion area. All of the land within the nature reserve, except 729 ha., is under collective tenure. The proposed expansion has been approved by Hunan province as a provincial level nature reserve, with approval expected by SFA and State Council as a national level nature reserve. The nature reserve contains 34 villages and one state forestry farm. Ninety-three people reside in the core area.

**Ethnic Profile.** Total population in the current nature reserve and its proposed extension is 14,702, of which there are 12,677 ethnic minority residents. Tujia, Miao, Hui, and Bai ethnic minorities live in the project area and they make up 98% of the total population. with Tujia and Miao containing about 87% of the total ethnic population, Bai comprising 12.5% and Hui less than 1%. Main sources of income, before imposition of the logging ban in 1998, included logging, collection of NTFPs, economic trees, and agriculture. Average per-capita annual income in villages within the nature reserve is 700 yuan, or about 425 yuan lower than that of those residents living outside. Basic infrastructure and social services are poor. Wood is mainly used for cooking and heating, with household consumption of approximately 10,000 kilograms per year.

**Impacts.** Project activities would consist of co-management in two villages, energy conservation projects conducted in four other villages, and extension and community training provided to these villages and technicians from all of the townships. A nature reserve management plan would be completed to cover the existing boundaries of Badagongshan, with recommendations for improved management and protection. The proposed extension area will not be a part of the SFDP PAM component. Wildlife damage programs would be developed with most affected households as part of the management planning and co-management sub-components.

1. Project activities in most forest dependent communities will introduce techniques for cultivation of NTFPs, decreasing damage from wildlife damage to crops, increasing equitable opportunities for revolving funds for community (as part of 2 villages co-management activities) and household economic development, providing alternatives to labor-intensive fuelwood use, and provide training for households and village committees on farm and project management. In the six (6) most forest dependent communities, household livelihoods will be impacted positively by project activities.

**Opportunities**

1. Could support natural forest management in the extension areas while supporting PAM in the existing nature reserve area. Allows coordination and cooperation between the two components of the SFDP and provides a demonstration for a landscape area attached to a nature reserve.
2. Allows working with another nature reserve entirely under collective forest tenure.

3. Project will work with communities in current experimental area and the one community in the core zone. Allows opportunity to work with a community that will be contiguous to the core and involve them in planning for the core and surrounding areas and how to sustainably develop their economies without impacting on the core area.

7.13 Hupingshan Nature Reserve - Hunan Province

Overview. Hupingshan Nature Reserve is located in Shimen county of Hunan province and covers three administrative bureaus, Nanping, Jiangya, and Zhongling. The nature reserve contains 13,330 hectares of core zone and 28,970 hectares of experimental zone. Thirty four administrative villages are located within the project area, comprising a total population of 12,599 in 3,919 households. Ninety-one percent of the total population is Tujia ethnic minority. All of the land within Hupingshan, including the core area is collective forest, but managed under nature reserve according to county, provincial, and national nature reserve management and protection laws and regulations. Average per capita income is 900 Y/year.

Ethnic Profile. 91% Tujia ethnic minority

Impacts.
1. Households located within the nature reserve have been impacted by hill closure and reforestation policies under the NFPP initiated by Shimen county in October 1998. Most households got substantial income from logging and collection of mushrooms and other NTFPs prior to the logging ban (1,000 to 1,500 yuan per household combined).
2. Potential rezoning under the management plan might move the core area. However, residents, especially in Jinbanshan and Dalingshan villages, might actually see a easing of restrictions, as their current land under core zoning would become experimental zones.
3. Project activities, co-management in two villages, wildlife compensation demonstrations, energy conservation, and community technical and management training, would improve the socioeconomic situation of villages most severely affected by the logging ban and other restrictions under nature reserve regulations. These project activities directly target problems, needs, and conflicts raised during social assessment PRA surveys.

Risks. (1) Core zone could be rezoned under management plan to better cover valuable low land forests. This would affect use rights in collective forests. However, it is anticipated that land currently zoned core could actually be returned to experimental, collective land to the benefit of residents of the reserve; (2) poor transportation and communication for the potential co-management communities. They want and need roads to improve their marketing potential and to easily bring in required inputs. However, the nature reserve will not consider roads into these communities as they are concerned of the consequences of opening up the areas for easy exploitation. Without roads, products have to be unique and of high value, or the communities have to be able to process raw products for value added before they are carried out.

Opportunities
1. Township and nature reserve local government are essentially the same. The director and deputy director of the nature reserve fill the same positions in the township. Therefore, training of the director and deputy director of the nature reserve means that you are also training the leadership of the township on conservation, sustainable development, and co-management.
2. Shimen county government seems committed to the nature reserve's issues and the villages and townships within the nature reserve’s core area. County has funds that can be used for co-financing of community-based programs.
3. At least one of the potential co-management sites has shown community initiative in building a labor-based road, with savings from the community’s tax revenues. The road was stopped by the nature reserve after two years of construction, but Dalingcun constructed 2.5 kilometers of road by hand. This is the kind of community cooperation that is necessary for co-management and community conservation fund.

4. Communities within Hupingshan nature reserve still control all the land within their boundaries as community collective forest land. This includes land within their boundaries that is in the core zone and the experimental zone.

7.14 **Baiyang Nature Reserve, Sichuan Province**

**Overview.** The nature reserve, totaling 58,300 ha, is north of Xioaozhaizigou nature reserve and bordered on the east by Piankou and Si’er. Baiyang was established as a nature reserve in 1993. All land within Baiyang is State-owned forest and no communities reside inside the nature reserve. Six townships surround the nature reserve, and the nature reserve surveyed five villages felt to more severely impact the resource conservation situation. These villages are Banbianjie (Qiang) and Wujiejiang (Qiang), Shangganmi (Tibetan), Ruoezhai (Tibetan), and Zhengping (Qiang). Another six villages also surround the reserve, but their impact on the nature reserve is far less severe. The main community threats to the nature reserve come from grazing in the reserve, collection of NTFPs, poaching, fuelwood harvesting, ponies trekking into the core, and fire. Conversely, most of these communities have been very reliant on forest products, with up to 65% of their income coming from grazing, 10-20% from NTFPs, and 30% from logging. In the collective forests outside the nature reserve, people can cut wood for house construction and collect firewood (must now legally apply for a permit) and NTFPs, but they cannot log since the 1998 NFPP was initiated in Sichuan. Community needs, for example as identified in Shangganmi village, include lack of employment opportunities, drinking water shortages, difficulties in getting credit, lack of electricity, and no medical facilities.

**Ethnic Profile.** Several different ethnic minority groups inhabit this area such as Qiang in Banbianje, Wujiejiang, and Zhengping villages and Tibetan in Shangganmi and Ruoezhai villages.

**Impacts.** SFPD activities in Baiyang are similar to that in the rest of the Sichuan complex. Baiyang, Si’er, Piankou, and Xiaozhaizigou will complete one management plan, with separate action plans for the project. Each will improve patrolling, renovate guard posts, purchase equipment and conduct community-based nature conservation (CBNC) activities. As part of the CBNC sub-component, co-management will be conducted in two villages, energy conservation will be demonstrated in another three villages, and community extension and skills training will be completed. These activities reflect the needs of both the nature reserve for improved management and the communities’ identified problems.

Impacts of project activities on communities include:

1. **Restriction on use rights.** Grazing of livestock is likely to be an issue, as up 65% of income in the Qiang and Tibetan communities comes from grazing and grazing, even though technically illegal, is often done in the nature reserve. Customary rights to grazing are unclear in communities surveyed for the social assessment.

2. **Conflicts over fuelwood use.** Households consume approximately 10 tons of firewood each year from the experimental area near the core. Conflicts exist and will continue to grow between communities and the nature reserve over firewood.

**Opportunities**

1. Co-management in Baiyang should focus on solving the conflicts over grazing areas and management of livestock. During project implementation, further PRA work will be needed in these grazing dependent communities to determine the extent of customary grazing rights.
2. Firewood management and energy conservation is a second area in which the project can assist communities. PAM activities will assist in energy conservation.

3. Coordination of community conflict resolution between Baiyang and its neighbors, Xiaozhaizigou, Si'er, and Piankou remains critical. CBNC needs to guarantee that no gaps exist in critical coverage of communities affecting these reserves. This will require Provincial ONR coordination with county governments. Further community PRA surveys will be necessary during project implementation to insure that all affected communities have been surveyed, impacts of project activities determined and most severe conflicts dealt with under CBNC activities.

7.15 Piankou Nature Reserve – Sichuan Province

Overview. Piankou nature reserve, located in Beichuan county covers 19,900 hectares. There are no people living in Piankou, but four townships, Piankou, Baini, Kaiping, and Xiaoba surround the reserve. Although these townships have a combined population of 30,000 people, the nature reserve has identified four critical villages to include in the social assessment because of their immediate impact.

Ethnic Profile. The four villages above, Sanjin, Muopan, Shangkou, and Xiaoyuan contain 410 households, with a population of 1466. Qiang, Tibetan, and Hui ethnic minorities together make up 85% of the total population. Qiang comprise 95% of the ethnic minority population.

Threats. Like the other Sichuan complex reserves, main threats from communities include wildlife poaching, collection of wild herbs and medicinal plants, and overuse of firewood from experimental areas. All of the land in Piankou nature reserve is state-owned, regardless of whether it is in the core or experimental areas.

Impacts

1. Impact on socioeconomic status. Project activities will improve access to community funds, support better community organization and management, introduce and demonstrate alternatives to collection of NTFPs, and reduce labor and money spent on fuelwood. Energy conservation will be targeted to households and communities with greater needs or which pose greater threats to the nature reserve.

2. Restriction on use rights. Collection of wild plants, even though technically illegal, is often done in the nature reserve. Increased management will impact income adversely, depending on the level of income derived from these sources. Consistent with other Sichuan reserves, estimate that 10-20% of total household income comes from these NTFPs, with poorer households maybe having higher percentages, as they are possibly more reliant on collection activities than wealthier households.

Opportunities

1. Co-management in Piankou should consider conflicts over wild plant collections and firewood management.

2. Firewood management and energy conservation is a second area in which the project can assist communities.

3. Coordination of community conflict resolution between Piankou and its neighbors, Xiaozhaizigou, Si'er, and Baiyang remains critical. SFDP CBNC needs to guarantee that no gaps exist in critical coverage of communities affecting these reserves. This will require Provincial ONR coordination with county governments.

7.16 Si'er Nature Reserve, Sichuan Province
Overview. Si’er nature reserve covers 19,000 hectares and is located adjacent to Baiyang and Piankou reserves. The nature reserve adjoins to three townships – Huya, Si’er, and Tuchen. These three townships contain 9531 people in 2353 households, distributed in 17 administrative villages. Si’er nature reserve and provincial staff chose four villages to survey during the social assessment – Chafang (22% ethnic minority), Hufeng (18% ethnic minority), Shangyou (73% ethnic minority), and Gaoshanbao (100% ethnic minority). These villages were selected using the criteria recommended in the PAM Social Assessment Guidelines (February 2000). From the social assessment PRAs, poaching and fuelwood collection are the main threats to the nature reserve. Conflicts are high between three of the villages and Si’er nature reserve over grazing, especially in Chafeng.

Ethnic Profile. Tibetan, Qiang, and Hui ethnic minorities live in the project area

Impacts. From the social assessment, and based on activities expected under the Community-based Nature Conservation (CBNC) sub-component, the following four impacts were identified:

1. Restricted access to natural resources. Some economic activities could be further restricted by increased protection. Main issue will concern grazing and access to pastures within the nature reserve. Already nature reserve regulations do not allow grazing inside the nature reserve on state-owned land and these activities are illegal. However, people do graze livestock there and increased patrolling, improved protection, and possibly improved enforcement under a revised management plan may adversely impact people.

2. Increased community capacity and skills. Co-management process will increase capacity of village institutions and provide training to village households on farm management, marketing, and diversification of economic activities. This should increase capacity of villages and households to sustainably manage CCF and natural resources management and protection after SFDP.

3. More sustained use of natural resources. SFDP will introduce energy conserving technologies into demonstration communities. These technologies will reduce amount of firewood used per household, which reduces household labor for the cutting and collection of firewood – labor that can be used on other household economic endeavors. The CBNC sub-component also supports development of firewood management plans for long-term use of community forests.

4. Dissension over project benefits. Within co-management villages, mechanisms will be established for equitable opportunities to participate in project activities, especially regarding access to CCF. However, only two co-management sites will be supported in Si’er and other communities further away from the nature reserve or with less severe threats to the nature reserve may feel resentment of not being included. Proposed mitigation: target other CBNC sub-component activities to other villages and to township technicians. For example, extension of technical skills, provision of training, and provision of energy saving technologies will be supported in other demonstration communities. SFDP will support Si’er (and the other project nature reserves) to establish a county-level management group (Leading Group) that will provide linkage to other government programs in support of the nature reserve’s community work with all of the communities impacting on the reserve or being impacted by nature reserve management.

Risks. One principle risk was identified during the PRA process.

1. Rights to grazing. Current nature reserve regulations prohibit the grazing of livestock on state-owned land within the nature reserve. According to the Si’er Social Assessment, Qiang and Tibetan herdsmen have had traditional rights to these grazing areas and still graze there. These rights have been previously restricted by establishment of the nature reserve. SFDP will support the strengthening of nature reserve management, and the nature reserve and contiguous communities will conflict over different desires for managing the upland pastures.
Opportunities.

1. **Solve key issues.** Project activities should focus on one critical issue or conflict in each of the two co-management villages. Further PRA surveys will clarify key issues, but from the social assessment work, grazing would seem to be the main issue to resolve under the Community Resource Management Plans (CRMP). **Mitigation proposed by SFDP:** co-management activities in two villages, which will provide forum for planning, negotiation, and conflict resolution for joint management of grazing, including alternative sites and Community Conservation Funds (CCF) for development of more diversified village economy, including alternative livelihoods.

2. **Target energy conservation.** A major threat to Si’er is the overuse of firewood. The CBNC sub-component will work in five villages on energy conservation and fuelwood management. Coordination with the SFDP Natural Forest Management Component’s activities in Songpan county, especially on planning of community forest management, is very important.

7.17 **Tangjiahe Nature Reserve, Sichuan Province**

**Overview.** Tangjiahe nature reserve, covering about 40,000 hectares, is located in Qingchuan county. Shortly after its establishment, Tangjiahe nature reserve has been zoned into core (24,300 hectares), buffer (11,200 hectares), and experimental areas (4,500 hectares). No communities are located inside the nature reserve, but the reserve and surrounding impact area involves three townships – Qingxi, Qiaolou, and Sanguo. Four villages were selected for the social assessment PRA – Sanlong and Liangmeng (Qingxi zhen), Hexi (Qiaolou xiang), and Minli (Sanguo xiang). These four communities combine for 2,949 people in 840 households.

Each zone of the nature reserve is managed according to national and local government regulations. No activities are allowed in the core zone, except for research approved by national government. In the buffer zone, research is allowed, while in the experimental zone, tourism, research, education, wildlife breeding, and other sustainable uses of natural resources are allowed.

**Ethnic Profile.** In Hexi and Minli, Hui ethnic minority households make up 36% and 16% of the population respectively.

**Livelihood.** The percentage of households classified as poor ranges from 5% in Minli to 59% in Sanlong. From an analysis of income sources conducted for the PRA survey, it appears that Hui household income (for wealthier households) is approximately 13% lower than that of households in neighboring Han villages. Because of the diverse nature of the Hui household economy, much less fuelwood is used than in Han households (300-400 kg/household/year compared to 5,000-6,000 kg/household/year). Hui people in Tangjiahe appear to be involved more in trading, with about 25% of their income derived from this source.

Crop cultivation and animal husbandry contribute over 70% of farmers’ income, while income from forestry represents a relatively small. More economic trees have been grown over the last few years, especially magnolia, walnuts, gingko and some eucommia alimodes, but income from these has been limited so far to small amounts from walnuts.

**Threats.** Major threats to the nature reserve from communities includes poaching, overuse of NTFPs, illegal logging, fuelwood collection, and fire. The social assessment concluded that villages face a number of problems, but one of the most serious is the general degradation of natural resources. They also suffer from damage to crops from wildlife and as with the overwhelming number of rural communities near China’s protected areas, do not receive compensation for crop losses from local government.
Impacts. SFDP activities will have generally a positive impact on project communities. Co-management will be conducted in two villages and energy conservation and technical extension and village skills enhancement will occur in several demonstration communities. A preliminary management program was prepared during preparation of SFDP and it appears that the boundaries of the nature reserve and its internal zones will not change. Therefore, no new restrictions will be placed on livelihoods from zoning. Increased protection should not adversely affect livelihoods, since it appears from the social assessment that people in surrounding communities are less reliant on NTFPs that rural households in the other Sichuan project nature reserves. Community institutions in the two co-management communities will be strengthened and they should be able to manage and sustain community funds by the end of the project.

Opportunities. Tangjiahe nature reserve is contiguous with Baishuijiang nature reserve of Gansu province. They share common boundary along the provincial border and face threats from some of the same communities. The opportunity exists for cooperation through coordination of community-based programs. SFDP will support these two nature reserves to plan their CBNC activities collaboratively and to jointly monitor these activities once a year.

7.18 Xiaozhaizigou Nature Reserve, Sichuan Province

Overview. Xiaozhaizigou nature reserve is located in three townships of Qingpian, Baishi, and Badi in Beichuan county of Sichuan province. It is bordered on the north by Songpan county and the west by Mao county. Baiyang nature reserve is contiguous on the north. No people live within the nature reserve, but ten villages, with an estimated population of about 5,000 people surround the reserve.

Xiaozhaizigou nature reserve was established in 1979 and at that time covered 7,691 ha. From 1979 to 1998, the reserve was bordered on the north and south by a state-owned forest farm. The land within the original nature reserve and almost all the land in the state owned forest farm were state-owned forests. In 1998, Sichuan province initiated a logging ban in compliance with the NFPP. As a result, the state forest farm adjacent to Xiaozhaizigou stopped operating and this 36,700 ha. area was proposed as an extension to the original area, which is now proposed as the core. The proposed total area of Xiaozhaizigou is 44,391 ha. and this expanded area was approved as a provincial-level nature reserve in April 2000.

The Sichuan provincial and Xiaozhaizigou nature reserve social assessment team conducted PRA surveys in four villages on the eastern side of the reserve – Shangwu, Zhenghe, Chawan, and Qixing. These villages were selected because of their proximity to the reserve, especially its core, and their impact on the nature reserve or its impact on the communities.

Ethnic Profile. Qiang comprise about 89% of the population and there are two Tibetan communities on adjacent to the northwest border of reserve in Songpan county.

Impacts. Project activities under the SFDP PAM will strengthen the management of the nature reserve through preparation and implementation of a management plan. The management plan will contain provisions for two co-management villages, community conservation education programs, energy conservation projects, and extension training and demonstrations on alternative livelihoods as well as community training on project and economic management. The management plan will recommend and implement measures for improved management in the extension area. Impacts of these project activities are:

1. Restriction on previous natural resources use rights. The proposed extension area is under state-owned forest except for approximately 200 hectares of collective grazing land in the middle of the southern extension area. Collective rights to the grazing belong to Shangwu village. Since a number of people from Shangwu still graze in that area and yet have been compensated for loss of those rights,
they could lose rights to the area under a revised management plan. Other use rights of the extended nature reserve will not be lost under the project, as forest dependent households and communities were restricted access previously under provisions of the 1998 NFPP. Firewood is cut from collective forests and there does not seem to be a shortage in these four communities. No other community on the eastern boundary of the nature reserve has previously unresolved use rights that will be affected by project activities.

2. Impact on socioeconomic status. Project activities will improve access to community funds, support better community organization and management, introduce and demonstrate alternatives to collection of NTFPs, and reduce labor and money spent on fuelwood. Energy conservation will be targeted to households and communities with greater needs or which pose greater threats to the nature reserve.

Risks.

1. Due to extension. SFDP did not establish the extended boundary of the nature reserve. Sichuan province approved the transfer of this state-owned land from forestry enterprise to nature reserve status, starting as long ago as 1998 and approving this transfer in April 2000. However, there remain several households with rights to collective grazing within the new extended area of Xiaozhaizigou and the management plan prepared under SFDP will propose improved nature reserve management actions for that area of the reserve. This impact must be mitigated.

2. Due to grazing. Grazing on collective lands threatens improved management of nature reserve programs, many because livestock are not closely supervised and roam into state-owned land. This causes conflicts with nature reserve staff and management.

3. Gaps in PRA/social assessment survey. During discussions with provincial social assessment staff, it became apparent that communities on the northwest border of Xiaozhaizigou (southwest corner of Baiyang) had not been surveyed by either nature reserve. These Tibetan communities threaten the core of Xiaozhaizigou with their use of resources. During project implementation, Sichuan province should identify key communities that may have been missed in the social assessment sampling and reprioritize all communities within a regional landscape of the four contiguous reserves (Xiaozhaizigou, Baiyang, Piankou, and Si’er) for further PRA surveys and for identification of the eight co-management villages to be included in the Sichuan SFDP PAM component.

Opportunities.

1. During discussion with provincial and nature reserve staff and based upon surveys conducted in Shangwu, co-management activities will focus on resolving the grazing conflicts. It has proposed to work with Shangwu to develop a joint management scheme for the collective grazing of their livestock without restricting total access to the area. The co-management activities in Shangwu will prepare sustainable grazing within the collective area and identify livelihood alternatives for the community.

2. WWF has developed and delivered a community conservation education program in Shangwu and planned to expand its ICDP program into the community. Cooperation has been discussed with WWF and the design of the Shangwu co-management project will account for shared technical assistance and community funds.

7.19 Nujiang Nature Reserve - Yunnan Province

Overview. Nujiang nature reserve is located in the Nujiang Lisu Autonomous Prefecture in Yunnan province. The nature reserve covers a total area of 281,090 hectares in the southern portions of Lisu and Fugong counties and the northern portion of Gongshan county. The core of the reserve covers 121,000 hectares, the experimental zone 17,266 hectares, and the buffer zone covers 142,600 hectares. In 1996, Gongshan county agreed to convert 94,000 hectares of collective forest into nature reserve. Nujiang nature
reserve borders on Myanmar and it is located in the transition zone between the Qinghai-Tibet plateau and the Hengduan mountain system. The elevation of the nature reserve ranges from 1,160 meters to 5,128 meters.

**Ethnic Profile.** Over 33,000 people in the nature reserve and its impact zone, of which 27,000 minority people, mostly Bai, Lisu, Nu, Dulong, Ding Tibetan, and Naxi, live in or influence the nature reserve. These people are scattered over eight townships, one city, 30 administrative villages, and 205 natural villages. Household income in 1999 ranged from 1,039 yuan to over 6,000 yuan. Most households are dependent on forest products and agriculture. Grazing is important in the household economy. Firewood is the main source of energy.

**Project Impacts.** Project impacts are estimated here from two sources – Social Assessment compiled by Yunnan Province for SFDP but based on previous research work and secondary data and from information compiled from other sources, mostly The Nature Conservancy (TNC) in Kunming and results of village surveys conducted by the Rural Development Research Center of the Yunnan Institute of Geography. Main issues and threats to the nature reserve include (i) firewood collection; (ii) overuse of NTFPs; (iii) destruction of vegetation and habitat due to shifting cultivation; (iv) threat of fire from slash and burn; (v) livestock grazing in the nature reserve; (vi) hunting/poaching.

**Conflicts between villages, local government, and nature reserve include:**

1. Loss of rights to use resources in the nature reserve. May be previously held grazing rights that have become part of nature reserve.
2. Loss of crops due to wildlife destruction, and
3. Desire to have roads and more convenient communication systems.

**Opportunities.** Nujiang nature reserve staff have recently recognized the importance of working more collaboratively with communities on solving conflicts. The Yunnan Institute of Geography has recently demonstrated information gained from community surveys can be useful in solving conflicts. Therefore, Nujiang staff are very receptive to developing a community-based approach. Community-based Nature Conservation (CBNC) activities under SFDP PAM are consistent.

**7.20 Baimaxueshan NR, Yunnan Province**

**Overview.** Baimaxueshan nature reserve covers 2,764 square kilometers, of which 974 square kilometers is designated as the core zone (35% of the total) and 1,790 square kilometers (or 65% of the total area) consists of the experimental zone. Baimaxueshan NR lies in two counties, Deqin County (which contains 2,121 km² of the reserve) and Weixi County (which holds 643 km² of the reserve).

There are approximately 13 administrative villages in the experimental zone with a population of 12,463 people. Of the people inhabiting the NR, 7,474 are Tibetan (accounting for 63% of the total population in the experimental area), and 4,989 are Lisu (accounting for approximately 36%). In addition, there are a small number of other minority nationalities.

During the SA process, PRA surveys were conducted in five natural villages, three of which are in the reserve area and two are adjacent to the reserve. The SA targeted villages that contained mostly Tibetan and Lisu minority nationalities.
**Ethnic Profile.** Approximately 12,463 people (2,354 households) live in the experimental area of the reserve, of which 7,474 are Tibetan and 4,989 are Lisu. The area immediately adjacent to the reserve is heavily populated where the 13 townships cover 47 administrative villages in which 73,339 people live. Approximately, 43% are Tibetan (31,713 people) and 30% are Lisu (22,193 people).

**Threats.** The reserve itself faces many threats from communities located both inside and outside its demarcated boundaries. Moreover, communities living in the experimental area and most closely situated to the core are face additional conflict with populations from outside the reserve area who extract natural resources and poach wildlife. Some of the key threats imposed by communities to the reserve itself include fuelwood collection (the only fuel resource for local people in this area and the easy fuel for local brickyards), illegal logging in the reserve area, poaching and trapping of wildlife, overgrazing in the traditional pastureland that has been demarcated as reserve area, collection of rare plants, and fire. The SA revealed that there is naturally a heavy dependence on the forest areas for local livelihood.

**Project Impacts.** Project activities could adversely impact local community life in the near term. This would be a result of enforcing pre-existing restrictions on the use of natural resources in the reserve area. In this way, it may be the case that some traditional ways of living and some traditional production patterns would be influenced. For example, the nature of cooking may be changed by switching from less sustainable sources to more sustainable energy saving stoves and bio-gas; changes to livestock rearing from free-grazing to contained fenced breeding; and slash-and-burn cultivation would be replaced by more sustainable small scale farming methods.

**Opportunities.** Project activities would be open and available to all members of the village in an equal and transparent manner. The SA revealed that proposed project activities would generally produce positive impacts for local ethnic communities. The SA has identified the priorities of communities and would introduce livelihood opportunities for them such as the development of economic tree crops, fruit processing, livestock breeding, and technical training and extension for other production activities. Co-management activities would also train households in financial management and project management so as to build up and increase capacity of village institutions towards sustainability. In order to reduce pressure on the demand for fuelwood, the project would introduce energy conservation initiatives (i.e. methane-generating pits and fuel saving stoves), a priority identified by minority nationalities in this reserve.
8.0 SFDP Development Activities Supporting Ethnic Minorities

This section outlines (a) the activities that are built into the project as a whole, and not exclusively designed for ethnic minorities but which facilitate participation of ethnic minorities, whose benefits are extended to all inhabitants in the Project area; and (b) those activities that are exclusively designed to support the participation of ethnic minorities in the project.

8.1 General Project Features, Facilitating Ethnic Minority Participation

(a) Consultation, Information Dissemination & Awareness Raising (All Three Components)

An extensive information campaign is scheduled to be carried out in all communities participating in the Project, organized by PMC, and carried out through the Provincial PMOs. This is in addition to the ongoing consultative process being carried out under the Social Assessment, and the three stage information campaign followed during the project preparation process. The following procedure would continue to be followed: (i) All project villages would be visited by project staff, and meetings would be arranged in each village to explain the project’s objectives, goals and activities; (ii) All information would be provided to both women and men, and in some cases separately. Written and spoken communication would occur in the native language of the locality; (iii) The information campaign would also focus on the possible obligations/risks of those participating in the project. In the PE component of the project, potential beneficiaries would be asked to apply to be included in the project only after several informational meetings.

(b) Training, Capacity Building in Support of Project Implementation (All Three Components)

The proposed project’s training program is designed both to support implementation of project activities and also to improve the capacity of all reserve staff for routine nature reserve management. Management planning and community-based nature conservation (the sub-component supporting ethnic minority development) in demonstration villages would provide intensive learning opportunities for selected staff in nature reserves and ONRs. The project would also develop skills and knowledge at all levels of staff in the project reserves. Newly-recruited and existing reserve staff would participate in an integrated program of eight in-service training courses designed to cover different job responsibilities. The training would be organized locally by local Training Co-ordinators and would be delivered by local expert trainers who themselves would be trained under the project.

The specific training program designed to build local capacity to develop project activities can be found in the GEF Project Brief (for the PAM component) and the EU Project Brief (for the NFM component).

8.2 Specific Support for Ethnic Minority Participation in the Project

This section describes the specific support for ethnic minorities designed into the (a) Protected Areas Management and (b) the Natural Forest Management components of the project. Approximately 150,000 ethnic minority households would directly benefit from project activities in these two components.

(a) PAM Component’s Community-Based Forest Conservation Activities

Based upon the lessons learned from a previous Bank-GEF assisted project, the Community-Based Forest Conservation sub-component of SFDP would increase opportunities for participation of minority communities in nature conservation and the management of natural resources with the objective of enhancing local levels of sustainable and economically viable development. Principal activity sets include
(1) the preparation and implementation of co-management structures in 26 villages in 13 nature reserves; 
(2) increasing target community and local government stakeholders’ understanding of biodiversity 
conservation and the threats it faces from their actions by assisting nature reserves to develop and 
implement a community conservation education strategy; (3) decreasing the threats from overuse of forest 
resources for energy through targeted demonstrations of appropriate, practical, and cost-effective energy 
conservation approaches; and (4) providing training and technical assistance for the identification and 
demonstration of alternative income generating techniques as alternatives to the use of critical forest 
resources. Specific detail on each activity is provided below.

(a1) Co-management. The primary objective of the co-management process is to link biodiversity 
conservation with sustainable income generation. The project would provide support for (a) the 
establishment of provincial and local government organizational structures for the development of co-
management activities in nature reserves; (b) PRA surveys to determine community threats to and impacts 
on biodiversity while identifying community problems related to forest resource use and natural resources 
conflicts; (c) the strengthening of village institutions to prepare and implement community resource 
management plans; and (d) Community Conservation Funds for implementing community-based 
conservation and sustainable livelihood projects.

(a2) Community conservation education and public awareness. Project funds would be provided for 
developing and implementing conservation education and public awareness programs. Nature reserves and 
provincial ONR community affairs staff would be trained, using technical assistance and field-based 
courses, to prepare and implement community conservation education strategies and funds will be 
provided for each nature reserve to implement programs outlined in their strategies within their own 
communities.

(a3) Energy conservation. This activity would support an assessment of forest-based household fuel 
demand and the demonstration of energy saving technologies appropriate to local needs and conditions 
that are cost-effective and practical. Funds would be provided for nature reserve staff to conduct nature 
reserve energy surveys as part of community PRA. Energy efficient technologies would be demonstrated 
for households in the co-management communities and other representative communities surrounding the 
nature reserve.

(a4) Improving the delivery of sustainable technologies and enhancing community skills. Coordinated 
with this sub-component’s community conservation education and public awareness activities, training of 
both township technicians and rural households in specialized cultivation techniques for medicinal plants, 
fungi, and other forest products would be supported. Sources of techniques and trainers would be 
identified and appropriate courses implemented. Specific demonstrations in both the project’s co-
management villages and other representative communities would be provided. Training courses for 
improving the capacity of households and village committees to manage community projects or household 
economic activities would be developed and delivered in the co-management villages and other selected 
demonstration communities.

(b) NFM Component’s Community Development & Re-employment Activities

The Community Development sub-component of the NFM component would be available to all people in 
the Project townships and villages (40% of which are individuals belonging to one of the recognized 
ethnic minority groups) to improve their livelihood and to develop land use practices that are 
environmentally sustainable. The sub-component is intended to assist villagers in the project areas whom 
are generally exposed to poverty according to poverty standards and have been economically 
disadvantaged as a result of the logging ban. Project activities consist of (i) assisting ethnic minorities to 
develop economic opportunities that were environmentally sustainable; (ii) developing rural public
infrastructure to facilitate economic activity; and (iii) encouraging the active participation of ethnic minorities in planning and implementing specific project activities such as a micro-credit program. A second set of activities designed to retrain unemployed forestry workers would benefit members of ethnic minority nationalities. (iv) Approximately 4% of all forestry enterprise workers belong to one of the recognized ethnic minority groups and would directly benefit under retraining activities. The specific training programs would be developed during implementation of the project.

(b1) Village Development Plans, including Specific Technical Assistance. Village development plans would be developed through a participatory process. These plans will be short documents with (a) a draft map showing boundaries of villager groups and of forest management unit, and existing and proposed infrastructure, (b) basic population data per villager group and basic agriculture data, (c) menu of microcredit options, prioritisation of training needs and infrastructure, (d) estimate numbers of participating households for each activities. Because of the importance of livestock for ethnic minorities in general, and specifically in Tibetan communities in Sichuan project areas, an animal carrying capacity study shall be conducted in the Project areas in that province. Each county bureau would follow its existing methodology to establish fodder balances based on updated data obtained from each Project village. These would include current status and recommended fodder development. Results of the studies will be incorporated into the Project strategies towards the animal husbandry sector. Moreover, a rural energy technical assistance study for Sichuan sites would be undertaken and the appropriate fuelwood conservation measures would be taken (i.e. providing fuel efficient stoves, etc).

(b2) Small Village Infrastructure. County Project offices will organize the construction of community drinking water systems, and construction or upgrading of village schools, and the feasibility studies for township-to-village roads and village paths and bridges. Infrastructure needs specific to Hainan include upgrading and expanding an irrigation system. Locations, quantities and possible other types of infrastructure will be further specified when establishing village development plans. The Project will not fund the rehabilitation of degraded roads and electricity networks but will commission studies to analyze the rural energy sector in Sichuan, with a focus on electricity and on fuelwood balance, and assess the feasibility of road and bridge infrastructure development and rehabilitation under the supervision of the Project and within the concept of NFM. County Project offices will carefully organize technical design and carry out quality control and monitoring to ensure quality of all works. They will transfer ownership of the works to communities and train them in maintenance. Investments in schools or health stations will be coupled with sending school teachers or village health workers to existing retraining courses.

(b3) Small Household Loans. The microcredit schemes will be adjusted to the financial needs of mountain rural communities who are predominantly ethnic minorities. Individual households will take loans from RMB 500 to a ceiling of RMB 3,000 to develop productive activities of their choice and within the general strategy of the Project to support environmentally beneficial economic activities. Possible activities identified so far include animal husbandry, cultivation of small cash crops and non forest timber products, small processing facilities, mushroom cultivation, transportation and service activities, including tourism. Training for all participants would be an essential supplementary activity.

(b4) Household Training. Local PRAs teams have identified a range of training courses during Project preparation. Training in forestry management and basic skill upgrading will take place in the Forest Enterprises, partly in the framework of the tasks to be implemented under the above activities in SFM, including substantial field work and data collection, RIL methodologies and monitoring. A number of trainees will benefit from vocational courses in county towns and other cities, enabling them to find employment outside the SFE and the sector. Both forestry and local vocational training courses will also be open to selected interested farmers. The Project will not carry out courses in tourism in Sichuan or in commercial plantations in Hainan as the involvement of workers in these activities may create conflict over resource use with local communities. In Hainan and Baoxing, re-training for workers transferred to
new activities undertaken by the forestry enterprise itself would not be part of the programme since NFPP is already providing financial support.

9.0 Participation of Ethnic Minority Nationalities in SFDP Preparation & Implementation

The social assessment has documented (i) the approximate number and type of ethnic minority nationality in each of the project counties, townships and villages; (ii) described their livelihood opportunities; (iii) described the potential threats to their livelihood as a result of the project; and (iv) summarized possible opportunities the people themselves saw to generate higher incomes through project activities, including more sustainable livelihood options. This specific investigation has been undertaken to ensure that minority ethnic groups received equitable access to the project.

The SFDP project materials describe in detail the site selection process agreed to between the Bank and the Government. Ethnic minorities have generally been included in the project in a fair manner following the selection criteria. However, not all ethnic minority counties, townships and villages whom were consulted would be included in the project. Some ethnic minority areas were excluded from the project since they fell short of the selection criteria of the project. However, in this process, some minority areas which should have been included were initially dropped. This section briefly documents some key locations with significant ethnic minority groups that were either dropped as a result of (i) not satisfying the selection criteria; or (ii) inadvertently dropped and as a result of the SA process brought back into the project. It also flags (iii) locations where more attention would be needed to ensure the inclusion of ethnic minorities.

9.1 SFDP Preparation

Natural Forest Management. (1) Boaxing County, Sichuan province, contains one Tibetan township. This township, however, was not included as a SFDP project site since the township is not located adjacent to the natural forest management unit. Moreover, it is already deriving economic benefits from tourism; (2) In identifying potential project sites, Yongshun County (Hunan province) excluded upper watershed villages from the NFM co-management unit. This resulted in the non-participation of ethnic Miao people. The social assessment process, however, identified that the selection process agreed upon was not followed. As a result, a re-examination of the selection criteria and a re-selection led to 6 Miao villages with approximately 520 households being introduced into the project.

Protected Area Management. In this component, one of the selection criteria states the importance of including villages representing ethnic minorities. The preparation teams suggests that in Hunan and Guizhou nature reserves, more attention be paid to include a fair number of Miao villages under the project during the first step in implementation when specific project villages are identified.

Plantation Establishment. The social assessment process documents the numbers of ethnic minority people in project counties. Community Forestry Assessments (CFAs) identify the number of ethnic minorities in project townships and villages, and among loan applicants in all autonomous counties or counties located in autonomous prefectures. As this component is financed purely by an IBRD loan, it is not expected that many minority groups will be interested in participating in this component of the project. Participation in this component is voluntary and based on an agreed criteria including among others, the ability to repay the loan and the availability of land suitable for commercial plantation establishment.

9.2 Recommendations for Implementation
Since most project areas are located within autonomous ethnic minority areas, few problems of participation in the project institutions are expected. However, the following actions to be taken would ensure maximum participation of members of ethnic minority groups:

**Ethnic Minority Representation**

- In autonomous counties and prefectures, the ethnic minority commission (ethnic minority and religion bureau) would have a representative as a member of the project’s County Leading Group.
- An appropriate proportion of the full-time project staff would be from the local ethnic minority group(s) representative of the project site.
- Sociologists/Anthropologists from one of the well regarded Social Science Institutes and trained in Hainan and in Western Sichuan would serve as short-term technical assistants to help counties design culturally appropriate household training and co-management arrangements.
- The PRA teams trained during the project preparation process would be retained for project implementation.
- The SA reveals that ethnic communities have a great deal of respect for their elected administrative village head and natural village head. Therefore, these elected village officials would play an important role in the implementation of the project.

**Language & Communication**

- Communication tools would be adapted to specific ethnic minority/community needs
- All information leaflets and training materials would be disseminated using the most basic Chinese language.
- Leaflets will include pictorials where appropriate (i.e. Li ethnic areas)
- In Songpan county (Sichuan) NFM and PAM written and spoken communication would be Chinese and Tibetan languages.
- In Hainan, spoken communication would take place in Hainanese, and in the presence of a Li facilitator.

**Involvement of Religious Stakeholders**

- There are 19 Buddhist monasteries in Songpan county, Sichuan (as well as 11 mosques and one Taoist temple, and several Taoist temples in the Tujia areas, particularly in Fanjingshan NR. Religious leaders would be invited to participate in the oversight and management of NFM village micro-credit boards and PAM Community Conservation Funds, as well as in co-management teams/forums and in environment awareness and education. Tibetan Buddhist monks are expected to play a positive role in the management of micro-credit schemes. Some monasteries would have access to micro-credit funds too.

**NFM Dissemination Area.**

The sustainable forest management regimes piloted in 13 project townships would be disseminated to larger areas through (i) technical exchanges, (ii) training, and (iii) workshops. These areas are largely ethnic minority in composition. In Sichuan province, for example, focus areas would be mostly the western half of the province where approximately 1.1 million Tibetan and 0.2 Million Qiang people reside. The dissemination area for Hunan may extend to most regions of collective forest in Southern China, with a mix of Han regions and Tujia, Miao and Yao regions. The dissemination area for Hainan is the mountainous part of the island where Li (and some Miao) comprise most or all of the rural population.
• Attention would be paid to the participation of ethnic minorities in these extension areas.
• An information and decision-making process for these areas to decide whether or not to participate in the project's dissemination activities would take place, and institution stakeholders would be consulted.
• All stakeholders would participate in dissemination workshops.
• The languages, images and gender approach adopted in the project leaflets and videos would follow the same standards as those set in the project areas.
10.0 Project Design Changes As A Result of SA Process

A more participatory preparation process has enabled the project team to tailor project design to the needs and opportunities of ethnic minority people who live in the project areas. There have been some important adjustments made in the project design as a result of following this process, especially in (i) natural resource management, (ii) sustainable land use, (iii) tourism development; (iv) community based conservation schemes; (v) training; and, (vi) more equitable gender participation.

10.1 Natural Resource Management. NFM and PAM components would take advantage of better knowledge of the cultural values of ethnic communities in the project area. Moreover zoning and rezoning would be compatible with traditional demarcation of sacred forests and other sites of cultural value. “Environment” awareness and education programs in PAM component and sustainable forestry training designed into the NFM component would build on indigenous knowledge in these fields. These opportunities have been incorporated into each of the project area profiles.

10.2 Balanced Land Use. Forest management plans would pay particular attention to the balance between forestry and grazing uses of the forest land. In Sichuan, for example, the project would not support fencing collective pasture land since the result of fencing would likely lead to a contract where only a few individuals benefited. In Hainan, the project would not encourage transfer of tenure to operators from outside the Li community, and any transfer should be in the form of annual land renting and not long-term contracting.

10.3 Tourism Development. The project would seek opportunities to support approaches to tourism development that can be beneficial to ethnic minorities. This is particularly appropriate for the Tibetan populations in Songpan County. Co-management schemes would become an appropriate venue for communities to engage in tourism. Moreover, household training in tourism would provide advice on how to avoid the negative social and cultural impacts that are often generated by the development of mass tourism in ethnic minority areas.

10.4 Gender. The project would encourage activities that provide greater benefits for women, and particularly poorer women. Such activities include possible development of drinking water facilities, access to education and health facilities, small animal raising and sustainable NTFP production. Gender-oriented approaches are needed in communities where women have a distinctly lower social status. Both NFM and PAM components would organise specific training courses, particularly functional literacy classes, for Tibetan women, and women-centred micro-credit in Hainan. Training courses on gender analysis would be delivered based on the FAO gender in natural resources management curriculum.

10.5 Conflict Resolution Mechanism. Critical communities, defined according to criteria prepared and used in the management planning process, will get priority for project activities. Other communities, either less impacted or exerting less pressure on nature reserve natural resources, may not be able to participate. The risk of conflicts arising between communities or between townships, nature reserves and villages is probable and must be dealt with through local government and the appropriate leading group. A mechanism for resolution of any conflicts, disputes and grievances that might arise would be put in place. The Management Forums would adjudicate potential conflicts at the village level. If resolution is not possible at the village level, the Management Forums can seek advice from the county-level Leading Groups, who are charged with overseeing the co-management process.

10.6 Policy Framework. This would apply to the NFM and PE components since they may lead to community approved land and other asset acquisition. This Framework states that individual households’ land and other assets acquired by collectives for the purpose of project activities (i.e.
the building of small scale infrastructure, etc.) would be compensated in accordance with the provisions outlined in the framework.

10.7 Process Framework. The Process Framework would be applied to the Protected Areas Management component since it may lead to new restrictions on access to resources in protected areas. The Process Framework puts into place a participatory process by which communities jointly recommend land-resource uses restrictions and determine measures to mitigate any significant adverse impacts due to these proposed use restrictions. A Plan of Action, which describes the specific measures to assist persons adversely affected by the proposed restrictions, would be submitted for approval by the World Bank during project implementation and prior to new enforcement of restrictions of access to resources in the protected area. Location specific plans of action would need to be prepared during project implementation.

11.0 Supervision, Monitoring & Evaluation

The direct supervision of all economic development activities in each village will come under the responsibility of the PMO, and especially the designated official in charge of community development. In addition, provincial and national level consultants with expertise in working in ethnic minority nationality areas would assist in overall supervision and monitoring activities. The PMO would organize frequent visits to the project area and would utilized specialized external agencies or hire specialists to assist in training ethnic minorities in economic development and conservation activities (i.e. mushroom cultivation, etc).

Monitoring of project performance would be supervised by PMC working in collaboration with the PMOs and nature reserves. Detailed monitoring and evaluation work plans would be prepared as soon as possible after project commencement based on the terms of reference provided in the Project Implementation Plan. PMC would be responsible for reporting on the progress of project activities according to an agreed implementation timetable. Semi-annual reports would be submitted to the Bank, assessing the progress of all activities against the targets identified in the agreed annual work plan. These reports would serve as the basis for the World Bank supervision missions, as well as for preparation of the following year’s annual program and budget.

12.0 Estimated Budget & Financing Plan

The community development sub-components of two project components, NFM and PAM, will benefit populations of ethnic minorities in the project area. It is estimated that approximately EUR 5.1 million would go towards financing community development activities in ethnic minority areas covered by the NFM component; Approximately $4.6 million would go towards financing community development activities in ethnic minority areas covered by the PAM component. This represents approximately [24%] of the total budget allotted for the NFM component of the project and [21%] of the total budget allotted for the PAM component. These amounts reflect the cost of carrying out specific activities which will ensure participation of ethnic minorities in the project.
Annex 1
Independent Assessment of Ethnic Minorities in Songpan County, Sichuan Province

Study Report on SFDP in Muni and Xiaoxing Townships of Songpan County

Gelek: Professor of the Research Center for Tibetan Studies of China

I Introduction

As a Tibetan, a Tibetan studies researcher, and anthropologist living in China, I have worked as a consultant to SFDP at the invitation of Ms. Susen Shen, Senior Ecologist of the World Bank and responsible person for SFDP. From April 24 to May 18 of year 2000, I participated in the study mission to Songpan County Project Area in Aba Tibetan & Qiang Ethnic Autonomous Prefecture of Sichuan Province. I was mainly involved in the aspect of social assessment for the project.

1.1 The task and purpose of my mission are:
- to cooperate closely with Chinese and foreign consultants in this project, to provide suggestions on issues related to ethnic groups involved in the project, especially issues related to Tibetan history and culture,
- to pay special attention to the impact of project implementation on the culture and livelihood of the ethnic beneficiaries in the project area, and
- to collect information on beneficiaries’ knowledge of the project and their wish, interest, enthusiasm, expectation and worries related to participation in the project,
so as to make sure that the implementation of this project fits local social, economic and cultural conditions.

This project is financed by the World Bank and some other international organizations, and is one component of SFDP presently implemented in China. It has two focuses: 1. Protection and management of natural forests; 2. Community development in the project areas. The main purpose of the project is to explore new ways and methods for biodiversity conservation, eco-environment improvement and community social economic development following the implementation of the logging ban.

1.2 This study mission can be divided into three stages:
- April 20 to May 5 -- preparatory stage: work in Beijing independently, collect information related to the historical and cultural background of the project area, study and analyze such information;
- May 6 to May 9: on the basis of the preparatory stage, make field trips to the project areas in Aba Tibetan & Qiang Ethnic Autonomous Prefecture of Sichuan Province, together with WB officials and foreign and Chinese consultants, to collect first-hand information;
- May 10 to 15: stay in Chengdu, check information on key policies and regulations related to ethnic groups, sort out and analyze field information, have interviews with relevant experts in Chengdu, discuss the outline of the study report with WB officials and relevant experts, compile the abstract for the study report;
- May 15 5o 20: compile a more detailed study report at the request of the WB, which shall include ethnic cultural background of the project areas, apart from the field information.

II Ethnic Cultural Background of the Project Area

The project area of SFDP has many ethnic groups, of which the Tibetan group will be my personal focus according to my TOR.

2.1 Distribution of Tibetan people in China

According to the statistics of 1990, the total population of the Tibetan people in China is 4.593 million, 99.6% of which is distributed in Tibet, Sichuan, Gansu, Yunnan and Qinghai.

<table>
<thead>
<tr>
<th>Province/au</th>
<th>Tibet</th>
<th>Sichuan</th>
<th>Qinghai</th>
<th>Gansu</th>
<th>Yunnan</th>
<th>Total</th>
<th>Country</th>
</tr>
</thead>
</table>

...
Apart from Tibet, Sichuan is the province with the largest population of Tibetan people. According to the tradition and cultural characteristics of the Tibetan people, Tibetan populated areas are normally divided into three regions: U-Tsang, Kham and Amdo. The region with Lasa as its center (including Lasa, Rikaze and Linzhi, etc.) is called U-Tsang. The Tibetan people living in this region are called Tsang-pa, speaking Lasa dialect of Tibetan language. Changdu Prefecture of Tibet, Ganzi Tibetan Autonomous Prefecture of Sichuan, Yushu Tibetan Autonomous Prefecture of Qinghai and Diqing Tibetan Autonomous Prefecture of Yunnan together form Kham. The Tibetan people living in Kham are called Kham-pa, speaking Kham dialect of Tibetan language. Those Tibetan people living in Qinghai, Gansu and Sichuan Aba are called Amdo-pa, speaking Amdo dialect of Tibetan language. The Tibetan people living in Songpan County in the project area belong to Amdo-pa.

The religion of the Tibetan people is mainly Tibetan Buddhism, which has four sects: Ge-lug-pa, meaning Yellow Hat Sect; Nying-ma-pa, meaning Red Sect; Sa-kya-pa, meaning Variegated Sect; and Kar-gyud-pa, meaning White Sect. There is also Bon-po, which is formed as a result of assimilation and integration with Buddhism. Bon-po is called Black Sect in Chinese. Both Dalai Lama and Panchen Lama are Living Buddha and leaders of the Yellow Hat Sect. The Tibetan and Qiang people in the project area mostly believe in Bon-po. Since Buddhism has deep influence on the social life of the Tibetan people, the issue of religious belief shall not be overlooked in our project implementation in the Tibetan region.

2.2 Ethnic groups and Tibetan people in Sichuan Province

Sichuan Province is located in west China, and is one of the provinces with the most number of ethnic groups. Apart from Han people, there are Tibetan, Yi, Tujia, Miao, Qiang and Hui peoples etc.. According to population statistics of 1990, the population of ethnic people in the whole province was over 3.86 million, taking up 7% of the province’s total population. The population density is 25.6 people per square kilometer. Most of the ethnic people are living in the 57 counties of three ethnic autonomous prefectures (Ganzi Tibetan Autonomous Prefecture, Aba Tibetan & Qiang Autonomous Prefecture, Liangshan Yi Autonomous Prefecture), three ethnic autonomous counties (Ebian Yi Autonomous County, Mabian Yi Autonomous County, Muli Tibetan Autonomous County), and seven counties treated as ethnic autonomous counties (Jinkouhe District of Leshan City, Miyi, Yanbian and Renhe Counties of Panzhihua City, Pingwu and Beichuan Counties of Mianyang City, Baoxing County of Ya'an Prefecture).

The Tibetan people in Sichuan mainly live in alpine meadow in west and northwest Sichuan, doing primarily traditional agriculture and animal husbandry. This region is also the main forest area of Sichuan Province. According to statistics, the area of ethnic autonomous regions in Sichuan Province takes up 62% of the province’s total land area. The natural resources are rich there, with 74.06 million mu of forest, which is 66.2% of the province’s total. The stock volume is 925 million cubic meters, or 73.9% of the province’s total, being one of the three major forest areas of China. There are also rare and precious animals such as the Giant Panda, Golden-Haired Monkey, White-lipped Deer and Black Necked Crane; tourist sites such as Jiuzhaigou, and Huanglongsi which are well known and have beautiful landscapes. Back in history, the Tibetan people in this region have had frequent communication with other ethnic groups, which has enabled more assimilation and integration with other ethnic groups, compared with Tibet. Thus, the Tibetan culture in this region are more diversified, and there have emerged even bilingual or trilingual areas.

2.3 Ethnic groups and Tibetan people in Aba Tibetan & Qiang Autonomous Prefecture

Aba Tibetan & Qiang Autonomous Prefecture is located in northwest Sichuan and southeast limit of the Qinghai-Tibet Plateau. It borders with Qinghai and Gansu on the north, and Mianyang City, Deyang City, Chengdu City, Ya’an Prefecture and Ganzi Tibetan Autonomous Prefecture on the east, south and west. The distance from north to south is 414km, and 360km from east to west. It has a total area of 82,700 square kilometers, and an average altitude of over 3000m, being the high and cold area of northwest Sichuan Province.
The main ethnic groups in Aba Tibetan & Qiang Autonomous Prefecture are Tibetan, Qiang, Hui and Han. According to the census of 1990, the total population of the prefecture is 765998 of which 531498 are ethnic people, which is 68.52% of the prefecture’s total population. The population of Han people is 242539, or 31.66% of the total. Of the ethnic people, Tibetan people form the majority, the population of which is 369748, 48.27% of the total population. Following Tibetan people is Qiang, with a population of 129445, 16.9% of the total. The population of Hui people is 23278, taking up 3.04% of the prefecture’s total population.

### Population Composition of Ethnic Groups in the Counties of Aba Prefecture (1990)

<table>
<thead>
<tr>
<th>county</th>
<th>Tibetan</th>
<th>Qiang</th>
<th>Hui</th>
<th>Han</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefecture total</td>
<td>369748</td>
<td>129445</td>
<td>232278</td>
<td>242539</td>
<td>988</td>
</tr>
<tr>
<td>Wenchuan</td>
<td>13837</td>
<td>27154</td>
<td>916</td>
<td>53978</td>
<td>169</td>
</tr>
<tr>
<td>Lixian</td>
<td>18417</td>
<td>12962</td>
<td>157</td>
<td>10331</td>
<td>58</td>
</tr>
<tr>
<td>Maoxian</td>
<td>778</td>
<td>80875</td>
<td>1970</td>
<td>7269</td>
<td>64</td>
</tr>
<tr>
<td>Songpan</td>
<td>24038</td>
<td>4543</td>
<td>8398</td>
<td>27633</td>
<td>29</td>
</tr>
<tr>
<td>Nanping</td>
<td>13306</td>
<td>304</td>
<td>1754</td>
<td>35920</td>
<td>82</td>
</tr>
<tr>
<td>Heishui</td>
<td>48754</td>
<td>392</td>
<td>78</td>
<td>7148</td>
<td>17</td>
</tr>
<tr>
<td>Xiaojin</td>
<td>34548</td>
<td>361</td>
<td>2529</td>
<td>35002</td>
<td>160</td>
</tr>
<tr>
<td>Jinchuan</td>
<td>38134</td>
<td>653</td>
<td>3361</td>
<td>24666</td>
<td>174</td>
</tr>
<tr>
<td>Ma’erkang</td>
<td>36348</td>
<td>1085</td>
<td>616</td>
<td>19926</td>
<td>74</td>
</tr>
<tr>
<td>Aba</td>
<td>45400</td>
<td>252</td>
<td>1856</td>
<td>2657</td>
<td>34</td>
</tr>
<tr>
<td>Ruo’ergai</td>
<td>49047</td>
<td>252</td>
<td>1283</td>
<td>6706</td>
<td>81</td>
</tr>
<tr>
<td>Hongyuan</td>
<td>22227</td>
<td>382</td>
<td>296</td>
<td>6884</td>
<td>30</td>
</tr>
<tr>
<td>Rangtang</td>
<td>25004</td>
<td>230</td>
<td>64</td>
<td>4419</td>
<td>16</td>
</tr>
</tbody>
</table>

The Tibetan people are mainly distributed in Heishui, Aba, Ruo’ergai, Hongyuan, Rangtang, Ma’erkang, Jinchuan, Xiaojin, Lixian, Songpan and Jiuzhaigou. The Qiang people are mainly distributed in Maoxian, Wenchuan and Lixian, and taking up 88.92%, 28.27% and 30.92% of the local population respectively. The Hui people are mainly distributed in Songpan, taking up 14% of the local population. The rest of the Hui people are scattered in other counties. The Han people are mainly concentrated in Jiuzhaigou, Songpan, Xiaojin, Jinchuan, Ma’erkang, Wenchuan and Lixian. The overall situation is that most of the Tibetan people live in the plateau and grassland in northwest Aba Prefecture, most Qiang people live in Wenchuan and Maoxian, which are plateau canyon areas. These two counties also have relatively more Han people. There are Tibetan and Han people living in Xiaojin, Jinchuan and Nanping, but the population of Qiang in these three counties is relatively small. Songpan has the largest number of Hui people. There are also some Hui people living in Maoxian, Jinchuan, Xiaojin, Aba and Ruo’ergai, but the population is rather small. Back in history, Tibetan and Qiang people are aboriginal inhabitants of the local area. They are mainly engaged in agriculture and animal husbandry. To defend against wars, these people have chosen high mountains to live in. The kind of buildings these people live in are sometimes as tall as over 10 meters, and are normally called blockhouses. These blockhouses are very steady, but the natural lighting is poor inside the room. Some Hui and Han people have come here for military farming, and thus mainly inhabit in valleys where farming is more convenient. Some people have come here for business, and thus have chosen the business centers with easy access of transportation.
The Tibetan people living in Aba Prefecture are normally divided into three tribes:

- **Drog pa**, meaning herdsman or grassland Tibetan, who live in the animal husbandry area of Rangtang, Aba, Hongyuan, Ruo’ergai and Songpan County. These people mainly deal with animal husbandry, speaking Amdo dialect, which is quite similar to the Tibetan language in Qinghai and Gansu.

- **Shar pa**, meaning oriental people, who live in some parts of Songpan County and Jiuzhaigou County (previously called Nanping County). Their main activity is agriculture, while some people also do animal husbandry. The Tibetan language they speak has some component of ancient Tibetan, but communication with other Tibetan people is not a problem.

- **Rong pa**, meaning farmers, who live in Lixian, Xiaojin, Jinchuan, Ma’erkang and Heishui Counties, doing mainly agriculture. Their dialect, which is called Jiarong dialect, is difficult to understand by other Tibetan people. For this reason, these people are also called Gyarong-pa.

The language of the Qiang people is normally divided into north dialect and south dialect according to the difference in the living area. North dialect is mainly spoken in Maoxian County, while south dialect is mainly spoken in Wenchuan and Lixian Counties. There is quite obvious difference in these two dialects of the Qiang language.

The present-day Aba Prefecture has all the five religions of Buddhism, Taoism, Islamism, Catholicism and Christianity, but the influence of Catholicism and Christianity is relatively small, or even disappearing. The influence of Buddhism, Daoism and Islamism is still great, with most of the influence coming from Tibetan Buddhism.

### 2.4 Ethnic groups and Tibetan people in Songpan County

Songpan County is located in the middle range of Minshan Mountain Ranges. It borders Pingwu and Beichuan Counties in the east, Jiuzhaigou County in the northeast, Maoxian County in the south, Hongyuan and Heishui Counties in the southwest, and Ruo’ergai County in the northwest. The distance from east to west is 180km, and that from north to south is 112.5km. It has a total land area of 8,608.37 square kilometers, and an average altitude of over 2000m. The distance from the county headquarters to Chengdu is 335km and that to Ma’erkang is 431km.

In year 618 during the Dang Dynasty, Songzhou was set up in where it is now called Songpan. By then, the city was surrounded by pine trees, and thus got the name of Songzhou, meaning the land of pine trees. Since Songpan is located in the border area of Gansu, Sichuan and Qinghai, there has been very frequent communication among different ethnic groups in history. It is an area where the Tibetan people have lived together with people of other ethnic groups. According to the statistics of 1999, the county population is mainly composed of Tibetan, Qiang, Hui and Han people, of which 26326 are Tibetan, 38.31% of the total, 5615 are Qiang, 8.21% of the total, 9568 are Hui, 14% of the total, 26816 are Han, 39.22% of the total, and the rest 33 people belong to other ethnic groups, taking up 0.06% of the total population. Due to historical reasons, the Han people mainly inhabit the townships, valleys, basins and areas along roads. The Hui people mainly concentrate in the southern area bordering Maoxian County. Hui people have also established mosques in Zhangla, Shili, Anhong, Desheng, Guihu and Zhenjiang townships. The Tibetan people are distributed over the vast farming and grazing area. Local Tibetan people are normally referred to as “Xifan”, meaning Tibetan people coming from the west, by the Hui and Han people in Songpan. Starting from year 635 during the Tang Dynasty, Tubo people had been expanding eastward, conquering Songpan (Songzhou) many times. Songzhou was once again taken by a Tubo army of 200,000 people. The result of such expansion and conquering is the integration of Tibetan people coming from the west with aboriginal Songpan people, forming the unique Tibetan people living in this region.

The main religions for Songpan people include Tibetan Buddhism, Islamism, Daoism, primitive polytheistic religion and Han Buddhism etc... Since 1980, 31 temples in the whole county have been opened for public visit. Of these 31 temples, 19 are Tibetan Buddhist temples, with most these being Bon-po temples (3 Ge-lug-pa temples, 2 Nying-ma-pa temples, 1 Sa-kya-pa temple, and 13 Bon-po temples). 11 are mosques, and 1 is Daoist temple. There are now 1012 monks, and 30 Biqiu nuns. The different ethnic groups living in Songpan have their own unique religious beliefs, languages and folk-custom, which are influencing each other. For example, Chinese language has already become the language for communication among Tibetan, Qiang and Hui peoples. Most Qiang people can speak two languages of Qiang and Tibetan. With regard to religious belief, Tibetan people mostly believe in Tibetan
Buddhism, and mostly Bon-po. Some Qiang people also believe in Bon-po. Also, Tibetan and Qiang people have many similarities in building structure and dietetic habits.

III Investigation Target and Methodology

3.1 The project areas visited during this field trip are Muni and Xiaoxing Townships of Songpan County

3.1.1 Muni Township is called “Khrom-je” in Tibetan language. It is located in the western part of Songcheng District, Songpan County. It borders Jin’an, Shili and Anhong Townships in the east, Hongtu Township of Rewu District in the south, Hongzha and Yanyun Townships in the west, and Yuanba Township of Zhangla District in the north. It has an area of 342 square kilometers, covering Zhongzhai, Baozuo, Sanlian, Shiba and Shangzhai Villages and 1 township rangeland. The township government is based in Zhongzhai Village, which is 41km from the county main road, and 7.5km from a small road. There altogether 246 households in the township, with a total population of 1363, of which 1294 are Tibetan, 30 are Hui, and 39 are Han. This is basically a Tibetan township.

The Tibetan people in Muni Township live along Maoniugou, forming a three-dimensional village. The Tibetan population takes up over 94% of the total. The Han people here are mostly migrated here in the recent dozens of years. Most of these Han people have married Tibetan people, and can speak Tibetan language. Some of them even believe in Tibetan Buddhism. In this township, Chinese language is mainly used for communication with outsiders. Most of the Tibetan people understand some Chinese, and most of them speak some Chinese, too. Still, Tibetan language is used for most of the internal communication. The whole Maoniugou is thickly covered by forests. There is alpine meadow on the mountaintops, and farming land on mountainside or river banks. Apart from the traditional activities of agriculture and animal husbandry, local people also have the tradition of utilizing forest resources. Digging of medicinal plants, collecting of mushroom and hunting are all important means of income for these people. There are 2 Ge-lug-pa temples in the township. According to local habits, religious belief here is divided into two types of Mani and Madri. Madri is the same as Bon-po, which has the tradition of rotating the lection canister anticlockwise. Mani is Tibetan Buddhism apart from Bon-po. Regardless of sects, all villages will organize some religious activities regularly every year, including offering sacrifice to the Mountain God and changing lection flags on the first day of the new year; rotating lection canisters and worship Buddha in Xiaobao Temple on the 14th, 15th and 16th of Lunar January; holding Monlam from May 8 to May 10. Most of the participants to such religious activities are elderly people. Rituals are also held whenever there is a major event such as a wedding or funeral. There are relatively fewer monks in the temple, but every household has a shrine, which is a symbol of Tibetan Buddhism culture. There are also lection flags put up on top of the building or in the courtyard. With regard to dressing habits, the Tibetan men normally wear Chinese clothes, while women, especially elderly women, normally wear traditional Tibetan clothes. Young people all have gorgeous Tibetan clothes. Such beautiful clothes are usually kept in great care as family property, and will be worn on special occasions such as major festivals and horse racing events.

With the construction of roads, introduction of electric lights, telephone and TV, the contact with the outside world has become daily more frequent. People of Muni Township have also adopted some new means of living and cultural habits, such as driving cars, riding motorcycles, watching TV, singing pop songs, wearing wrist watch, wearing Han clothes, and speaking Chinese. Such behaviors have gradually become part of their life.

The Han and Qiang people of Muni Township can use Tibetan language proficiently after intermarriage with the Tibetan people. The relationship among different ethnic groups is also harmonious. Thus, the sense of identifying with ethnic independent survival is weak here.

3.1.2 Xiaoxing Township is located in Rewugou in the southern part of Songpan County. It borders Zhenjiangguan Township in the east, Minjiang Township in the northeast, Jiaochang District of Maoxian County in the south, and Hongtu Township in the west and northwest. It has a total land area of 306.66 square kilometers, covering Beizisi, Guna, Ping'an, Xinlieng, Da'erbian and Aixi Villages. The township government is based in Beizisi Village, which is 57km from the county, and has an altitude of 2560m. There are altogether 387 households in the township, with a total population of 1615, of which 812 are Qiang, 603 are Tibetan, 103 are Hui and 97 are Han people. The whole township is roughly divided by Rewu River into the following parts: Ping’an and Guna Villages in the north with mainly Tibetan
inhabitants, Aixi and Da’erbian Villages in the south with mainly Qiang inhabitants, Beizisi and Xinfeng Villages in the east with the mixed inhabitance of Tibetan, Qiang and Han people.

This township is a trilingual area, speaking all the three languages of Tibetan, Qiang and Chinese. Most of the Qiang people I have personally interviewed can speak all these languages. Most Tibetan people can speak the two languages of Tibetan and Chinese, and some can even speak Qiang. In the two villages with mixed inhabitance, intermarriage among the three ethnic groups is common. In cases of intermarriage between Han and Qiang, or between Han and Tibetan, policies endow the children of such marriages with the right to choose an ethnic group to identify with. Information shows that most people would choose to be an ethnic minority, since ethnic minority people enjoy preferential policies in job application, employment and schooling.

Most Tibetan people believe in Bon-po. Qiang people also believe in Bon-po, apart from their traditional belief in nature worshipping (including mountain god, water god and family god). Longtou Temple in the township is a Bon-po temple, with over 200 years of history. Three major religious activities are held each year, with the participation of both Tibetan and Qiang people.

3.2 Methodologies used for field investigation

From May 7 to 8, 2000, I made a field investigation alone without the company of WB officials of local authorities in the following five villages: Shiba, Sanlian, Baozuo, Da’erbian and Ping’an Villages in Muni and Xiaoxing Townships. I visited 10 households, 20 people and 3 temples.

The anthropologist field investigation method was applied, i.e., first hand information was collected by the investigator independently through direct observation, meetings, and household interviews in the project areas without the company of WB officials and local authorities. The interviewees include township/village leaders, women, seniors, youth and lamas. Detailed steps were: a) obtaining basic information through interviews with township/village leaders and most respected seniors in the villages; b) improvising small seminars with senior, middle-aged and young villagers on the trip or in the field; c) in-depth investigation in the households at different wealth levels and of different ethnic groups through chatting, questioning and discussion.

IV Investigation Findings

4.1 The ethnic groups’ attitude to the project

It is a general reflection of the interviewees that for those who provide wood-cutting services to forest sector authorities before 1998, the family income, mainly cash income decreased dramatically after the logging ban came into place. That has resulted in a certain degree of deterioration of people’s daily life. Still, people are willing to support the logging ban policy, and especially welcome SFDP. The main reasons for this are as follows:

4.1.1 The Tibetan and Qiang ethnic groups in Maoniugou and Rewugou areas have actually lived in forests for generations, and both their economic life and religious beliefs have a close connection with forests. People consider forests a source of life, which provides them with fertile pasture and land.

4.1.2 From the religious point of view, they have a mysterious worship to the forests. Tibetan people believe that there are numerous mountain gods and klu gods in the forest. The author collected over a dozen names of mountain gods in Maoniugou alone. Qiang people also believe there are mountain gods, dragon gods, klu gods, Phur gods and field gods in the forest. The mountains and the resources in the mountains are believed to be parts of the gods, and thus logging is strongly opposed by local people. For this reason, the so called “Da’erbian Incident” happened in 1998, when the Qiang people tried to stop the forestry bureau cutting trees from villages’ mountains. Similar events of opposing cutting trees from holy mountains have happened in the area around Xiaobao Temple in Anhong Township. Such a protection of forest resources out of religious belief has been a tradition of Tibetan and Qiang peoples. As a result, the logging ban policy and SFDP have turned out to go with local anticipation to protect the ethnic traditional culture.

4.1.3 Local people have noticed the change of climate and increase in natural disasters since large-scale logging. There has been frequent occurrence of flood, hailstone, frost and mudflow, causing great loss in human life, property and income. Thus, local people also support the logging ban, the policy to return farmland for forestry and SFDP from a strong disaster reduction point of view.
4.1.4 Reform and open-up as well as development of tourist projects have enabled local people to benefit from their natural resources, and thus strengthening their awareness of forest resources protection.

4.1.5 It has also been noticed that, although welcoming the logging ban and SFDP, people do not have a clear idea of the concept, objectives and contents of sustainable forestry development. They are eager to learn what kind of benefit can be gained through the project to the local economy and people’s life. They want to know what projects they can participate in and how.

4.2 Present situation in the project areas and people’s expectation of the project

4.2.1 Economic life

1) Traditional agriculture has been a major means of income for the project area. The main local products are wheat, highland barley and Hudou. Though the yield is not high, the harvest is basically self-sufficient. The yield has increased in recent years due to extension of plastic film technique for wheat. Still, very few households have surplus grain for sale. The level of mechanization in farming is not high. The method of using oxen for ploughing is still applied in many places even today. As of present, some places have started returning agricultural land for forestry for protection of the eco-environment. The area of farming land will further decrease. Animal husbandry has also been a major means of income. Most of the project area has a mixture of farming and animal husbandry activities. Local people raise mainly yak, horse and goat, with a small number of pigs. Cash income in animal husbandry mainly comes from selling yak meat. But the portion of yak meat for sale is very small, leaving most of the meat for self-consumption. The increase in livestock has brought great pressure to the pastures, and overgrazing has caused degradation of grassland, which in turn has slowed down the further development of animal husbandry. Contrary to Han and Hui people, Tibetan and Qiang people don’t have the tradition of doing trade. The lack of financial means and experience in trade has posed great problems when these people want to accustom to the mechanism of the market economy. Income from commercial activities is very limited. Thus, before the logging ban in 1998, most of the cash income for the Tibetan and Qiang people came from providing labor for the forestry sector. Take Muni County for example, the total income of the township from providing labor for logging reached RMB1.664 million in 1998. The income structure of the whole township shows that 67.2% comes from forestry related means (according to the information provided by the social assessment team for Songpan County). My personal investigation shows that the average household income from providing labor for logging is between RMB1000 to RMB2000, with some households even reaching RMB5000. The Qiang people, especially those living in Xiaoxing Township, used to have their income from selling firewood or charcoal. The average income from this could reach RMB1000 in a year. After the logging ban came into place, the income, especially cash income of the Tibetan and Qiang people dropped greatly. Local people strongly hope that the new SFDP could be able to compensate such loss.

Tourism in the project area has been developing for some years already. The development of Munigou Scenic Spot has brought some income for the local households. The biggest beneficiary is Sanlian Village. According to the village director, the village has an income of nearly RMB90,000 from tourism. Of the 70 households in the village, 30 have already opened small shops and restaurants near Zhaga Waterfall. However, the development of tourism is not properly coordinated with the economic interests of the local Tibetan and Qiang people, and many problems still exist.

- Income from selling tickets for Munigou Scenic Spot is the largest portion of income from tourism. During the tourist peak time from April 30 to May 6, income from tickets reached RMB100,000 to RMB130,000 every day, with some better days reaching RMB160,000. But all this income is kept by the management division of the scenic spot, which is directly affiliated to the county tourist bureau. Local people have always wished to share part of that income, and also allocate part of the income to the temples visited by tourists. But this wish has not yet become true.
- Horse riding tourism has many years of history in the local area and usually brings about quite good income, but it has always been done by town people organized by the county tourist bureau. Local people in Munigou Scenic Spot used to organize their own horse teams to entertain visitors at the entrance to the scenic spot, but this was deterred.
- Most of the commodities sold on the scenic spot market are from other places, lacking characteristics of local ethnic groups.
The time for tourist development has not been long, and the scope is also quite limited by now. Presently, only Sanlian and Shangzhai Villages have benefited from tourism. Farmers and herdsmen doing tourist development lack funds and training, which has seriously hampered the development of tourism.

2) Local people hold the view that they have protected the forest resources over the years, and are still sacrificing for the sake of forest resources. Since the economic benefits of tourist development actually come from the natural resources (including the forests) they have protected, it is simply natural for them to benefit from tourism. They hope that the implementation of the project will fully consider their wish.

3) With the improvement of infrastructure such as road and electric power in recent years, new contents have been added to people’s life. Quite some of the households in the project area already have TV sets. 36 households in Shiba Village have TV sets. The Tibetan and Qiang people all love to watch TV, and have different preferences to TV programs according to the different age groups. The village director and more educated villagers love to watch news and TV series, youth love martial arts and entertainment programs, while elderly people love to watch Tibetan programs from Tibet and Qinghai. Local Tibetan and Qiang people love to watch news programs. They pay much attention to news, and would very much like to know the activities of the state leaders. TV has brought new interest and happiness to the local Tibetan and Qiang people. TV has also brought about new vexation. Due to the insufficient supply of electric power, electricity is only guaranteed for the period from 8 o’clock in the evening to 7 o’clock next morning. The backward receiving facilities have also posed a problem: many places cannot receive Tibetan TV station programs. Thus, local people strongly hope that the issue of insufficient electric power could be solved as soon as possible, and closed-circuit television could be installed.

4) Timber has been the source of energy for household purposes in the project area for generations, thus the Tibetan and Qiang people are very much concerned about how to solve the energy supply problem after the logging ban and implementation of SFDP. One possible solution is to use electric power. Electricity has brought light to the villages, but the supply of electricity is not well guaranteed due to outdated power lines and equipment, as well as insufficient supply. Power cut is frequent here, which is far from being able to satisfy needs. Although the present supply of fuel (mainly timber) is ample, local people are still willing to use electric cooker instead of timber. People’s main concern is the high price for electric power. For a poor ethnic minority area, taking Shiba Village as an example, the price of RMB0.34 yuan for one degree of electricity (about RMB20 yuan per month) is still more than these people can accept.

5) Improvement of transportation conditions and development of tourism have accelerated the economic development of areas along roads. People presently still living in high mountains are willing to move down hill to where transportation is more convenient. But one major reason hampering such a movement is the high cost for house building. People cannot use only timber for construction, while the cost of cement is too high for them.

4.2.2 Religious belief

Most of the Tibetan and Qiang people in Muni and Xiaoxing Townships believe in a certain religion. The Tibetan people mainly believe in Ge-lug-pa, which is also called “mani” locally. The Qiang people mainly believe in nature worshiping, as well as Bon-po, which is called "madri" locally. My personal investigation shows that there is one Ge-lug-pa temple in Muni Township. This temple is called Housi, or Zhagasi Temple (or sometimes called Zhalogongsi Temple). The temple was established in 1663, located in Sanlian Village of Muni Township, near Zhaga Waterfall and Erdaogao Scenic Spot. There are 31 monks in this temple now. Standing beside the road to Maoniugou and Zhaga Waterfall is another Ge-lug-pa temple called Xiaobaosi Temple (called Songchu Serwo gon in Tibetan language). This temple has a history of over 300 years. According to administrative division, this temple belongs to Anhong Township, but many of the monks come from Muni Township. Xiaoxing Township has on Bon-po temple called Longtou Temple (or Sang-Brug-Ling Temple). All three temples were damaged to different extents during the Cultural Revolution, and presently being renovated. Though there is no limit to becoming monks in these temples, fewer and fewer people are willing to become monks in temples nowadays. The number of monks in all these three temples have greatly decreased compared to the situation in the 50’s. For example, the number of monks in Xiaobaosi Temple dropped from 150 to 25. Longtou Temple used to have 7 lamas and over 40 monks, while there are only 1 lama and 10 monks now in the temple. Analysis reveals the following three reasons behind this phenomenon: 1) influenced by modern culture, local Tibetan or Qiang youth willing to become monks are becoming
ever fewer. I used to have an interview with over a dozen Tibetan youth on a piece of grassland in Baozuo Township. They all claimed they have religious belief, but none is willing to become a monk. Most of them express their wish to do business or drive cars, and to participate in various entertainment activities. This is obviously different from the situation in Qinghai, Tibet and Ganzi Prefecture. 2) Income from being a monk is less than that from sideline production and tourism. 3) Information from lamas of the temples reveals that there are state policies forbidding children younger than 15 years of age to become monks. This has obviously also been an influencing factor.

With the development of market economy and tourist development, temples are also facing many difficulties: 1) relevant state policies require the temples to support themselves. Temples here don’t have their own land, shops or enterprises. They have very weak economic power. The renovation of temples mainly depends on state allocation of funds and donation from few rich families. Still, such limited fund allocation and donation are not enough to meet the needs of the temples, and the temples are recovering very slowly. 2) The livelihood of the monks mainly depends on their families. In Longtou Temple, all the monks, with the exception of the lama, stay at home doing labor in normal days. The monks will gather in the temples only when there is a religious event. 3) Though Zhagasi Temple and Xiaobaosi Temple are both situated inside scenic spots, and are gradually become more and more visited by tourists, there is no restaurants or shops in the temples. Neither do the temples have income from tickets. The very limited income is from the spontaneous donation of visitors. 4) The main income for the monks is from scripture chanting in the villages and households. But this is far from satisfying the needs of expenses for religious activities. 5) Though temples have participated in the protection of natural forests and afforestation activities, there has been no income from such input. To increase income, a very interesting discussion was held in Xiaobaosi Temple on the issue of whether temples could be contracted by outsiders just like contracting a restaurant or a shop. Two opinions emerged as a result of the discussion. Most of the monks are against the idea, thinking that this is a violation of mitzvah and could affect religious activities. Only very few monks are for the idea. This is also a reflection of the conflict for the temples between religious mitzvah and market economy under present heated market economic conditions. They wish that the implementation of the NFPP and SFDP would be beneficial to the development of the temples’ economy. They also hope to participate in NFPP and SFDP with payment, utilizing temples’ tradition in forest and animal protection.

From the villages I have personally visited, I find that people are free to choose their religious belief. People can either chant scriptures or pray at home, or participate in the religious and sacrificial activities in the temples. The development of tourism and large-scale infrastructure construction have affected religious activities. The large number of visitors to the temples have disturbed the normal praying of the monks, and road building has taken parts of religious sites. Also, with the decrease in the number of youth learning Tibetan language, fewer people are learning scriptures in the temples now.

On the whole, monks in the three temples strongly wish that under the premises of not influencing religious activities, temple could benefit from participating in SFDP and tourist projects.

Compared to temples in Ganzi and Tibet, these temples lack sufficient source of monks or management staff with modern management concept.

4.2.3 Education

The overall education level in the project area is higher than that in Ganzi or Changdu. There are primary schools in villages and townships, and there are also middle schools in the county. Children of most families have had some education, mostly primary school education. Some have also had junior high school education before returning home to do labor work. There are also some people who have finished senior high school in the county and work for a two-year college program in Chengdu afterwards. Still, only very few people actually finish schooling and get a job. Compared to surrounding areas, the education level is low, and still many people are illiterate. The underdeveloped education situation is mainly caused by the following reasons: 1) lack of teachers. Many teachers are only temporary, providing poor quality teaching. Students don’t have the interest in study and result in poor grades. 2) The township primary school is far away, and cost for boarding is high. 3) Since most of the production in the agricultural and animal husbandry region depends on physical labor, labor is in great need, and most children above the age of ten have to participate in labor to support the families.
V Suggestions to Project Implementation

Based on the investigation, I propose the following suggestions to project implementation:

5.1 Most of the inhabitants in the project beneficiary areas are Tibetan people, who have very ancient historical and cultural traditions. Most of them still believe in Tibetan Buddhism, observing various religious and living traditions. The interviews with these people show that they are concerned not only about the improvement of their economic conditions, but also about respect to religious belief. Thus, the suggestion is to fully respect and protect religious activity sites during project implementation. Any project activity affecting religious belief shall be avoided to promote social stability and unity of ethnic groups. Improper activities such as contracting of monastery by outside businessmen shall be strictly forbidden.

5.2 To support freedom in religious belief and respect the habits of ethnic people, also to guarantee the smooth implementation of the project, it is suggested that proper input shall be made to monastery in the project area, and that monks be allowed to participate in this project, so as to benefit from it.

5.3 Over 99% of the population in the project area are ethnic minority people. It is of utmost importance to the success of the project whether they will be willing to participate in project development actively. Since the PRC have a series of preferential policies and regulations for ethnic minority people in the fields of family welfare, childbirth, education, marriage, language, traditional custom, and employment. Such policies and regulations shall be considered by the project, and followed during project implementation. in the hope that all the project activities will not only meet the economic needs of the local people, but also accord with local social and cultural traditions, and acceptable to the local people.

5.4 Since the average education level of ethnic minority people in the project area is relatively low, and there is a lack of techniques in sustainable development of resources, preferential treatment in training and loan shall be considered for the ethnic minorities.

5.5 In order to enable local ethnic people to better understand the objective, significance and prospect of this project, it is suggested that the languages of local ethnic people be used for the project documents, advertisements and training courses.

5.6 SFDP shall take into full consideration the close combination of project implementation with protection of the traditional culture of the local ethnic people.

5.6.1 It is suggested to incorporate the monastery in the project area into the component of natural forest management and community development. Under the premises of not affecting normal religious activities, monks should be encouraged to participate in NFPP and SFDP to profit from the project.

- With some proper training, monks could participate in the management of natural forests, planting and seedling production activities.
- Allocate a certain portion of loan funds to assist the monastery in developing tourist resources.
- A certain proportion of the ticket revenue of the scenic spots shall be returned to the monastery inside the scenic spots according to a certain percentage.
- The adverse impact of tourists’ visits to the monastery on normal religious activities shall be avoided.

5.6.2 Pay more attention to the cultural meaning in tourist development in the project area.

- Since traditional and ancient folk culture and arts are gradually disappearing, it is suggested to train a certain number of staff in traditional folk culture and arts, in combination with tourist development. These people could tell folk tales, perform folk dances, sing folk songs, make folk paintings etc.. By doing so, the display of traditional culture could be combined with promotion of tourism, enhancing the traditional culture content of tourist projects.
- In the tourist development projects, personnel producing local products and making folk craftwork shall be trained to produce products with strong folk characteristics.
- Organize people to collect local fairy tales and legends, so as to enhance the traditional cultural attraction of the tourist sites.
• It is suggested to combine traditional events such as horseracing, holy mountain worshiping, god worshipping and “shua-ba-zi” with tourist development, so as to increase the number of colorful tourist items.

5.7 The Tibetan and Qiang people in the project area mainly live in the high and cold mountainous areas and forest areas. Their traditional economic activities include collection of forest products, apart from farming and animal husbandry. The forest products they collect mainly include Chinese caterpillar fungus, bulb of fritillary, fern and some wild mushroom species. Thus, project planning should also include training on processing and utilization of forest products, as well as a plan for the establishment of a community service system, which combines production and selling. By so doing, the exploitation and utilization of forest products is expected to be more scientific and rational, which will promote the sustainable utilization of natural resources.

5.8 Since the project area is an ethnic minority area, the present management level of the grassroots organizations in villages is far from being able to meet the needs of the project. Thus, training ethnic minority management staff should be considered an important component of the project. It is also necessary to clarify that these management staff shall be mainly Tibetan and Qiang people.

5.9 Small credit is an important measure for this project. The key to this measure is that loan and management methods shall accord with the credit habits of the Tibetan and Qiang people, so as to benefit effective utilization of funds. Thus, it is suggested to organize village fund management committees to manage small credits. My personal investigation shows that village directors in the project area are democratically elected by the villagers, and are in most cases deeply respected by them. For this reason, the village fund management committees could be composed of village directors and some members elected by villagers (representation of monks should be considered). Loan plans shall also follow the principle of giving priority to ethnic minorities and women, while trying to benefit every household participating in the project. I have also noticed through my investigation that the lack of floating capital has greatly restricted the development of tertiary industry by local Tibetan and Qiang people. Thus, it is suggested to direct more small credit funds to the development of tertiary industry with local tradition and cultural characteristics, increasing the income of local people.

5.10 From the long-term point of view, education is the driving force and guarantee to sustainable development. Thus, the project planning should consider development of education and enhancement of the education level of the Tibetan and Qiang people as an important content.

5.10.1 Increase the number of primary schools in the project area, so as to enable the children of project beneficiaries to go to schools nearby. Increase the enrollment rate of primary and middle school students. Provide food, accommodation and tuition fee for the Tibetan and Qiang students.

5.10.2 Employ good teacher at the request of local Tibetan and Qiang people. Improve the treatment of teachers.

5.10.3 The general low education level of local Tibetan and Qiang people is not beneficial to the future development of the communities. Thus, the project shall propose clear plans for adult education and training, as well as illiteracy elimination. Based on the actual situation that most local inhabitants are Tibetans, Tibetan language education shall be included in adult education and training.

5.11 The implementation of the policy to return agricultural land for forestry and NFPP will cause a decrease in the number of people doing traditional farming and animal husbandry in the project area. Thus, organization of vocational training should be an important component of the project planning. The objective of such training should be to provide 1-2 special skills for the ethnic people in the communities, so as to facilitate their transfer to non-agricultural sectors, and increase their opportunities of earning income. Such training shall give priority to Tibetan and Qiang people and women. In order to help the trainees better accustomed to the market economy, the training plan should be made according to market demand, giving priority to tourism, processing of local products, production of folk craftwork, transportation, collection, processing and selling of forest products, as well as various skills needed for the commercial activities of the market.

5.12 The community development project shall include village construction planning, so as to make the layout, function and style of villages more beneficial to the implementation of NFPP and SFDP, as well as maintaining the unique folk architecture features. This will be able to benefit the development of tourism, while improving the housing conditions of the people. Due to the implementation of NFPP and the logging ban, fewer logs are
used for construction locally. Thus, SFDP should also include development of alternative building materials, and training of ethnic architects.

5.13 My investigation shows that Munigou Scenic Spot has a plan of inviting state owned enterprises to invest in the construction of hotels and restaurants. My personal view is that only tourist development and construction projects, which will benefit local aboriginals, shall be developed, in order to promote ethnic culture and enhance the ethnic feature of tourist items. It is suggested that "farmer households" or "herdsmen's home" type courtyard tourist items should be developed, which have unique ethnic features and are more sustainable. Together with such a tourist development model, folk food products can also be promoted.

The present health care conditions in the project are rather poor, lacking doctors and medicine. It is suggested that the project should add a component of training for medical care personnel, and increase input in necessary facilities for the township clinics. Also, it is suggested to provide preferential policies to the ethnic minority people in charging for medical treatment.

VI. Additional Information

6.1 Baima Tibetan

Baima Tibetan is mainly distributed in Baima and Muzuo Townships of Pingwu County, Caodi, Wujiao and Majia Townships of Jiuzhaigou County in Sichuan Province, Tielou and Shijiba Townships in Gansu Wen County. The total population is over 10,000. Baima Township has the large population of Baima Tibetan. This is also the world-famous hometown of the Giant Panda and Golden-haired Monkey. Nature reserves such as Wanglang and Baihe have been established here.

Baima Tibetan was identified as Tibetan in the early 1950's. The ethnic group later asked for re-identification. Sichuan Provincial Ethnic Affairs Commission organized two field investigations in 1978 and 1979, with the support of experts from the Ethnic Affairs Research Institute of the Chinese Academy of Social Sciences, Sichuan Provincial Ethnic Affairs Research Institute, Sichuan University and Sichuan Provincial Museum. Academic workshops were held many times to reach the following opinions: 1) is the descendant of the ancient Di people; 2) is Tibetan; 3) is the descendant of the ancient Dangchangqiang people; 4) is another ethnic group. The final identification result comes from relevant state departments, deciding that it is a branch of Tibetan, giving it the name of Baima Tibetan.

The language of the Baima Tibetan belongs to Tibetan-Burma language group of Sino-Tibetan language system. In the languages of the same group, it is closer to Tibetan. They don't have their own written language. Though a very small number of hand-written copies of Tibetan scriptures were introduced before the 1950's, only very few "Beibu" could read. Some of these "Beibu" could tell the teachings in these Tibetan scriptures.

Baima Tibetan people, man and woman, old or young, all wear white tray-like terai (black in some places). A white chicken feather or pheasant feather is stuck in the terai. Men normally like white flax clothes, while women like to wear colorful one-piece dress, both sleeves and the back are decorated with red, yellow, white and purple strips. A fish-bone plate is hung in front of the chest. Since the front of the garment opens quite large, a breast-band is usually used. Bound on the waist is a colorful broad waistband woven from wool. Their staple food is wheat, barley, buckwheat and potatoes. Maize became planted over a large area since the 1950’s. A special favorite food for these people is boiled vegetable with noodles, another is paste made of wheat and soy beans. Honey liquor and Za liquor are their favorite drink. Their houses are mostly made from earth and wood planks, with two floors. In some remote and out-of-the-way villages, people will find a whole village of the same kind of building.

The Baima Tibetan people have two names. One is the so-called humble name given by parents or Taoists at the birth. This name does not tell apart first and surnames. The second name is formal name got after grown up. This name is similar to Chinese name. The main surnames include Yang, Ban, Tian, Cao, Yu and Wang etc., with most of the people taking Yang.
The religious belief here is nature worshiping. They worship sun, moon, mountain and river. Every mountain at the back of a village has a mountain god. The shrines in every household worship sun, moon, cattle, horse, sheep or paintings of ancestors painted by Chinese painters. Almost every village has a Taoist of their own ethnic group. Some villages even have small temples. Such temples are very small, with only one small house. Instead of sculptures, only plates with paintings of gods are present in the temples. There are no professional monks, or regular sacrificial activities. But some villages are influenced by Tibetan Buddhism or Chinese witchcraft, and have lamas or koradj i.

The most ceremonious festival is the Spring Festival. On July 15, people have a tradition of killing chicken to worship gods, and invite each other for dinner, celebrating harvest. On festivals, a dance with masks of twelve animals (cattle, horse, sheep, lion, tiger, dragon, chicken, peacock, dog, etc.) will be performed to pray for peace and happiness. A song called "Jiuquzi", meaning liquor song, will also be sung in memory of the past.

6.2 Basic Information of Diqing Tibetan Autonomous Prefecture in Yunnan Province

Diqing Tibetan Autonomous Prefecture is located in northwest Yunnan Province, at the conjunction point of Yunnan, Sichuan and Tibet. It lies within 98°37' and 100°23' East Longitude and 26°7' and 29°12' North Latitude. It borders in the east with Muli Tibetan Autonomous County of Sichuan Province and Ninglang Yi Autonomous County of Yunnan Province; in the south with Lijiang Naxi Autonomous County and Lanping and Fugong Counties of Nujiang Susu Autonomous Prefecture; in the west with Jigong and Chayu Counties of Tibet Autonomous Region and Gongshan Dulong Autonomous County of Nujiang Prefecture, Yunnan Province; in the north with Mangkang County of Tibet, and Batang, Derong and Xiangcheng Counties of Ganzi Tibetan Autonomous Prefecture of Sichuan Province. It has a total area of 23,870 square kilometers. The largest distance from east to west is 164km, and that from north to south is 225km. Diqing Prefecture includes Zhongdian, Deqin and Weixi Susu Autonomous County. Residents in the prefecture belong to ethnic groups of Tibetan, Susu, Han, Naxi, Bai, Hui, Pumi, Nu, Miao, Yi etc.. The largest population is Tibetan. The 1990 population statistics show that the Tibetan population takes up 33.1% of the prefecture's total.

Diqing Tibetan, together with the Tibetans in Changdu of Tibet, Ganzi Tibetan Autonomous Prefecture of Sichuan, Yushu Mongolian Autonomous Prefecture of Qinghai, form Kham-pa. They speak the Kham dialect of Tibetan language. Their language, religious belief and living habits are very close to those in Batang and Derong of Ganzi Prefecture. Diqing Tibetan live in the southeast border of the Tibetan region. This area has been the frontier or border line of the Tibetans in history. The mountains and rivers of this area are closely connected with those of many other ethnic groups in Yunnan Province. They have also had frequent communication with ethnic groups including Han, Naxi and Bai. A unique local culture is formed based on political, economic and cultural influence from other parts of the country. They regard Naxi people as their brothers, and the relationship between these two ethnic groups has been very harmonious.

The garments of the Diqing Tibetans are very diversified. In the past, the Tibetan males had the habit of wearing long hair and ornaments. This tradition is no longer common nowadays. The male garments have become more or less similar, with loose waist, long sleeves and big fronts. The inner garment called “Duitong” is usually short, reaching only the waist. It is usually ornamented with many layers of tall collars. Silver and copper beads are used as buttons. The outer garment called “Chuba” is usually very long. A gold rimmed terai is put on head. Female garments for the Tibetans in Diqing are still very diversified according to the different areas of residence. One type is long sleeve shirts with broad collar and narrow sleeve long gowns, with a colorful apron outside. Another type is dark blue long gown with a shawl outside, long trousers for the lower part, and a white apron outside. Still another type is long sleeve silk shirt inside, with a shawl outside and a long bouffancy for the lower part. All the different types of garments are decorated with beautiful ornaments.

Diqing Tibetans depend on highland barley and wheat as their main types of grain, and ghee roasted barley flour as staple food. They drink ghee tea, and live in flat roof blockhouse type buildings or two-storey buildings.

Diqing Tibetans believe in Tibetan Buddhism. There used to be many Ge-lug-pa, Nying-ma-pa, Sa-kya-pa, Kar-gyud-pa and Bon-po temples in the prefecture. Now Ge-lug-pa has become the most powerful sect in the prefecture, while Nying-ma-pa also has some influence. A very small number of people believe in Bon-po. These people are
called “Cangba”. They pray for good fortune and avoidance of back luck. They read “piece scripture”, hoping to drive away hailstone and evil things.

Diqing Tibetan Autonomous Prefecture is also a major natural forest area. Income from logging used to account for over 70% of the financial revenue at the prefecture and county levels. However, since 1996, they have made efforts to develop tourism. By the end of 1998, they have received over one million tourists for the year. Tourism is now replacing logging to become the supporting industry of the prefecture.
### Table A2.1

**Ethnic Groups in NFM Project Counties**

<table>
<thead>
<tr>
<th>Province</th>
<th>Project County</th>
<th>Autonomy Status 1/</th>
<th>Poverty Status 2/</th>
<th>Rural Population</th>
<th>Ethnic Minorities</th>
<th>Name and % Of Rural Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hainan</td>
<td>Changjiang</td>
<td>Li**</td>
<td>--</td>
<td>155,240</td>
<td>52%</td>
<td>Li---- 51% Miao- 0.2%</td>
</tr>
<tr>
<td>Hunan</td>
<td>Yanling</td>
<td>No</td>
<td>Provincial</td>
<td>176,000</td>
<td>3%</td>
<td>Yao--- 3%, She---N/A</td>
</tr>
<tr>
<td></td>
<td>Yongshun</td>
<td>Tujia/Miao*</td>
<td>National</td>
<td>478,300</td>
<td>74%</td>
<td>Tujia--- 62% Miao--- 12%</td>
</tr>
<tr>
<td>Sichuan</td>
<td>Baoxing</td>
<td>***</td>
<td>--</td>
<td>45,000</td>
<td>11%</td>
<td>Tibetan--- 9%</td>
</tr>
<tr>
<td></td>
<td>Pingwu</td>
<td>***</td>
<td>Provincial</td>
<td>154,400</td>
<td>31%</td>
<td>Qiang-- 21% Tibetan---4%</td>
</tr>
<tr>
<td></td>
<td>Songpan</td>
<td>Tibetan/Qiang*</td>
<td>Provincial</td>
<td>49,600</td>
<td>79%</td>
<td>Qiang--- 42% Tibetan---37%</td>
</tr>
</tbody>
</table>

NA = non-available data; 1/ * = ethnic Autonomous Prefecture, ** = ethnic Autonomous County, *** = non-autonomous county with ethnic township; 2/ National = national designated poor county, Provincial = provincial designated poor county

### Table A2.2

**Ethnic Minority Beneficiaries - NFM Component**

<table>
<thead>
<tr>
<th>Project T'ship</th>
<th>Of Which Ethnic Minority</th>
<th>Main Group</th>
<th>Second Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>H'holds</td>
<td>%</td>
<td>People</td>
</tr>
<tr>
<td>Wangxia</td>
<td>686</td>
<td>100</td>
<td>35,10</td>
</tr>
<tr>
<td>Ceyuan</td>
<td>827</td>
<td>0.5</td>
<td>19</td>
</tr>
<tr>
<td>Shidu</td>
<td>897</td>
<td>1.0</td>
<td>36</td>
</tr>
<tr>
<td>Longzhai</td>
<td>705</td>
<td>67</td>
<td>1,679</td>
</tr>
<tr>
<td>Wanfu</td>
<td>923</td>
<td>NA</td>
<td>Tujia</td>
</tr>
<tr>
<td>Xiaoxi</td>
<td>772</td>
<td>63</td>
<td>1,798</td>
</tr>
<tr>
<td>Zhenxi</td>
<td>253</td>
<td>NA</td>
<td>Tujia</td>
</tr>
<tr>
<td>Longdong</td>
<td>1,379</td>
<td>1.0</td>
<td>57</td>
</tr>
<tr>
<td>Yongfu</td>
<td>443</td>
<td>1.0</td>
<td>20</td>
</tr>
<tr>
<td>Baima</td>
<td>306</td>
<td>99</td>
<td>1,367</td>
</tr>
<tr>
<td>Muzuo</td>
<td>389</td>
<td>54</td>
<td>899</td>
</tr>
<tr>
<td>Mouni</td>
<td>246</td>
<td>95</td>
<td>1,294</td>
</tr>
<tr>
<td>Xiaoxing</td>
<td>387</td>
<td>92</td>
<td>1,293</td>
</tr>
<tr>
<td>Total</td>
<td>7,037</td>
<td>40</td>
<td>11,972</td>
</tr>
</tbody>
</table>

Total 2,789
### Table A2.3
Ethnic Minority SFE Workers - NFM

<table>
<thead>
<tr>
<th>Province</th>
<th>County</th>
<th>Forestry Enterprise</th>
<th>Ethnic Minority Workers</th>
<th>#</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hainan</td>
<td>Changjiang</td>
<td>Bawangling</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Hunan</td>
<td>Yanling</td>
<td>Yanling</td>
<td>NA</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Sichuan</td>
<td>Baoxing</td>
<td>Jiajinshan</td>
<td>6</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pingwu</td>
<td>Pingwu</td>
<td>113</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Songpan</td>
<td>Songpan</td>
<td>12</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

### Table A2.4
Ethnic Groups in FAM Nature Reserves

<table>
<thead>
<tr>
<th>Nature Reserve</th>
<th>Township</th>
<th>Population</th>
<th>Ethnic Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>H'holds</td>
<td>People</td>
</tr>
<tr>
<td>Jianfengling AC</td>
<td>Jianfeng</td>
<td>530</td>
<td>2735</td>
</tr>
<tr>
<td></td>
<td>Jianbian</td>
<td>129</td>
<td>701</td>
</tr>
<tr>
<td>Badagongshan</td>
<td>Wudaoshui</td>
<td>835</td>
<td>4079</td>
</tr>
<tr>
<td></td>
<td>Bamaoxi</td>
<td>388</td>
<td>1532</td>
</tr>
<tr>
<td></td>
<td>Badagongshan</td>
<td>590</td>
<td>2490</td>
</tr>
<tr>
<td></td>
<td>Hekou</td>
<td>308</td>
<td>1441</td>
</tr>
<tr>
<td></td>
<td>Longtanping</td>
<td>542</td>
<td>2968</td>
</tr>
<tr>
<td></td>
<td>Sifangxi</td>
<td>524</td>
<td>2189</td>
</tr>
<tr>
<td>Hupingshan</td>
<td>Nanping</td>
<td>1752</td>
<td>5486</td>
</tr>
<tr>
<td></td>
<td>Zhongling</td>
<td>92</td>
<td>318</td>
</tr>
<tr>
<td></td>
<td>Jiangping</td>
<td>2975</td>
<td>6795</td>
</tr>
<tr>
<td>Houhe AC</td>
<td>Wufen</td>
<td>1274</td>
<td>4264</td>
</tr>
<tr>
<td></td>
<td>Wantan</td>
<td>662</td>
<td>2243</td>
</tr>
<tr>
<td></td>
<td>Dahuaping FF</td>
<td>104</td>
<td>301</td>
</tr>
<tr>
<td>Baishuijiang</td>
<td>Tielou</td>
<td>2329</td>
<td>10414</td>
</tr>
<tr>
<td>Fanjingshan</td>
<td>Dewang</td>
<td>492</td>
<td>39%</td>
</tr>
<tr>
<td></td>
<td>Mingxiao</td>
<td>96</td>
<td>53%</td>
</tr>
<tr>
<td></td>
<td>Taiping</td>
<td>735</td>
<td>76%</td>
</tr>
<tr>
<td></td>
<td>Wuluo AC</td>
<td>248</td>
<td>48%</td>
</tr>
<tr>
<td></td>
<td>Xingye AC</td>
<td>470</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Muhuang AC</td>
<td>196</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Yongyi AC</td>
<td>925</td>
<td>61%</td>
</tr>
<tr>
<td>Tanyiahe</td>
<td>Qingxi</td>
<td>3697</td>
<td>14598</td>
</tr>
<tr>
<td></td>
<td>Qiaolou</td>
<td>1868</td>
<td>6831</td>
</tr>
<tr>
<td></td>
<td>Sanguo</td>
<td>2164</td>
<td>7711</td>
</tr>
<tr>
<td>Piankou</td>
<td>Piankou ET</td>
<td>246</td>
<td>1127</td>
</tr>
<tr>
<td></td>
<td>Xiaoba ET</td>
<td>475</td>
<td>2023</td>
</tr>
<tr>
<td></td>
<td>Kaiping ET</td>
<td>102</td>
<td>401</td>
</tr>
<tr>
<td></td>
<td>Baimi</td>
<td>85</td>
<td>410</td>
</tr>
<tr>
<td>Baiyang AP</td>
<td>Baiyang</td>
<td>571</td>
<td>2499</td>
</tr>
<tr>
<td></td>
<td>Dazhai</td>
<td>38</td>
<td>246</td>
</tr>
<tr>
<td></td>
<td>Daxing</td>
<td>174</td>
<td>940</td>
</tr>
<tr>
<td>Nature Reserve</td>
<td>Township</td>
<td>Population</td>
<td>Ethnic Population</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------</td>
<td>------------</td>
<td>-------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>H'holds</td>
<td>People</td>
</tr>
<tr>
<td>Si'er Huya ET</td>
<td>613</td>
<td>2528</td>
<td>Approximatively from 22% to Qiang, Tibetan, Hui</td>
</tr>
<tr>
<td>Si'er ET</td>
<td>210</td>
<td>850</td>
<td>100% depending on villages Qiang, Tibetan, Hui</td>
</tr>
<tr>
<td>Tucheng</td>
<td>1530</td>
<td>6097</td>
<td>100% depending on villages Gaoshanbao is 100% Tibetan</td>
</tr>
<tr>
<td>Xiaozaizigou</td>
<td>Qingpian ET ***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baishi ET</td>
<td>***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Badi ET</td>
<td>***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Xiaoba ET</td>
<td>***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nujiang AP</td>
<td>Cikai</td>
<td>2879</td>
<td>10859</td>
</tr>
<tr>
<td></td>
<td>Bingzhongluo</td>
<td>1365</td>
<td>6120</td>
</tr>
<tr>
<td></td>
<td>Dulongjiang</td>
<td>786</td>
<td>4085</td>
</tr>
<tr>
<td></td>
<td>Zilijia</td>
<td>1805</td>
<td>8945</td>
</tr>
<tr>
<td></td>
<td>Jiakedi</td>
<td>2212</td>
<td>11044</td>
</tr>
<tr>
<td></td>
<td>Pihe</td>
<td>2484</td>
<td>10115</td>
</tr>
<tr>
<td></td>
<td>Gudeng</td>
<td>3600</td>
<td>16125</td>
</tr>
<tr>
<td></td>
<td>Luobenzhuo</td>
<td>2668</td>
<td>11081</td>
</tr>
<tr>
<td>Baimaxueshan AP</td>
<td>Tuoding</td>
<td>792</td>
<td>4387</td>
</tr>
<tr>
<td></td>
<td>Yangla</td>
<td>935</td>
<td>5268</td>
</tr>
<tr>
<td></td>
<td>Xiaruo</td>
<td>1523</td>
<td>7773</td>
</tr>
<tr>
<td></td>
<td>Yanmen</td>
<td>765</td>
<td>3746</td>
</tr>
<tr>
<td></td>
<td>Yunling</td>
<td>988</td>
<td>6117</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1334</td>
<td>8416</td>
</tr>
<tr>
<td></td>
<td>Shengping</td>
<td>1732</td>
<td>8875</td>
</tr>
<tr>
<td></td>
<td>Benzilan</td>
<td>1656</td>
<td>7776</td>
</tr>
</tbody>
</table>

Yi* = only a few Yi households
AP = within ethnic autonomous prefecture, AC = within ethnic autonomous county, ET = ethnic township.
### Table A2.5
Ethnic Minority Counties - PE Component

<table>
<thead>
<tr>
<th>Provinces</th>
<th>Project Counties</th>
<th>Ethnic Name</th>
<th>Ethnic Minority %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liaoning</td>
<td>Xinmin Municipality</td>
<td>Manchus</td>
<td>5,0%</td>
</tr>
<tr>
<td></td>
<td>Liaozhong</td>
<td>Manchus</td>
<td>6,0%</td>
</tr>
<tr>
<td></td>
<td>Gaizhou Municipality</td>
<td>Manchus</td>
<td>5,0%</td>
</tr>
<tr>
<td></td>
<td>Kazuo</td>
<td>Meng</td>
<td>17,0%</td>
</tr>
<tr>
<td></td>
<td>Jianping</td>
<td>Meng</td>
<td>5,0%</td>
</tr>
<tr>
<td>Henan</td>
<td>Xiangcheng</td>
<td>Hui</td>
<td>6,0%</td>
</tr>
<tr>
<td></td>
<td>Yanshi</td>
<td>Hui</td>
<td>5,0%</td>
</tr>
<tr>
<td>Hunan</td>
<td>Longshan</td>
<td>Tujia/Miao</td>
<td>61,9%</td>
</tr>
<tr>
<td></td>
<td>Yongshun</td>
<td>Tujia/Miao</td>
<td>58,6%</td>
</tr>
<tr>
<td></td>
<td>Ningyuan</td>
<td>Yao</td>
<td>7,0%</td>
</tr>
<tr>
<td>Hainan</td>
<td>General Forestry Company</td>
<td>Counties to be identified</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tongza</td>
<td>Li</td>
<td>90%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Miao</td>
<td>7%</td>
</tr>
<tr>
<td>Sichuan</td>
<td>Maoxian</td>
<td>Qiang</td>
<td>89,0%</td>
</tr>
<tr>
<td>Gansu</td>
<td>Zhangchuan</td>
<td>Hui</td>
<td>69,0%</td>
</tr>
</tbody>
</table>

### Table A2.6
Ethnic Minority Beneficiaries in Pilot PE Counties

<table>
<thead>
<tr>
<th>Province</th>
<th>Project County</th>
<th>Social Assessment Completion</th>
<th>Ethnic Minority SA Team Members</th>
<th>Beneficiaries in Pilot Townships</th>
<th>Ethnic Minorities %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hainan</td>
<td>Baoting</td>
<td>No</td>
<td>6/12</td>
<td>177</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Tongza</td>
<td>Yes</td>
<td></td>
<td>177</td>
<td>100</td>
</tr>
<tr>
<td>Hunan</td>
<td>Yongshun</td>
<td>Yes</td>
<td>NA</td>
<td>841</td>
<td>86</td>
</tr>
<tr>
<td>Sichuan</td>
<td>Maoxian</td>
<td>Yes</td>
<td>13/14</td>
<td>431</td>
<td>100</td>
</tr>
</tbody>
</table>