

**World Bank-financed
Yunnan Highway Assets
management Project**

Ethnic Minority Development Plan of the Yunnan Highway Assets Management Project

Yunnan Provincial Highway Bureau

July 2014

Summary of the EMDP

A. Introduction

1. According to the Feasibility Study Report and RF, the Project involves neither land acquisition nor house demolition, and involves temporary land occupation only. This report aims to strengthen the development of ethnic minorities in the project area, and includes mitigation and benefit enhancing measures, and funding sources. The project area involves a number of ethnic minorities, including Yi, Hani and Lisu.

B. Socioeconomic profile of ethnic minorities

2. **Poverty and income:** The Project involves 16 cities/prefectures in Yunnan Province. In 2013, there were 6.61 million poor population in Yunnan Province, which accounting for 17.54% of total population. In 2013, the per capita net income of rural residents in Yunnan Province was 6,141 yuan.

3. Gender

Heads of households are usually men, reflecting the superior status of men. Both men and women do farm work, where men usually do more physically demanding farm work, such as fertilization, cultivation, pesticide application, watering, harvesting and transport, while women usually do housework or less physically demanding farm work, such as washing clothes, cooking, taking care of old people and children, feeding livestock, and field management. In Lijiang and Dali, Bai and Naxi women also do physically demanding labor, which is related to ethnic customs. Means of production are usually purchased by men, while daily necessities usually by women. No significant gender difference is shown in outside employment, where men mostly deal with construction, and women mostly with catering and other services.

4. **Women's development:** Due to rapid socioeconomic development, women's status is improving gradually, and they play an increasingly role in politics, education, employment, health, medical care and economic development.

C. Resettlement impacts

Resettlement impacts are minimized through project design optimization, so that the Project involves temporary land occupation only. Currently, the size and location of temporary land occupation are unknown yet. After the identification of the affected population, they will have priority in temporary employment and skills training according to the EMDP.

D. Impacts and benefits for ethnic minorities

5. **Project impacts:** In addition to temporary land occupation, the Project may also pose some adverse impacts local residents temporarily, and affect their living environment to some extent, including traffic inconvenience, noise and dust, vegetation destruction, surface water pollution, and damages to farmland irrigation facilities during construction. Such impacts can be eliminated or mitigated through appropriate measures.

6. The Project involves cities/prefectures in Yunnan Province, and will benefit all population along the national and provincial highways, including minority population. The EMDP aims to eliminate or mitigate potential negative impacts on the minority population in the project area, and ensure that they benefit from the Project. The Project will help improve traffic and transport conditions, stimulate industrial and economic development, and generate numerous job opportunities directly or indirectly. Minority population will benefit directly from the economic improvement arising from the Project, the measures in the EMDP, and preferential policies and development programs offered by local governments for minority population. These measures and policies will benefit minority households in economic and social development.

7. The survey shows that minority residents support the Project actively, because they have realized its crucial role in improving their livelihoods and traffic conditions. The Project will improve national and provincial highways in Yunnan Province, promote the development of local tourism, industry and agriculture, facilitate the circulation of commodities and farm products, increase purchase prices of farm products, create a smooth flow of information, increase job opportunities, and improve social services, thereby benefiting most minority residents.

E. Attitudes and expectations

8. It is learned from FGDs, interviews and social assessment that local minority organizations and residents support the Project in general, and have proposed expectations for the Project, such as utilizing local building materials and means of transport where possible, minimizing negative production and livelihood impacts on nearby minority residents, absorbing local labor especially minority labor, protecting the safety of humans and livestock, and protecting the environment.

F. Measures

9. In order to eliminate or mitigate the Project's negative social and impacts on local minority residents, and enable them to benefit from the Project, mitigation and benefit enhancing measures have been proposed for them.

G. Implementation M&E

13. **Implementation Monitoring:** The PMO, local governments and departments concerned should monitor EMDP implementation regularly. New findings and suggestions should be included in monitoring reports for submission to the Bank. The external M&E agency will conduct follow-up monitoring on EMDP implementation, and give advice accordingly. The external M&E agency should sample affected households, especially minority households, for survey and interview semi-annually.

14. **Implementation Evaluation:** As required by the Bank, the implementation process and outcome of the EMDP should be evaluated to ensure that it is implemented as planned. Before project implementation, the PMO will appoint an external M&E agency to develop an M&E plan.

EMDP of the Yunnan Highway Assets Management Project

Summary of Project Impacts, Measures and Investment

No.	Impact/benefit	Measure	IA	Budget	Funding source	Timeframe
1	Temporary land occupation during project construction, affecting local residents	Optimizing the design, protecting rights and interests of potential APs	Owner, design agency, consulting agency	500,000	RESETTLEMENT FRAMEWORK	2014
2	Generating noise and dust during project construction, affecting some irrigation facilities	Mitigating or eliminating construction impacts	Contractor, local government	2 million	Investment / construction contract	2015-2019
3	Damaging grassland and affecting the environment during construction	Environmental protection	Contractor, local government	6 million	Investment / construction contract	2015-2019
4	Disseminating diseases and giving rise to epidemics with the entry of construction staff and dependents	Protecting public and human health	Contractor, local government	1200,000	Investment / construction contract	2015-2019
5	Possibly infringing on women's rights and interests	Encouraging women to participate in decision-making	Contractor, local government	100,000	Owner, contractor, women's federation	2015-2019
7	Reducing poor population by promoting tourism development	Promoting tourism development	Local government	5 million	Local government	2015-2019
8	Inconvenient communication due to language differences	Appointing minority officials	Contractor	200,000	Contractor	2015-2019
9	Increasing local finance and local residents' income	Utilizing local building materials and transport resources	Contractor, local government	30 million	Contractor	2015-2019
10	Improving local residents' labor skills	Absorbing local labor	Contractor, local government	5 million	Contractor	2015-2019
11	Generating job opportunities to increase income	Offering catering services	Local government, individuals	/	Operators, individuals	2015-2019
12	Promoting the employment of minority residents	Increasing jobs for minority residents	Local government, highway bureau	/	Individuals	2015-2019
13	Promoting the development of local logistics	Promoting logistics development	Local government	10 million	Local government	2015-2017
14	Improving local residents' labor skills	Skills training for population affected by temporary land occupation	Local government	400,000	RESETTLEMENT FRAMEWORK	2015-2019
Total				60.4 million		

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ABBREVIATIONS

AP	-	Affected Person
DMS	-	Detailed Measurement Survey
EMDP	-	Ethnic Minority Development Plan
FGD	-	Focus Group Discussion
IA	-	Implementing Agency
M&E	-	Monitoring and Evaluation
MLS	-	Minimum Living Security
PMO	-	Project Management Office
RAP	-	Resettlement Action Plan
RF	-	Resettlement Framework
PRC	-	People's Republic of China

Units

Currency unit	=	Yuan (CNY)
US\$1.00	=	CNY6.00
1 hectare	=	15 mu

1 Overview

1.1 Background of the Project

Yunnan Province is bordered by Tibet, Sichuan and Guizhou Provinces, the Guangxi Zhuang Autonomous Region, as well as Myanmar, Laos and Vietnam, with a borderline of over 4,000 km, accounting for nearly one fifth of China's land borderline. Yunnan is the most convenient land access to South Asia and Southeast Asia from China, and the southwest window for opening up. According to the Master Plan of Yunnan Province for Accelerating Opening-up to the Southwest (2012-2020), national and provincial trunk highways in Yunnan Province are an important part of infrastructure for implementing this strategy, and their maintenance and management level is significant for improving the highway transport efficiency of the province.

Due to the special geographic location of Yunnan Province, highway transport is the most important mode of transport, an important pillar for economic development, social progress, frontier stability and ethnic unity, and an integral part of the integrated transport system under the above strategy. In the past 3 decades of reform and opening up, especially the past decade, leapfrog development has been realized in highway construction in the province. In 2012, Yunnan had a total highway length of 219,000 km, including 5,788 km of national highways (including 5,655 km of graded highways) and 20,457 km of provincial highways (including 20,097 km of graded highways), and highways in Yunnan accounted for over 80% of provincial transport volume. With the implementation of the Twelfth Five-year Development Plan for Highway and Water Transport of Yunnan Province, and the Adjustment Plan for National and Provincial Highways of Yunnan Province, the increase of the total length of national and provincial trunk highways, and their upgrading, the passenger and freight volume transported by national and provincial trunk highways will also grow rapidly, while the workload of highway maintenance and management will keep rising due to pavement damages, thereby placing higher requirements for the province's capacity to manage national and provincial trunk highways.

In 2012, Yunnan had a total length of national and provincial trunk highways of 26,240 km (including 25,752 km of graded highways), equivalent to a total asset value of 700 billion yuan based on replacement cost. By the end of the Twelfth Five-year Plan period, Yunnan will have a total length of national and provincial trunk highways of 38,253 km with a total asset value of over 1.1 trillion yuan. It is an important task to improve the management capacity and level of trunk highway assets, keep them in technically optimal condition, and make them serve Yunnan's economic and social development efficiently.

In order to improve the management level of national and provincial trunk highways, introduce new concepts of highway assets management, and realize modern, IT-based and scientific highway assets management, the Yunnan Provincial Highway Bureau has proposed the Yunnan Highway Assets management Project (hereinafter, the "Project"), which has passed review by the National Development and Reform Commission, and been approved for Bank financing. The Project aims to introduce advanced highway assets management concepts and maintenance techniques to establish a sound highway maintenance emergency response system, integrate and utilize existing IT systems, establish a highway assets management information system, strengthen the capacity of management agencies of national and provincial trunk highways in Yunnan, and improve the maintenance and management capacity and efficiency of trunk highway assets, thereby improving the transport efficiency, safety and capacity, and service level of the highway network of Yunnan Province.

1.2 Components

The Project consists of 3 components: (1) Integrated Highway Assets Management System, (2) Improving Trunk Highway Maintenance and Emergency Response Systems, and (3) Institutional Capacity Building, as detailed below:

1.2.1 Integrated Highway Assets Management System

Integrated Highway Assets Management System includes the building of one network, one center and seven major systems, where the one network and one center are the basic guarantee, and the seven major systems aim to realize normative and efficient management in the industry, and integrated services for the public.

A. One network: building a network information system on the basis of the special highway transport network of Yunnan Province to further improve standard and functions, and meet the current and long-term demand of the integrated highway assets management system of Yunnan Province

B. One center: building the (cloud) computing data center for highway assets management Yunnan Province, an SOA-based software platform and a basic database group to meet the needs of the integrated highway assets management system of Yunnan Province for information collection, exchange, integration, sharing, computing, transmission and storage

C. Seven major systems: including 6 internal management and application systems – data exchange and sharing platform, highway GIS core database system, highway assets management system, road network monitoring and emergency response system, integrated service system, and integrated office system; and one external service system – public information service system.

1.2.2 Improving Trunk Highway Maintenance and Emergency Response Systems

A. Establishing and improving 16 prefecture/city-level maintenance and emergency response centers, including 9 newly established ones, 6 expanded ones and one improved

B. Establishing and improving 63 representative county-level highway maintenance and emergency response centers among the 126 existing ones

C. Establishing and improving 225 highway management stations in the 126 highway management segments in 129 counties, cities and districts in Yunnan Province

D. Deployment of maintenance and emergency response machinery for prefecture/city-level and county-level highway maintenance and emergency response centers, and management stations

E. Market-based trials on highway pavement maintenance: According to the geologic, topographic and climatic conditions of Yunnan Province, two test road segments will be chosen in the 8 typical cities and prefectures for asphalt roadbed cold regeneration and overhaul maintenance testing, and 6 roads segments chosen for preventive maintenance testing on modified asphalt gravel sealing, asphalt pavement slurry sealing, asphalt pavement treatment, etc. Through these tests, new sophisticated highway maintenance techniques, processes and materials will be introduced to improve the technology level of maintenance of national and provincial trunk highways in Yunnan Province, and reduce highway maintenance costs.

All the 8 road segments will be subject to market-based trials on overhaul and preventive maintenance through bid invitation in accordance with the Law of the PRC on Bid Invitation and Bidding, and the Bank's requirements for procurement.

1.2.3 Institutional Capacity Building

A. Yunnan highway assets appraisal and data survey: analyzing domestic and

overseas practices and experience on highway assets appraisal, appointing a consulting agency to prepare the trunk highway assets appraisal guide of Yunnan Province and give directions on appraisal, establishing the baseline database of highway assets of Yunnan Province, and appraising highway assets of Yunnan Province in stages

B. Improvement of highway assets management capacity: establishing the highway assets performance rating system of Yunnan Province, preparing a performance rating guide and a maintenance handbook, analyzing the manpower demand and capability requirements of the highway assets management system, and proposing a staffing program for system management

C. Preparation of highway fixed assets accounting guide, and registration of fixed assets: introducing domestic and overseas experts in highway maintenance and management, financial management and accounting to prepare a highway fixed assets accounting guide, and register trunk highway assets in the province

D. Highway maintenance design and preventive maintenance guide: introducing domestic and overseas experts in highway maintenance to prepare the highway maintenance design guide and preventive maintenance guide based on the geologic, topographic and highway conditions of Yunnan Province in order to improve the maintenance and management level of highway maintenance and management staff in Yunnan Province

E. Staff training: analyzing pre-job training needs of the management staff of the integrated highway assets management system, and proposing a capacity improvement training program for highway management staff, technicians and logistics workers

1.3 Overview of Resettlement Impacts

Through design optimization, the Project involves neither land acquisition nor house demolition, and involves temporary land occupation only. In the highway overhaul test using the asphalt roadbed cold regeneration technique (two segments, totaling 40 km), about 2 mu of land will be occupied for about 3 months for the temporary storage of removed asphalt and the erection of temporary asphalt mixing stations.

Since the road segments involved will be determined during implementation, the size, type and location of temporary land occupation are unknown yet. The basic principle of temporary land occupation is to occupy wasteland where possible.

1.4 Overview of the EMDP

The EMDP aims to eliminate or mitigate potential negative impacts on the minority population in the project area, and ensure that they benefit from the Project. According to the DMS results, resettlement plan and socioeconomic survey results, minority officials, residents (both male and female), poor households, religious organizations, etc. in the prefectures, cities, counties, townships and villages in the project area¹ have been involved in FGDs, personal interviews and questionnaire survey, and the Project's potential positive and negative impacts on local residents, especially minority residents evaluated. 26 bureau meetings were held in total, involving highway districts, transport bureaus, ethnic and religious affairs bureaus, etc., and 30 village meetings were held and 68 APs were interviewed, including 51 minority APs, where 98.5% of the interviewees support the Project (see Chapter 6 for details). The EMDP preparation team prepared this EMDP in consultation with the above stakeholders, which covers poverty reduction, women's participation and

¹ The Project covers national and provincial highways in 16 cities/prefectures in Yunnan Province, and affects nearby cities, counties, townships and villages.

decision-making, maintenance of public health and security, traffic and tourism development, environmental protection, agriculture and forestry development, education, etc.

2 Natural Overview and Socioeconomic Profile of the Project Area

2.1 Natural Overview

2.1.1 Regional Natural Overview

Yunnan covers 390,000 square kilometers, accounting for 4.11% of the whole country, ranking No. 8 in the aspect of area among the entire provincial administrative. Its population is 45.96 million (in 2010) in total, accounting for 3.35% of the national population, ranking No. 12. Under its jurisdiction, there are 8 cities and 8 ethnic minority autonomous prefectures. The province is adjacent with Sichuan, Guizhou, Guangxi and Tibet, and bordered with Myanmar, Laos and Vietnam. Tropic of Cancer crosses the southern area of the province. There are 7 climate zones across Yunnan, namely north tropical, south subtropical, mid-subtropical, north subtropical, warm temperate, middle latitude temperate and highland climate zones. The climate feature combines low-latitude, monsoon and mountain climate features, which are manifested as climatic regional differences and vertical variations; small annual temperature range but large diurnal range temperature; abundant precipitation, distinct wet and dry seasons with uneven distribution.

2.1.2 Natural Overview of the Project Area

2.1.2.1 Kunming City

Kunming is the leading edge and gateway of China to Southeast Asia, South Asia and even the Middle East, Southern Europe and Africa. It belongs to north low-latitude subtropical-mountain plateau monsoon climate. Due to the impact of the southwest warm and wet air of Indian Ocean, it has long sunshine and short frosty period, with an average annual temperature of 15°C, annual average sunshine 2,200 hours and more than 240 frost-free days. Kunming has a mild and pleasant climate, neither extremely hot in summer nor severely cold in winter. It is like spring all the year round, with an annual rainfall of 1,035 mm, which is a typical temperate climate. The urban temperature is between 0-29°C, a minimum annual temperature range across the whole country. Annual precipitation is clearly divided into dry and wet seasons. From May to October, it is the rainy season, with the precipitation accounting for about 85 % of a year; From November to April, it is the dry season, with the rainfall covering only about 15% of the year. Located in the Yunnan-Guizhou Plateau, the northern terrain of Kunming municipal territory is higher than the southern terrain, gradually lowering like steps from north to south. Central areas uplift, and east and west sides are lower. The topography is mainly Plateau karst, followed by red mountain original topography. The elevation of most areas is between 1,500-2,800 m.

2.1.2.2 Zhaotong City

Zhaotong City, lying in the northeast Yunnan Province, is the junction of Yunnan, Guizhou and Sichuan provinces; the terrain of Zhaotong is high southwest but low northeast, which is typical mountainous terrain structure with high mountains and deep valleys. The average altitude of the urban area is 1,685m; the City Hall is located 1,920m high. The highest elevation is 4,040m (Yao Mount in Qiaojia County), and the minimum altitude is 267m (Gunkan Dam in Shuifu County), forming a unique natural landscape and stunning scenery including Dashanbao, Huanglian River, Tongluo Dam and Xiaocao Dam. It belongs to stereo plateau monsoon zone with the coexistence of both subtropical and warm temperate climate. The average annual temperature is 12.6°C, annual sunshine 1,900 hours and rainfall 704-760 mm.

2.1.2.3 Qujing City

Qujing City lies in the east of Yunnan Province, east adjacent to Guizhou province and Guangxi Zhuang Autonomous Region, south bordered with Wenshan and Honghe

prefectures, west connecting with Kunming, and north neighboring to Zhaotong City and Bijie City of Guizhou Province. It is the hinterland of frontiers. The total area is 33,821 square kilometers. It has subtropical plateau monsoon climate. The average temperature has been 14.5°C for years: Qilin District and Luliang County both have the highest temperature 15.1°C, and Fuyuan County has the lowest 13.0°C; the average rainfall is 592.1mm, of which Luoping County has a maximum of 1,027.1mm, and Malong County has the minimum of 417.0mm; the annual average sunshine is 1,998.12 hours, of which Huize County has the most 2,471.2 hours, and Luoping County has the least 1,546.2 hours.

2.1.2.4 Chuxiong Prefecture

Chuxiong Yi Autonomous Prefecture lies in the north-central Yunnan Province, belonging to the main body of western Yunnan-Guizhou Plateau and Middle Yunnan Plateau. The administrative area of the prefecture is 29,258 square kilometers. It has a pleasant climate throughout the whole prefecture, belonging to sub-humid subtropical plateau monsoon climate, and due to the high mountains and deep valleys, vertical climate changes obviously. In 2013, the average annual rainfall is 673mm, the average annual temperature 17.1 °C, and sunshine 2,395 hours. It is rich in mineral resources, especially well-known for copper, iron, coal and salt. It has woodland of 1,778,300 hectares, a stumpage of 92,367,300 cubic meters, and the forest coverage rate is 62.5%. It has total water resources of 6.867 billion cubic meters and the theoretical reserve of hydropower is 3.4 million kilowatts.

2.1.2.5 Yuxi City

Yuxi City is located in the middle of Yunnan Province, with a total area of 15,285 square kilometers. It lies in a low latitude plateau region and belongs to a subtropical monsoon climate, with dry seasons in winter and spring and wet seasons in summer and autumn. It has a mild and humid climate with characteristic changes because of the vertical shape and backward orientation. The average annual temperature is 15.4-24.2°C, the highest 32.2°C and the lowest -3°C; the annual average precipitation is 787.8-1,000mm, mostly from June to October, especially in the rainy season from May to October, and the heavy rain mostly from June to August with frequent occurrence of "single point storm" in a small range but with high-intensity; relative humidity is 75.3%, and absolute humidity is 13.6 millibar; average annual evaporation is 1801mm. From January to March, it is frosty period, with occasional snowfall. Because of the complex topography and greater elevation difference, there is generally more rainfall in mountainous areas than in dam areas. From the peak to the trough, the annual and diurnal temperature variations are also significant.

2.1.2.6 Honghe Hani-Yi Autonomous Prefecture

Honghe Hani-Yi Autonomous Prefecture is located in the southeast of Yunnan Province, belonging to low latitude plateau subtropical humid monsoon climate zone, with unique plateau-type stereo climate characteristics. Though there is not a clear distinction between the four seasons across the prefecture, there are distinct dry and rainy seasons. The average annual rainfall is 800-1,600mm, rainy season is from May to October, the rainfall accounting for 80-85% of the annual rainfall, of which the continuous intensive rainfall is from June to August, with a very uneven geographical distribution of spatial and temporal characteristics. It has a mild climate at an altitude of about 1400m, the average temperature at 18-20°C; at an altitude of 1,400-1,700m, the temperature at 17°C; at an altitude of 1800-2300m, the temperature at 11-13°C. The topography is high in the northwest and low in the southeast. The topography includes 4 parts, i.e., mountains, karst plateaus, basins (Bazi) and valleys.

2.1.2.7 Wenshan Zhuang-Miao Autonomous Prefecture

Wenshan Zhuang-Miao Autonomous Prefecture is located in the southeastern part of Yunnan Province, southwest border area of China, with a land area of 32,239 square

kilometers. The terrain slopes from northwest to southeast, with mountains accounting for 97% of the total land area, with an average elevation of 1,000 -1,800m. Wenshan Prefecture is located in the southeastern part of the Yunnan-Guizhou Plateau. The average annual temperature is 19°C, the annual frost-free period is 356 days, 2,228.9 hours of sunshine, most regions being subtropical climate, without bitter cold in winter or scorching heat in summer. The annual rainfall is 779mm, with distinct wet and dry seasons. From May to October, it is the rainy season, the rainfall accounting for 82 % of the annual rainfall; from November to April, it is the dry season, the rainfall accounting for 18 % of annual rainfall.

2.1.2.8 Pu'er City

Pu'er City, located in southwest Yunnan Province, with a total area of 45,385 square kilometers, is the largest prefecture (city) in Yunnan Province. Pu'er is located in the southwest edge of the Yunnan-Guizhou Plateau. The three rivers, Lancang River, Lixian River and Nanka River, run across the city from north to south and form a broom-like river system, which is conducive to the two shares of warm air northward from the Indian Ocean and the Pacific Ocean, making Pu'er the only maritime climate zone on Yunnan-Guizhou Plateau. Pu'er has a pleasant climate, warm in winter and cool in summer, spring-like throughout the whole year, with an average annual sunshine around 2,000 hours, an average annual temperature of 15.3-20.2°C, an average annual rainfall of about 1600mm, and an average annual relative humidity is 79%, an annual frost-free period of 315 more days.

2.1.2.9 Xishuangbanna Prefecture

Xishuangbanna Dai Autonomous Prefecture is located in the southernmost tip of Yunnan Province, People's Republic of China. It is the first minority autonomous prefecture in Yunnan, with a land area of 19,100 square kilometers. Xishuangbanna is China's second largest natural rubber production base, and there are 365 acres of rubber plantation; it is also the original habitat of large leaf tea, the hometown of Pu'er Tea, with six ancient tea mountains and more than 80,000 mu cultivation-type tea gardens with a history of almost a century. There are four national first-class ports in Xishuangbanna, accounting for nearly one-third of Yunnan Province. Lancang-Mekong River, which connects six countries (China, Myanmar, Laos, Thailand, Cambodia and Vietnam) together, exits from Xishuangbanna. The upper Mekong River waterway is a national 5-level waterway. China, Myanmar, Laos and Thailand are open to 250 tons of passenger freighter all year round; Kunming-Bangkok international channel also exits from Xishuangbanna; Xishuangbanna International Airport has opened 23 domestic routes as well as international routes with Luang Prabang (Laos) and Bangkok (Thailand).

2.1.2.10 Dali Bai Autonomous Prefecture

Dali Prefecture is located in the central west Yunnan Province, the combining site of Yunnan-Guizhou Plateau and Hengdian Mountains, with the higher terrain lying northwest. The land area covers 29,459 square kilometers, of which 93.4% are mountainous regions and 6.6% are dam areas. There are seven natural lakes, of which Erhai Lake in the central region is the largest, with an area of 250 square kilometers. The climate type is low latitude plateau monsoon climate, and, there is no severely cold winter or sweltering summer except for a few alpine mountains, with an average annual temperature about 15°C, and an average annual rainfall about 1,000mm.

2.1.2.11 Baoshan City

Baoshan City lies in the west of Yunnan Province, with a total area of 19,637 square kilometers. The northwestern part of the terrain is higher than south with an elevation of 535-3,780m. Nu Mount, Gaoligong Mount and Lancang River, Nujiang and Longchuan River extend from north to south in a parallel way. The 3 rivers embrace

the 2 mountains, with high mountains and deep valleys being separate with each other, and the number of mountains more than that of dams. Most areas within the region belong to a subtropical monsoon climate zone, with an average annual temperature of 14.8-21.3°C and an annual precipitation of 746.6-2,095.2mm. It is rich in lignite reserves and geothermal resources, and the 5 main resources come from hydropower, coal, geothermal, natural gas, and solar energy, with a broad development prospect.

2.1.2.12 Dehong Prefecture

Dehong Dai-Jingpo Autonomous Prefecture, located in the west of Yunnan Province, the southwest border of China, is one of the eight ethnic minority autonomous prefectures in Yunnan Province, with a total area of 11,526 square kilometers. Dehong is of subtropical monsoon climate type, which is characterized by the following features: neither severe cold in winter nor scorching heat in summer; abundant rainfall, distinct wet and dry seasons, and small annual temperature range. Dehong is the exit of ancient "Southern Silk Road", with nine roads linking with the northern towns of Burma, two national ports, Ruili and Wanding and two provincial ports, Yingjiang and Zhangfeng.

2.1.2.13 Lijiang City

Lijiang City is located in the southeastern margin of the Tibetan Plateau, northwest Yunnan Plateau, middle reaches of Jinsha River. Its climate belongs to low-latitude mountain plateau warm temperate monsoon climate, with little seasonal temperature variation, distinct wet and dry seasons, significantly different vertical changes in climate. There is more severe weather, with small annual temperature range but large temperature difference between day and night, concurrently having the features of maritime climate and continental climate. The city's annual average temperature is between 12.6-19.9°C, the annual frost-free period is 191-310 days; annual rainfall is 910-1,040mm, concentrated in the rainy season from June to September; annual sunshine is 2,321-2,554 hours. There are three natural lakes within the territory, namely Lugu Lake, Chenghai Lake and Lashihai Lake. The theoretical water resources reserves of Lijiang City is 114.39 million kw, accounting for 11% of the provincial reserves, the gross installed capacity that can be developed is 23,093,000kw, which is one of China's largest hydropower base "west-east electricity transmission" in planning. Lijiang City has a unique location and a variety of metallogenic geological conditions, forming a rich variety of minerals, which have regional specialties. So far, more than 30 kinds of minerals have been found and there are over 350 mineral bases, one gas field and dozens of geothermal origins. The minerals such as coal, copper, gold and other construction materials have certain advantages. With a wide variety of plant resources Lijiang has become one of China's famous plant protection bases.

2.1.2.14 Nujiang Lisu Autonomous Prefecture

Nujiang Lisu Autonomous Prefecture is located in the northwest of Yunnan, with a total area of 14,703 square kilometers. The prefecture is mostly high mountains and steep slopes, with less arable land and the reclamation coefficient being less than 4%. The arable land is distributed vertically along the hillside, 76.6% arable land are more than 25 degrees slope, of which the mountain land accounting for 28.9%, and the half-mountainous land for 63.5%, and valley for 7.6%. Nujiang prefecture belongs to Yunnan western Hengduan Mountain rift valley area, lying north to south and the entire terrain is composed of towering mountains and deep rushing rivers, with three mountain valleys deeply cut by Nujiang River, Lancang River and Dulong River.

2.1.2.15 Diqing Tibetan Autonomous Prefecture

Diqing Tibetan Autonomous Prefecture, lying in the southeast edge of the Qinghai-Tibet Plateau, the hinterland of Hengduan Mountain, lying north to south, is

located in the hinterland of three parallel rivers, a national scenic site in northwest Yunnan. The total area is 23,900 square kilometers, 37,100 hectares arable land. The geographical territory is three mountains embracing two rivers, and the three mountains are Nu Mount, Yunling Snow Mountain and Gongga Snow Mountain and the two rivers are Lancang and Jinsha River, running through the whole territory from north to south. The average elevation is 3,380m. The Kagebo Peak of Meili Snow Mountain has an elevation of 6,740m, the highest peak in Yunnan Province. The minimum altitude within the territory is 1,480m, with a relative elevation of 5,260m, and this huge height difference within a smaller range makes a vertical agro-climate and stereo ecological environment. "As a result, Diqing is known as "Animal Kingdom" and "Non-ferrous Metal kingdom", and especially, its water resources, mineral resources, tourism resources, biological resources and land resources are very rich." Its climate belongs to temperate and cold monsoon climate, with an average annual temperature of 5.4°C, annual rainfall 268-94 mm, and frost-free period 129-197 days.

2.1.2.16 Lincang City

Lincang City has a total area of 24,000 square kilometers and a total population of about 2,265,000, of which 38.6% are 26 ethnic minorities represented by the Wa Ethnic Minority. Lincang is the world famous hometown of "Dianhong" tea, and one of the original habitats of tea in the world. "Dianhong" tea is a famous export tea of China, whose annual export volume accounts for over 40% of the province's tea export volume, and the foreign exchange accounts for more than 50% of the province's tea export. Yunnan Fengqing Dianhong Tea Group Co. Ltd is currently the largest tea producer in Yunnan. There are 650,000 mu of tea plantation, with an annual output of over 20,000 tons, both the plantation area and production ranking first in Yunnan Province. Lincang is a unique hydropower base in Asia. Lancang River runs 232km within borders, belonging to the middle ground of Lancang-Mekong Subregion, with abundant water resources and three national and provincial planned and built million-kilowatt power plants, Manwan, Dachaoshan and Little Bay power plants are all within LinCang territory.

2.2 Socioeconomic Profile

2.2.1 Regional Socioeconomic Profile

In late 2013, Yunnan had a permanent population of 46.866 million, increasing by 276,000 than that of the end of the year. The newly-born population is 0.589 million, with birth rate of 12.6‰, and 300,000 deaths, representing the death rate of 6.17‰, declined by 0.05‰ over the previous year. At the end of the year, the province has an urban population of 18.971 million and a rural population of 27.895 million, the provincial urbanization rate has reached 40.48%, 1.17 percentage points higher than the previous year.

In 2013, the gross domestic product (GDP) amounted to 1.172091 trillion yuan, an increase of 12.1% over the previous year, and 4.4 percentage points higher than the national GDP. Therein, the added value of the primary industry is RMB 189.534 billion, with an increase of 6.8%, and that of the secondary industry is RMB 492.782 billion, with an increase of 13.3%, and that of the tertiary industry is RMB 489.775 billion, with an increase of 12.4%. These three industry structures have been adjusted to 16.2:42.0:41.8 from 16.0:42.9:41.1 of the last year. Yunnan per capita GDP amounted to 25,083yuan (equivalent to \$4,050), an increase of 11.4% over the previous year. Non-public economic value added realized 539.748 billion yuan, accounting for 46.1% of Yunnan's GDP, 2 percentage points higher than the previous year. Yunnan agricultural output value reached 305.604 billion yuan, an increase of 7.0% over the previous year. Grain output reached 18.24 million tons, an increase of 4.3% over the previous year. The added value of the whole industry was 376.758 billion Yuan, increased by 12.0% over the last year. The total retail sales of social consumer goods

are 403.601 billion Yuan, increasing by 14.0% over that of last year. In 2013, the annual per capita disposable income of urban residents was 23,236yuan, an increase of 10.3% over the previous year; rural per capita net income is 6,141 yuan, an increase of 13.4% over the previous year. According to urban and rural household survey implemented since the fourth quarter of 2012, the province's per capita disposable income was 12,578 yuan, an increase of 12.1% over the previous year.

2.2.2 Poverty in Project Areas

Yunnan Province collects statistics with regard poor population based on national standards, which sets poverty line at annual per capital net income of 2,300 Yuan in 2012². In 2012, national annual per capital net income of farmers was 7,917 Yuan, Yunnan Provincial annual per capital net income of farmers was 5,417 Yuan, while this number was only 4,365 Yuan in impoverished areas (state poverty county) of Yunnan Province. In 2012, there were poor population of 8,040,000, accounting for 21.58% of total population in Yunnan Province; in 2013, poverty population decreased to 6,610,000 people and the proportion declined to 17.54%. The population and proportion of poor people in Yunnan Province see the table below.

Table 1 Poor population in the Prefectures/Cities in the Project Area

Serial number	State/City	Poverty population		Poverty incidence (%)	
		2012	2013	2012	2013
		8040000	6610000	21.58	17.54
1	Kunming	287700	232753	9.58	7.75
2	Qujing	946657	781714	17.56	14.50
3	Yuxi	123154	95598	6.74	5.53
4	Baoshan	469973	376275	20.77	16.63
5	Zhaotong	1270441	1543805	29.71	24.45
6	Lijiang	199003	153898	19.47	15.06
7	Pu'er	724493	595944	33.92	27.90
8	Lincang	475211	380379	23.27	18.62
9	Chuxiong	386790	308752	17.24	13.76
10	Honghe	1083709	914314	30.08	25.37
11	Wenshan	554175	448199	17.06	13.80
12	Banna	88063	71772	13.48	11.14
13	Dali	562387	471993	19.65	16.49
14	Dehong	164074	136750	16.39	13.66
15	Nujiang	229654	229654	60.52	51.61
16	Diqing	161499	140564	51.31	44.66

225 management stations located in 114 counties, in which 64 counties are state poverty county, accounting for 88% of total state poverty county in Yunnan Province

² This definition of poor population is close to absolute poverty population in World Bank term. The World Bank standard is \$1.25 per capital every day, i.e. 2,800 Yuan per capital every year.

(73 state poverty counties); involved around 6,180,000 poor population, accounting for 93% of total poor population in Yunnan Province. The specific information with respect to poor population in project area see the table below.

Table 2 National Poor County in the Project Area

No.	State Poverty County	Total Population(million)	Poor Population(million)	Poverty Incidence
1	Xundian County	45.71	4.36	9.54%
2	Luquan County	39.64	7.48	18.87%
3	Fuyuan County	79.46	11.62	14.62%
4	Huize County	101.92	47.08	46.19%
5	Ludian County	43.85	28.97	66.07%
6	Yiliang County	59.00	6.21	10.53%
7	Daguan County	27.00	20.50	75.93%
8	Yongshan County	39.77	9.30	23.38%
9	Qiaojia County	58.82	17.93	30.48%
10	Zhenxiong County	152.66	30.13	19.74%
11	Wenshan County	48.15	3.82	7.93%
12	Yanshan County	47.30	6.49	13.72%
13	Xichou County	25.53	3.98	15.59%
14	Malipo County	27.31	9.16	33.54%
15	Maguan County	36.75	4.12	11.20%
16	Qiubei County	48.33	6.33	13.10%
17	Guangnan County	78.74	32.20	40.89%
18	Funing County	40.75	8.67	21.28%
19	Luxi County	41.86	13.27	31.70%
20	Yuanyang County	43.53	24.64	56.60%
21	Lvchun County	23.32	12.23	52.44%
22	Honghe County	32.66	14.85	45.47%
23	Mojiang County	36.36	9.92	27.28%
24	Jingdong County	36.20	7.05	19.48%
25	Zhenyuan County	21.01	4.31	20.51%
26	Lancang County	49.56	34.00	68.60%
27	Menglian County	13.80	4.37	31.67%
28	Ximeng County	9.22	8.25	89.48%
29	Jiangcheng County	12.29	4.70	38.24%
30	Menghai County	32.22	3.08	9.56%
31	Mengla County	22.60	3.90	17.26%
32	Yun County	45.54	9.11	20.00%
33	Fengqing County	46.44	9.15	19.70%
34	Linxiang County	32.75	5.13	15.67%

EMDP of the Yunnan Highway Assets Management Project

35	Shuangjiang County	17.92	3.85	21.50%
36	Yongde County	37.12	7.31	19.70%
37	Zhenkang County	17.89	3.54	19.80%
38	Cangyuan County	18.27	4.18	22.88%
39	Nanhua County	23.98	2.66	11.10%
40	Yongren County	10.57	1.88	17.80%
41	Wuding County	27.43	4.64	16.90%
42	Shuangbai County	15.36	1.57	10.21%
43	Yaoan County	28.01	3.25	11.60%
44	Nanjian County	22.31	11.23	50.34%
45	Yangbi County	11.26	1.91	16.96%
46	Yongpin County	17.52	3.7	21.12%
47	Eryuan County	27.58	9.10	33.00%
48	Jianchuan County	29.16	14.20	48.70%
49	Heqing County	26.51	9.55	36.02%
50	Weishan County	31.67	11.73	37.04%
51	Yunlong County	20.73	5.17	24.94%
52	Midu County	32.53	9.00	27.67%
53	Yongsheng County	39.28	11.00	28.00%
54	Ninglang County	26.86	17.91	66.68%
55	Shangri-la County	17.53	5.89	33.60%
56	Deqin County	6.73	3.07	45.62%
57	Longling County	29.06	1.45	4.97%
58	Changning County	34.88	6.41	18.38%
59	Shidian County	34.20	3.87	11.32%
60	Lianghe County	15.42	9.87	64.01%
61	Gongshan County	3.59	2.18	60.72%
62	Fugong County	10.27	5.71	55.60%
63	Lushui County	17.72	5.74	32.39%
64	Lanpin County	21.26	10.37	48.78%
Total		2172.67	618.25	28.46%

The poverty population dwell in the district with poor transportation and roads, which exerts negative impact upon seeing the doctor, shopping and going to school. Meanwhile, their residential district has frequent natural disasters as the tough natural conditions. Once the natural disasters happen, the undeveloped road infrastructure may exert negative influence on rescue operation.

After the Project construction commenced, the improvement of road, maintenance and management system will promote infrastructure construction and travel conditions in poverty areas, also, provide more employment opportunities. As a result, the living standards of poverty population could be improved. Generally, the project construction plays a promoting role in boost logistics industry, improving curing conditions,

accelerating the flow of personnel, raw materials and motor vehicles, promoting local development and attracting investment.

2.2.3 Socioeconomic Profile of the Project Area

2.2.3.1 Kunming City

At the end of 2013, Kunming has a population of 6.579 million, of which 907,900 are minorities, accounting for 13.8% of the total population; agricultural population is 2.1019 million, accounting for 31.95% of the total population. Kunming realized a regional GDP of 341.531 billion yuan in 2013. Calculated by comparable price, it has an increase of 12.8% over the previous year. Of this figure, the primary industry accounts for 17.527 billion Yuan, an increase of 6.8%; for the second industry, 153.711 billion Yuan, an increase of 13.2% and for the tertiary industry, 170.293 billion Yuan, an increase of 13.1%. The proportion of the three industries was 5.1:45.0:49.9. Per capita GDP reached 52,094 yuan. The annual grain output was 1.2301 million tons, per capita possession is 186.97 kilograms. The annual agricultural output value was 29.866 billion yuan and industrial output value 112.338 billion yuan. In 2013, urban residents' controllable income reaches 28,354 Yuan with an increase of 12.3%. Per capita net income of rural residents reaches 9,273 with an increase of 15.3%

2.2.3.2 Zhaotong City

Zhaotong City had a population of 5.793 million at the end of 2013, of which 604,703 are minorities, accounting for 10.3% of the total population; agricultural population is 3.4894 million, accounting for 60.2% of the total population. In 2013, the total GDP was 63.47 billion yuan, with an increase of 13.4%, the growth rate ranking the 4th place in the province. The first industrial added value was 12.865 billion yuan, an increase of 7.2%; the second industrial added value 31.894 billion yuan, an increase of 19.8%; the tertiary industry added value 18.71 billion yuan, an increase of 6.2%. The annual grain output was 2.1375 million tons and per capita possession of 368.98 kilograms. The annual agricultural output value was 20.168 billion yuan and industrial output 24.199 billion yuan. The per-capita disposable income of urban residents was 18,724 Yuan, rising by 14.2% over last year; the per-capita disposable income of rural residents was 4604 Yuan, rising by 18.1% over last year;

2.2.3.3 Qujing City

Qujing City had a population of 5.974 million at the end of 2013, of which 400,300 were ethnic minorities, accounting for 9% of the total population; agricultural population was 3.4894 million, accounting for 58.4% of the total population. In 2013, the city GDP was 158.39 billion yuan, with a year-on-year growth of 13.1%. Therein, the added value of the primary industry is 28.919 billion Yuan, with an increase of 7.0%, and that of the secondary industry is 83.845 billion Yuan, with an increase of 15.2%, and that of the tertiary industry is 45.63 billion Yuan, with an increase of 12.4%. The proportion of the three industries was 18.3: 52.9: 28.8. In 2013, the added value of animal husbandry and fishery was 28.919 billion yuan, and the annual grain sown area was 10.062 million mu, total grain output reaching 3.182 billion kilograms, with an increase of 4.3%; Oil is 167 million kilograms, with a decrease of 18.8%; 214 million kilograms flue-cured tobacco, a decrease of 4.9%; meat production 1,822,500 tons, with an increase of 9.1%; vegetable planting area 2,201,400 mu, yield 2.252 billion kilograms. The per capita income of the urban dwellers was 24261 Yuan, with an increase of 12.2%, while the rural people's per capita income reached 6861 Yuan, an increase of 15.3%.

2.2.3.4 Chuxiong Prefecture

There are nine counties and one city within the prefecture (Chuxiong City, Shuangbai County, Mouding County, Nanhua County, Yaoan County, Dayao County, Yongren

County, Yuanmou County, Wuding County and Lufeng County), 103 Xiangs and towns, 1,098 villagers' committees and community residents' committees (of which there are 1,019 villagers' committees and 79 community residents' committees). As of the end of 2013, the resident population of the prefecture was 2.724 million. According to the Public Household Demographics, the total population was 2.628 million at the end of the year, increasing 11,165 people over the previous year, of which the urban population was 1.0204 million, accounting for 37.5% of the total population, and the rural population was 1.7036 million, accounting for 62.5% of the total population. The birth rate was 11.32‰ and mortality rate 6.95‰, the natural growth rate 4.37‰.

The total output value in 2013 was 63.25 billion Yuan, increasing by 10.6% over the same period of last year as per the comparable price. Therein, the added value of the primary industry is RMB 14.528 billion Yuan, with an increase of 7.1%, and that of the secondary industry is RMB 26.435 billion Yuan, with an increase of 12.3%, and that of the tertiary industry is RMB 22.287 billion Yuan, with an increase of 10.4%. The added value of the three industries covers 23.0%, 41.8% and 35.2% of the GDP respectively. GDP per capita calculated by the resident population was 23,241 yuan; the per capita GDP by Public household population was 24,119 yuan. Non-public economic value added was 29.035 billion yuan, accounting for 45.9% of GDP, up to 0.7 percentage points over the previous year (accounted on a comparable basis). In 2013, the rural net income per capita was 6,357 yuan, with an increase of 939 yuan over the previous year, an increase of 17.3%; urban resident's per capita disposable income was 22,934 yuan, 2,642 yuan more than last year, with an increase of 13.0%.

2.2.3.5 Yuxi City

Yuxi City had a population of 2.3716 million at the end of 2013, of which the minority population was 933,700, accounting for 39.37% of the total population; agricultural population was 1.421 million, accounting for 61% of the total population. In 2013, the city has completed a gross domestic product (GDP) of 110.25 billion yuan. Therein, the added value of the primary industry is RMB 11.24 billion Yuan, with an increase of 7.2%, and that of the secondary industry is RMB 66.48 billion Yuan, with an increase of 9.1%, and that of the tertiary industry is RMB 32.53 billion Yuan, with an increase of 13.7%. The proportion of the three industries was 10.2:60.3:29.5. In 2013, the city's animal husbandry and fishery added value was 11.24 billion yuan, an increase of 7.2% by comparable price, of which the added value of agriculture (farming) was 7.45 billion yuan, with an increase of 7.3%; forestry 320 million yuan, with an increase of 7.0%; husbandry 3.17 billion yuan, with an increase of 7.2%; fishery added value 160 million yuan, with an increase of 5.5%; service industry of agriculture, animal, husbandry and fishery 140 million yuan, with an increase of 4.4%. The city's gross grain output in 2013 was 602.87 million kilograms. The city's completed industrial added value was 6.342 billion yuan, up by 8.7%; in 2013, residents' per capita disposable income was 24,276 yuan, an increase of 2,892 yuan over the previous year; in the whole city, peasants' per capita net income was 8925 yuan, an increase of 1,297 yuan over the previous year, up by 17%.

2.2.3.6 Honghe Hani -Yi Autonomous Prefecture

By the end of 2013, the population in Honghe Prefecture was 4,589,600, among which there were 2,763,900 ethnic minority residents, covering 56.7% of the total. The agricultural population is 3.484 million, accounting for 75.9% of the total population. The annual GDP passed 100 billion yuan and was expected to be 101.2 billion yuan by a jump of 12%, among which the added value of the primary industry was 16.7 billion yuan with a year-to-year increase of 6%, while that of the secondary industry was 54 billion yuan with a year-to-year increase of 13.8% and that of the tertiary industry was 30.3 billion yuan with a year-to-year increase of 12.5%. The structure of the three industries was 16.5: 53.4: 30.1. In the whole prefecture, the per capita GDP reached 22,119 yuan. The prefecture's annual gross output value of farming, forestry,

husbandry and fishery achieved 28.2 billion yuan; the annual gross grain output reached 1.762 million tons with a year-to-year increase of 3.6%. The annual gross grain output reached 1.762 million tons with a year-to-year increase of 3.6%. In 2013, the disposable per capita income of the urban dwellers reached 22077 Yuan, increasing by 12%. The net per capita income of the peasants reached 6288 Yuan, increasing by 15%.

2.2.3.7 Wenshan Zhuang-Miao Autonomous Prefecture

By the end of 2013, the population in Wenshan Prefecture was 3.574 million among which there were 2.064 million minority residents covering 57.68% of the total, and 2.353 million agricultural population covering 65.8% of the total. In 2013, the whole state achieved GDP of RMB 55.336 billion Yuan, an increase of 13.5% over the previous year. Among that, the added value of the primary industry was 1.3339 billion yuan with an increase of 6.8%, while that of the secondary industry was 21.707 billion yuan with an increase of 20.0%. The value-added of the tertiary industry was 20.290 billion Yuan, with an increase of 9.9%. The ratio of the prefecture's three industries was 24:39:37. The annual gross output value of agriculture reached 22,701.06 million yuan, up by 7.1%. The gross grain output was 1544500 tons. The industrial added value was 1,572.57 million yuan, up by 20.6%. The per capita income of the region's urban dwellers was 21,080 Yuan, with an increase of 11.6%, while the rural people's per capita income reached 5,460 Yuan, with an increase of 17.6%.

2.2.3.8 Pu'er City

Pu'er City governs 9 counties, 1 district, 103 Xiangs and towns (including 30 towns and 73 Xiangs), 36 neighborhood committees, 994 villagers' committees, among which the 1 district is Simao District and the 9 counties are 9 minority autonomous counties. By the end of 2013, the city's permanent resident population was 2.548 million. By the end of the year, the city's urbanization rate achieved 35.9%, with an urban population of 927,700 and a rural population of 1,656,300. The birth rate is 12.17‰ and the death rate is 6.07‰ with natural growth rate of 6.10‰ in the whole city.

In 2013, the annual GDP of Pu'er City achieved 42.54 billion yuan, with a year-to-year increase of 13.4%, which were 5.7 percentage points higher than the national level and 1.3 percentage points higher than the provincial level. Therein, the added value of the primary industry is RMB 13.06 billion Yuan, with an increase of 7.1%, and that of the secondary industry is RMB 16.23 billion Yuan, with an increase of 23.1%, and that of the tertiary industry is RMB 13.25 billion Yuan, with an increase of 7.1%. The proportion of the three industries was 30.7:38.2: 31.1. By the permanent resident population, the city's per capita regional GDP reached 16,491 yuan (or 2,663 dollars on year's average exchange rate), up by 12.9% over the previous year.

The annual per capita disposable income of urban residents was 19,170 yuan, up by 11% over the previous year, while the urban residents' per capita nonproductive expenditure was 11,522 yuan, down by 1.2% compared with the previous year. Peasants' per capita net income was 5,873 yuan, up by 17%, and peasants' per capita living expenditure was 4,668 yuan, up by 5.5% over the previous year. The proportion of expenditure on food to the total living expenditure was 44.40% for urban residents and 46.93% for rural residents.

2.2.3.9 Xishuangbanna Prefecture

Established on January 23rd, 1953, Xishuangbanna Dai Autonomous Prefecture is the first-built minority autonomous prefecture in Yunnan Province, governing 1 city, 2 counties, 3 districts and having 31 Xiangs and towns, 1 sub-district office, 220 villagers' committees and 2,221 villagers' groups. By the end of 2013, the prefecture's permanent resident population was 1,152,000, among which 465,900 were urban people, with an urbanization rate of 40.44%. By the end of the year, the registered population was 972,500, of which rural population was 608,600; covering 62.6% of

the total, and minority population was 753,300 million, covering 77.5% of the whole. The birth rate of the population is 11.79‰, the death rate is 5.56‰, and the natural growth rate is 6.23‰.

In 2013, Xishuanbanna achieved GDP of 27.232 billion Yuan, an increase of 13.5% over the previous year. For this, the value added of the primary industry was 8 billion Yuan, increased by 7.1% over the last year; the secondary industry was 8.048 billion Yuan, increased by 19.6% over last year; and the tertiary industry was 11.185 billion Yuan, increased by 12.6% over the last year. The added value of the three industries covers 29.4%, 29.6% and 41.1% of the GDP. The prefecture's per capita GDP was 23,670 yuan, up by 13% over the previous year. The annual added value of non-public economy was 11,309.55 million yuan, accounting for 41.5% of the prefecture's GDP. The annual per capita disposable income of urban residents is 20,094 yuan, up by 12.2% over the previous year, while the per capita consumption expenditure is 11,871 yuan, up by 8.6%. The per-capita disposable income of rural residents was 7107 Yuan, rising by 15.1% over last year;

2.2.3.10 Dali Bai Autonomous Prefecture

Its GDP achieved 76.1 billion Yuan in 2013 with an increase of 12.2%. For this, the added value of the primary industry is RMB 16.2 billion Yuan, with an increase of 6.9%, and that of the secondary industry is RMB 32 billion Yuan, with an increase of 14.3%, and that of the tertiary industry is RMB 27.9 billion Yuan, with an increase of 12.7%. The prefecture's per capita GDP reaches 21,727 yuan and non-public economy achieved the added value of 36.41 billion yuan, up by 16.4% over the previous year, accounting for 47.9% of the whole prefecture's regional GDP. The residential consumption prices rose by 2.7% over the previous year, including the price for services rising by 6.9%. Rural economy develops healthily with a gross grain output of 1,688,000 tons which has increased by 3%. Develop plateau characteristic ecological agricultural base. There is a continue increase in industrial economy; the total industrial output value reached 90,500 million yuan, up by 15.7%.

The annual total agricultural output value was 3,395.53 million yuan, up by 19.50% compared with the previous year, among which output value of farming was 1,379.73 million yuan, up by 18.03%; that of forestry was 36.74 million yuan, up by 31.68%; that of husbandry was 1,841.56 million yuan, up by 20.28% and that of fishery was 121.03 million yuan, up by 21.36%. The annual gross grain output was up to 174,000 tons, increasing by 5.25% compared with the previous year; oil crop output was 1,905 tons, up by 1.87%. The annual total industrial output value was 30,097.18 million yuan, up by 22.84% over the previous year, among which 15,929.49 million yuan was completed by the city part while 14,167.69 million yuan by the innovative industrial park; the industrial added value was 10,589.66 million yuan, up by 15% over the previous year (comparable price). Industrial enterprises above designated size completed output value of 23,615.77 million yuan, up by 24.33% over the previous year; their completed industrial added value was 8,469.94 million yuan, up by 17.7% compared with the previous year; the achieved total pre-tax profit was 6,473.2 million yuan, up by 20.28% compared with the previous year; and the total profit was 2,503.13 million yuan, up by 21.47%. All through the year there were 50,357 people incorporated into the urban minimum living security and 237,230 people into the rural minimum living security. The per capita subsidy of minimum living security for cities and counties reached 2,679 yuan.

2.2.3.11 Baoshan City

In 2013, GDP of Baoshan achieved 38.996 billion Yuan, with an increase of 15.1% over the previous year. Therein, the added value of the primary industry is RMB 11.292 billion Yuan, with an increase of 6.5%, and that of the secondary industry is RMB 13.393 billion Yuan, with an increase of 21.7%, and that of the tertiary industry is RMB 14.311 billion Yuan, with an increase of 15.8%. The gross trading income of

Baoshan City's township enterprises was 32,196 million yuan in 2013, up by 30.2% over the previous year; the total output value was 34,307 million yuan, up by 34.8%; the total pre-tax profit is 1,429 million yuan, up by 18.1%. The number of individual businesses in the whole city was up to 62,856, with an addition of 4,988 and an increase of 8.6%; the number of individual economy workers was 94,790, with an addition of 10,053 and an increase of 11.9%; the number of private enterprises was 4,397, with an addition of 439 and an increase of 11.1%; the number of private economy investors was 11,045, with an addition of 854 and an increase of 8.4%; the number of employees was 87,110, with an addition of 3,793 and an increase of 4.6%. Added value of non-public economy was 16,009 million yuan with an increase of 12.9%, covering 41.1% of the GDP, which increased 1.5 percentage points compared with the previous year; paid taxes of non-public economy were 2,326 million yuan with an increase of 24.2%, which provided 40.4% of the total fiscal revenue.

In 2013, the city's agricultural gross output value was 18,491 million yuan, up by 7% compared with the previous year; the agricultural added value reached 11,292 million yuan, up by 6.5%; the gross grain output reached 1.3367 million tons, up by 3.3% with an increase of 42,100 tons; output of tobacco leaves was 95,100 tons, up by 13.5%; output of flue-cured tobacco was 81,300 tons, up by 14.9%; output of sugar canes was 1.9769 million tons, up by 7%; output of tea leaves was 35,600 tons, up by 13.2%. All through the year there were 13,746 people incorporated into the urban minimum living security and 175,840 people into the rural minimum living security. The per capita subsidy of minimum living security for cities and counties reached 3,584 yuan and 2,253.42 yuan respectively.

2.2.3.12 Dehong Prefecture

Dehong Prefecture governs 2 cities, 3 counties, 50 Xiangs and towns, 364 villagers' (neighborhood) committees and 3732 villagers' groups. By the end of 2013, the prefecture's permanent resident population was 1,245,000, among which 481,800 were urban people, with an urbanization rate of 38.7%. The birth rate is 14.52‰ and the death rate is 7.19‰, and the natural population growth rate is 7.33‰.

In 2013, GDP of Prefecture of De Hong achieved 23.090 billion Yuan, with an increase of 12.0% over the previous year. Therein, the added value of the primary industry is RMB 6.734 billion Yuan, with an increase of 7.2%, and that of the secondary industry is RMB 7.488 billion Yuan, with an increase of 12.9%, and that of the tertiary industry is RMB 8.868 billion Yuan, with an increase of 13.9%. The proportion of the three industries was 29.2:32.4:38.4. The non-public economy created an added value of 9,001 million yuan, accounting for 39.0% of the prefecture's GDP. Per capita GDP reached 18,663 yuan. The annual urban residents' per capita disposable income was 19,659 yuan, up by 11.3% compared with the previous year; rural residents' per capita net income was 5,608 yuan, up by 17.7%.

2.2.3.13 Lijiang City

In 2013, Lijiang City's annual completed gross agricultural output value was 6,561.92 million yuan, up by 7.4% with an increase of 1,260.66 yuan compared with the previous year, among which output value of farming was 3,163.21 million yuan, increasing 765.63 million yuan; that of forestry was 273.69 million yuan, decreasing 20.95 million yuan; that of husbandry was 2,695.03 million yuan, increasing 438.02 million yuan; that of fishery was 240 million yuan, increasing 14.2 million yuan; that of the service industry of farming, forestry, husbandry and fishery was 189.99 million yuan, increasing 35.87 million yuan. The annual overall sown acreage of crops was 185,900 hectares, up by 2.22% with an increase of 4,044 hectares. The sown acreage of grain was 135,300 hectares, down by 1.21% with a decrease of 1,653 hectares. The grain output hit a new record of 491,600 tons, up by 2.36% with an increase of 11,200 tons, realizing the ninth consecutive annual increase.

The annual GDP of Lijiang City reached 21,224 million yuan, up by 15.8% when

calculated at comparable prices, 8.0 percentage points higher than the national level and 2.8 percentage points higher than the provincial level. From the respect of three industries, there was added value of 3.661 billion Yuan in the primary industry, increased by 7.0%, with an increase of 0.5 percentage points. In the secondary industry, there was an added value of 8.974 billion Yuan, increased by 21.4 %, with a decrease of 4.5 percentage points. In the tertiary industry, there was added value of 8.589 billion Yuan, increased by 13.6%, with an increase of 1.2 percentage points. The secondary industry becomes the major force of economic increase, with a contribution rate to the economic increase over 50%. The contribution rates of the primary, secondary and tertiary industry to the economic growth were 7.35%, 56.27% and 36.38% respectively, stimulating 1.2, 8.9 and 5.7 percentage points of the economic growth respectively. All through the year there were 40,321 people incorporated into the urban minimum living security and 122,207 people into the rural minimum living security. The per capita subsidy of minimum living security for cities and counties reached 2253.42 yuan.

2.2.3.14 Nujiang Lisu Autonomous Prefecture

In 2013, the total output values of the agriculture, forestry, animal husbandry and fishery reached RMB 1.72293 billion Yuan, a 6.5% increase over the same period of the previous year if calculated by the comparable prices. Among that output value of farming was 728.22 million yuan, up by 7.3% compared with the previous year; that of forestry was 246.37 million yuan, up by 6.8% compared with the previous year; that of husbandry was 642.55 million yuan, up by 6.5% compared with the previous year; that of fishery was 4.4 million yuan, up by 6.2% compared with the previous year; that of the service industry of farming, forestry, husbandry and fishery was 101.39 million yuan, up by 6.1% compared with the previous year. In full year, the total industrial output value was 4.53991 billion Yuan, with an increase of 7.3% over the last year. The annual completed industrial added value reached 1,704.47 million yuan, up 7.3% over the previous year calculated at comparable prices.

The prefecture's average annual increase of GDP was 18% and that of per capita GDP is 15.38%; the average annual increase of local fiscal general budget revenue was 22.2%, and that of expenditure was 26.7%; the average annual increase of total fixed assets investment was 28.96%. the annual GDP of 2013 reached 8,582 million yuan, up by 14.5%; the fixed assets investment above designated size was 8,287 million yuan, up by 30.2%; the total retail sales of social consumer goods was 2,351 million yuan, up by 13.9%; the local public fiscal budget revenue was 841 million yuan, up by 12.1%; the general level of residents' consumer price rose by 2.7%; the energy consumption of unit GDP fell by 1.7%. All through the year there were 13,746 people incorporated into the urban minimum living security and 175,840 people into the rural minimum living security. The per capita subsidy of minimum living security for cities and counties reached 3,484 yuan and 1250.42 yuan respectively.

2.2.3.15 Diqing Tibetan Autonomous Prefecture

In 2013, the prefecture's GDP reached 11,362.81 million yuan, with a year-to-year increase of 16% calculated at comparable prices and the increasing degree fell 3.1 percentage points from the previous year. Added value realized by the primary industry was 908.79 million yuan, with a year-to-year increase of 7.0%, a contribution rate to economy of 3.7% and stimulating economic growth by 0.6 percentage points; added value realized by the secondary industry was 4,571.2 million yuan, with a year-to-year increase of 16.3%, a contribution rate to economy of 41.3% and raising economic growth by 6.6 percentage points; added value realized by the tertiary industry was 5,882.82 million yuan, with a year-to-year increase of 17.3%, a contribution rate to economy of 55% and raising economic growth by 8.8 percentage points. Calculated at the total population, the per capita GDP was 28133 yuan, with an increase of 4137 yuan over the previous year, up by 15.4% if calculated by

comparable prices.

In 2013, the gross output value of agriculture is 305.604 billion Yuan, with an increase of 7.0% over the previous year. Therein, agricultural output was 163.940 billion Yuan, with an increase of 6.6%; forestry output value was 29.325 billion Yuan, with an increase of 12.1%; output value of animal husbandry was 7.041 billion Yuan, with an increase of 13.7%; output value of fishery was 9.043 billion Yuan, with an increase of 9.4%. All through the year there were 22,788 people incorporated into the urban minimum living security and 116,178 people into the rural minimum living security.

2.2.3.16 Lincang City

Lincang City governs 8 counties(districts) including Linxiang District, Fengqing County, Yun County, Yongde County, Zhenkang County and Shuangjiang Lahu-Wa-Blang-Dai Autonomous County, Gengma Dai-Wa Autonomous County, Cangyuan Wa Autonomous County, and 89 Xiangs and towns, 898 villagers' committees(including neighborhood committees) and 27 communities. By the end of 2013, the city's permanent resident population was 2,479,000, among which 840,400 were urban people, with an urbanization rate of 33.9%. The birth rate was 12.95‰ while the death rate was 6.51‰, and the natural growth rate was 6.47‰.

In 2013, GDP of Lincang achieved gross regional domestic product of 41.609 billion Yuan, with an increase of 13.6% over the previous year. Therein, the added value of the primary industry is RMB 13.035 billion Yuan, with an increase of 7.1%, and that of the secondary industry is RMB 17.568 billion Yuan, with an increase of 18.5%, and that of the tertiary industry is RMB 11.006 billion Yuan, with an increase of 12.9%. The per capita GDP was 16,839 yuan, up by 12.9%.

The annual rural residents' per capita net income was 62,120.66 yuan, a year-to-year increase of 17.6%, or a real increase of 14.8% after deducting price factors; the per capita disposable income of urban residents was 18,563 yuan, a year-to-year increase of 13.2%, or a real increase of 10.5% after deducting price factors. People. The per capita subsidy of minimum living security for cities and counties reached 2,640 yuan and 2,045 yuan respectively.

For details of the socioeconomic profiles of project area, see Table 3:

Table 3 Socioeconomic Profile of the Project Counties

No.	Country	Land area (square / hectares)	Populatio n (0,000)	Agricultural population		GDP per capita (Yuan)	GDP (00 million yuan)	GDP composition (%)			Rural per capita net income (Yuan)
				Populatio n (0,000)	Of total populatio n ratio (%)			Primary industry	Secondar y industry	Tertiary industry	
Yunnan Province		39.41	4,686	2789.5	58.52	25,083	11,720.91	16.2	42.0	41.8	6,141
I. Kunming		2.1	657.9	210.2	31.95	46,256	3,415.31	5.1	45.0	49.9	8,273
1	Jinning County	0.12	29.1	24.85	85.4	29,346	84.52	19.2	54.5	26.3	9,061
2	Yiliang County	0.19	42.6	39.88	93.6	31,141	132.16	28.1	28.1	43.8	8,537
3	Shilin County	0.17	25.1	23.44	93.4	22,769	56.81	25.6	32.9	41.5	8,465
4	Luquan County	0.42	40.2	39.53	98.3	12,409	49.74	32.2	29.5	38.3	4,585
5	Xundian County	0.36	46.3	45.17	97.6	12,341	56.95	29.0	32.6	38.3	4,739
6	Anning County	0.13	35.1	18.27	52.1	61,325	213.10	4.9	59.8	35.2	9,355
II. Qujing City		2.89	597.4	348.94	58.4	26,513	1,583.9	18.3	52.9	28.8	6,861
7	Malong County	0.16	18.88	17.02	90.1	16,891	31.72	22.2	48.6	29.2	5,372
8	Luoping County	0.3	55.65	51.44	92.4	20,821	115.56	27.1	39.7	33.2	6,683
9	Huize County	0.59	92.08	85.06	92.4	14,282	130.98	25.3	53.3	21.4	3,986
10	Xuanwei County	0.61	131.84	121.22	91.9	15,673	205.96	21.4	46.7	31.9	5,553
III. Yuxi City		1.49	237.2	142.1	61.0	46,487	1,102.5	10.2	60.3	29.5	8,925
11	Jiangchuan County	0.08	28.3	24.56	86.8	17,237	48.69	25.5	30.4	44.1	7,258
12	Huaning County	0.12	21.7	19.68	90.7	21,726	47.04	27.5	34.3	38.2	7,607
13	E'shan County	0.19	16.4	13.38	81.6	26,828	43.94	16.5	47.1	36.5	7,013
14	Xinping County	0.43	28.8	25.03	86.9	29,502	84.82	13.7	64.5	21.8	6,666
15	Yuanjiang County	0.27	22	19.33	87.9	19,610	43.14	29.9	26.4	43.8	6,813
IV. Baoshan City		1.91	254	228.69	90.0	15,397	389.96	29.0	34.3	36.7	5,331
16	Longyang District	0.49	94.81	82.15	86.6	15,775	149.13	25.5	34.6	40.0	5,638
17	Shidian County	0.2	30.93	28.57	92.4	11,029	34.01	35.9	25.1	39.0	4,523
18	Longling County	0.28	28.1	25.83	91.9	15,279	42.81	33.5	40.8	25.8	4,741
V. Zhaotong City		2.24	579.30	348.94	60.2	10,956	634.70	20.0	50.3	29.7	4,604
19	Ludian County	0.15	39.79	37.41	94.0	9,561	37.86	23.4	52.9	23.8	3,649
20	Qiaojia County	0.32	52.18	49.86	95.6	7,926	41.30	39.0	31.1	30.0	3,801
21	Yanjin County	0.2	37.62	34.78	92.5	8,485	31.79	22.4	49.1	28.5	3,971
22	Zhanxiong County	0.37	134.83	129.51	96.1	6,131	82.40	23.3	47.9	28.9	3,737
23	Shuifu County	0.04	10.33	7.89	76.4	36,209	37.37	4.7	70.2	25.0	4,807

No.	Country	Land area (square / hectares)	Population (0,000)	Agricultural population		GDP per capita (Yuan)	GDP (00 million yuan)	GDP composition (%)			Rural per capita net income (Yuan)
				Population (0,000)	Of total population ratio (%)			Primary industry	Secondary industry	Tertiary industry	
VI. Lijiang City		2.05	126.2	108.7	86.1	16,870	212.24	17.2	42.3	40.5	5,094
24	Huaping County	0.22	17.08	14.15	82.8	22,569	38.37	13.3	61.8	24.8	6,136
25	Ninglang County	0.6	26.25	23.93	91.2	8,577	22.45	27.0	32.0	41.0	3,526
VII. Pu'er City		4.43	258.4	165.63	64.10	16,491	425.4	30.8	38.2	31.1	5,873
26	Mojiang County	0.53	36.36	33.25	91.4	9,504	34.56	29.9	37.2	32.8	3,921
27	Jingdong County	0.45	36.2	33.55	92.7	11,997	43.38	42.9	27.5	29.7	5,022
28	Zhenyuan County	0.41	21.01	18.96	90.2	13,806	28.99	45.9	23.6	30.5	4,611
29	Lancang County	0.87	49.56	45.91	92.6	8,012	39.67	33.3	35.5	31.2	3,089
30	Menglian County	0.19	13.8	11.98	86.8	11,707	16.11	45.1	19.6	35.3	3,955
VIII. Lincang		2.36	247.9	163.86	66.10	16,839	416.09	31.3	42.2	26.5	6,066
31	Yun County	0.37	45.5	42.15	92.6	15,718	71.34	29.8	47.3	22.9	5,574
32	Zhenkang County	0.25	17.9	16.5	92.2	16,157	28.81	21.6	52.1	26.4	4,637
33	Gengma County	0.37	30.1	25.67	85.3	18,021	54.24	38.0	33.2	28.8	5,474
34	Cangyuan County	0.24	18.3	16.07	87.8	13,145	23.94	27.3	40.8	31.9	4,636

No.	Country	Land area (10,000/km ²)	Population (0,000)	Agricultural population		GDP per capita (Yuan)	GDP (00 million yuan)	GDP composition (%)			Rural per capita net income (Yuan)
				Population (0,000)	Of total population ratio (%)			Primary industry	Secondary industry	Tertiary industry	
IX. Chuxiong Prefecture		2.84	272.40	170.36	62.5%	23,241	632.50	23.0	41.8	35.2	6,357
35	Shuangbai County	0.39	16.12	14.61	90.6	12,418	20.02	41.7	24.7	33.6	4,645
36	Mouding County	0.14	21.16	19.66	92.9	14,751	31.15	30.0	34.0	36.0	4,799
37	Yongren County	0.22	11.06	9.78	88.4	16,027	17.65	38.5	24.3	37.2	4,685
38	Yuanmou County	0.2	21.77	19.6	90.0	14,174	30.76	38.4	26.7	34.9	6,526
39	Wuding County	0.29	27.69	23.64	85.4	12,750	35.20	36.1	31.5	32.4	4,606
X. Honghe Prefecture		3.22	459.0	348.36	75.9	22,049	1012.00	16.5	53.4	30.1	6,288
40	Pingbian County	0.19	15.5	13.8	89.0	10,952	16.95	27.6	37.1	35.3	2,971
41	Jianshui County	0.38	53.83	46.15	85.7	16,699	89.64	23.9	39.5	36.6	5,716

EMDP of the Yunnan Highway Assets Management Project

No.	Country	Land area (10,000/km ²)	Population (0,000)	Agricultural population		GDP per capita (Yuan)	GDP (00 million yuan)	GDP composition (%)			Rural per capita net income (Yuan)
				Population (0,000)	Of total population ratio (%)			Primary industry	Secondar y industry	Tertiary industry	
42	Shiping County	0.3	30.3	27.1	89.4	12,829	38.76	43.2	27.7	29.1	5,027
43	Yuanyang County	0.22	40.33	38.45	95.3	7,054	28.35	35.3	26.6	38.1	3,419
44	Jinping County	0.36	36.2	33.8	93.4	7,729	27.88	27.7	45.2	27.1	3,112
45	Luchun County	0.31	22.56	20.88	92.6	7,890	17.75	31.9	40.1	28.0	3,035
XI. Wenshan Prefecture		3.14	357.4	235.3	65.8	15489.6	553.36	24.0	39.0	37.0	5,460
46	Yanshan County	0.39	46.9	43.2	92.1	16,075	75.18	19.6	45.8	34.6	4,720
47	Malipo County	0.23	28.1	26.09	92.8	13,056	36.60	25.0	43.4	31.6	4,471
48	Qiubei County	0.51	48.33	45.17	93.5	8,443	40.71	41.7	22.3	36.1	4,567
49	Funing County	0.53	41.26	38.74	93.9	12,088	49.74	28.7	34.9	36.3	4,644
XII. Banna Prefecture		1.9	115.2	68.61	59.56	23,670	272.32	29.4	29.6	41.1	7,107
50	Mengla County	0.68	28.55	19.58	68.6	19,323	55.01	41.4	19.2	39.4	5,064
XIII. Dali Prefecture		2.83	349.3	307	87.9	19,282	672.09	21.7	42.4	35.9	5,689
51	Xiangyun County	0.24	46.1	42	91.1	20,272	93.15	25.8	53.8	20.4	5,733
52	Binchuan County	0.25	35.2	32.96	93.6	19,587	69.83	44.4	26.5	29.1	5,942
53	Midu County	0.15	31.6	29.58	93.6	10,896	34.39	28.8	33.2	38.0	4,508
54	Yongping County	0.28	17.7	16.04	90.6	14,561	25.73	39.9	30.1	30.0	4,977
55	Yunlong County	0.44	20.2	18.56	91.9	18,857	38.02	22.4	57.3	20.3	3,887
56	Heqing County	0.24	25.8	23.86	92.5	16,175	41.65	20.7	60.1	19.2	5,198
XIV. Dehong Prefecture		1.12	124.5	76.32	61.30	18,663	230.90	29.2	32.4	38.4	5,608
57	Lianghe County	0.11	15.6	14.04	90.0	9,058	14.05	33.8	27.5	38.7	3,683
58	Yingjiang County	0.43	30.9	27.26	88.2	18,663	57.43	29.7	48.3	22.0	5,641
59	Longchuan County	0.19	18.3	15.08	82.4	14,780	27.02	41.0	30.2	28.7	4,186
XV. Nujiang Prefecture		1.46	53.8	46.25	86.0	13,953	74.94	15.3	34.9	49.8	2,773
60	Lushui County	0.31	18.6	15.08	81.1	14,076	26.15	14.5	35.9	49.5	3,095
61	Fugong County	0.28	9.9	9.04	91.3	7,080	7.02	21.8	34.5	43.7	2,229
62	Gongshan County	0.44	3.8	3.23	85.0	13,959	5.32	25.9	36.1	38.0	3,209
XVI. Diqing Prefecture		2.32	40.5	35.51	87.7	28,133	113.63	8.0	40.2	51.8	4,769
63	Deqin County	0.73	6.7	5.99	89.4	24,482	16.44	8.2	47.1	44.8	5,136

3 Minority Overview of the Project Area

3.1 Distribution and Composition of Ethnic Minorities

3.1.1 Yunnan Province

In China, Yunnan Province has the most ethnic minorities, where there are 26 ethnic groups with populations over 5,000 people. Among them 25 are ethnic minorities, apart from Han people. These ethnic groups live together in vast areas with each living in its individual concentrated community in small areas.

According to Yunnan's 6th census, in the actual registered population, the Han people cover 30.629 million, accounting for 66.63% of the total, while other ethnic minorities cover 15.337 million people, accounting for 33.37% of the total, among which populations of 6 ethnic minorities pass 1 million. With a population of 5.028 million, Yi people have the largest population among all the ethnic minorities in Yunnan Province, accounting for 10.94% of the total; Hani people rank No.2 with a population of 1.63 million, accounting for 3.55% of the total; Bai people rank No.3 with a population of 1.561 million, accounting for 3.40% of the total; next to the Bai people, Dai people rank No.4 with a population of 1.222 million, followed by Zhuang people with a population of 1.215 million, Miao people with a population of 1.203 million, Hui people with a population of 0.698 million, Lisu people with a population of 0.668 million, Lahu people with a population of 0.475 million, etc. Compared with the 5th national census in 2000, population of Han people increases 2.423 million, up by 8.59%; that of ethnic minorities increases 1.184 million, up by 8.37%. The population increasing degree of ethnic minorities is a little lower than that of the Han people, mainly because of the effects brought by the population migration, for Han people cover a bigger part in Yunnan's influx population while most outflow population of Yunnan are ethnic minorities. Compared with the 4th and 5th national census, the population ratio between ethnic minorities and the Han people remains the same by being 1:2. For the main areal distribution of Yunnan's 25 ethnic minorities, see Figure 1:



Figure 1 Geographic Distribution of 25 Ethnic Minorities in Yunnan Province

EMDP of the Yunnan Highway Assets Management Project

Table 4 Distribution of Main Ethnic Minorities in 16 Prefectures and Cities in Yunnan Province

		Yunnan	Kunming	Zhaotong	Qujing	Chuxiong	Yuxi	Red River	Wenshan	Pu'er	Banna	Dali	Baoshan	Dehong	Lijiang	Nujiang	Diqing	Lincang
Total population	0,000	4659	648.6	596.5	641.8	262.8	214.7	445	357	257.5	95.2	337.3	256.9	121.1	120	53	40.5	246.3
Ethnic Minority	Population (0,000)	1556	83.3	262.5	49	92.6	73.1	267.4	206.4	160.8	73.9	183.8	27.6	58.2	72.4	49.8	32.1	96.0
	Ratio (%)	33.4	15.3	10.3	7.6	35.2	34.1	59.8	57.7	62.5	77.6	51.5	10.7	48.1	60.3	93.9	88.6	39.0
Hui	Population (0,000)	70.8	15.8	19.6	8.3							36.6						
	Ratio (%)	1.5	2.9	3.4	1.3							1.6						
Yi	Population (0,000)	509.7	44.1	19.5	26.8	74.8	45.1	109.6	35.1	46.6		26.9			25.1			38.2
	Ratio (%)	10.9	8.1	3.3	4.2	28.4	21	24.5	9.98	18.1		10.7			21.1			15.5
Miao	Population (0,000)	122.1		19.3		4.6			48.1									
	Ratio (%)	2.6		3.3		1.9			13.7									
Zhuang	Population (0,000)	123.0		3.7				11.2	102.7									
	Ratio (%)	2.6		0.6				2.5	29.2									
Lisu	Population (0,000)	67.6				5.6									11.4	27.6	10.8	
	Ratio (%)	1.5				2.2									9.6	52.2	31.8	
Hani	Population (0,000)	165.4					12.5	82.5		38.86	19.52							
	Ratio (%)	3.6					5.8	18.5		14.9	20.5							
Dai	Population (0,000)	123.9					7.6				32.36			34.98				12.1
	Ratio (%)	2.7					3.5				34			28.9				4.9
Lahu	Population (0,000)	48.0								25.57	5.81							
	Ratio (%)	1.0								9.9	6.1							
Bai	Population (0,000)	158.4	8.3									17.56				14.4		
	Ratio (%)	3.4	1.5									6.9				27.3		
Jingpo	Population (0,000)	14.4												13.4				
	Ratio (%)	0.3												11.1				
Naxi	Population (0,000)	31.2													22.6		4.6	
	Ratio (%)	0.7													19		11.4	
Tibetan	Population (0,000)	14.4															12.9	
	Ratio (%)	0.3															77.8	
Nu	Population (0,000)	3.3														3.2		
	Ratio (%)	0.1														6.1		
Wa	Population (0,000)	40.5																24.5

EMDP of the Yunnan Highway Assets Management Project

	Ratio (%)	0.9																	10.0
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3.1.2 Kunming City

Kunming City has 3 autonomous counties, 4 autonomous Xiangs, 47 villagers' committees of ethnic minorities and 2,196 mixed villages. By the end of the December in 2012, the registered population of ethnic minority was 0.833 million, increasing 4,789 people over 2011 and accounting for 15.33% of the city's total registered population. There are 52 ethnic compositions (excluding Tajik, Yugu, Monpa and Lhoba people), and 9 ethnic minorities who have lived here for generations (including Yi, Hui, Bai, Miao, Lisu, Zhuang, Dai, Hani and Buyi). Among all ethnic minorities who have lived here for generations, Yi people have the biggest population, which was 441,000, covering 8.1% of the total; other ethnic groups with bigger populations are Hui people, with 158,000 people which accounts for 2.9% of the total; and Bai people, with a population of 83,000, covering 1.5% of the total; other ethnic minorities altogether have 153,000 people, covering 2.8% of the total.

3.1.3 Zhaotong City

Zhaotong City governs 10 counties, 1 district, 144 Xiangs and towns (offices), 96 communities, 1178 administrative villages, 19 autonomous Xiangs, 143 autonomous villages and 2,150 ethnic concentrated living areas. There are 26 ethnic minorities with a population of 604,655 people, accounting for 10.3% of the city's population, which are 5,965,354 people. The population in autonomous Xiangs is 262,493 which accounting for 45% of the city's total population of ethnic minorities, while the population in autonomous villages is 319,295 which accounting for 55% of the city's total population of ethnic minorities. Hui, Miao and Yi are the main ethnic minorities in our city, with the population of each ethnic group over 0.19 million and the sum of the three accounting for 97% of the city's total population of ethnic minorities. To be more specific, Hui people have a population of 195,758 covering 3.28% of the total; Yi people have a population of 195,393 covering 3.28% of the total; Miao people have a population of 193,696 covering 3.25% of the total, and other ethnic minorities only cover 0.3% of the total population.

3.1.4 Qujing City

Qujing is a typical place where ethnic minorities live in scatter. In this city there are 45 kinds of ethnic minorities living in 8 autonomous Xiangs, 178 ethnic villagers' committees and 2,230 villagers' groups. According to the statistics made by the end of 2013: the population of ethnic minorities was 490,300, accounting for 7.64% of the total, among which Yi, Hui, Buyi, Miao, Shui and Yao are minorities who live here for generations, scattering in 115 Xiangs and towns of the city. To be more specific, Yi people had a population of 268,400 covering 4.18% of the total; Hui people had a population of 83,300 covering 1.30% of the total; Zhuang people had a population of 36,800 covering 0.57% of the total, Miao people had a population of 36,100 covering 0.56% of the total; Buyi people had a population of 33,600 covering 0.52% of the total; Shui people had a population of 8,866 covering 0.1% of the total; Yao people had a population of 2,568 covering 0.04% of the total and other ethnic minorities had 20,500 people covering 0.3% of the total population.

3.1.5 Chuxiong Prefecture

Within Xiongchu Yi Autonomous Prefecture, there are 36 ethnic groups including Han, Yi, Lisu and Miao, etc. By the end of 2013, Xiongchu Prefecture had a registered population of 2,628,003, among with 926,015 people being ethnic minorities, covering 35.24% of the total. Han people had a population of 1,701,988 covering 64.76% of the total; Yi people had a population of 747,856 covering 28.46% of the total; Lisu people had a population of 56,960 covering 2.17% of the total; Miao people had a population of 46,684 covering 1.78% of the total; other ethnic groups had 74,515 people covering

2.84% of the total.

3.1.6 Yuxi City

In 2012, the city's population was 2,147,300, among which 1,416,000 were of Han people covering 65.93% of the total, while 731,300 were of ethnic minorities, covering 34.06% of the total. In the ethnic minorities, Yi people had a population of 450,700, covering 20.99% of the total; Hani people had a population of 124,800, covering 5.81% of the total; Dai people had a population of 75,800, covering 3.47% of the total; Hui people had a population of 43,000, covering 2.0% of the total; Bai people had a population of 11,400, covering 0.53% of the total; Mongol people had a population of 7,400, covering 0.35% of the total; Miao people had a population of 8,000, covering 0.37% of the total; Lahu people had a population of 7,000, covering 0.33% of the total; and the population of other ethnic minorities was 4,400, accounting for 0.21% of the total population

3.1.7 Honghe Hani -Yi Autonomous Prefecture

Established on November 18th, 1957, Honghe Hani-Yi Autonomous Prefecture is a frontier autonomous prefecture of ethnic minorities inhabited by many ethnic groups. 10 of them live here for generations, including Hani, Yi, Miao, Zhuang, Dai, Yao, Hui, Lahu, Buyi and Han, among which 9 ethnic minorities live across borders. Ethnic composition of Honghe Prefecture is shown in the Figure. By the end of 2012, the total population was 4,449,500, among which 179,600 were of Han people covering 40.17% of the total, while 267,400 were of ethnic minorities, covering 59.83% of the total. In this total, Dai people had a population of 114,800, covering 2.57% of the total; Miao people had a population of 327,100, covering 7.32% of the total; Yi people had a population of 1,096,300, covering 24.53% of the total; Hani had a population of 824,700, covering 18.45% of the total; Hui people had a population of 72,800, covering 1.63% of the total; Yao people had a population of 98,600, covering 2.21% of the total; Zhuang people had a population of 112,000, covering 2.51% of the total; and the population of other ethnic minorities was 27,600, covering 0.62% of the total.

3.1.8 Wenshan Zhuang-Miao Autonomous Prefecture

Wenshan Zhuang and Miao Autonomous Prefecture was founded on April 1, 1958. There are 11 indigenous ethnic groups including Han, Zhuang, Miao, Yi, Yao, Hui, Dai, Bai, Bouyei, Mongol and Kelao. According to the sixth nationwide census, population in this autonomous prefecture at the end of 2010 was 3.57 million, among them, Han population was 1.5018 million, accounting for 42.69% of total population, and minority population was 2.064 million, accounting for 57.7% of total population. Among minority population, Zhuang population was 1.0273 million, 29.20% of total population, placing the first among total minority population, Miao population was 481,200, 13.68% of total population, Yi population was 351,300, 9.98% of total population, and population of other ethnic minorities was 171,400, 4.8% of total population.

3.1.9 Pu'er City

Pu'er is a multi-ethnic gathering place. In the 10 districts and counties under the jurisdiction of it, in addition to Simao District which is the municipal administrative center, other nine counties are all ethnic minority autonomous counties, including 26 ethnic groups like Han, Yi, Hani, Lahu, etc. Among 2.575 million permanent resident population, ethnic minority population is 1.6082 million, accounting for 62.45% of total population. Han population is 966,800, accounting for 37.55% of total population; Yi population is 465,900 people, 18.09% of total population; Hani population is 383,600 people, 14.90% of total population; Lahu population is 255,700, 9.93% of total population; and population of other ethnic groups is 503,000 people, 19.53% of total population.

3.1.10 Xishuangbanna Prefecture

In Xishuangbanna Dai Autonomous Prefecture, there are mainly 44 ethnic groups like Han, Dai, Hani, Lahu and others. Among 951,758 registered population, ethnic minority population is 738,714 people, 77.62% of total population. Han population is 213,044, accounting for 22.38% of total population; Dai population is 323,596, 34.00% of total population; Hani population is 195,185, 20.51% of total population; Lahu population is 58,116, 6.11% of total population; and population of other ethnic groups is 161,817, 17.00% of total population.

3.1.11 Dali Bai Autonomous Prefecture

Dali Prefecture has 13 indigenous ethnic groups, including Han, Bai, Yi, Hui, Lisu, Miao, Naxi, Zhuang, Tibetan, Blang, Lahu, Achang and Dai. There are eight ethnic minorities with small populations, Lisu, Miao, Dai, Achang, Zhuang, Tibetan, Blang and Lahu. In addition to Han, there are Bai, Naxi, Yi, Hui, Lisu, Miao, AChang, Dai, Tibetan, Mongol, Blang, Pumi and other indigenous minorities. Han population is 1,535,352 accounting for 60.94% of total population; and ethnic minority population is 1.8375 million, 51.48% of total population. And among ethnic minority population, Yi population is 269,174, 10.68% of total population; Bai population is 175,641, 6.9% of total population, Hui population is 36,577, 1.6% of total population; and population of other ethnic groups account for 19.88%.

3.1.12 Baoshan City

Baoshan is a prefecture-level city with multiple ethnic groups, mountains and border. 5 counties (districts) and 72 Xiangs and towns (streets) around the city all have habitat of minority, among them: there are 14 minority Xiangs and towns and towns, and 118 minority villages; there are two border counties Tengchong and Longling, with 167.78 km long border line; there are four border Xiangs and towns (Houqiao Town, Diantan Town, Mingguang Xiang in Tengchong County, and Mucheng Xiang in Longling County); there are three minorities with small population, namely Blang, Achang and Deang, with total population of 15,813, mainly distributing in 18 village committees of eight Xiangs and towns like Mulaoyuan, Bailang, Xinhua and others; there are 147 incorporated villages with ethnic minority population more than 30%, and 1201 unincorporated villages. At the end of 2013, the city's population reached 2.569 million. Besides Han, there are 14 indigenous ethnic groups including Yi, Bai, Dai, Lisu, Hui, Blang and other Minority population is 276,000 people, accounting for 10.7% of total population. There are more than 280,000 overseas Chinese and ethnic Chinese living in 29 countries and regions, and it is the famous overseas Chinese hometown in Yunnan.

3.1.13 Dehong Prefecture

Dehong Dai-Jingpo Autonomous Prefecture has the Han, Dai, Jingpo, Achang, Deang, Lisu, Han, Wa and other indigenous minorities. According to the sixth nationwide census data, the total population was 1.2114 million, with minority population of 582,300, accounting for 48.07% of total population. Han population is 629,100, accounting for 51.93% of total population; Dai minority is 349,800, 28.88% of total population; Jingpo population is 134,400, 11.09% of total population; and population of other ethnic groups is 98,100, 8.10% of total population.

3.1.14 Lijiang City

Lijiang comprises 1 district and 4 counties, namely, Gucheng District, Yulong Naxi Autonomous County, Yongsheng County, Huaping County and Ninglang Yi Autonomous County. At the end of 2013, the city's total population reached 1.1996 million, with minority population of 724,000, accounting for 60.3% of total population.

The Han population was 474,204 people, accounting for 39.86% of total population. There are 22 ethnic minorities, and Naxi, Yi, Bai, Lisu, Pumi, etc. are indigenous minorities, with Yi population of 250,614, 21.06% of total population, Naxi population of 226,444, 19.03% of total population, Lisu population of 114,404, 9.6% of total population, and other ethnic groups accounts for 10.05%.

3.1.15 Nujiang Lisu Autonomous Prefecture

At the end of 2013, Nujiang Lisu Autonomous Prefecture has total population of 530,000. In addition to Han, there are 4 indigenous minorities like Lisu, Nu, Dulong and Pumi, and Nu and Dulong are specific to Nujiang. The Han population is 34,075, accounting for 6.45% of total population; and minority population is 497,700, accounting for 93.9% of total population. Among the minority population, Lisu people are 276,077, 52.24% of total population, Bai people are 144,488, 27.34% of total population, Nu people are 32,429, 6.13% of total population, and other ethnic groups accounts for 7.84%.

3.1.16 Diqing Tibetan Autonomous Prefecture

Diqing Autonomous Prefecture's national territorial area is 23,870 square kilometers, and has jurisdiction over Shangri-La County, Deqin County and Weixi Lisu Autonomous County, 29 Xiangs and towns, and 182 village committees. The total population is 405,000, with household registration population of 362,800. In addition to Han, there are 25 ethnic minorities like Tibetan, Lisu, Naxi, Bai, Yi, Hui, Pumi, Miao and other ethnic groups. The Han population is 85,774, accounting for 11.4% of total population, and minority population is 321,300, accounting for 88.6% of total population. Among the minority population, Tibetan population is 129,097, 78.82% of total population, Lisu population is 108,491, 31.87% of total population, Naxi population is 46,230, 11.41% of total population, Yi population is 15,183, 3.7% of total population, and other ethnic groups accounts for 41.69%.

3.1.17 Lincang City

Lincang city mainly has 12 indigenous ethnic groups such as Han, Yi, Wa, Dai and others, and has 3 ethnic minority autonomous counties and 13 Xiangs. Among 2,463,000 registered population, minority population is 960,184, accounting for 38.98% of total population. The Han population of 1,502,816, accounting for 61.02% of total population; Yi population of 382,131, 15.51% of total population; Wa population is 244,935, 9.94% of total population; Dai population is 121,153, 4.92% of total population, and other ethnic groups' population is 211,965, 8.61% of total population.

3.2 Economic and Cultural Profile of Ethnic Minorities

3.2.1 Economic Profile of Ethnic Minorities

The survey adopts random sampling, with 68 affected households in 16 prefectures being surveyed. Sampling distribution is shown in Figure 2:

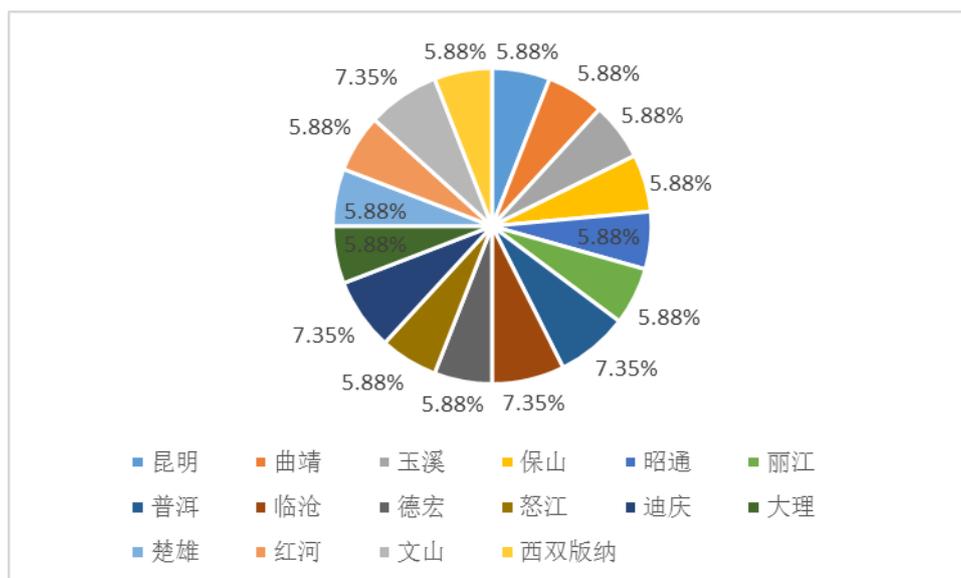


Figure 2 Distribution of Sample Households

Scope of sampling survey includes both villages along the road, and the village far away from the road. Working team conducts the detailed analysis on the socioeconomic characteristics of the local minority by visiting Bureau of Ethnic and Religious Affairs, conducting field survey, collecting data and analyzing sample households. Social economy of peasant household and traffic survey questionnaire see Appendix 3. Though there is difference in the family property, labor, level of education, mode of production, income, poverty, consumption idea, transport way and family labor division, etc. between ethnic minorities and Han people, yet the difference is not big. Economic characteristics of ethnic minorities in Yunnan are as follows:

1) Property

The property of the local rural residents generally includes the contracted land, houses, animals, orchards, shops, etc. The contracted land area is allotted according to the number of family size during the contracting, and it will not be adjusted along with the increase and decrease of population within the contracting period, therefore, the change of family sizes directly causes the different quantity of cultivated land per capita among families in the same village, which is one of reasons causing the income gap among family. Yunnan is a place mixing minorities and Han people in southwest China and the characteristic of “living together widely and living in a compact community” is very obvious. Comparatively speaking, farmers of Han people can bear more hardships and stand more hard work, and have intensive and meticulous field management. They also have high quality and receptivity, and have fewer children, with relatively light family burden, so they will be also wealthier economically. Through the analysis on sample households, it can be shown that cultivated land per capita of sample households (68) is 2.05 mu, with dry land of 1.55 mu and paddy field of 0.5 mu. Per capita living space is 36 m², and per capita brick (wood) housing area is 16 m².

2) Labor and level of education

In sample households, the number of men is more than women, accounting for 53.28%. Labor force accounts for 59.07% of total number of people. Most of labor forces in the area under influence from the project are engaged in agricultural production, accounting for 64.90% of total labor force, quantity of employment of the second industry accounts for 23.84% of total laboring population, and quantity of employment of the tertiary industry accounts for 11.26% of total laboring population. Educational level of men and women in labor is similar, reflecting that women and men enjoy the equal right to education. From the education of surplus labor in Yunnan Province in Table 5, illiteracy among surplus labor accounts for 5.79%, total number of people with primary school education accounts for about 43%, and these people have

low-level education and are mainly agricultural population. People with high school or above education account for 22.39%, and these people have relatively high education and can be transferred from traditional agriculture to secondary and tertiary industries.

Table 5 Educational Levels of Surplus Labor in Yunnan Province

Educational level	Total	Illiterate		Primary school		Junior high school		High school and technical secondary school		College degree and above	
		Population	Percent	Population	Percent	Population	Percent	Population	Percent	Population	Percent
Male	138	6	4.35%	60	43.48%	40	28.99%	23	16.67%	6	4.35%
Female	121	9	7.44%	53	43.80%	33	27.27%	25	20.66%	4	3.31%
Total	259	15	5.79%	113	43.63%	73	28.19%	48	18.53%	10	3.86%

3) Production

Due to the special mountainous conditions in Yunnan Province, the main agricultural production crops of local residents are rice, wheat, corn, canola, potatoes, etc. In a year, people will be busy with farming from April to October, and will be idle from November to March of following year.

Through sampling survey, most of the labor forces in the area under influence from the project are engaged in agricultural production. 98 among 259 people under the sampling are engaged in non-agricultural industries, accounting for 64.9% of the total. Farming method of all ethnic family is basically the same.

Different counties and cities have their own distinctive agricultural products, such as tobacco in Yuxi City, tea in Xishuangbanna Dai Autonomous Prefecture and counties along the Lancang River, rubber industry in Dehong, etc.

Tobacco industry is the largest pillar industry in Yunnan. Planting area and yield of flue-cured are the first across the country, accounting for about 30% of the total. In 2009, planting area of flue-cured tobacco reached 390,000 hectares, and yield reached 880,000 tons.

Sugar industry and tea industry are the traditional mainstay industry of Yunnan in addition to the tobacco. Sugarcane in Yunnan has good quality and high sugar content. Planting area and yield of sugarcane are the second across the country. Yunnan is the origin of tea actually. It has more than 1,700 years history of planting and use of tea, and is China's ancient tea area with many varieties of tea trees. Pu'er tea is the most widely used in the tea production of Yunnan, namely Yunnan Dayezhong. It has high content of active components, and is tippy, of heavy taste, and of sweet after taste. The main varieties of Yunnan tea include green tea, black tea, pu'er tea, compressed tea, etc. At present, tea planting area in Yunnan has been more than 350,000 hectares, accounting for more than 19% of the total area of the tea, placing the first nationwide. Tea production has been more than 180,000 tons, placing the second nationwide.

Rubber industry in Yunnan Province has presented large scale, and the natural rubber base rank only second to that in Hainan has been built. In planting of rubber, Yunnan creates the cold-resistance and high-yield integrated technology which is suitable for characteristics of Yunnan, making the planting area around the province expand rapidly. The yield per unit area of the rubber reached the world advanced level. At present, rubber planting area in Yunnan has been more than 460,000 hectares, and yield is 300,000 tons, placing the second nationwide.

Flower industry is an emerging industry in Yunnan. Flower varieties resources in Yunnan are rich, and there are about more than 2,500 kinds of wild flowers. In the long-term cultivation and breeding, a batch of colored and fragrant exotic flowers and rare herbs have been launched, and among them, "eight big famous flowers" including camellia, cuckoo, primroses, orchids, lily, magnolia, gentiana, Meconopsis are of the greatest reputation. Since 1990s, flower production in Yunnan, especially the fresh cut flowers, has been under fast development. In recent years,

breakthroughs in research and development of new varieties, expanding exports, promoting the farmers' income and other aspects are made. Flower base has been extended from Kunming to Yuxi, Qujing, Honghe, Dali, Diqing and other cities, forming the product pattern with temperate fresh cut flowers as the main part, and tropical flowers, bulbous flowers, discoid flowers and ornamental gardening plants for common development. Fresh cut flower production has reached 5.6 billion in 2009, placing the first nationwide, export volume accounted for 50% of the country, and Yunnan has become the biggest export base of fresh cut flower in Asia.

4) Income

Income category of local Han and most minority family is relatively similar, relying mainly on planting, livestock raising and migrant working, but the architectural difference is large. For example, Tibetan family's incomes generally come from planting, livestock raising, picking of wild edible fungus and Chinese cordyceps militaris. Due to the limitation of language, most migrant workers are young people receiving a good education, with less proportion. Han Chinese household's incomes generally come from planting, secondary and tertiary industries and migrant working, and some families have completely relied on secondary and tertiary industries. Household incomes per capita of Han family are higher than that of the minority. The main reason is that most of Han people conduct intensive and meticulous farming, so the crop yield per unit area is relatively higher; Han family's income from the secondary and tertiary industries is higher; and family size is relatively small, with light family burden. Incomes of local minority mainly rely on farming and livestock raising. Holding quantity of livestock is higher than that of local Han family, but the income from secondary and tertiary industries is not high, and family size is relatively larger, with higher family burden.

Through sampling survey, incomes from farming, forestry, animal husbandry, side-line production and fishery account for 66.51% of gross annual income of the family, from the industry account for 1.43%, from the construction industry account for 1.43%, from the transport sector account for 0.87%, from trade and food services account for 1.35%, and from migrant working account for 28.41%. Income composition of sampling household is as shown in following Figure 2.

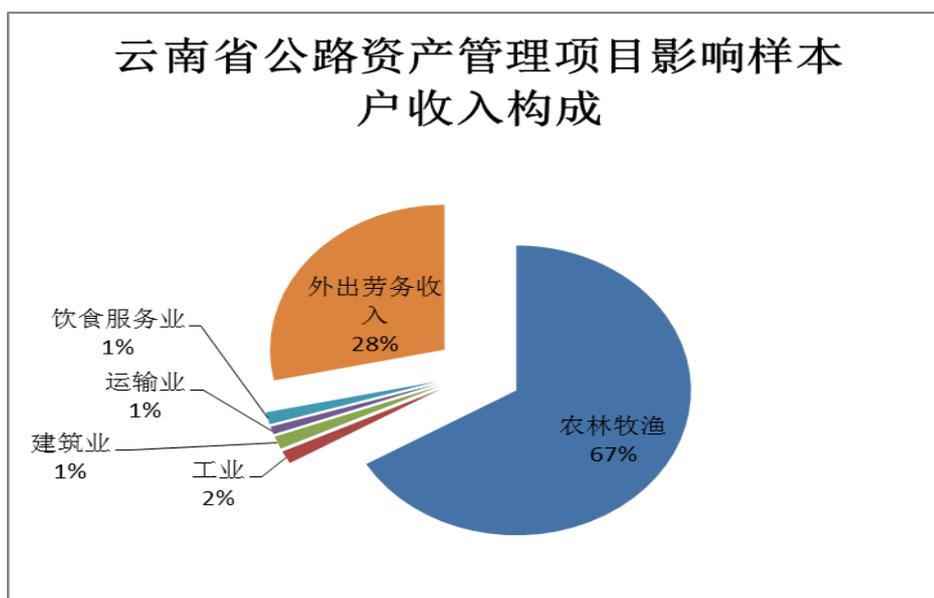


Figure 3 Income Composition of Sample Households

5) Poverty alleviation

Yunnan is a province integrating border, mountainous area, ethnic groups and poverty. There are 73 key national counties of poverty alleviation, accounting for 12.3% of the

country, and there are 7 key provincial counties of poverty alleviation.

— Distribution of poverty population

Total population of Yunnan Province in 2013 is 48.68 million, with poverty incidence of 17.54%, so the poverty is still the biggest problem in Yunnan Province. Rural poverty population in Yunnan Province in 2000 was 10.221 million, with poverty incidence of 24.10%. Since 2000, poverty population declined year by year, and poverty incidence also decreased year by year. Poor population decreased from 10.221 million in 2000 to 6.61 million in 2013. In 2013, among 16 prefectures and cities with poverty population in Yunnan Province, Zhaotong City has the most poverty population, 1,543,800, Xishuangbanna has the least population, 71,700, Diqing Autonomous Prefecture has the highest poverty incidence, 51.61%, and Yuxi has the lowest, 5.53%. Overall, rural poverty population size and poverty situation in Yunnan Province keep uneven distribution among prefectures, cities and counties.

- - Causes of poverty

There are many reasons causing poverty. According to the investigation in 16 prefectures and cities involved in the project, main reasons are as follows:

Lack of labor: family lacking labor needs to hire worker to complete the agricultural production, but the busy farming season is short, bringing some difficulties to hire workers, leading to the rising cost of agricultural production, and not timely field management will also reduce the harvest.

Major diseases: although rural cooperative medical insurance has been basically popularized in the countryside, yet large medical expenditures of major disease will still bring heavy burden to local residents. Among poor population, most people's poverty is caused by the disease.

Influence from natural disasters, such as earthquake, flood, and debris flow: natural disasters take place frequently, increasing the difficulty of help the poor get rid of poverty. Yunnan has many mountains, especially the northwest Yunnan is located in the junction of Yunnan-Guizhou Plateau and Qinghai-Tibet Plateau, with fragile geological structure and many geological disasters, the result is that local infrastructure construction lags behind; maintenance of road traffic construction is difficult, regional economic development and industry boosting effect are not obvious, and local people's income is low.

Large population and small per capita cultivated land: because the land contracted by farmers is allotted based on the number of family size at that time and according to land area per capita. Some family sizes enlarged considerably, which decrease the per capita cultivated land area and reduce the agricultural income.

Low educational level of farmers: farmers have low educational level and lack labor skills, which cause less job opportunities, and their incomes mainly rely on planting industry and breeding industry.

Poor road condition in Xiangs and villages: limitation of traffic conditions lead to high transport costs of agricultural products, large loss, less information and poor market consciousness, which is also the main reason of some rural farmers' production and living level is low and poverty population is more.

6) Consumption

Through the survey, it can be found that the proportion of local residents' operating expenses account for 51.07% of total expenditures, and living expenses account for 48.93%. Among local household's operating expenses, expenditures in farming, forestry, animal husbandry, side-line production and fishery account for 92.90%, the remaining are used for industry, transport service industry, trade and food services. In living expenditure, food accounts for 45.62%, clothes 5.29%, residence 17.64%, health care 7.95%, household goods and services 5.42%, traffic and communication 10.31%, cultural and entertainment products and services 6.34%, other goods and services 1.44%.

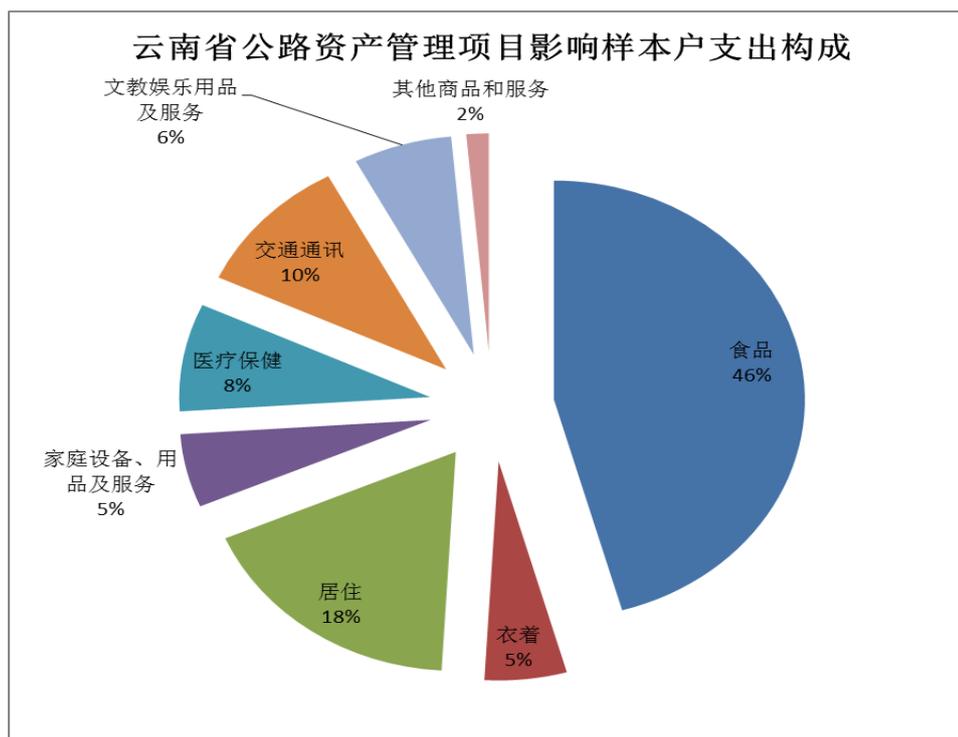


Figure 4 Nonproductive Expenditure Composition of Sampling Households

(8) Transport

Rural commercial activities within project area are generally completed in own Xiang (town) and county. The survey shows that production method and life style in all ethnic groups in Yunnan Province are relatively similar, but because the road traffic conditions are different, travel mode shows its diversity. In general, means of transport for travel are most motorcycle and automobile. etc. (a few tractors and wagons).

Analysis on survey data shows that the selection and use of means of transport for travel has a certain relationship with economic bearing ability. There is no difference in gender, and women tend to drive some lightweight vehicles. With the improvement of traffic conditions, the chance of women traveling or working outside will be more and more.

(8) Living conditions

Sampling of sample households shows that ethnic minorities in the area under influence more use stove for warming, fuel is given priority to coal and straw, and family with good economic conditions also use liquefied gas. Most of the families have TV set, and residents along the line watch TV mainly through the outside antenna or satellite receiver. More than 20% of households have used the refrigerators, washing machines and other durable consumer goods. Telephone is very common, and almost half of households have installed home phone. Lighting electricity rate is 100%, most of households use tap water.

(9) Gender

Heads of households are usually men, reflecting the superior status of men. Both men and women do farm work, where men usually do more physically demanding farm work, such as fertilization, cultivation, pesticide application, watering, harvesting and transport, while women usually do housework or less physically demanding farm work, such as washing clothes, cooking, taking care of old people and children, feeding livestock, and field management. In Lijiang and Dali, Bai and Naxi women also do physically demanding labor, which is related to ethnic customs. Means of production are usually purchased by men, while daily necessities usually by women. No significant gender difference is shown in outside employment, where men mostly deal with construction, and women mostly with catering and other services.

3.2.2 Cultural Profile of Ethnic Minorities

In order to reflect the cultural life characteristics of minority in the area under influence from project, in the field survey, the survey team conducts repeated discussion with local residents. Through the generalization, analysis and comparison, the survey basically reflects the real situation of ethnic minorities in the area under influence. There are many types of minority in the area under influence from project, and they have their own characteristic in the language, living habit, religious beliefs, weddings, etc. Ethnic minority cultural characteristics are as shown in the Table 6:

Table 6 Main Ethnic Cultural Characteristics in Yunnan Province

Ethnic group	Language, customs and religion	
Yi	Language	Yi language is the Yi branch of Tibeto-Burman language of Sino-Tibetan languages. Geographical distribution of Yi language is very wide. More for Dialect Sub-dialect and dialect are more common. In Yunnan and Guizhou provinces, the use of the Yi language is related to living situation. People living in mountainous area more use Yi language for communication, and people living together more use Chinese.
	Customs and culture	<p>Marriage: The Yi people carry out monogamy. People strictly implement the system that people having common ancestry cannot marry, and maternal cousin cannot marry, but the cross-cousin marriage shall be given priority, and a proverb says that “river water runs downwards, and girl marries into the family of her mother’s brother.</p> <p>Family life: family of Yi people are generally male patriarchal family. After children get married, they shall live apart with the parents to form a small family, and parents usually live with the youngest son.</p> <p>Traditional festivals: major traditional festivals Yi people have “Mai Zhe Fei Tuo” (Torch Festival) on lunar June 24 and “Zan He Ku Mo” (Midwinter Festival) on November 24.</p> <p>Funeral: like Hani people, Yi people also have cremation custom. After the middle period of Ming dynasty, influenced by the custom of Han people, it gradually changes to the burial.</p>
	Religion	Religious belief of Yi people are mainly natural worship. Yi people in Yunnan-Guizhou region is influenced by Taoism and Buddhism
Bai	Language	Bai language is one of languages with big controversy on its category Sino-Tibetan language. Because the Bai language has a complicated relationship with Chinese and Tibeto-Burman languages in language structure, and academia is still unable to reach the agreement on the category of Bai language. The main opinions include Tibeto-Burman language theory, Han-Bai language theory, Chinese dialect theory, lingua franca theory, etc. Traditionally, Bai language is divided into three dialects in Dali (southern), Jianchuan (central) and Nujiang (northern).
	Customs and culture	<p>Marriage: as the routine: act as matchmaker - engagement - marriage - welcoming the bride - visit each other for the first time after marriage;</p> <p>Taboo: deathday: it is not allowed to drop round and blow the fire with mouth in New Year’s eve night and the first day of the lunar year. Taboo for people: people die outside shall not be carried to the village and home, and shall only be buried outside the village. Taboo: women are not allowed to go to others’ house with hair dishevelled and crying barefoot. Diet: outsider shall not eat the meet of cock killed on New Year's eve night.</p> <p>Funeral: put into coffin and keep vigil beside the coffin. For old people with natural death, it shall be arranged as comedy funeral. Funeral process: when holding a funeral procession, neighbors and friends will help carry the coffin with their own tools.</p>

Ethnic group	Language, customs and religion	
	Religion	Ancestor worship: every family of Bai people will set ancestor worship altar in upstairs of central room to enshrine and worship the memorial tablet of ancestors of past dynasties. Local deity worship is a unique religious belief of Bai people. Local deity is also called “Ben Zhu Shen” “Wu Zeng” in Bai language, and more called “Lao Gu” (male ancestor), and “Lao Tai” (female ancestor), as well as “Wu Zeng Ni”, “Zeng Ni” and “Dong Bo” in many places. These names all have the meaning of master and ancestor, not the simple ancestor worship.
Hani	Language	Before the founding of the People's Republic of China, Hani people do not have their own character, and culture study has been on dictation to remember. No writing is an important factor which has been hindering the development of the social economy and culture of the Hani people. In 1952, the Chinese government help the Hani people solve the problem of character.
	Customs and culture	<p>Festival: Hani people will celebrate Spring Festival twice every year. The first is October festival, the second is June festival. Calendar in Hani people takes October as the beginning of the year, namely “Spring Festival”.</p> <p>Consume: different branches have different Garments. Generally, people like to make clothes with navy blue native cloth of Hani people. Men more wear double-breasted coat and trousers, with black cloth or white cloth wrapping the head.</p> <p>Marriage and funeral customs: marriage and funeral customs of Hani people have slight difference between each branch. Marriage of Biyue people enjoy cross-cousin marriage, so do Kaduo people. Family of mother’s brother of Lami people has the priority of optional marriage rights. Aini people conduct monogamy. If the husband dies, his wife cannot remarry, and if wife dies, his husband can marry another, with free marriage. Funeral is different in different branches.</p>
	Religion	People believe that all things have soul, worship the ancestor, and make sacrifice to heaven, earth, village and gods in own home. The god is called “E Xia”, and wizard is called “Ru Ma”, “Bei Ma” and “Ni Ma”. “Ru Ma” knows the history of Hani people and can preside over the religious activities, with higher status. “Bei Ma” can recite or chant scriptures. “Ni Ma” is just like witch doctor, and only knows divination. Hani people also believe in Christianity and Buddhism.
Zhuang	Language	Zhuang language is one of the major languages in China, the population using it is more than about 20 million (including Bouyei language, Dai-Nong language). Zhuang language belongs to the Tai language branch (Zhung-Dai branch) of Dong-Tai language group (Zhuang-Dong language group) of Tai-Kadai Language Family, and keeps genetic relationship with Thai, Lao, Dai language and Shan language. Some scholars abroad call Zhuang language as “northern Thai language”.
	Customs and culture	<p>Taboo: fireplace and stove are the most holy place of family of the Zhuang people, and it is not allowed to tread the tripod and hearth on the fireplace with feet.</p> <p>Festival: the famous festival includes yearly “Double Third Day” Song Festival. The most ceremonious festival in Zhuang people are Spring Festival, the second is Dead Spirit Festival on July 15, Double Third Day, visiting grave on Qingming Festival, and Mid-Autumn Festival on August 15.</p> <p>Marriage customs: Zhuang people generally conducts monogamous exogamy. Most of the young men and women conduct free love and form family. There are various ways for Zhuang young men and women to express love, including singing, throwing ball and</p>

Ethnic group	Language, customs and religion	
		beating groove with wooden stick, etc. Wedding of Zhuang people in Yunnan can be divided into four periods: picking up bride, seeing the bridegroom off, marry and return of a bride to her mother's home.
	Religion	Zhuang people believe in the primitive religion and worship the ancestor, and some people believe in Catholicism and Christianity.
Dai	Language	Its language belongs to the Zhuang-Tai language branch of Zhuang-Dong language group of Sino-Tibetan language family. In China, Zhuang people are mainly distributed in Xishuangbanna Dai Autonomous Prefecture, Dehong Dai and Jingpo Autonomous Prefecture, two autonomous counties Gengma and Menglian in Yunnan. Abroad, Zhuang people are mainly distributed in Thailand, Laos, Myanmar, and Vietnam. Dai people have alphabetic writing, but it is different around different places. After the founding of the People's Republic of China, some reforms are made.
	Customs and culture	Festival: major festival of Dai people are Dai calendar New Year - Water-Sprinkling Festival, Guanmen Festival and Kaimen Festival. "Water-Sprinkling Festival" is the traditional festival for Dai people to see off the old and welcome the new, and the time is in the middle of April in Gregorian calendar. Daily food: most of Dai people have the habit of two meals a day, with rice and glutinous rice as the staple food. Staple food of Dai people in Dehong is rice, and in Xishuangbanna is glutinous rice. Consume: men wear double-breasted short gown without collar or short gown with button on the right and under sleeve, and long pants, and wear wool felt under cold weather, with white cloth or green cloth wrapping the head. Women's traditional garment is short garment with narrow sleeve jacket and barrel skirt.
	Religion	Dai people mostly believe in Hinayana Buddhism Dai people also enshrine and worship their own god of the village, also known as "Diu La Man" or "Pi Man" in Dai language. It is the patron saint, and people will make sacrifice to it twice a year.
Hui	Language	The common language of Hui in Yunnan today is Chinese, but most of the ancestors of Hui people in Yunnan come from the Islamic state in Middle East, therefore, words of Arabic and Persian are blended into Hui language of Yunnan inevitably.
	Customs and culture	Festival: Hui people in Yunnan have three big festivals: Lesser Bairam, Id al-Adjha and Consecration. All festivals keep close relationship with the belief of Islam. Consume: due to long-term living together with people of Han people and other minorities, Hui people's dress are almost same with that of local ethnic groups, such as Hui people in Diqing resembling Tibetans. Hui women in Xishuangbanna wear close-fitting garment with narrow cuff and barrel skirt, like Dai people. Hui people living in the region of the Bai people wear clothes of Bai people and Hui people living in the region of Han people wear clothes of Han people. In case of weddings and funerals or festivals, men wear the hat made with white cloth. Taboo: living habits keep to the tradition of Hui people, follow the canon, pay attention to health, and do not eat pork.
	Religion	People more believe in Islam. Masjid will be built in the place where relatively concentrated living of people, also known as the mosque. Imam is responsible for presiding over the religious activity. The scripture is primarily "the Koran", and believers are called "Muslim".
Lisu	Language	Lisu language belongs to the Yi language branch of Tibeto-Burman language group of Sino-Tibetan language family. In the early 1920s, the

Ethnic group	Language, customs and religion	
		British Fuliye and Karen people Badong created the Lisu language on the basis of the English letters, namely the old Lisu alphabet. In the 1950s, people began to use new Lisu language created on the basis of the Chinese phonetic alphabet. At present, all ethnic groups in Nujiang Lisu Autonomous Prefecture all use Lisu language and old Lisu alphabet.
	Customs and culture	<p>Festival: Lisu people call the annual Spring Festival as “Kuo Shi”. Before the founding of new China, Lisu people in Nujiang area mainly rely on the observation of phonological phenomenon to determine the time of Chinese Spring Festival. Lisu people in Dehong and Tengchong will celebrate Knifeladder-Climbing Festival on February 17 with lunar calendar.</p> <p>Marriage customs: Lisu is an ethnic group adoring wine. When making a proposal, with wine as the gift, the matchmaker will pour wine to her parents, and if her parents drink the wine, it means that they agree to the marriage.</p> <p>Consume: traditional consume of men is linen gown or short gown, with pant length reaching the knee, and blue cloth wrapping the head. All adult males like carrying machetes on the left of waist and arrow bag on the right of waist. Young girls like using red thread braided with small white shell to tie the braid. Some women also like wearing a string of agate, seashells or silver coin in front of the chest, and these plastrons are called “La Bai Li Di” in Lisu language.</p>
	Religion	At the beginning of the 20th century, Christianity and Catholicism were preached in Nujiang River Lisu ethnic area; now, the Christianity has become the religion believed by most of Lisu people in Nujiang River area. Some Lisu people believing in Christianity will celebrate the Easter, Thanksgiving Day and Christmas.
Lahu	Language	Lahu language belongs to the Yi Branch of the Tibeto-Burman group of the Sino-Tibetan language family, and is classified into Lahuxi and Lahuna dialects, whose speakers can communicate with each other. The ancient Lahu people have no character, and the nation’s historic culture is passed on from generation to generation by public praises, which were recorded by wood engraving and rope knotting. At present, Lahu language and Han language, Lahu characters and Chinese characters are universal language and characters in Lancang County. Yunan Lahu People’s Character Scheme is formulated, and test implemented after the examination and approval of State Ethnic Affairs Commission.
	Customs and culture	<p>Dress culture: Modern Lahu people’s clothing has distinguished gender characteristics, but the clothing will not differ from grade. From upper circles to common people, their costumes are unified and are distinctly national.</p> <p>Festivals: Gourd Festival, “Apengalongni” in Lahu language, in October 15, 16, and 17 (lunar calendar). As the story goes, the Lahu people originated from a gourd, so the gourd is the mascot and life partner of Lahu people.</p> <p>Marriage: in the regions where matriarchal family or matriarchal-patriarchal family, when young Lahu men and women seek a mate, the female plays a dominant role. In regions where the patriarchal family prevails, when young Lahu men and women seek a mate, the male plays a dominant role. Free love and marriage are the common characteristic of Lahu people in all regions. Activities of young Lahu men and women are mainly collective. Since Lahu people’s marriage is seldom arranged, the divorce rate is low. Men and women</p>

Ethnic group	Language, customs and religion	
		are equal in the family. The patriarch can be man or woman. Lahu funeral: Lahu people divides the world into secular world and other world, and think that the living and social environment of such two worlds are the same, so the human society will continue and development during the mutual transformation of two worlds. Dominated by such world view, the people emphasize not only the life but also the funeral. People divided the funeral into normal funeral and abnormal funeral based on the cause of death, and adult funeral and juvenile funeral based on the age of dead.
	Religion	Lahu people believe in primitive religion, Mahayana, Christianity and Catholicism. Therein, the primitive religion dominates Lahu people's belief system.
Wa	Language	Their language belongs to the Wabeng branch of the Mon-Khmer group of the South Asian language family, and has four dialects. Since Wa people have no its own characters, they record number and events and communicate by counting beans, engraving wood and tying knots. They express feeling by things. For example, when the dispute arises between villages or is mediated, if one party presents charcoal, it indicates that it will burn the other party's village; if one party presents bullet or gunpowder; it indicates that it will fight with the other party.
	Customs and culture	<p>Marriage: the monogamian family prevails over Wa people, and the young man court the girl by "dropping around"; they will talk and sing, and chew areca nut. The men will help girls do some housework, and if satisfied, the girl's parents will not interfere in their association; but if dissatisfied, the girl's parents will stop him from doing housework.</p> <p>Funeral: Burial in the ground prevails in Wa people, and if the adult dies of illness, his family will fire a shot and beat the gong to announce the village the adult's death, and invite Moba to slaughter chickens, divine and choose the funeral date. If the old adult dies, his family will place one piece of silver ajar in the month, wrap his body by flax, and transfer the dead body to left of the main fireplace. At the night, led by Moba, all people will sing and dance "Blanglonggui" around the fireplace as the mourning activity of the dead</p> <p>Programs: except festivals coming from other ethnic groups such as Spring Festival, Christmas, and Torch Festival etc., Wa people have its own New Rice Festival, Sowing Festival, etc.</p>
	Religion	Wa people's traditional religious belief is the natural worship of animism. They think that all souls, ghosts and gods have different statuses. The most sacred ghost and god that they admire most are Muyiji and Ayie.
Naxi	Language	Naxi people have its own language, and its language family is an independent branch language of the Yi Branch of the Tibeto-Burman group of the Sino-Tibetan language family, and has close genetic relationship with Yi language, Hani language and Lahu language. Ancient Naxi characters--Dongba character and Syllabic writing
	Customs and culture	<p>Costume: Naxi men's costume is generally the same with that of Han people, and women's costume differs from regions. The sheepskin shawl is important symbol for Lijiang River Naxi women's costume.</p> <p>Marriage custom: the wedding has the custom of not seeing the sky; pavilion is set up in courtyard, and pine needles are laid, and memorial archway of fetching the bride is built. The bride's side closes the door, and sings epithalamium through the door. If they sing</p>

Ethnic group	Language, customs and religion	
		<p>right, the bride will open the door, and the bridegroom's side will withdraw "money for opening the door". The bride will worship ancestors, bid farewell to parents and friends, and cry for hating to part with her family. When the bride enters her husband's house, she must stride the right saddle under the threshold, meaning that she is already a member of her husband's family.</p> <p>Taboo: don't wash feet on New Year's Eve, and wash the bowl and chopsticks used in having family reunion dinner. On January 1, strangers cannot enter others' houses. On New Year's Eve married women shall not stay in her parents' family. On the morning of January 1, the women are abstained from getting up early. White stone that erected cross the door cannot be stridden over; pot stone above the fireplace cannot be stridden over; the fire in the fireplace cannot be splash by water. The owner cannot spit after the guest entering the house. Guests should avoid the left seat of the fireplace. Entering the house with bamboo hat on head and entering the kitchen with a hoe should be avoided. If you go back home with a torch, the torch cannot be placed inside the house. If you go back home at night, you should enter the fireplace house first, and cannot enter the bedroom first. When the dead is placed in the coffin or cremated, those with antagonistic year of birth cannot be on site. Those wearing heavy mourning garments cannot enter others' houses.</p>
	Religion	<p>Naxi people generally believe in Dongba (also called "Daba" in Yongning), and is a primitive shamanism influenced by Tibetan Ming religion (Bonismo) and is polytheistic. All natural phenomena such as mountain, water, fire and wind are all deemed as gods, and the dead not due to diseases and enemies are deemed ghosts. In case of diseases, wedding and funeral, and festivals, etc., Dongba will be invited to recite scriptures.</p>
Yao	Language	<p>Yao people have its own language, and Yao language belongs to the Yao branch of Yao group of the Sino-Tibetan language family; however, the actual situation is quite complex. Over half people speak "Mian" language, which also belongs to the Yao branch of the Miao-Yao group; 2/5 of people speak "Bunu" language, which belongs to the branch of Miao language; Guangxi regions speak "Laga" language, which belongs to the Zhuang-Dong group. Chinese and Zhuang language are predominant, but it has no ethnic characters, and generally uses Chinese characters.</p>
	Customs and culture	<p>Marriage custom: many young Yao men and women takes the opportunity of "playing songs" to choose his or her love, and once the man and woman find each other congenial, their parents can ask the matchmaker to propose a marriage with pork and wine as present. When holding the wedding, there will be a feast, and according to traditional habits, the old man in the village must be invited to attend the wedding, and the bride and bridegroom drink "cross-cupped wine".</p> <p>Food: Yao people's staple food is rice and they love glutinous food. Shanyao and Jiaoyao living in rocky mountainous areas regard corns as staple food.</p> <p>Costume: Yao people prefer five-color costume since ancient times.</p> <p>Family: Yao people's family is mostly united and harmonious, diligent and thrifty. After the son getting married, the parents live with their youngest son, and all brothers support their parents and attend upon them when they are dying.</p>

Ethnic group	Language, customs and religion	
	Religion	Yao family believes in ancestors and many Taoist gods, worship their common first ancestor Pan Gu emperor, Fu Hsi brother and sister, forefathers, Jade Emperor, the very high lord, Sanqing, Sanyuan, Thunder King, She King, Shennong, etc., and their religious rite conducted by master and master's master based on large and small altar agenda. Temples of gnome, She God, etc. are established under the tree near the village to enshrine and worship Pan Gu and Jade Emperor, and on the occasion of New Year and festivals, they will worship "Pan Gu Emperor", "redeem a vow to Pan Emperor", sweep the village, worship the dragon, pray to remove ill fortune and disease, and pray man and livestock safety, and bumper harvest.
Jingbo	Language	It's known that Jingpo people speak Jingpo language and Zaiwa language, which are greatly different. Jingpo language belongs to the Jingpo branch of the Tibeto-Burman group of the Sino-Tibetan language family; Zaiwa language belongs to the Mian branch of Tibeto-Burman group of the Sino-Tibetan language family. The Jingpo language used by Jingpo people is a kind of alphabetic writing based on Latin alphabet.
	Customs and culture	Marriage custom: A formal wedding is the main form of the marriage of young Jingpo men and women. Taboo: you cannot touch Jingpo people's head to show friendliness, and pat Jingpo people's shoulders from behind. Jingpo people cannot eat dog meat, so in Jingpo ethnic areas, you must respect their custom and cannot eat dog meat. Funeral: According to Jingpo people's funeral custom, cremation will be hold for general normal death. In the evening, relatives and friends will dance the "Bugunge" in sacrificial rites for mourning. Festivals: "Munaozongge" means that "everyone dance together", and is one of the most important festivals of Jingpo people.
	Religion	In history, Jingpo people believe in the traditional primitive religion. In modern times, Christianity, Catholicism and the like begin to spread to China's Jingpo ethnic areas. In the investigation of social history in the 1950s, there are few Jingpo people believing in Christianity before liberation. However, in recent years, Christianity develops fast in Jingpo ethnic areas.
Tibetan	Language	The Tibetans have their own languages and words. Belonging to Sino-Tibetan Tibeto-Burman Tibetan branch
	Customs and culture	Costume: no matter male or female, Tibetan costumes are well preserved so far. There are different costumes in different regions. It is characterized by long sleeves, wide waist, and large front garment. Women wear the long gown with long sleeve in winter, and the sleeveless long gown in summer. They wear the shirts of various colors and figures, and tie one apron with colored patterns in the waist. Tibetans show special preference to "Hada" and regard it as the most precious gift. Funeral: Tibetans have five funeral ways after death, and the most ceremonial one is the pagoda burial. Secondly is cremation that enjoyed by the living Buddha and some feudal lords after they die. If the children die or someone dies from diseases, their dead bodies will be thrown into river to feed fish, which is called water funeral. The dead doing something evil before his death will be buried in the ground. The Tibetans thinks that the buried person will never reincarnate. The celestial burial carries the fantasy of "going to heaven". Taboo: The Tibetans definitely cannot eat donkey, horse and dog meat, and cannot eat fish in some regions. When proposing a toast, the guests must dip into the wine by the third finger and flip it to the air

Ethnic group	Language, customs and religion	
		<p>for three times consecutively to enshrine sky, earth and ancestors, and then take a sip slightly. The master will fill it up promptly after the guest takes a sip for three times consecutively. When it's filled up for the fourth time, the guest must drink it up. Don't pat, split and clap hands behind others' back. If you meet religious facilities such as temple, Mani stone, pagoda when walking, you must bypass from left to right. Don't stride over musical instruments and brazier. Don't turn the prayer wheel reversely.</p> <p>Festivals: Yunnan Tibetans have its own festivals, just like the prayer ceremony on January 15; race meeting in May Dragon Boat Festival; "Wangguo" festival in June; "sorcerer's dance" in winter moon 29, etc.</p>
	Religion	<p>The Tibetans generally believe in Tibetan Buddhism. It's about AD 1276. The power of Tibetan Buddhism and Mongolian lamaism expands to Yunnan, and at the end of Ming Dynasty and beginning of Qing Dynasty, the shamanism's force expands to midmonth. Ganden Sumtseling Monastery, one of Thirteen Temples in Kham region becomes the governance center of Yunnan Tibetan system "unification of the state and the church". Influenced by Lamaism, the Tibetans believe that people will reincarnate after death, so after death, they must invite Lama to release souls from purgatory. There is water funeral, ground funeral, cremation, celestial funeral, etc.</p>
Blang	Language	<p>Blang language belongs to the Wa De'ang branch of the Meng Khmer group of South Asian language family. Except the ethnic language, some Tibetans can speak Dai language, Wa language and Chinese, and most Blang people in Xishuangbanna speak Dai language.</p>
	Customs and culture	<p>Costume: Blang people's traditional costume is often dominated by black and cyan. At present, young and middle-aged Blang men generally wear Chinese costume, and women costume reserves more traditional characteristics. They tie the hair into a bun, and insert "Sanweiluo" hair clasp into the bun. On the occasion of weddings and grand meetings, polygon silver medals are pinned, and ornaments such as silver chains are tied under the bun.</p> <p>Tea culture: the tea plays an important role in Blang people's life, and the people regard the tea as holy article and treasure, which are used in funeral, wedding, or presented to relatives and friends. Because the people's demand for tea, treasure and gratitude, the tea tree is finally sublimated to the gods.</p> <p>Taboo: the traditional taboo has standardized and restricted Blang people's behaviors to some degree, for example, the prey cannot be run after in Dragon Mountain forest; the tree in cemetery hill cannot be felled; the grass and wood in dragon forest cannot be damaged; the three in Dragon mountain surrounding villages cannot be felled to build house beams.</p> <p>Surname: Blang people in Blang Mountain generally implement the mother-son linkage naming system which only has name without surname. Three days after the child is born, it will tie the red line and be named, and its mother's name will be added after the child's name. "Yan" must be added before male names and "Yi before female names.</p>
	Religion	<p>Influenced by Dai people, Xishuangbanna Blang people believe in South-Shangzuo Buddhism, and the Buddhist temple and all systems are similar to that of Dai people, and it also has frequent Danfo activity. Except Blang people believes in South-Shangzuo Buddhism, it has reserved the traditional belief of many primitive religions.</p>
Buyi	Language	<p>Buyi language belongs to Zhuang-Dai branch of the Zhuang-Dong group</p>

Ethnic group	Language, customs and religion	
		of Sino-Tibetan language family. They don't have ethnic character, and generally uses Chinese characters.
	Customs and culture	<p>Food: Buyi people like eating dog meat, and ways to process dog meat in different places are different . Its taste is unique, and its famous products have “Huajiang dog meat”, “Duyun stewed dog meat”, “Ceheng dog meat full-course dinner”, etc.</p> <p>Costume: Buyi men’s costume is the same with Han costume now. There are many women’s costume styles, the old Buyi costume has been preserved in Zhenning, Guanling, Puding, and Liupanshui: large garment and short coat, long pleated dress, and various silver ornaments.</p> <p>Festivals: Buyi people have many traditional festivals and festivals such as “March 3rd” “April 8” and “June 6” have their own national characteristics. Therein, “June 6” is a joyous festival celebrated by all Buyi people.</p>
	Religion	Buyi people generally believe in the original religion, and few believe in Buddhist, Taoist, and Catholicism.
Achang	Language	Achang language belongs to the Burmese branch of the Tibeto-Burman group of Sino-Tibetan language family. Because lived together with Han, Dai and other ethnic groups for a long time, Achang people generally use Chinese, Dai language and other ethnic groups’ languages or dialects meanwhile, and use Chinese character.
	Customs and culture	<p>Food: Achang people like eating sour bamboo shoots pickles, as well as and toasted pork. Hulusa’s “hand-made rice noodles”, Hedi Huanghua Baba and pieces of fresh ginger are characteristic food with ethnic flavor. Achang people like drinking alcohol, and most of households brew rice wine by themselves.</p> <p>Knife culture: Achang people in Husa are skilled in forging iron and preparing knives, and the forged ironware is often durable. Especially, long knife, sharp knife, hacking knife, kitchen knife, scissors, and sickle are sharp and nice, and its “Husa knife” is well-known throughout the world, and well received by neighboring Dai, Han, De'ang people. Achang people’s skill in forging Husa knife is listed into state intangible cultural heritage list.</p> <p>Festivals: the most ceremonial ethnic festival of Achang people is “Aluwoluo festival”. Based on Achang people’s wish, it’s a festival unifying the ethnic religious festival “Woluo festival” of the human’s earliest ancestor Zhepama and Zhemima in the legend of Achang people in original Liang River areas and the traditional “Street Festival” of South-Shangzuo Buddhism of Achang people in Longchuan Hulusa.</p>
	Religion	Influenced by diversified culture, Achang people believe in multi-region coexisted. Impacted by Han people, Achang people in Lianghe, Mangshi and Longling mainly believes in primitive religion and worships ancestors. The Achang people in Longchuan Hulusa are influenced by Dai people and mainly believe in South-Shangzuo Buddhism. The modeling of local Buddhist temples and pagodas are similar to that of neighboring Dai people.
Pumi	Language	Pumi language belongs to the Qiang branch of the Tibeto-Burman group of the Sino-Tibetan language family, and someone holds that its language branch is uncertain. Pumi people live in a multi-national environment, and most also speak the language of some ethnic groups such as Yi, Bai, Naxi and Han. Pumi people have no ethnic character and generally uses Chinese characters.

Ethnic group	Language, customs and religion	
	Customs and culture	<p>Food: Pumi people's traditional food includes toasted Baba on stone, boiled meat in sheep stomach, and boiled food in wooden bucket. Barley flour is the Pumi people's traditional food, which can serve as dessert when people drink tea, or carried about when people labor, hunt and travel outside. Pig fat meat is a special way for Pumi people and Mosuo people to process the entire pig. After killing the pig, remove its bone and internal organs, add salt and pepper to make preserved meat; and then stitch the pig skin, and make the pig fat. Because it's Chinese lute-shaped, so it's also named "Chinese lute meat".</p> <p>Costume: Pumin people's costume is mostly traditional in Ninglang region. Grown men's costume is almost the same in all regions, and is mostly linen jacket, wide long pants, long gown, and wool fiber embroider waistband. Women's costume is full of variety, and the Pumi women in Ninglang and Yongsheng wear long hair with black big Baotou, and the thick and big braid is the most beautiful.</p> <p>Family: In Pumi family, the avunculate is prominent, and the avunculate is equal to father and mother's right.</p> <p>Festivals: Pumi people's traditional festivals include Grand New Year, Grand January 15th Festival, Around the grotto, Go hill, and Changxin, etc. Grand New Year is the most ceremonial festival of Pumi people, which generally lasts for three days to half a month. In Ninglang, the December 7 is the beginning of the year, but in Lanping and Weixi, the New Year is celebrated in January.</p>
	Religion	Pumi people believe in many gods and religions such as Hanguai religion, Tibetan lamaism, and some people believe in Taoism and Buddhism. Pumi people worship the nature and have its own belief.
Mongolian	Language	Mongolians have their own language, which belongs to the Mongolian branch of the Mongolian group of the Altai family. For several hundred years, Yunnan Mongolians' language and characters change with the development of local society and history. It adopts Chinese characters and speaks one unique and independent language.
	Customs and culture	<p>Food: as for their food, they have been totally localized, and have the almost same food with ethnic groups such as Han and Yi in Tonghai. When asked, men and women, old and young in the village will told you specifically that they are Mongolians. They are very proud of being Mongolians.</p> <p>Festival: the biggest festival in the year, equivalent to the Spring Festival of Han people, is called "white moon". The story goes that it's related to the whiteness of dairy food and means good luck. The festival time is generally consistent with that of Spring Festival. At New Year's Eve, everyone eats hand-serving mutton, makes dumplings, and bakes pancake; on the morning of the 1st day, the younger generation will "toast to the elder to farewell to the old year".</p>
	Religion	Mongols in Yunnan believe in many gods, and hold that animism and polytheism. In the central room, the memorial tablets of "heaven, earth, monarch, relatives and master" and ancestors are consecrated, and in the kitchen the kitchen God is enshrined and worshiped. Each family name has the cases of word.
Nu	Language	Nu language belongs to the Sino-Tibetan Tibeto-Burman. Because Nu people coexist with Lisu people for a long time, Nu people generally can speak Lisu language. Nu people don't have ethnic characters, and generally use Chinese characters.

Ethnic group	Language, customs and religion	
	Customs and culture	<p>Costume: Both men and women of Nu people pay attention to the ornament, and men usually like having a chopper around the waist, and crossbow and arrow pack on the shoulder. Women use corals, agate, half-transparent bead, shell, silver coins, etc. to make beautiful headwear and plastron, wear them on the head and chest, wear coral earrings, and like wrapping the head by cyan clothing or headband with flower patterns.</p> <p>Food: Nu people's staple food is corn, buckwheat, etc. Both men and women of Nu like drinking. Nu people make oil by squeezing sumac seeds, and then add raw materials such as tea, salt and walnut kernel, churn and emulsify it, and finally make the sumac oil tea, which is also used as the tonic of puerpera or weaklings.</p> <p>Festivals: Nu people's traditional festivals include New Year, Fairy Festival, Worship Harvest God, and Worship Mountain Forest Festival, of which the festive air of New Year is the thickest. Nu people believe in fairies, and celebrate the festival of fairies in each March 15 (lunar calendar).</p>
	Religion	Nu people mainly believe in primitive religions, some Nu people neighboring Tibetans believe in Tibetan Buddhism, and some believe in Catholicism and Christianity.
Jino	Language	The language here belongs to Sino-Tibetan family Tibeto-Burman language, consisting of Junuo language and Buyuan language. Jinuo people have been in character-free society for a long time. The effective communication means is recording on wood and using conventional physical symbols.
	Customs and culture	<p>Costume: traditional men's clothing: the coat is collarless front opening white lattice shirt; the back has 6 cun of square colored pattern like sun or beast, called as "sun line" or "Kongming seal"; the lower part is loose-bodied pants or shorts; the head and legs are wrapped with cloth. The women wear triangle lattice cloth hat like headband with characteristics; triangle embroidery cloth on chest; front opening chambray shirt (blue, red and yellow). The waist and belly are exposed due to short shirt. They wear black encircled skirt embroidered with red cloth; the legs are wrapped with blue flower.</p> <p>Festival: The new year of Jinuo people called as "Temaoke" festival is the grandest day, which is generally the end of the twelfth lunar month. There are a series of festivals surrounding farming and production: before sowing seeds in spring, the people will celebrate the festival of Sacrificing Dragon, namely stop working for three days to kill cow for sacrificing the ancestors and praying for good harvest; in the 24th day of the sixth lunar month, the people will celebrate the Torch Festival; the people will celebrate the Rice Festival when the grain is ripe.</p> <p>Funeral: single-log coffin inhumation. If some one was dead, the whole men in the village will hack a big tree and cut to halves. Hollow the center and cover both after encoffining.</p>
	Religion	The primitive religions idea is animism, while ancestor worship occupies an important place.
De'ang	Language	The language belongs to Austro-Asiatic family Mng Khmer language Va language. They do not have their own characters. Due to getting along with Dai, Han and Jingpo ethnic groups, many people are proficient in Dai language, Chinese and Jingpo language.
	Customs and culture	<p>Costume: The young people, whether men or women, are fond of wearing silver necklace, headphone, eardrop and other ornaments. Amidst the traditional costume, the most remarkable is the waist hoop in</p>

Ethnic group	Language, customs and religion	
		<p>women.</p> <p>Festival: the traditional festivals mainly include Water-sprinkling Festival, Door-closing Festival, Door-opening Festival, Zuobai and Burning White Firewood. Water-sprinkling Festival (called as “flower-watering water”) is the annual traditional festival of De’ang people. The time is the 7th day after Tomb-sweeping Day. Festival totals three days.</p>
	Religion	<p>De’ang people regard certain big tree near to or within stockaded village as the habitat of stockade god. Sacrifice activities will be held in spring every year. It is prohibited to hack the tree or relieve oneself around. The stockade center god “Zao Wu Man is reflected by one acute wooden pole standing in middle of stockade generally. The stockade center god is the patron saint of the stockade. It is prohibited to touch or relieve oneself around. Village god “She Meng” is consecrated in small thatch bamboo house in forest with two cans of clear water. The holy place is far beyond of the outsider and animals. It is prohibited to hack trees around.</p> <p>De’ang people sincerely believe in Buddhism. The best building in stockade consecrates the temple of buddhist statues. Most stockade villages have their own temples, Buddha and little monks (the children as monks in the temple).</p>
Shui	Language	<p>Sui language belongs to Sino-Tibetan family Zhuang-Dong language Dong – Sui branch, closely relating to Maonan language, Dong language, Buyi language, Mulao language and Zhuang language, and especially Maonan language and Dong language. The Sui languages are different slightly in various regions, and people can communicate with each other without difficulties. Sui language absorbs not a few Chinese borrowings for long-term relationship with Han people. Chinese is generally used in Sui people.</p>
	Customs and culture	<p>Festival: the main festival is “Duan Festival” between November (hydrograph) and February the next year (amount to 8th -10th lunar calendar). The period is the cross-stage between this year and next year for harvest in large season and seeding in small season. It is a grand festival to ring out the old, celebrate good harvest, sacrifice and wish a happy life in next year. It is equivalent to the spring festival of Han people.</p> <p>Marriage: do not marry the persons of the same clan; Arrangement and engagement by parents and matchmakers in the past. Cousin marriage and arranged marriage are rare now. The youth is free to love, while the marriage is established through matchmaker in form.</p> <p>Funeral: massive primitive beliefs are retained. Sui people pay more attention to funeral, each link from giving an obituary notice, memory, encoffining, coffin placing, picking auspicious day, holding a funeral procession and burying, and will invite geomancers to direct and be held in strict accordance with Shui script. The wealthy families will invite others to play funeral music, sing funeral music and dance funeral dance.</p>
	Religion	<p>Believe in animism and immortal soul. Hold a memorial ceremony against ancient trees, rare stone and well spring. If monstrous, it is required to beg wizard for divination. Divination is divided into copper cash divination, grass divination, chicken’s eye divination, egg divination, etc.</p>
Manchu	Language	<p>Manchu has its own language and character. Manchu language belongs to Altaic family Man _Turgus Manchu language branch. Manchu language has gone except the individual remote places in Northeast</p>

Ethnic group	Language, customs and religion	
		China and minority old people in Xibe people in Sinkiang. Manchu characters were found at the end of the 16th century. As a kind of official language, Manchu language has been used in Qing dynasty for a long time, becoming the character widely used nationwide and leaving massive archives and materials. It has become the treasure in Chinese nation cultural heritage treasury. Chinese is commonly used in Manchu.
	Customs and culture	Diet: the food in Manchu is full of characteristics. The saying “dessert in Manchu and dishes in Han” is accepted by most people. The thing representing the integration of Manchu and Han diet culture is “The Chinese Feast” with over 100 dishes and disserts. The sorting, making and ways to eat are full of Manchu characteristics. Festival: many festivals in Manchu are the same with that of Han people, mainly including Spring Festival, Lantern Festival, Spring Dragon Festival, Dragon Boat Festival and Mid-autumn Festival. Traditional sport activities are held during this period, such as pearl ball, horse race, etc.
	Religion	Manchu people believed in Shamanism in the past. “Shaman” is Tungus with the meaning of “crazy people”. The Chinese version is witch. Civil Shaman is divided into two kinds: one is the Shaman dancing in a trance for healing, divination and exorcism; the other is the Shaman managing sacrifice and sacrificing ancestors.
Drung	Language	Consume: Drung language belongs to Sino-Tibetan family Tibeto-Burman language, and the language branch is inconclusive. Mr. Sun Hongkai holds that it is possible in the same branch as Jingpo language, Deng language and Luoba language. Drung language is divided to two kinds: Drung localism in Drung River and Drung localism in Nujiang River of Bingzhongluo of Gong Mountain.
	Customs and culture	Costume: simple and characteristic traditional costume. All people, whether men or women, are bare in arms; legs are warped with linen. The men wrap a stripped carpet called as “Yue De Ge Ren Gua”, enveloping the whole body from right and left side and connecting a knot on chest; use a hemp rope to cover the bottom body with linen called “Neng Bu Te Lian”; knives and bamboo crate are worn restively in left and right. The women use two pieces of fiber carpet called as “Qi La Yi Yue Gua” to wrap to knee and cover the whole body from sides to front. Use rope to tie in waist if warping from left to right; take on and off freely if warping from right to left. Festival: the only traditional festival is Spring Festival, called as “ka que wa” in Drung language. It is held in twelfth lunar month; there is no fixed date between December and January in the next year. The specific date is determined by the respective villages. The duration of festival depends on the quantity of food, two or three days, four or five days. The people will sacrifice the goats and gods, throw bowls for divination, eat, sing and dance together all night along. The most bustling and grandest thing is slicing off cows and sacrificing to heaven.
	Religion	Drung people generally believe in primitive religion and Christian in a minority.

3.3 Relations among Ethnic Groups

Since the founding of new China, the Party and state has established and implemented numerous minority and religious policies conforming to national conditions starting from the multinational facts in Yunnan Province. The system of regional national autonomy is implemented in minority areas, guaranteeing the power of people of all ethnic groups to be the master of the country. At present, there are 8 national autonomous prefectures, 29 national autonomous countries and 152 national

Xiangs (towns) in Yunnan. The state pays more attention to the cultivation, elevation and appointment of minority officials in Yunnan. The statistical data show that up to March 2012, there are 100,000 minority officials among provincial civil servants, accounting for 32.1%; the minority officials account for 31.3% and 29.4% respectively among departmental level officials and county level officials. The minority officials account for 45.1% among main leaders in county (city, region) party and government. There are 86 teams equipped with minority officials among 117 teams in provincial department-level government and non-profitable enterprises, accounting for 73%; the teams equipped with minority officials account for 89% among party committees, NPC, governments and CPPCC in 16 autonomous prefectures and cities. A large batch of excellent minority officials, management talents and professionals are active in government organs and various fields in economy, education, science and technology. The languages and customs in minorities obtain full respect and the education and cultural career in minorities are developed further. At present, the teaching of multiple minority languages spreads over various educations in Yunnan. Over 300 civil teaching materials about 14 ethnic groups and 18 languages are compiled in Yunnan successively. At present, over 6 million people are not proficient in Chinese, so “bilingual” teaching is a must here. 18 kinds of character are used in “bilingual” teaching aiming at preschools and primary schools in 14 minorities. Yunnan People’s Broadcasting Station Broadcast was founded in 1955. At present, the programs of broadcast involving five national languages (such as Dedong Dai language, Xishuangbanna Dai language, Lisu language, Jingpo language and Lagu language) and Chinese have been launched. It has become the provincial broadcasting station with most ethnic minorities in China. A batch of minority historical and cultural heritage is protected and carried forward effectively. The publishing of Yunnan minority language and character is highly effective. Over 300 kinds and 1.5 million volumes (boxes, copies) of civil language books, newspapers and video products are published every year. According to preliminary statistics, every thousand of Yunnan minority people own 24 volumes of civil language books; the coverage rate of civil language newspapers in Yunnan minorities reaches 50%, effectively serving the development of ethnic groups and regions.

National unity is the lifeline of Yunnan people and the fundamental premise and guarantee of all work. During long-term life and work, the people in various ethnic groups have forged profound friendship in each ethnic group. Experiencing endless historical development, the national relationship pattern in Yunnan is characterized by following points:

(1) forming the multinational pattern with 26 ethnic groups living together; (2) forming the national distribution pattern characterized by big area inhabited by several ethnic groups, small area inhabited by an ethnic group and various ethnic groups living together; (3) forming the characteristic and long-standing blood relationship, namely same source and different courses, same course and different sources as well as staggering in source and course and continuous differentiation and integration; (4) forming the national population structure and grass-roots social structure led by Han people and coexisting with numerous ethnic groups; (5) forming the inseparable historical relationship between Yunnan minorities and state from surface to deepening and from decentralization to compaction; (6) forming the supplementary and interdependent economic and cultural relationship between Yunnan mountains and dams, borderland and hinterland and various ethnic groups.

The development status of minorities in project-influencing area: since the founding of new China in 1949, the policy “equality of ethnic groups” was put forward, namely various ethnic groups enjoy equal rights. In order to carry out the policy, the government firstly classified and registered minorities. The new China defines the minorities in accordance with the languages, residences, economic foundation and cultural tradition accurately in 1949. Based on the definition, Han people are the main ethnic group and the minorities assimilated by Chinese and cultural tradition (such as

Hui and Manchu people) is also defined as minorities.

In 1954, the Constitution established the system of regional autonomy of ethnic minorities; the power in financial and economic autonomy and other aspects were weakened in 1974 Constitution, while recovered in 1978 Constitution and strengthened in 1980 by the State Council and 1984 Law of the PRC on Regional National Autonomy. In early 1980s, the autonomous governments may autonomously determine their economic policies, including production, range of government subsidy, making rules, education and budget. The State Council published one-child policy in 1982, while the minorities may implement the policy flexibly.

The government has been giving support in the provinces concentrating with 8 minorities (Guizhou, Yunnan, Qinghai, Sinkiang, Inner Mongolia, Ningxia, Guangxi and Tibet). Minorities may enjoy the preferential policies, poverty alleviation funds, loan, subsidy and tax reduction, in order to promote local socioeconomic development.

The minorities within the project-influencing area may also enjoy the following preferential policies: the minority students may enjoy bonus point policy in college entrance examination and be admitted favorably; the special minority development policy may provide supports to the construction projects in minorities and living areas (such as school, road, water conservancy, religion, etc.).

The Appendix 1 introduces the detailed conditions of infrastructure, social service facilities, the women's political participation and discussion, education, employment, health and medical care in project-influencing areas.

3.4 Production and Living Conditions of Local Residents

In order to accurately know the production and life of residents, project investigation team investigates the production and life of 68 families and 259 persons through random sampling in 16 autonomous prefecture and cities. There are 68 sample households, including 10 Hui families (38 people), 10 Yi families (42 people), 10 Zang families (42 people), 10 Han families (40 people), 10 Dai families (35 people) and 8 Han families (27 people).





Figure 5 FGD and Interview with Stakeholders

The statistical data show that among 16 autonomous prefecture and cities in Yunnan, the per capita GDP reached 52,277.82 Yuan in Kunming in 2013, whilst only 15,949 Yuan in Nujiang Prefecture due to the regional development differences, with various developmental difference in Yunnan. Therefore, there is a big income gap in regional minorities. Simultaneously, the income gap between minorities in the same region is also severe due to the conditional differences or national tradition differences in dam area and mountain area.

The investigation and survey show that there are 58 Muslim food stores or restaurants in Malong county due to business and working tradition in Hui people, so Hui people are richer than other minorities here; Nai people take use of their own homesteads to operate restaurants with Dai characteristics, so the income is also in high level; Yi and Miao people take farming and animal husbandry as the principal thing and live in mountain regions, so they are poorer than Hui and Dai people. The minorities account for 88% among sample households. Because the income of minorities and Han people are lower as a whole, the 10,178 Yuan of total incomes per head is slightly lower than 12,578 Yuan of per capita disposable income for total residents in the whole province (the city and countryside unification). The distribution of per capita net income in sample households is shown in Table 7; the distribution of per capita net income in different ethnic groups is shown in Table 8:

Table 7 Distribution of Per Capita Net Income in Sample Households

Per Capita Net Income of each family(Yuan)	Number (household)	Percentage (%)
Between 1000-1500 yuan	2	2.94
Between 1500-2000 yuan	2	2.94
Between 2000-2500 yuan	8	21.05
Between 2,500-3,000 yuan	20	29.41
Between 3000-3500 yuan	16	23.53
Between 3500-4000 yuan	8	21.05
Larger than 4000 Yuan	12	16.64
Total	68	100.00

Table 8 Per Capita Income in Different Ethnic Groups

Ethnic group	Population	Per Capita Net Income of each family(Yuan)
Hui	38	14996
Han	27	14427
Dai	35	12563

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Zhuang	35	12113
Yi	42	7103
Tibetan	42	6245
Hani	40	6184
Total	259	

The sampling survey shows that the per capita living area is 36m² of sample households in the aspect of living environment; in the aspect of production and living facilities, most families use coal and firewood as fuel, all families utilize electricity for lighting, 95.59% families use indoor cable television, 97% farmers use telephone and over a half farmers use tap water to intake water; in the aspect of domestic durable consumer goods, most families own televisions, while only fractional families have refrigerators and washing machines. The investigation and statistics of life and production in sample households are as shown in Table 9.

Table 9 Statistics of Livelihoods and Production in Sample Households

Project	Unit	Sample family (68 families, 259 people)		
		Quantity	Proportion	Per household index
I. Family population	Person	259		
1. male	Person	138	53.28%	
2. female	Person	121	46.72%	
3. Labor force	Person	153	59.07%	
II. Level of education				
1. Illiterate	Person	15	5.79%	
2. Primary School	Person	113	43.63%	
3. Junior high school	Person	73	28.19%	
4. High school and technical secondary school	Person	48	18.53%	
5. College degree and above	Person	10	3.86%	
III. Living Condition				
1. Per capita living space	m ² /capita	36		
Including: per capita brick concrete (wood) structure	m ² /capita	16		
2. fuel				
1) Liquefied gas	Yes/no	20/48	29.41%	
2) Firewood	Yes/no	35/33	51.47%	
3) Coal	Yes/no	38/30	55.88%	
3. Cable TV	Yes/no	65/68	95.59%	
4. The lighting electricity	Yes/no	68/0	100%	
5. Phone	Yes/no	66/68	97%	
6. Tap water Users	Yes/no	38/30	55.88%	
IV. Agricultural production				
1. farmland	Mu/capita	2.05		
1) Dry land	Mu/capita	1.55		
2) Paddy	Mu/capita	0.5		
2. Farm products				
(1) Grain	Kg/capita	384.28		
2) Flue-cured tobacco	Kg/capita	22.28		
3) Tea	Kg/capita	5		

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Project	Unit	Sample family (68 families, 259 people)		
		Quantity	Proportion	Per household index
4) Rubber	Kg/capita	7		
5) Cattle	Piece/capita	0.21		
6) Horse	Piece/capita	0.02		
7) Pigs	Piece/capita	0.84		
8) Sheep	Piece/capita	0.25		
V. Quantity of employment	Person	151		
1. Primary Industry	Person	98	64.90%	
2. Secondary Industry	Person	36	23.84%	
3. Tertiary Industry	Person	17	11.26%	
VI. Domestic durable consumer goods				
1. Household appliance				
1) Television	Set	70		1.02
2) Refrigerator	Set	25		0.36
3) Washing machines0}	Set	10		0.14
2. traffic and production tools				
1) Tractor	Set	21		0.31
2) Motorbike	Set	47		0.69
3) Car	Set	9		0.13
4) Bicycle	Set	33		0.49
VII. Gross annual income	Yuan	2636102		38766.21
1. Family operational income and labor income	Yuan	2294991		33749.87
1) Crop farming	Yuan	1049930		15440.15
2) animal husbandry	Yuan	246462		3624.44
3) Forestry	Yuan	213600		3141.18
4) Fisheries	Yuan	16430		241.62
5) industry	Yuan	32860		483.24
6) Construction industry	Yuan	32750		481.62
7) Transport business	Yuan	19964		293.59
8) Catering services	Yuan	31087		457.16
9) Out labor income	Yuan	651908		9586.88
2. Property and transfer income	Yuan	341111		5016.34
VIII.Total annual expenditure	Yuan	2414398		35505.85
1. Family operating costs	Yuan	1233099		18133.81
1) Crop farming	Yuan	787950		11587.50
2) animal husbandry	Yuan	184964		2720.06
3) Forestry	Yuan	160302		2357.38
4) Fisheries	Yuan	12330		181.32
5) industry	Yuan	24660		362.65
6) Construction industry	Yuan	23056		339.06
7) Transport business	Yuan	15064		221.53
8) Catering services	Yuan	24773		364.31
2. Living expenditure	Yuan	1181299		17372.04
1) Food	Yuan	538878		7924.68
2) Clothing	Yuan	62437		918.19

Project	Unit	Sample family (68 families, 259 people)		
		Quantity	Proportion	Per household index
3) Residence	Yuan	208337		3063.78
4) Household equipment, articles and service	Yuan	63973		940.78
5) Health care	Yuan	93921		1381.19
6) Transport and Communications	Yuan	121779		1790.87
7) Entertainment products and service for culture and education	Yuan	74907		1101.57
8) Other goods and services	Yuan	17067		250.99
IX. Annual per capita net income	Yuan	5417		

Most distressed areas are located in minority areas, old revolutionary base areas, border regions and destitute areas with wicked national environment conditions.

The deep-seated problems restricting the development in poverty-stricken areas are shown in following aspects (taking Pu'er city as an example): on one hand, the poor population size and the proportion of deep-seated poverty population is high in villages, and the poverty problems in special difficulty areas and border areas; on the other hand, the agricultural infrastructures are weak, the technological education and culture is backward, the industrial degree is low, the supporting capacity is weak. The tendency of expanding gap between the rich and the poor is not restrained.

The task of supporting the poor and solving problems is very formidable in minorities (taking Yi Autonomous Prefecture of Chuxiong as an example). Firstly, the agricultural infrastructures are weak and the income is difficult to increase in poor areas. Chuxiong prefecture is located in middle of Yunnan Province in the watershed between Jinsha river and Yuanjiang, belonging to typical arid region in central region of Yunnan Province, where the resource and engineering water shortage is severe, the phenomenon of agriculture depending on the weather is prominent, the capacity resisting natural disasters is fragile and the income in poor areas is hard to increase. Secondly, the poor area is expansive and the poverty degree is deep. Along with the development of national economy, and the adjustment of poverty-overcoming standard by the Party and government, there is still massive poor population. According to 1196 Yuan of poverty standard statistics, there were 853,200 poor populations in villages at the end of 2010, accounting for 38.3% of total rural populations; there were 751 poor village committees, accounting for 72.4% of 1037 villages; there are 6 key national counties and 1 key provincial counties engaged in poverty alleviation and development, accounting for 70% of total counties and cities. In all villages, the drinking water safety of 671,300 populations does not reach the standard; there are 265 natural villages are out of electricity and 2226 natural villages are out of road; there are 123,000 persons with housing difficulties and 14,000 persons living in soil houses, thatch houses and stone houses; 71,456 persons lose the fundamental life conditions, requiring moving to other regions. Thirdly, natural disasters are frequent and the poverty rate is high. Chuxiong Prefecture belongs to the area prone to natural disasters. The disasters include Huili "8-30" level-6.1 earthquake, Yaoan "7-09" level-6.1 earthquake, Yuanmou and Lufeng "2-25" level-5.1 earthquake, and "11-02" landslide and mud-rock flow. In 2010, the area suffered from the rare drought. Most poverty-stricken areas are the areas prone to disasters; the number of affected population reaches 1.5million, leading to nearly 0.4 million poor populations. Fourthly, the development is unbalanced and the difficulty in supporting the poor is high. The poor populations are distributed widely in alpine and cold area in Chuzhong, Jiasha River low-heat valley in Chubei and remote minorities in Ailao Mountain in Chunan. These areas are harsh in living environment, short of natural

resources, blocked in information, poor in production and life conditions, and difficult in traveling, drinking, electricity, medical care, education and income increase. Fifthly, the scientific and technical culture quality of farmers is low. As for the masses in poor areas, the ideology is old-fashioned, the quality is not high, and the capacity of getting rich depending on science and technology is weak. Sixthly, the conflict between input and demand is prominent. At present, the masses in poor areas are difficult to increase production and income; the price of production and life materials rise constantly in poor areas; the cost to helping poor populations in getting out of poverty is increasingly high; the conflict between input and demand is prominent; the task of poverty alleviation and development is more and more formidable.

3.5 Ongoing Ethnic Minority Development Projects

There are 56 minorities across the country; most minorities are in Yunnan, including 52 ethnic groups in Yunnan (25 native minorities and 15 special minorities). The total number of populations is 45,966,239 in the whole province, including 15,337,000 minority populations, accounting for 33.37% of total populations (the 6th population census). The whole province governs 8 prefecture-level cities, 8 autonomous prefectures, 12 municipal districts, 9 county-level cities, 79 counties and 29 autonomous counties. Each prefecture and city establishes their own total plans and industrial plans to support the development in minorities. The industrial development plan includes poverty reduction and development plan; agriculture and forestry development plan; industrial development plan; women development plan; children development plan; education development plan; traffic development plan; ecological environment development plan; cultural development plan; public health development plan, etc. This year is the key year to achieve the goal of “12th five-year plan”. Each prefecture and city has started to formulate “13th five-year” development plan.

In addition to industrial development plan, the counties (cities) in project-influencing area also have specific socioeconomic development plan under the management of National Religion Bureau and Poverty Relief Office. Social and economic development plan includes perfect infrastructures (water, electricity and road etc.) and social service facilities (scientific and technical culture, education and health etc.). Social and economic development plan often combines with poverty alleviation plan.

In order to further accelerate the development in poverty-stricken areas, strive to make a flight of poverty alleviation and problem solving, accelerate the construction of important beachhead facing southwest and the achieve the purpose of affluent society in 2020, Yunnan formulates Outline of Rural Poverty Alleviation and Development in Yunnan (2011 – 2020) combining with provincial conditions. Overall objective: up to 2015, the growth amplitude of rural per capita net income in poor areas is higher than the provincial average level and local economic development speed; the number of poor populations is decreased sharply; the poor populations have meals to eat, water to drink, houses to live, schools to attend, medical care to receive and property estate. Up to 2020, the in-depth poverty problems are settled basically; the poverty problems in destitute areas are solved basically; the populations obtaining support are not worry about food and clothing; the compulsory education, fundamental medical treatment and housing are guaranteed; the hardening road, electricity, broadcasting televisions and communication network spread over poor natural villages; the index in main fields with fundamental public service is near to the provincial average level; the urban-rural income gap is controlled with 3:1; the Gini coefficient is controlled within 0.38; the development gap is shortened gradually.

Key point: poor populations The rural populations with labor capacity and whose rural per capita net income is less than national poverty standard are regarded as the main object of poverty relief and development; the key areas are emphasized. Four contiguous destitute areas are regarded as the main battlefield, such as Wumeng mountain area, stony desertification area, western Yunnan border mountain area and

Tibetan areas; the group enjoying priority. Alleviate poverty and solve problems aiming at 1,602,000 deep-seated poverty populations. Give priority to the poverty of deep-seated poverty populations in contiguous destitute areas; continue to implement the development plan with less populations; consolidate and promote the achievements supporting Mang people, Khmus and Kucong people; keep carrying forward the comprehensive poverty relief and development in Drung people and Yao Shanyao branch. The masses, women and children and disabled in rural poor minorities are incorporated into poverty relief plan.

3.5.1.1 Kunming City

The main development goal in “12th five-year plan” period is: keep leap-type development in economy and strive to take the level above average in national provincial capitals; optimize and upgrade industrial structure, and obviously improve capacity for independent innovation; obvious effect is achieved in ecological construction and environmental protection, and sustainable development capacity is strengthened; the enlarging tendency of urban and rural development gap is controlled, the equalization level of basic public service is improved, the people’s life is perfected obviously and the society is harmonious and stable; key fields are broken through; preliminarily establish the system and mechanism consistent with scientific development; the growth in socialism economic construction, political construction, culture construction, social construction and ecological construction is coordinated. Up to 2015, the purpose of building in an all-round affluent society will be achieved in the whole province; the leader in green economy province, the hub in national culture province, the international portal facing southwest and the important bridge tower city will be established basically. Up to 2020, the whole province will take the lead to realize modernization and the regional international city facing northwest will be established basically. “12th five-year plan” in Kunming city includes five indexes: prosperity, vitality, culture, ecology and harmony.

The implement scope is 411 key villages according to Three -year Action Plan of Poverty Relief and Problem Solving in Kunming (2012 – 2014). Overall goal: provide road, houses, property, water, schools, hospitals and stages in key villages; the rural per capita net income is increased by over 16%, reaching above 3630 Yuan; the infrastructures are obviously strengthened, the characteristic industry is basically formed, the social enterprise is developed healthily and the development speed is accelerated obviously.

3.5.1.2 Zhaotong City

The development idea in Zhaotong City in “12th five-year plan” period: stick to “12346” development idea established in Zhaotong Municipal Party Committee 2nd Period 7th Plenary Session. Economic development goal: up to 2015, the gross regional production is increased by over 17% annually, striving to break through 100 billion Yuan; the general financial revenue will break through 15 billion Yuan and the general local finance will break through 5 billion Yuan; the investment of fixed assets will complete above 500 billion Yuan accumulatively; the gross retail sales of social consumer goods will reach 30 billion Yuan. The urban per capita disposable income reaches above 20,000Yuan and rural per capita net income reaches above 5,000Yuan.

According to 2300 Yuan of new poverty relief standard, Zhaotong City has over 1.5 million impoverished people, accounting for 20% of poor populations in the whole province; nearly 300,000 people live in the place without fundamental life conditions. With numerous poor populations, it is hard in poverty relief and development. The poverty relief goal in 2014 is implementing the plan regional development, poverty relief and development; opening promotion projects in 5 Xiangs and towns and 80 administrative villages; implementing 25 million Yuan of special industrial poverty relief projects and removing poverty relief and development for 4000 persons;

implementing the effective poverty relief measures of construction of old liberated areas, “Baiquan bay poverty relief engineering: and rural labors transfer and training; consolidating and solving the problems of food and clothing above 250,000 poor populations.

3.5.1.3 Qujing City

The main goal in Qujing City in “12th five-year plan” period: general budget revenue from GDP, per capita GDP, general financial revenue and local finance double that at the end of “11th five-year plan” period; the ratio of primary, secondary and tertiary industries is adjusted to 15:52:33; the urbanization rate reaches 47%; the per capita disposable income of urban residents and rural per capita net income break through 20,000 Yuan and 7,000 Yuan; the added value of agriculture reaches above 31.5 billion Yuan. Make 350,000 poor populations get out of poverty; remove and settle 30,000 poorest populations without survival conditions; train and transfer over 100,000 surplus labors in poor regions; effectuate the overall goal of eliminating 600,000 absolutely poverty-stricken populations in 2020.

According to poverty standard of 2,300 Yuan/capita, there are 1,037,400 poor populations in Qujing City, and the poverty incidence is 19.2% at the end of 2012. Poverty alleviation goal in Qujing City in 2014: plan to implement poverty relief and development in 10 whole Xiangs, 53 administrative villages and 50 natural villages. Remove 2000 people; settle 2600 families; input 10 million Yuan into construction project in old revolutionary base areas; implement 30 million Yuan into industrial poverty relief; grant 0.3 billion Yuan loans to families and 2 million Yuan of mutual aid assets for development of poor villages; transfer and train 7000 labor forces; make 0.2 million poor populations get out of poverty.

3.5.1.4 Chuxiong Prefecture

Yi Autonomous Prefecture of Chuxiong formulates and implements a series of national development plan fully combining with the resource and regional advantages in 12th five-year plan period. Centering about the realization of scientific development and new strategic goal and combining with the establishment of green economic province, national culture province and Chinese bridgehead facing southwest, establish a characteristic city in central region of Yunnan; implement five strategies of “urban driving, industrial & commercial city, national characteristics, open development, enriching people and stabilizing city”; adjust economic structure, transform development mode, transform and improve traditional industry, develop emerging industry and expand modern service industry; build traffic belt as cultural tourism belt, and build cultural tourism as economic belt; coordinate urban and rural development; promote adjustment and upgrading of industrial structure; strengthen construction of infrastructures; accelerate the construction of characteristic cities in Chuxiong; construct open cooperation pattern; maintain social harmony and stability; become the leading of Yi Prefecture in the aspects of economic development, cultural prosperity, emergent vitality, favorable ecology, harmony and safety.

In order to get out of poverty in poor and backward areas of minorities and seek for development, Chuxiong Prefecture is planning and implementing the poverty relief and development project in “12th five-year plan” period. Mainly include: effectuating “988” goal in farmers, natural villages and administrative villages in poor areas; stress on 9 points “road works, water control, electricity, forest protection, culture, school, medical service, settlement and structure adjustment”; carry out poverty relief in 2 counties, 7 whole Xiangs and 3,000 whole villages; promote project construction in 5 old revolutionary base areas; establish 100 model villages of national unity; support 500 model villages of characteristic industry; train and transfer 125,000 rural labors; grant 1.2 billion Yuan of soft loans to families and 0.3 billion Yuan of soft loans to enterprises; support 100,000 peasant households and 100 leading enterprises; remove 30,000 rural poor populations for poverty relief; transform rural dangerous

houses, anti-seismic houses and settlement houses up to 12,000.

3.5.1.5 Yuxi City

The main economic and social development goal in Yuxi City in “12th five-year plan” period: GDP reaches 130 billion Yuan in 2015; general financial revenue reaches 60 billion Yuan and local financial revenue reaches 17 billion Yuan; the general budget revenue as for local finance reaches 12 billion Yuan; the urban per capita disposable income reaches 22,500 Yuan and the rural per capita disposable income reaches 8000 Yuan.

According to 2300 Yuan of new rural poverty standard, the number of rural poor families was 113,000 and the number of poor populations was 416,000, accounting for 31.3% of total rural populations (1,331,000) up to the end of 2011 through poor population recognition from urban poverty relief system. The goal and task of poverty relief and development in “12th five-year plan” period: consolidate and promote current results of poverty relief; carry forward the process of 340,000 rural poor populations getting out of poverty; implement poverty relief and problem solving as for 23,400 deep-seated poverty populations; make 250,000 rural populations with low income get out of poverty up to 2015; make the deep-seated poverty populations have food, water, houses, education, minimum living standard, medical care and industries. According to Implementation suggestion of “tourist industry construction year” in Yuxi City, the number of domestic and foreign tourists will reach 20 million in 2015; the tourism income keeps an over 16% growth speed annually, and the total tourism income breaks through 10 billion Yuan.

3.5.1.6 Honghe Prefecture

The main economic and social development goal in Honghe Prefecture in “12th five-year plan” period: get 124 billion Yuan in 2015; per capita GDP reaches 26,000 Yuan; industrial restructuring proportion is 11.5:55:33.5; the gross output value of agriculture, forestry, animal husbandry and fishery reaches 29.5 billion Yuan; the rural per capita net income is 6100 Yuan; the total grain output is above 1.5 million tons.

According to the poverty standard of 2300 Yuan/capita, there were 1,038,100 poor populations up to the end of 2012. Main task and goal of poverty relief and development in 2014: solve the problems of food, clothing and income increase of 150,000 poor populations; carry out poverty relief in 1000 natural villages and 6 whole Xiangs; transfer and train 18,000 labors in poor areas; remove and settle 2,700 populations for poverty relief; settle 4000 families; cooperate with financial department; centering about industrial development, grant over 0.5 billion Yuan of loans and over 0.2 billion Yuan of soft loans as for poverty relief projects; strive for over 0.2 billion of social poverty relief capital and 80 million Yuan of poverty relief funds from Central Government and provincial finance industry; achieve the annual goal and aim in old revolutionary base areas and villages in the aspects of solar energy, mutual-assistance capital pilot and deepening poverty relief in poor areas.

The development goal of tourism in the whole prefecture in 2014: the number of domestic and foreign visitors is 20.27 million with 16% year-on-year growth; get 16.4 billion Yuan of gross tourism income with 32.71% year-on-year growth.

3.5.1.7 Wenshan Prefecture

The development goal of Wenshan prefecture at the end of “12th five-year plan”: five economic indexes double (GDP, general budge revenue of local finance, fixed investment in the whole society, total retail sales of consumer goods and rural per capita net income); the proportion of value added in primary industry, secondary industry and tertiary industry is adjusted to 16:45:39; the urban per capita disposable income and rural per capita net income are increased by over 12% and 17% respectively.

Up to the end of 2012, the number of rural poor populations with less than 2,300 Yuan of per capita net income was 607,300 million, including 100,000 deep-seated poverty

populations with less than 785 Yuan; nearly 9,000 villages (team) have not implemented new rural construction, so the task of poverty relief and problem solving was tough. The goal of poverty relief in 2014: the special capital of financial poverty relief is 0.48 billion Yuan, increasing by 15% compared to that in 2013. Establish 1,200 villages to carry out new rural projects and 4 whole Xiangs to carry out projects; make 80,000 populations get out of poverty; make the rural per capita net income in poor areas higher than the average level in the whole prefecture.

The expected goal in tourism in 2014: the number of domestic and foreign visitors is 8,643,800 with 11% of year-on-year growth. The total tourism income reaches 8.4 billion Yuan, with year-on-year increase of 22.97%.

3.5.1.8 Pu'er City

Pu'er City also establishes and implements 12th five-year plan centering on the development of minorities. In the aspect of infrastructure construction, Simao – Xiao Meng Yang highway, Simao – Lancang secondary road, Wuliang Mountain and Ailao Mountain economic trucks are built successively; Mogan – Simao highway, Lancang – Xiaoheijiang and Pu'er national park ring roads (6 secondary roads) will be built; 9,160km of road expands in villages; 16 urban road networks (25.6km) are built newly; a batch of large and middle -scale hydropower stations (including Nuozhadu) and middle -scale reservoirs (including Jingmenkou reservoir, Zhenyuan Wuyi reservoir, Lancang Little Dam reservoir, etc.) are put into construction; accelerate the engineering of “expansion in south, building in north, extension in east and renovation in middle” in downtown; accelerate the construction space of counties and characteristic towns; steadily carry forward urbanization construction.

Strive to build national green economic pilot and demonstration area in the aspects of industrial cultivation and optimization. In April, 2014, Development Plan for Building the National Green Economic Experiment Demonstration Area in Pu'er was approved by National Development and Reform Commission (NDRC), and seven major tasks, which are focus on the implementation and optimization of national spatial development pattern, promote green production mode, build 4 national major green industrial bases, promote green development in the whole society, strengthen the ecological construction and environmental protection, strengthen the infrastructure support for green development and innovate green development system and mechanism, were put forward.

In social and livelihood aspects, science and technology investment has increased year by year, and education and health investment have multiplied, focusing on the improvement of education and medical conditions. Vigorously promote the improvement of social security systems such as urban residents' endowment insurance, unemployment insurance, medical insurance and new rural cooperative medical insurance, etc. Focus on the poverty alleviation and development of the poverty and backward areas through a variety of methods such as comprehensive poverty alleviation, special poverty alleviation, industry of poverty alleviation, social poverty alleviation, utilization of foreign capital for poverty alleviation, etc.

3.5.1.9 Xishuangbanna Prefecture

Xishuangbanna Dai Autonomous Prefecture has a minority population as high as 77.62% and made a series of project planning and schedule which were implemented during the “Twelfth Five Year Plan” period to promote the development of local minority.

Accelerate the transformation of economic development mode and build a more complete industrial system. Mainly from the following four aspects: speed up the development of modern agriculture; promote the new industrialization development; foster the four pillar industries which are natural rubber, Dai medicine and South medicine, ecological food, ecological products and cultural tourism; adjust and optimize economic structure.

Vigorously promote the infrastructure construction, building a more perfect urban system. Mainly include three aspects which are speeding up modern infrastructure construction, speeding up the building of new socialist countryside, constructing the reasonable layout of urban and regional development pattern.

Plan the harmonious development between human and nature as a whole and build more beautiful ecological environment. Mainly include promoting the construction of an ecological prefecture and the construction of a maintenance-minded society.

Promote all-round progress in all social undertakings and build a sounder people's livelihood security network. Build up a sounder people's livelihood security network through vigorously developing science and technology enterprises, strengthening talent intelligence security capability, giving priority to the development of education, expanding employment and improving social security system, paying special attention to poverty alleviation and strengthening the supervision of food and drug safety.

Further deepen the reform and opening up, building a more vibrant system and mechanism. Further deepen the system reform of all industries and inject vitality into development; promote the reform and development of land reclamation; improve the level of opening up and regional cooperation through increased investment and optimized investment environment.

Strengthen democracy and the legal system, building a more harmonious social development environment.

3.5.1.10 Dali Bai Autonomous Prefecture

During the "Twelfth Five Year Plan" period, Dali Prefecture planed to the center urban construction project which takes central town and "central village" and model village as the focus to speed up the economic and social development of minority area, and this project directly benefited 55,728 households, 220870 minority people. First is the construction of central market towns, which selected 24 central market towns with 4million yuan investment for each town to strengthen the construction of public facilities, constantly improving the service function; second is the construction of "central village" and central market towns support 120 "central villages" with an annual construction of 24 villages and 0.4million yuan subsidies for each village to actively create an civilized, united and harmonious ethnic area; third is the construction of model villages and plan to build 180 ethnic natural villages with an annual construction of 36 villages and 0.3million subsidies for each village to focus on the development of village renovation and construction of national unity and progress. During "Twelfth Five Year Plan" period, Dali Prefecture will select the central market town which plays a leading role and has strong radiation as the leading area, and plan to construct 24 central market towns, 120 central villages and 180 model villages with a high starting point. Dali Prefecture arranges 2.1million yuan of special funds to build 5 minority ethnic natural villages at Yangbi, Binchuan, Nanjian, Jianchuan and Heqing and combined with surrounding prefectures and cities, and now the project is fully implemented. In Miao, Lisu and Lagu minority areas of Yunlong, Yongping and Binchuan to carry out off-site relocation for poverty alleviation, demonstration for poverty alleviation in extremely poor ethnics, and in surrounding combination areas build the pilots for the poverty alleviation of minority natural villages.

3.5.1.11 Baoshan City

Baoshan city focuses on the implementation of the prospering frontier and enriching people project during "Twelfth Five Year Plan" period. By the end of 2015, strive to make Tengchong County and Longling County have road connection and comprehensively improve infrastructure construction of energy and communication, etc. and increase the urbanization rate to around 30%; further optimize economic and industrial structure, and the social security system coverage rate reaches more than 98%; support the development of ethnic groups with small populations. By 2015, realize "Five Supply Ten Having" for the inhabited villages of ethnic groups with less

populations; basically realize “one reduction, two achievement, three improvement” for the inhabited area of ethnic groups with less populations; support the development of ethnic minorities living in scattered. Focus on the construction of model villages and annually support 2-5 villages with 0.5million yuan support for each village, and strive to basically realize the target of “Four Supply Five Having Three Achievement” for the natural villages under support by the end of “Twelfth Five Year Plan”; carry out the protection and development project for the minority ethnic villages with distinctive features; implement the project to improve the quality of ethnic minority workers and strive to reach the target by the end of “Twelfth Five Year Plan” that each minority family has sensible person for science and technology and a master of finance, and each minority family at least masters two kinds of new practical agricultural technology, and each minority village at least has one bellwether who can lead the villagers to get rich, and the proportion of minority officials in the whole cadre team continuously increases; develop the cultural and physical education undertakings of the ethnic groups; implement the national unity and security project. Build a number of national unity and progress demonstration villages and demonstration communities to make the public services such as education, science and technology, health, employment, social security and legal aid, etc. in minority areas more complete and enable the masses of all ethnic groups in the city sharing the social development achievements.

3.5.1.12 Dehong Prefecture

Centering on the outline of the twelfth five year plan for the economic and social development in Dehong Prefecture as well as the specific requirements proposed in the twelfth five year plan for economic and social development of ethnic minorities and ethnic minority areas in Yunnan Province and according to the actual situation of ethnic minorities and ethnic minority groups in Dehong Prefecture, develop and implement a series of projects for promoting the development and support of ethnic minorities in Dehong Prefecture. Centering on the target of basically realizing the “Five Supply Ten Having” and “one reduction, two achievement, three improvement” for the inhabited administrative villages of ethnic minorities in Dehong Prefecture in 2015, focus on the implementation of six major projects which are “infrastructure construction, development of specialty industry and the masses’ income increase, the people’s livelihood security, the prosperity and development of ethnic culture, human resources development and harmonious homes building projects”.

In order to help the poor ethnic minority areas get rid of poverty and seek development as soon as possible, Dehong Prefecture has planned during the Twelfth Five Year Plan period and implemented a series of targeted poverty alleviation and development projects which mainly includes six major alleviation projects: the implementation of poverty village “whole village advancement” of 1,000 natural villages (including: 421 deep poverty villages); the implementation of “whole Xiang advancement” of 10 Xiangs; the implementation of off-site relocation of 10,000 people for poverty alleviation; the implementation of housing project for 5,000 households for poverty alleviation; the implementation of training and transferring employment of 20,000 of poor rural labor; the implementation of industries for poverty alleviation (250,000 mus of economic crops and forest-fruit, 50,000 heads of livestock and poultry).

3.5.1.13 Lijiang City

In order to further promote the economic and social development of minority areas with less populations, promote national unity, and improve the production and living conditions of ethnic minorities, Lijiang city carries out drinking water project with an investment of 100,000 yuan at Lianshan Group, Songping Village; carries out drinking water project with an investment of 59,000 yuan at Xiaoyakou, Songping Village located at the northwest of Yongsheng County; carries out drinking water project with an investment of 91,000 yuan at Niuwozi and Xiadounaozi of Dounaozi Group,

Songping Village. Through the implementation of the project, promote the economic and social development of the whole Xiang, and significantly improve the level of science and technology of agricultural production, laying a solid foundation for strengthening national unity and building harmonious society.

3.5.1.14 Nujiang Lisu Autonomous Prefecture

Nujiang Prefecture focuses on the implementation of “3121” project, in accordance with planning, to ensure that the necessary integration of funds in place, and under the policy of focused assistance and prior to carry and try to explore the route and accumulate the experience for promoting the building of a demonstration prefecture with the funds of 91, 000 yuan. Continue to complete the work of Drung people, under the counterpart support of Shanghai, during the strengthening and promoting period at the latter two years, and explore new routes and methods for focusing on the support for minority ethnics to get rid of poverty and get rich as well as make a great-leap-forward and sustainable development.

The construction of asphalt (cement) road for administrative villages realizes the construction of hard road surface for 42 administrative roads; the construction of road for natural villages is available for the villages with appropriate situations and the expected investment is 90 million yuan; transform the 84,000 mu of middle-and-low fielding fields to basically achieve the level of more than 1 mu of stable agricultural land per capita and the expected investment is 84 million yuan; solve the drinking water problem for 70 natural villages, 11,000 people and the expected investment is 5.5 million yuan; implement the construction of phone connection for 12 natural villages and the construction of power supply for 18 natural villages, 394 households and the expected investment is 7.88 million yuan. Support the building of farmer professional cooperative and rural professional associations and the expected investment is 1.05 million yuan; build 32 administrative village agriculture supermarkets and the expected investment is 0.32 million yuan.

3.5.1.15 Diqing Tibetan Autonomous Prefecture

In 2013, invested 1.3 million yuan for the development of the minorities with less populations, 0.6 million yuan for the construction of “ethnic unity demonstration village”, 0.5 million yuan for the construction of demonstration point of supporting deep poor minority, provincial national mobile funds of 2.44 million yuan, project funds for diaspora ethnic areas of 5.22 million yuan, project management funds of 70,000 yuan, computer project funds for popularizing agricultural expert system of 0.17 million yuan, minority education allowance of 0.2733 million yuan, interest discount funds for national trade and national commodity specific production enterprises of 1.19 million yuan, and the investment was increased by 883,3000 yuan compared with the investment of 9.69 million yuan in 2008, i.e. increased by 9.1%. Various projects are used to solve the special difficulties in production and daily life as well as social undertaking of the ethnic minority people in our prefecture, and continuously improve the production and living conditions of the national regions and ethnic minorities in our prefecture, and continuously improve people’s living standard, and make steady progress in the construction of “national unity model village” and development pilots of ethnic minorities with less populations and deep poor minorities, etc. and pay attention to the correcting and making up work for projects, making the national frontier minority people who are beyond the coverage of big projects feel the warm of the party and the country as well and making concrete expression of the superiority of the party’s national policy and playing a crucial role in promoting national unity, maintaining social stability and promoting the healthy development of progressive undertaking for national unity.

3.5.1.16 Lincang City

Lincang city developed the “Twelfth Five Year Plan” for speeding up the economic and social development of ethnic minorities and ethnic areas. There are eight main

aspects: the project of improving people's livelihood, including: reconstruction of rural dilapidated houses, off-site relocation and middle-and-low yield land reform, etc.; the project of infrastructure construction, including: rural road hardening construction and rural safe drinking water construction, etc.; social security project, including: new rural endowment insurance subsidies and minimum living security for rural residents, etc.; the project of developing industries with special features, including: infrastructure construction of the agriculture with special features and advantages, standardized farming community (field) construction, etc.; the project of promoting national education science and technology, including compulsory education budget subsidy and the construction of primary and secondary schools in minority areas, etc.; the project of developing national culture, mainly including: construction of the villages with special ethnic features, construction of the demonstration point for inheriting traditional ethnic minority culture, the rescue, collection and protection of ethnic minority relics and ancient books, etc.; the project of improving the quality of workers, including: training of ethnic minority management personnel and training of ethnic culture inheritor, etc.; national unity and security project, mainly including: construction of national unity model village and construction of national unity education base

3.6 Ongoing World Bank and ADB-financed Projects in Yunnan Province

In recent years, ADB has carried out a number of road development projects in Yunnan Province and these projects help to reduce travel time as well as the travel cost, and reduce traffic accidents and provide more opportunities for agricultural and non-agricultural economic activities. These projects improve the local road traffic infrastructure and meanwhile pay high attention to the protection of minority culture, medical treatment and public health, ecological environment, the rights and interests of women and other aspects. In the comprehensive road network development projects in Yunnan Province, ADB introduces the gender mainstreaming method which can help develop the rural highway maintenance group constituted by women who devote themselves to the routine maintenance of rural highway. In the comprehensive road network development project in Pu'er area, taking into account the actual situations in the project construction site, ADB pays special attention to the protection of minority sacred trees and mountains, and requires the owners to make practical protective measures. For the highway projects of World Bank and ADB implemented in Yunnan Province, see table 10.

Table 10 Ongoing World Bank and ADB-financed Projects in Yunnan Province

Project name	Lending institution	Construction content	Progress
Comprehensive highway development project in Yunnan	Asian Development Bank (ADB)	Build an integrated highway traffic system in the whole province of Yunnan to support the sustainable and rapid development of economy in Yunnan Province	Under construction
The expressway project from Wuding to Kunming	Asian Development Bank (ADB)	The construction of Wuding to Kunming expressway with a total construction mileage of 64.71 kilometers	Completed
Comprehensive highway development project in Pu'er area	Asian Development Bank (ADB)	Including three parts which are the regional highway development, rural road improvement and strengthening institutional capacity	Under construction
Chu-Dar highway projects	Asian Development Bank (ADB)	The construction of Chuxiong to Dali Expressway project with a total construction mileage of 179.27 kilometers	Completed

EMDP of the Yunnan Highway Assets Management Project

Project name	Lending institution	Construction content	Progress
Longling to Ruili expressway construction project	Asian Development Bank (ADB)	The construction of Longling to Ruili Expressway project with a total construction mileage of 157.712 kilometers	Under construction
Center city transport project in southern Yunnan Honghe Prefecture	World Bank	Including the adjustment and transformation of road network functions, management of comprehensive city road corridors, public transport priority and strengthen of institutional capacity	Under construction

4 Legal Framework

This EMDP has been prepared and will be implemented in strict conformity with the laws and regulations of the PRC and Yunnan Province, and the applicable Bank policies. Any change to this EMDP during implementation must be approved by the Bank.

4.1 Policy Basis

- A. Law of the PRC on Regional National Autonomy
- B. Regulations of the PRC on the Administrative Work of Ethnic Townships
- C. Organic Law of Villagers Committees of the PRC
- D. Bank policy on involuntary resettlement
- E. Bank policy on indigenous peoples
- F. Opinions of the Yunnan Provincial Government on the Implementation of Some Opinions of the State Council on Further Developing Minority Cultural Programs
- G. Plan of Yunnan Province for Supporting Small-population Ethnic Minorities
- H. Twelfth Five-year Frontier Revitalization and People Enrichment Plan of Yunnan Province

4.2 Regulations of Yunnan Province to Accelerate Ethnic Minority Development

4.2.1 Key Provisions of the Law of the PRC on Regional National Autonomy

Adopted at the Second Session of the Sixth National People's Congress in 1984, this law provides for the establishment of national autonomous areas. It stipulates that in addition to the same powers as those of local governments, organs of self-government shall also enjoy the following powers:

- Legislative autonomy;
- Autonomous management of local political affairs;
- Autonomous management of local economic development;
- Autonomous management of local financial affairs;
- Autonomous management of local science, education and culture;
- Autonomously organizing local public security forces;
- Autonomous use and development of minority languages; and
- Autonomous training and recruitment of minority officials.

Article 11 The organs of self-government of national autonomous areas shall guarantee the freedom of religious belief to citizens of the various nationalities. No State organ, public organization or individual may compel citizens to believe in, or not to believe in, any religion, nor may they discriminate against citizens who believe in, or do not believe in, any religion.

The State shall protect normal religious activities. No one may make use of religion to engage in activities that disrupt public order, impair the health of citizens or interfere with the educational system of the State.

4.2.2 Key Provisions of the Regulations of the PRC on the Administrative Work of Ethnic Townships

Article 1 These Regulations have been formulated in accordance with the Constitution and other applicable laws to promote the development of economic, cultural and other programs of ethnic townships, protect lawful rights and interests of ethnic minorities, and enhance ethnic unity.

Article 2 Ethnic townships are township-level administrative divisions in

localities inhabited centrally by ethnic minorities.

Townships in which minority population accounts for 30% or more of gross population may apply for the establishment of ethnic townships; any percentage below this shall be allowed in special cases.

Article 21 The administrative work of towns inhabited centrally by ethnic minorities may be carried out by reference hereto.

Article 22 Governments of provinces, autonomous regions and municipalities directly under the central government governing any ethnic township may develop implementation measures in accordance herewith.

4.2.3 Key Provisions of the Organic Law of Villagers Committees of the PRC

Article 7 In a village where people from more than one ethnic group live, the villagers committee shall help the villagers understand the importance of enhancing unity, mutual respect and mutual assistance among the ethnic groups and give them guidance in this respect.

Article 12 Any villager who has reached the age of 18 shall have the right to elect and stand for election, regardless of his ethnic status, race, sex, occupation, family background, religious belief, education, property status and length of residence, with the exception of persons who have been deprived of political rights in accordance with law.

4.2.4 Bank Policy on Involuntary Resettlement

The overall objectives of the Bank policy on involuntary resettlement are as follows:

- Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs.
- Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits. Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs.
- Displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.

4.2.5 Bank Policy on Indigenous Peoples

Objective and policy

The Bank's broad objective towards indigenous people, as for all the people in its member countries, is to ensure that the development process fosters full respect for their dignity, human rights, and cultural uniqueness. More specifically, the objective at the center of this directive is to ensure that indigenous peoples do not suffer adverse effects during the development process, particularly from Bank-financed projects, and that they receive culturally compatible social and economic benefits.

The Bank's policy is that the strategy for addressing the issues pertaining to indigenous peoples must be based on the informed participation of the indigenous people themselves. Thus, identifying local preferences through direct consultation, incorporation of indigenous knowledge into project approaches, and appropriate early use of experienced specialists are core activities for any project that affects indigenous peoples and their rights to natural and economic resources. Cases will occur, especially when dealing with the most isolated groups, where adverse impacts are unavoidable and adequate mitigation plans have not been developed. In such situations, the Bank will not appraise projects until suitable plans are developed by the

borrower and reviewed by the Bank. In other cases, indigenous people may wish to be and can be incorporated into the development process. In sum, a full range of positive actions by the borrower must ensure that indigenous people benefit from development investments.

The project component for indigenous peoples development should include the following elements, as needed:

Legal Framework: The plan should contain an assessment of (i) the legal status of the groups covered by this OD, as reflected in the country's constitution, legislation, and subsidiary legislation (regulations, administrative orders, etc.); and (ii) the ability of such groups to obtain access to and effectively use the legal system to defend their rights. Particular attention should be given to the rights of indigenous peoples to use and develop the lands that they occupy, to be protected against illegal intruders, and to have access to natural resources (such as forests, wild-life, and water) vital to their subsistence and reproduction.

Baseline Data: Baseline data should include (i) accurate, up-to-date maps and aerial photographs of the area of project influence and the areas inhabited by indigenous peoples; (ii) analysis of the social structure and income sources of the population; (iii) inventories of the resources that indigenous people use and technical data on their production systems; and (iv) the relationship of indigenous peoples to other local and national groups. It is particularly important that baseline studies capture the full range of production and marketing activities in which indigenous people are engaged. Site visits by qualified social and technical experts should verify and update secondary sources.

Land Tenure: When local legislation needs strengthening, the Bank should offer to advise and assist the borrower in establishing legal recognition of the customary or traditional land tenure systems of indigenous peoples. Where the traditional lands of indigenous peoples have been brought by law into the domain of the state and where it is inappropriate to convert traditional rights into those of legal ownership, alternative arrangements should be implemented to grant long-term, renewable rights of custodianship and use to indigenous peoples. These steps should be taken before the initiation of other planning steps that may be contingent on recognized land titles.

Strategy for Local Participation: Mechanisms should be devised and maintained for participation by indigenous people in decision making throughout project planning, implementation, and evaluation. Many of the larger groups of indigenous people have their own representative organizations that provide effective channels for communicating local preferences. Traditional leaders occupy pivotal positions for mobilizing people and should be brought into the planning process, with due concern for ensuring genuine representation of the indigenous population. No foolproof methods exist, however, to guarantee full local-level participation. Sociological and technical advice provided through the regional environment divisions (REDs) is often needed to develop mechanisms appropriate for the project area.

Technical Identification of Development or Mitigation Activities: Technical proposals should proceed from on-site research by qualified professionals acceptable to the Bank. Detailed descriptions should be prepared and appraised for such proposed services as education, training, health, credit, and legal assistance. Technical descriptions should be included for the planned investments in productive infrastructure. Plans that draw upon indigenous knowledge are often more successful than those introducing entirely new principles and institutions. For example, the potential contribution of traditional health providers should be considered in planning delivery systems for health care.

Institutional Capacity: The government institutions assigned responsibility for indigenous peoples are often weak. Assessing the track record, capabilities, and needs of those institutions is a fundamental requirement. Organizational issues that need to be addressed through Bank assistance are the (i) availability of funds for investments and field operations; (ii) adequacy of experienced professional staff; (iii)

ability of indigenous peoples' own organizations, local administration authorities, and local NGOs to interact with specialized government institutions; (iv) ability of the executing agency to mobilize other agencies involved in the plan's implementation; and (v) adequacy of field presence.

Implementation Schedule: Components should include an implementation schedule with benchmarks by which progress can be measured at appropriate intervals. Pilot programs are often needed to provide planning information for phasing the project component for indigenous peoples with the main investment. The plan should pursue the long-term sustainability of project activities subsequent to completion of disbursement.

Monitoring and Evaluation: Independent monitoring capacities are usually needed when the institutions responsible for indigenous populations have weak management histories. Monitoring by representatives of indigenous peoples' own organizations can be an efficient way for the project management to absorb the perspectives of indigenous beneficiaries and is encouraged by the Bank. Monitoring units should be staffed by experienced social science professionals, and reporting formats and schedules appropriate to the project's needs should be established. Monitoring and evaluation reports should be reviewed jointly by the senior management of the implementing agency and by the Bank. The evaluation reports should be made available to the public.

Cost Estimates and Financing Plan: The plan should include detailed cost estimates for planned activities and investments. The estimates should be broken down into unit costs by project year and linked to a financing plan. Such programs as revolving credit funds that provide indigenous people with investment pools should indicate their accounting procedures and mechanisms for financial transfer and replenishment. It is usually helpful to have as high a share as possible of direct financial participation by the Bank in the project.

5 Project Impact Analysis

The highway traffic in Yunnan Province has a large scale of total distance, but with low technical level, low grade of road surfaces and low proportion of high grade of highways. Due to the low overall level of road network and poor service level plus the increasing proportion of heavy duty transport in the traffic amount, the road pavement damage is getting worse, and with the expanding of road network scale in the whole province, the maintenance funds demand and maintenance funds gap are increasing. The main purpose of the project is to scientifically develop medium and long term of highway maintenance plan, optimize the maintenance scheme and plan of arterial highway and improve the efficiency in the use of maintenance funds to the general goal of preserving and increasing the value of arterial highway asset in the whole province and gradually increase the maintenance technology level of arterial highways and continuously improve the road technology conditions to meet the needs of speeding up the economic development in Yunnan Province. While the project construction vigorously promotes the local economic and social development, it may bring temporary negative influence to the residents along national and provincial arterial highways; however, these negative influences can be eliminated or relieved through corresponding measures or methods.

5.1 Project Impacts on Local Economic and Social Development

The Project can not only improve the local traffic conditions, but also promote local social and economic development as well as the transport industry, expand employment and accelerate the development of tourism resources and energy, and its impact on local socioeconomic development mainly includes the following aspects.

5.1.1 Impacts on Economic Development

The Project will greatly improve the road transport capacity and lay a solid foundation for the resource development and economic development of the areas along the road, forming regional development advantages, and the impact on regional economic development is mainly manifested in the following aspects:

5.1.1.1 Driving the development of agriculture along the highway

There are 7 climate zones across Yunnan, namely north tropical, south subtropical, mid-subtropical, north subtropical, warm temperate, middle latitude temperate and highland climate zones. The climate feature combines low-latitude, monsoon and mountain climate features, The climate feature of Yunnan is the regional difference in climate and vertical variation; small annual temperature difference and large diurnal temperature range; abundant precipitation, clear wet and dry climate and uneven distribution. It is the diversity of climate types makes various types of commercial crops of different areas in Yunnan Province. These commercial crops are mainly sold to outside the county and province except the part for self-sufficiency and sold within the county.

The construction of this project will convenient transport conditions for the commercial crops and will definitely accelerate the circulation of agricultural products and information exchanges, promoting the continuous adjustment and optimization of agricultural production structure and making agricultural products meet the market demand, so as to promote the development of agriculture.

Table 11 Summary of Main Commercial Crops and Transport Modes in the Project Area

Areas involved in the project	Farm products	Mode of transport
Xishuangbanna	Rubber, sugar cane	Highway

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Pu'er	Tea	Highway
Lincang	Walnut, tea	Highway
Dehong	Sugarcane, tobacco	Highway
Chuxiong	Walnut	Highway
Kunming	Vegetables, flowers	Highway
Zhaotong	Gastrodia elata	Highway
Yuxi	Tobacco	Highway
Red River	Tobacco	Highway
Wenshan	Pomegranate, panax pseudo-ginseng	Highway
Qujing	Oil, sericulture	Highway
Diqing	Highland barley	Highway
Lijiang	Rice, sugar cane	Highway
Dali	Tobacco, walnut	Highway
Nujiang	Sugarcane, coffee, tropical fruit	Highway
Baoshan	Tobacco, coffee	Highway

5.1.1.2 Promoting the development of tourism

The development of tourism is closely related to the improvement of traffic conditions. Yunnan is a province with the most concentrated tourism resources in China and it has rich tourism resources; the famous scenic spots are listed in the following table:

Table 12 List of Scenic Spots in Yunnan Province

Name	Main attractions	Level
Kunming Dianchi Lake Scenic Area	Kunming Dianchi, Xishan, Grand View Pavilion, Golden Shrine, Expo Park	National
Stone forest scenic spot	Stone Forest in Shilin County, Big Pile of Water, Long Lake	National
Dali scenic spot	Dali Cangshan Mountains, Erhai, Cibi Lake, Shibao Mountain, Jizu Mountain, Weibao Mountain	National
Scenic spots in Xishuangbanna	Lancang River, Olive Dam, Nanru Mountain, Wild Elephant Valley, Octagonal Pavillion in Jionghong	National
Lijiang Yulong Snow Mountain Scenic Area	Old Town of Lijiang, Black Dragon Pool, Yulong Snow Mountain, the First Bay of Yangtze River, Lugu Lake	National
Three Parallel Rivers Scenic Area	The Nujiang Valley, Diqing Shangri-La, Lijiang Tiger Leaping Gorge	National
Tengchong Volcano Geothermal Scenic Area	Volcano, Cloud Mountain, Laifeng Mountain, Memorial Cemetery in Tengchong County	National
Ruili River, the Great Yingjiang Scenic Area	Ruili County Lane Island, Jiegao, Zhangfeng Town, Manfeilong, Le Sister Pagoda	National
Jianshui scenic spot	Chaoyang Lou, Confucian Temple, Zhilin Temple, Swallow Cave in Jianshui County	National
Jiuxiang scenic spot	Jiuxiang Cave, Canyon, Yi Amorous Feelings in Yiliang County	National
Baoshan Bonan Trail Scenic Area	Jihong Bridge, Taibao Park, Qingping Cave, Gaoligong Mountain in Baoshan	Provincial
Chuxiong Purple Mountains Scenic Area	Lucheng, Zixi Mountain, Cangling in Chuxiong	Provincial
Wuding Lion Mountain Scenic Area	Lion Mountain Zheng Xu Temple, Qiaoyan, Immense Forest in Wuding County	Provincial
Yuanmou scenic spot	The Old Town, Museum, Banguo, Jinsha River Valley of Yuanmou County	Provincial
Lufeng scenic spot	Dinosaur Mountain, Lime Dam, Mount Wutai of Lufeng County	Provincial
Yongren Fang Mountain Scenic Area	East, West and Middle Area of Yongren County Table Mountain	Provincial

Mouding scenic spot	Buddhist Mountain, Qingyang Reservoir Dam, Unity Dam in Mouding County	Provincial
Dayao County Huashan Scenic Area	Tanhua Mountain, Baicaoling, Miaofeng Mountain, Santan Waterfall in Dayao County	Provincial
Baizu Mountain, Ejia Scenic Area	Baizu Mountain, Sanjiangkou, Ejia in Shuangbai County	Provincial
Yuxi Jiulong Pool Scenic Area	Jiulong Pool, White Dragon Pool, Nie'er Park, Luo River, Karst Cave in Yuxi City	Provincial
Fuxian Lake, Xingyun Lake Scenic Area	Fuxian Lake, Xingyun Lake, Gu Mountain in Chengjiang County	Provincial
Sea Xiushan Scenic Area	Xiushan Park, Qilu Lake, Donghua Mountain in Tonghai County	Provincial
Asan, Jinpingshan Scenic Area	Eshan County Jinping Mountain, Shuangjiang, West Xiang	Provincial
Alu Ancient Cave Scenic Area	Alu Ancient Cave, Wanlu Waterfall, Banqiao River in Huxi County	Provincial
Gejiu Manhao Scenic Area	Baohua Mountain, Manhao, White Cloud Mountain, Datun Lake in Gejiu City	Provincial
Yuanyang Guanyin Cave Scenic Area	Guanyin Mountain, Malizai River, Sheng Village, Dueyi Village in Yuanyang County	Provincial
Shiping Yilong Lake Scenic Area	Shiping County Yilong lake, Xiushan	Provincial
Hekou Nanxi River Scenic Area	Nanxi River, Qiaotou, Sand Dam, Yao Mountain in Hekou County	Provincial
Maitreya Bailongdong Scenic Area	White Dragon Cave, Sunranweng Tomb, Hot Pool in Maitreya County	Provincial

Highway transport is the main transport having the advantages such as convenient and fast, moderate cost and capable of reaching remote areas, etc. According to the survey, highway freight volume and passenger volume account for a considerable large proportion. From the flow of tourists in Yunnan Province we can see that the tourist travel mainly depends on highway, and the tourists outside the province mainly choose the highway as the main travel mode in their visit to Yunnan. The implementation of this project will promote the convenience of tourists, increasing the tourist volume and promoting the tourism development in the cities along the road. Meanwhile, with the rapid development of available road, self-driving tour is increasing and will be more obvious in the future.

Zhaotong

Taking Zhaotong as an example, it is located in the northeast of Yunnan Province, bordering Guizhou and Sichuan provinces with south higher than north. It is an ancient and mysterious land. Due to the cross lying of Jinsha River, Niulan River and other rivers, there are precipitous rock faces and sheer cliffs, deep green mountains and diverse climates within the territory. There are mountains standing side by side, waters cross flowing, passes and four fortresses, forming a grand terrain, and the three rivers, Jinsha River, Heng River and Niulan River, flow in parallel which is grand and magnificent and soul-stirring. River Valley belongs to tropical, subtropical climate and the high mountain belongs to cold paramos, therefore, people can feel the extraordinary landscape of "mountain at four seasons, ten miles with different weathers". In history, Zhaotong was an important gateway from Yunnan Province to Sichuan and Guizhou provinces and it was a significant access for Central Plain culture entering into Yunnan and was China's famous communication hub of "Southern Silk Road" and known as "Key to Southern Yunnan, throat of West Sichuan".

Zhaotong tourist scenic spots: Hot Springs Park in Western Grand Canyon, Tashi Meeting Venue, Liangheyuan Scenic Area, Guandou Mountain Stone Carving Art, Snowy Mountain Virgin Forest Scenic Area, Tiantai Mountain Cave, and Washi Boren

Suspending Coffin. According to the passenger flow on the tourist market and the prediction of tourist volume we can see that highway is the common and important travel mode for the tourism in Zhaotong. The implementation of this project will have a significant effect on promoting the tourism industry in Zhaotong city.

Table 13 Volume Forecast of the Tourism Market of Zhaotong City

Traffic node	Traffic	Main tourist market	Passenger flow ratio (%)	Passenger flow volume cardinality estimation (0,000)	Growth ratio of the nearest five years (%)	Passenger flow volume range of the next five years (0,000)
Luzhao Area	<ul style="list-style-type: none"> •Highway—Chongqing Kunming Expressway, 213 National Road •Railroads – Neijiang to Kunming railway, Chongqing to Kunming railway, Zhaotong to Panzhihua Railway •Airlines - Zhaotong new airport 	<ul style="list-style-type: none"> •Yunnan: Kunming City, Qujing City, Yuxi City, Dali, Lijiang City, Zhaotong City •Southwest: Yibin City, Neijiang City, Zigong City, Chongqing City, Panzhihua City, Chengdu City •Other domestic cities: the coastal developed cities •International: East Asia, Southeast Asia, European and American developed countries 	About 40% of domestic and foreign tourists in 2013	550.8	5%-15%	578.34- 633.42
	<ul style="list-style-type: none"> •Highway—Chongqing to Kunming Expressway, Xiangjiaba to Meng Gu Expressway along the Jinsha River •Railroads—Chongqing to Kunming Railway •Water transport— Shuifu Port 	<ul style="list-style-type: none"> •Yunnan: Zhaotong City • Southwest: Yibin City, Neijiang City, Zigong City, Luzhou City, Chongqing City, Chengdu City 	About 20% of domestic and foreign tourists in 2013	275.4	5%-10%	289.17- 302.94
Yongshan County	<ul style="list-style-type: none"> •Highway—Xiangjiaba to Meng Gu along the Jinsha River Expressway •Water transport— Xiluodu Port 	<ul style="list-style-type: none"> •Yunnan: Zhaotong City •Southwest: Yibin City, Neijiang City, Zigong City, Luzhou City, Chongqing City, Panzhihua City 	About 5% of domestic and foreign tourists	68.85	3%-5%	70.92- 72.29
Qiaojia County	<ul style="list-style-type: none"> •Highway— Xiangjiaba to Meng Gu Expressway, along the Jinsha River and Yibin to Panzhihua Expressway •Water transport— Baihetan Port 	<ul style="list-style-type: none"> •Yunnan: Zhaotong City • Southwest: Yibin City, Luzhou City, Zigong City, Chongqing City, Chengdu City 	About 10% of domestic and foreign tourists	137.7	3%-8%	141.83- 148.72

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Qiaojia County	<ul style="list-style-type: none"> •Highway _ Zhao Lu Expressway, Yi Bi Expressway •Railroads—Cheng Gui railway, Long Huang railway 	<ul style="list-style-type: none"> •Yunnan: Zhaotong City •Southwest: Yibin City, Luzhou City, Chengdu City, Bijie City, Zunyi City 	About 15% of domestic and foreign tourists	206.55	5%-10%	216.88- 227.21
Zhanxiong County	<ul style="list-style-type: none"> •Highway _ Zhao Lu Expressway, Yi Bi Expressway •Airlines - Zhenxiong Airport 	<ul style="list-style-type: none"> •Yunnan: Kunming City, Qujing City, Yuxi City, Zhaotong City •Southwest: Yibin City, Luzhou City, Chongqing City, Bijie City, Guiyang City •Other domestic cities: North Bay Area, the middle reach of the Yangtze River 	About 10% of domestic and foreign tourists	137.7	3%-8%	141.83- 148.72

Pu'er City

Taking Pu'er as an example, its development of tourism is backward compared with other prefectures and cities in Yunnan Province. However, Pu'er has regional advantages (the cross zone between mainland tourism circle and Southeast Asian international tourism circle), resource advantages (pleasant climate, beautiful natural scenery, ethnic minority customs, tea culture) and market advantages (located in the southwest of Yunnan Mekong River international tourism zone), and these advantages form a comprehensive advantage of "obvious advantages in industries, opening up along border, recreation and maintaining health and urban and rural overall development", making a solid foundation and potential for building a new tourism resort for recreation and maintaining health as well as an important growth point in the second startup of tourism in Yunnan. The implementation of this project will significantly improve the road management level of Pu'er, and further facilitate the visitors accessing by highway, increasing the passenger flow volume and vigorously promote the development of local tourism industry. During the construction of this project for improving local highway transport, the relevant county (city) and its competent departments of project area will achieve better results for the projects they have planned for the improvement of tourism in ethnic minority areas.

At present, Pu'er has four tourism projects under construction which take the minority customs as the special features (see table 14). Through improving the level of road maintenance and the traffic conditions, the transport time of construction materials to the construction sites will be effectively shortened and the transport costs will be reduced. After the completion of the project, it will be more convenient for tourist.

Table 14 Summary of Minority Customs Tourist Attractions in Pu'er City

Project name	Construction content and scale	Construction location
Longtan Valley style rural tourism	It covers an area of 3000 mus, building villages with ethnic minority special customs, developing ethnic minority handicrafts, exploring ethnic minority culture and developing water tourism.	Simao Longtan Xiang
Jiangmai tourism development	The construction, protection and tourism development of 8 national villages which are Jiangmai tourism town and Jiangmai tourism village, etc.	Lancang
Lancang Lahu style garden building	New construction of ethnic costume museum, ethnic handicrafts exhibition, ethnic cuisine promenade and ethnic commercial pedestrian street	Lancang
Ximeng "Carnival Wa Tribe" Tourism Development	Reconstruction of Wa style buildings, the protection of Ximeng Dragon pool, the construction of climb street ethnic ecological history museum and tourism facilities	Ximeng

Nujiang Prefecture

Taking Nujiang Prefecture as an example, it is located in the northwest of Yunnan Province and the middle reaches of Nujiang, and it got its name because Nujiang runs through its whole territory. Nujiang is the joint part connecting China, Myanmar, Yunnan and Tibet and has a border line up to 449.5 kilometers. Nujiang is connected to Tibet Autonomous Prefecture to the North, next to Diqing Tibetan Autonomous Prefecture to the northeast, next to Lijiang City to the east and connected to Dali Bai Autonomous Prefecture to the southwest and connected to Baoding City to the south, and it is the only Lis Autonomous Prefecture in China and Dulong and Nu minorities are peculiar to Nujiang. Nujiang Prefecture has the most ethnic groups and the

minorities with less populations, its scenery is beautiful and features are special which is suitable for the development of tourism; however, the limit of transport makes it hard to develop the superior tourist resources such as the cloudcapped Gaoligong Mountain, Meili Snow Mountain and the rushing Nujiang, etc. The investment and construction of this project will greatly improve the road traffic capacity of Nujiang area and improve the transport between Nujiang Prefecture and Diqing and Baoshan, attracting more tourists and preferably promote the comprehensive development of economy and society in ethnic minority areas.

5.1.1.3 Impact on city development

The construction of arterial highway asset management in Yunnan Province will strengthen the connection among the Xiangs and towns along the project and further promote the economic and traffic relations between the cities and towns and villages along the project, playing an important role in the economic and social development in Yunnan Province.

Taking Pu'er as an example, the bus available rate for the administrative villages is 78.3% by now, and with the construction of the project, the road maintenance level and infrastructures will have an obvious improvements, together with other project construction by the municipal transport department, these will help to further complete the formation of a convenient rural road passenger transport network which takes the city as the center, the Xiangs and towns as the nodes to connect and radiate villages. By 2014, Pu'er will have a 100% passenger bus available rate for all Xiangs and towns and 80% for administrative villages and the national and provincial arterial highways will effectively connect the roads of Xiangs and towns, so as to realize the smooth operation of traffic.

Table 15 Rural Bus Availability in Pu'er City

County (district/city)	Xiangs and towns			Administrative village			
	Total	Number of Xiangs and towns with passenger bus passing	Traffic rate of Xiangs and towns (2014)	Number of village committee	Number of administrative villages with bus service	Traffic rate of administrative villages (2014)	Traffic rate of administrative villages (plan in 2015)
Simao	7	7	100%	60	55	92%	100%
Ning'er	9	9	100%	85	79	93%	94.12%
Mojiang	15	15	100%	163	114	70.83%	72.39%
Modong	13	13	100%	166	142	85.50%	86.15%
Jinggu	10	10	100%	132	97	74%	74.24%
Zhenyuan	9	9	100%	109	76	69%	70.64%
Jiangcheng	7	7	100%	48	32	68%	68.75%
Menglian	6	6	100%	39	34	87%	89.74%
Lancang	20	20	100%	157	125	72%	80.25%
Ximeng	7	7	100%	36	25	61%	72.22%
Total	103	103	100%	995	779	78.30%	80%

5.1.1.4 Impact on rural community development

Due to the limit of traffic conditions, the minority villages in Yunnan Province belong to poor backward areas with low productivity and undeveloped culture, and many natural resources and tourism resources are not well developed and utilized, resulting in the slow economic development and low level of income of the farmers. The construction of arterial highway asset management in Yunnan Province will completely change the status of backward transport conditions in the areas along the project, and will have an important positive effect to promote local economic development, alleviate poverty, and especially strengthen the unity of the minorities along the border and consolidating national defense. In addition, the project will improve the level of

highway network and the service of local areas, so as to effectively give play to the radiation function of national and provincial arterial highways.

5.1.2 Impacts on the Transport Industry

5.1.2.1 Operational cost savings of road users

After the completion of highway maintenance mechanization and emergency center, the office and production operation conditions and working conditions of maintenance personnel will be improved and the maintenance quality will be improved, and then the highway overall technical conditions and service level will be improved, reducing the automobile comprehensive operation costs such as vehicle fuel consumption and wear, etc. The 63 sections of highway with mechanization maintenance and emergency centers radiating (managing and maintaining) a total of 10,573 kilometers of national and provincial arterial highway and provide timely and routine maintenance for the 10,573 kilometers of highway through improving the efficiency and level of maintenance, improve the maintenance quality and prolong the maintenance cycle to save the cost of road maintenance and reduce the transport cost of road users and save travel time.

The implementation of this project (225 sections of highway with mechanization maintenance and emergency centers) will reduce the vehicle operation cost by 1% for the road users. Calculating according to the energy saving index of the road users, after the completion of the project, the fuel consumption for small passenger cars will be reduced from 9.8 to 7.9 liters per hundred kilometers. According to the statistic in the evaluation conclusion of feasibility study report of the secondary highway construction project in Yunnan Province, the comprehensive transport cost (including fuel consumption, car depreciation, maintenance fees and car wear fee, etc.) of a small passenger car on poor road conditions is 80yuan/hundred kilometer, and it is about 69yuan/hundred kilometer on good road condition; the comprehensive transport cost of medium-sized freight/passenger cars on poor road conditions is about 138yuan/hundred kilometer, and it is about 124yuan/hundred kilometer on good road condition; the comprehensive transport cost of large-scale freight vehicles on poor road conditions is about 183yuan/hundred kilometer, and it is about 162yuan/hundred kilometer on good road condition.

5.1.2.2 The benefits saved by transport time

The implementation of this project can improve road condition, saving a large amount of time for the passengers, the goods and the drivers. For example: in order to clean the collapse, when applying artificial road maintenance, the collapse is to be excavated and cleaned by manpower, and a collapse of 100m³ needs 30-50 working days for cleaning, while applying mechanized maintenance, the mechanization emergency center will arrive at the site within 2 hours after the disaster and clean a collapse of 100m³ in no more than 2 hours, this greatly speed up the restoration of highway.

Through the construction of road network monitoring and emergency security system for the arterial highway, the running state, environmental conditions and disaster situations of the monitoring points of all levels of national and provincial arterial highways can be controlled to realized the early warning and scientific control of road traffic safety risks; and realize unified command, graded response, regional linkage and high-efficient service under highway traffic emergency conditions to reduce the loss and impact range of accidents and disasters; and complete the construction of the linkage system of road safety and emergency response. Through the management information system and monitoring system of the province's arterial highway, it can realize the early warning of highway disasters and make urgent repair for the traffic block caused by the disasters, shortening the block time and reducing bypassing time and cost for road users.

Saving travel time helps traditional minority to go out of their houses and get more

information. In ethnic minority areas, women are primarily responsible for the housework, and if the housework is not well arranged, it may directly affect the going out of the women; after the improvement of road conditions, it only takes the women half a day to go to town with the convenient traffic environment to make some agricultural products trade and then go back home to make dinners without disturb the normal household labor division and customs. In addition, the improvement of national and provincial traffic conditions also make it convenient for the residents seeing the doctor and the children going to school.

5.1.2.3 Reduce traffic accidents, reduce losses

The improvement of arterial highway maintenance level can reduce automobile traffic accidents and losses. Firstly, the construction of assets management information system can realize high-efficiency and real-time road network monitoring and emergency response management, which can reduce the risk of accidents and economic losses. Through the monitoring facilities at key bridges and high slope sections, it can realize the early warning for the disasters like landslide in disaster weathers, and give warning about the road block sections by landslide and other accidents to the road users through public information service system and variable message screen to guide the road users to select other paths in advance, avoiding large scale traffic jam. Secondly, according to statistics, there were 2095 of traffic blocking events caused by earthquake disaster, bad weathers and other reasons in 2010-2012, and there were 2010 events in total which are related to earthquake and natural disasters, etc. excluding 85 of traffic blocks due to maintenance scheme, the total economic loss was about 88 million yuan, i.e. about 30 million yuan per year on average. After the completion of arterial highway assets management information system in Yunnan Province, the saved cost as reducing the events caused various natural disasters can account for 60% of the total losses, i.e. the saved costs as reducing traffic blocks is: 30 million yuan *60%=18 million yuan.

With the gradual construction and completion of highway mechanization maintenance and emergency center, the situations of highway maintenance infrastructure will be greatly improved and the national and provincial arterial highways will get better maintenance and the rate of good level highway will increase and the highway technology status will continuously get improved, and the passenger and traffic flow will continuously increase and vehicle speed will continue to increase.

It was found in the investigation that local villagers selling fruit on the side of the road and livestock running on the road and villagers going to the fair by agricultural vehicles all may bring new hidden dangers. Therefore, set speed reducing devices near the villages and densely populated areas, and meanwhile, strengthen the education of non-standard behaviors along the road.



Figure 6 Potential Road Safety Hazard

5.1.2.4 The benefit of improving transport quality and credibility
 For passenger transport, the quality is expressed in safety, comfort, fast and convenient travel by car; for goods transport, the quality is expressed in safety, fastness and convenience (door-to-door transport, simplify shipment and delivery procedures, etc.) aspects. These are very important economic benefits which can help to improve work efficiency and improve the credibility of transport business, and the credibility can be converted into economic benefits.

5.1.2.5 Improve the ability to cope with the extreme events
 The external monitoring system can conduct effective monitoring and inspecting in the event of earthquake, rainstorm, high temperature, low temperature, heavy fog and accidents, and timely obtain the information about bridge displacement, landslide, surface gathered water, frozen, visibility decreasing, tunnel fire and road closures to obtain the real-time information about the potential risk factors to the maximum extent, so as to timely, rapidly and effectively monitor the abnormal conditions and emergencies, providing the monitoring on the daily running status of key risk targets and improving the emergency response speed and disposal capacity. The traffic blocks caused by earthquake, natural disasters and traffic accidents will cause the road users waiting for rescue for a long time and increasing traffic bypassing distance and time and increasing the travel costs of road users.
 After the completion of highway assets management information system, it will give early warning for the road sections with potential disasters and submit the information to the emergency center which will arrange the rush repairs to shorten the blocking time; in addition, after the happening of blocking, the information can be issued through the public service system of the arterial highway assets management system to guide the road users to make travel decisions in advance, avoiding entering into the blocking section and delaying travel time.



Figure 7 Road Collapse and Rush Repair

5.1.3 Impacts on Labor Employment

The Project will directly and indirectly increase a large amount of job opportunities. Governments of all countries often expand the investment on highway construction to stimulate domestic demand, expanding employment and promoting economic prosperity during economic depression. Expanding employment not only reflects certain economic benefits (expanding national income), but also has certain social benefits.

Transport investment will firstly become the fixed assets of all fields of national economy through the production activities of traffic infrastructure construction, resulting in the final demand and drive the employment of these industries and ultimately stimulating national economic growth, which is the direct economic contribution of transport investment, and the contribution to the social employment can be represented with the number of created jobs. According to relevant research findings, 100 million yuan of highway construction investment can directly create about 2,000 jobs, and due to 85% of the highway traffic investment is construction and installation engineering investment which is mainly completed by the construction industry and 80% of the staff in construction industry at present are peasant-workers, therefore, nearly 70% of the jobs directly created by traffic investment are provided to the rural surplus labor force. If further considering the leading role of traffic investment on total investment in fixed assets, and calculating the complete contribution of traffic investment to the national economy by using the “multiplier” theory, the corresponding jobs directly and indirectly created are much more.

5.1.4 Impacts on Maintenance Workers

5.1.4.1 It reduces the working intensity of maintenance workers and optimizes the allocation of human resources.

If the highways are not frequently maintained, there will be the following diseases: single strip crack, massive crack, serious crack, pavement reveling, pavement sink, roadbed gap, ditches culvert obstruction and damage of bridge structure, etc. The former maintenance mechanism mainly consists of maintenance squad and give priority to artificial maintenance, however, the current maintenance ideas is mainly mechanical maintenance, therefore, it is necessary to establish a large concentration of maintenance infrastructure, such as large-scale control station and mechanization

maintenance and emergency center.

Artificial maintenance and mechanical maintenance have big difference in manpower need. For the treatment of pavement pond, if artificial maintenance is applied, the excavation and clean of the original damage of asphalt pavement completely rely on manpower, and the waste materials are transported by hutching with piling of waste and old materials affecting surrounding environment, and the asphalt mixture is mixed by hand, resulting in unsatisfactory mixing temperature and uniformity, and the paving and compaction also rely on manpower, resulting in poor flatness and compaction and the repair quality cannot be guaranteed. Taking 10 people as a working group for calculation, 20m² of disease area can be handed at most for one working day. If mechanization is applied for maintenance, the excavation of old pavement, mixing, paving and compaction as well as transport will totally rely on machines and 10 workers with machines can handle more than 300m² of disease.area.

It can be said that, after the completion of highway maintenance mechanization and emergency center, the office and production conditions of maintenance personnel will be greatly improved and the maintenance quality and efficiency will be improved, the equipped mechanical equipment like small excavator, double steel drum roller, heat conducting oil heating asphalt equipment and transport vehicles will improve the mechanization level of maintenance and further improve the working efficiency and maintenance quality, generating notable saving maintenance cost benefits.

5.1.4.2 Improve staff working conditions, etc.

Before the implementation of the project, the squad workers have intensive work and live in the areas far from Xiangs and towns, affecting their children's education, travel and medical care. By optimizing the address of control stations and new construction and renovation and expansion, workers' lives can be improved to some extent, including shopping, children's education and work conditions, etc.



Figure 8 Office Building of the Xinjie Town Highway Management Station

5.1.5 AIDS Prevention and Combat against Drug Crime

As issues catching the global attention, AIDS and drug are also closely focused in the project. The evaluation and survey group has interviewed the health department of the autonomous region, and consulted relevant Internet contents. According to information, Yunnan is one of provinces with the most HIV-infected patients nationwide. Up to October 31, 2012, there are 104,981 HIV-infected patients and patients in the province, including 73,397 HIV-infected patients and 31,584 AIDS patients; 17,268 death cases are reported. According to the latest January-October report in 2014, there are 10447 HIV-infected patients and AIDS patients, including 7,671 HIV-infected patients and 2,776 AIDS patients; 2,411 death cases are reported. In recent years, supported by state and assisted by relevant international organizations, Yunnan has implemented enormous promotion and intervention work, and has formed the prevention system of "being dominated by government, cooperated by several departments, and participated by crowd". It adopts 100% condom promotion, exchange of needling instrument, adanon maintenance treatment,

etc. to carry out prevention and treatment, and standardizes AIDS medical aid, care and social assistance. In addition, some international organizations also implement cooperation projects here. Thus, the prevention and treatment level of AIDS in Yunnan has been increasing, and till 2014, 201 hospitals in Yunnan carry out antiviral treatment, so that patients can receive free anti-viral treatment in local hospitals. Until October 31, 2013, up to 36035 people have received the antiviral treatment, and among 230063 patients, the treatment coverage is 80.7%.

Located in the southwest of China, Yunnan adjoins with many countries, and because of such special geological location, drug smuggling cases occur frequently, and the AIDS affection caused by taking drugs is increasingly prominent. In order to control the drug harm and combat drug crime, Yunan strictly three key links of “restraining the source of drugs, inhibiting the drug harm, and preventing new drug addicts from breeding”, and curb the spreading of drug harm.

According to information, the HIV-affected patients and patients reported in Dehong, Honghe, Lincang, Wenshan, Kunming and Dalin account for 68.7% of reported provincial patients, and those regions belong to the high-incidence area of AIDS. Through efforts, those regions have become the national AIDS prevention and control demonstration area from AIDS-stricken area. Except regular grants and international cooperation projects, RMB 8.7 million has been drawn from the anti-AIDS subsidy of provincial finance, and is used in the anti-AIDS project in key areas of four prefectures and cities. The project construction will improve regional traffic conditions, promote local economic development, improve the production and living level of ethnic minority groups along the road, and will play an active role in popularizing and promoting AIDS prevention and treatment knowledge, promoting AIDS prevention and intervening measures, and quickly and effectively combating drug crime.

5.2 Analysis of Project Impacts on Nearby Minority Communities and Residents

The community directly influenced by project construction and land acquisition lives ethnic minorities and Han, and the construction points involved of eight ethnic minority autonomous prefecture is dominated by local subject ethnic minority 9 ethnic minorities (for example, Diqing is dominated by Tibetan residents, and Dali by Bai residents), and other prefectures and cities are dominated by Han people.

The impact of the project construction on minority communities and their residents includes the following aspects:

5.2.1 Impacts on the Living Environment

The impact of the project construction on the production and life of local residents is small. However, the project construction has certain impact on the living of environment of residents along the road. The construction of Yunnan truck road asset management system will cause inconvenience to the life of residents along the road, and is mainly reflected as the impact of the transport of construction materials and the dust and noises of during construction period. For example, the noise and dust of road vehicles will produce certain impact on the living environment of residents along the road. Yunnan truck road asset management project is dominated by the reconstruction of road management office on both sides of the original road, and the reconstructed road will produce an active impact on the production and daily life of the residents along the road.

5.2.2 Economic Impacts on Minority Families

Because the direct area of influence of the project construction lives basically ethnic minorities, so the ethnic minorities along the road will benefit from the project construction. Firstly, the project construction will utilize local resources, create employment opportunities, etc. to increase the economic income of minority residents

along the road, and improve their life quality and level; in addition, the completed project will promote the development of local social economy and enhances the life level of local minorities. The impact of the project construction on minority family's economic life includes:

- (1) During the project construction, local minority residents participate in project construction, and will earn the salary from labor work;
- (2) During the project construction, construction personnel's service income from commercial, catering and accommodation services.
- (3) During the project construction, the income from construction materials, transport equipment, etc.

(4) The completion and operation of proposed project will drive the development of local advantage agriculture, speed up the circulation of agricultural products, and increase the sales income from agricultural and sideline products;

Increase the income from tourism-related industries. The road curing and construction of emergent monitoring system will make the traffic more convenient, promote the development of tourist industry, increase and enhance the income from tourism-related industries.

The project construction will promote the local socioeconomic development, provide employment opportunities, add some minority families' economic income, and may further widen the gap between the rich and the poor as well. The project construction has created more employment opportunities for local residents and some families with labor forces but without more employment opportunities (some families' income level will not be too low) will obtain more opportunities to participate in project construction and obtain remuneration. But if the poor family with a lack of labor forces cannot directly benefit from the project construction, so the income level is still low.

As learned from the investigation, many water-adding points are provided on both roadsides, and this water adding points are constructed by residents in neighboring villages. However, due to lacking of management of water-adding points, the left water on the road will accelerate the road corrosion and damage, and increase the curing difficulty and cost. In the subsequent work, we need to work with other departments to manage those water-adding points, and their income will not be influenced.

5.2.3 Impacts on Public and Human Health

During the project construction, because many construction personnel, staff of construction units (family member of construction staff and service personnel involved in the tertiary industry of construction units, etc.) and minority residence zone in the place where the project is in, public health issues and disease affection and prevalence may be caused, and local minority residents' health will be influenced.

5.2.4 Impacts on Minority Cultures

The area of influence of the project construction is basically the minority residence area, and has prominent minority culture characteristics. During the construction period, because of the flooding of foreign workers of construction units, and because their culture is different from that of local minority to some degree, and may influence local minority residents' culture and activities such as religious activities, behavior styles, life habits, customs, etc.

6 Ethnic Minorities' Attitudes to and Expectations for the Project

6.1 Ethnic Minorities' Attitudes to the Project

Through the information discussion with relevant units, household interview, and evaluation questionnaire survey of ethnic minority community, we learn that the minority groups and residents in the area of influence support and welcome the project construction (support rate of 98.5%), and fully realize that the project construction plays a promoting role in improving curing conditions, reducing transport cost, accelerating the flow of personnel, raw materials and motor vehicles, promoting the tourism industry, reducing traffic accidents, prompting local development, improving the communication with surrounding areas, and attracting investment. As for the negative impact on residents' normal production and life during construction period and residents' daily trips after the completion of the project, corresponding measures or methods are taken based on requirements to resolve.

6.2 Ethnic Minorities' Expectations for the Project

While minority groups and residents in the area of influence support the project construction, they have also proposed the following expectations for the project construction:

(1) It is better that the project uses the existing land for construction, avoids residential areas, and does not occupy or occupy less cultivated land and garden land to reduce the impact on surrounding residents.

(2) At the premise of meeting relevant technical requirements or conditions, the construction unit shall make the best use of local construction materials and transport equipment, and employ local labor forces, especially minority labor forces, to participate in construction. As long as local residents are willing to work in the project, project units and construction contractors should make arrangement as far as possible.

(3) At the premise of meeting conditions, the construction team's food can be provided by minority women of surrounding communities.

(4) The area of influence, especially the minority community along the road will be protected against the interference and impact of the construction on normal production and life. If the construction units implements construction in the residence area of minority residents, strict measures must be formulated to guarantee the safe use of construction machinery, and to avoid excessive noises and squeezing of cultivated land and trees; the production and living garbage produced by project construction will be disposed promptly; temporary roads are built to guarantee their daily trips; the travel safety is guaranteed around schools, shops and trenches; the damaged irrigation and drainage system will be promptly fixed to prevent local people's surface water source from construction pollution; behaviors in violation of local minority's customs shall be avoided, etc.

5) After the project completion, at the premise of professional technical training, the project unit should consider admitting local minority residents into the road maintenance team.

FGD:

Date: morning of July 11, 2014

Site: Yongping Road Management Office, Qinying Village, Yongping Town, Pu'er Jinggu County

Representatives: Chen Gang, Pu'er Road Management Block Planning Office; Wang Duanchang, Yongping Road Management Office; Zhang Qiang (Dai), Maintenance personnel of Yongping Management Office, Shi Zhao (Dai), Li Cuiping (Yi), Liu Ruyi (Han), villagers of Qianying Village, Yongping Town, Jinggu County.

This interview mainly investigates the basic situation of ethnic minorities in the area of influence. Most of minority residents in the area of influence are of Dai people, some are of Yi and Blang people. Through the government propagation, most of participants know this project. They generally believe that the project construction is beneficial to improve the curing level, improve the road traffic conditions, facilitate residents to go out, all of which have showed the support for the project construction. In the meantime, the project construction mentioned by participants also will influence local residents' daily life to some degree, especially when a vast majority of people in the area of influence is of ethnic minority. Thus, we hope that during the project design and implementation, governments and owners at all levels take ethnic minority issue into account, and minimize the adverse factors to ethnic minorities.

In language, the area of influence mainly uses Chinese. Young men speak mandarin better than the elder, so they basically have no difficulty in communicating with the people outside the province. Most of Dai residents' children have received the basic Dai language education.

In family life, local residents mainly use firewood and coal as fuels. Because the popularizing rate of tap water in town is high and there are a vast majority of ethnic minorities in the area of influence meanwhile, national customs are well preserved, and all ethnic groups difference in life and production is small.

In production, most of ethnic minorities are engaged in agriculture, and only few in secondary and tertiary industries. So, the family income mainly comes from husbandry, forestry and fruit industry.

In marriage and family, they pay attention to family relationship, and relatives and neighbors are equally important in the daily life. They don't object that their daughters and sons get married to other ethnic groups.

As for the religious belief, Dai and Blang people believe in Buddhism, and each village has its own temple. The village temple is one of major fields of cultural activities of the village.

Household interview:

Time: morning of July 13, 2014

Location: Zhanglong Village, Yun County, Xingfu Xiang, Lincang City

Respondent: Zhu Lifang

Zhu Lifang is a Yi people. There are five people in her family, father-in-law, mother-in-law, husband and daughter are all Han people. They are agricultural registered permanent residence, the house is of brick structure, with three rooms, 100 m², and auxiliary room is of masonry-timber structure, with 90 m². The project does not affect her land, and also does not involve the demolition. Emergency Maintenance Center to be built by Lincang Highway Management is across the street from her house. The following is the interview between investigator and Wang Lifang.

Q: What is the main vehicle for travel? Whether the traffic is convenient for you to see the doctor, go shopping, or go to school?

A: We have a motorcycle. Sending children to school, going shopping in the town and seeing a doctor all rely on it, without too far distance. We will take the shuttle bus to go to county or Linxiang.

Q: How long the bus will come after last bus? How about the road conditions? Do you think the ticket price is expensive?

A: Probably more than twenty minutes. The road is not very good before, but after repaired last year, now roads accessing to town and county all are of second class. The price is cheap.

Q: How many mus of cultivated land? How is the income, and who do farm work?

A: area of irrigable land is more than ten mus, we mainly plant sugarcane and corn, and we can earn 15,000 yuan or so a year. My mother-in-law and I do farm work, and my father-in-law also helps sometimes.

Q: What else will you do in addition to the farming?

A: We open a small shop, making repair for machinery. My husband takes charges of it, and income will be 10000-20000 yuan a year.

Q: Do you know what are they doing in the opposite?

A: The village cadre told us they are building a management office.

Q: What impact from the construction is brought to your life? Do they conduct construction at night?

A: No, there is no construction at night.

Q: As Yi people, what's the difference between you and your husband in living habit?

A: There is no difference. Our Yi people here have small differences from Han people. May be some festivals are different, like the Torch Festival.

Q: Do you have any suggestion and opinion for the construction of the project?

A: I hope they can hire temporary workers for highway maintenance. If so, if my husband is not busy, he also can do to make some money.

7 EMDP

Through design optimization, the Project involves neither land acquisition nor house demolition, and involves temporary land occupation only, so that its negative production and livelihood impacts on minority residents are relatively minor. In addition, except languages and customs, local minority residents differ slightly from Han residents in economic and social status, and there is no cultural discrimination against minority residents in the directly affected area.

According to the DMS results, resettlement plan and socioeconomic survey results, minority officials, residents (both male and female), poor households, religious organizations, etc. in the prefectures, cities, counties, townships and villages in the project area have been involved in FGDs, personal interviews and questionnaire survey, and the Project's potential positive and negative impacts on local residents, especially minority residents evaluated. This EMDP has been prepared on this basis, and covers poverty reduction, women's participation and decision-making, maintenance of public health and security, traffic and tourism development, environmental protection, agriculture and forestry development, education, etc.

All minority residents affected by the Project can enjoy the benefits under this EMDP, such as measures taken to address their concerns. It should be noted that most concerns are not aimed directly to any specific ethnic group, such as compensation rates, environmental protection, road safety, and passage, with no significant ethnic difference among the APs.

7.1 Principles and Objectives

In order to eliminate or mitigate the Project's negative social and impacts on local minority residents, and enable them to benefit from the Project, the principles and objectives of the EMDP have been defined:

- (1) Ensuring that minority residents have adequate opportunities to participate in EMDP implementation;
- (2) Ensuring that negative impacts of the Project on them are avoided or minimized;
- (3) Ensuring that minority residents benefit from the Project;
- (4) Respecting the cultural uniqueness of ethnic minorities; and
- (5) Improving their living standard and production level by implementing the EMDP.

7.2 EMDP for the Project Area

The EMDP aims to eliminate or mitigate potential negative impacts on the minority population in the project area, and ensure that they benefit from the Project. The Project will help improve traffic and transport conditions. Minority population will benefit directly from the economic improvement arising from the Project, the measures in the EMDP, and preferential policies and development programs offered by local governments for minority population. These measures and policies will benefit minority households in economic and social development.

The survey shows that minority residents support the Project actively, because they have realized its crucial role in improving their livelihoods and traffic conditions. The Project will improve national and provincial highways in Yunnan Province, promote the development of local tourism, industry and agriculture, facilitate the circulation of commodities and farm products, increase purchase prices of farm products, create a smooth flow of information, increase job opportunities, and improve social services, thereby benefiting most minority residents. The following adequate measures have been proposed under the Project to eliminate or mitigate negative

impacts on minority residents arising from the Project, and ensure that they benefit from the Project.

7.2.1 Mitigation Measures

The following measures will be taken to eliminate or mitigate the positive and negative economic, social, production and livelihood impacts of the Project:

7.2.1.1 Optimizing the design to protect the rights and interests of the APs

According to the Feasibility Study Report and Resettlement Framework, the Project involves neither land acquisition nor house demolition, and involves temporary land occupation only.

In the highway overhaul test using the asphalt roadbed cold regeneration technique (two segments, totaling 40 km), about 2 mu of land will be occupied for about 3 months for the temporary storage of removed asphalt and the erection of temporary asphalt mixing stations. Since the road segments involved will be determined during implementation, the size, type and location of temporary land occupation are unknown yet. The basic principle of temporary land occupation is to occupy wasteland where possible.

If land acquisition or house demolition is inevitable in the future, a resettlement action plan (RAP) has to be prepared in accordance with the applicable Bank policy. In this process, compensation rates and resettlement programs (including resettlement, production restoration, and reconstruction of special facilities, etc.) should be developed in consultation with all stakeholders, and in a way that respects local customs and religious beliefs, and minimizes negative impacts on minority residents. See the Resettlement Framework of the Project for details.

7.2.1.2 Mitigating or eliminating construction disturbances and impacts

Local minority residents will be affected adversely by project construction, including environmental impacts from flying dust, noise, earthwork and waste, pollution from industrial wastewater and domestic sewage, and impacts on traffic. The following measures will be taken to mitigate or eliminate such impacts:

1) Air pollution: The construction site will be separated from the surrounding environment by guardrails to block flying dust. Vehicles must be loaded with building materials or earth based on rated load, and loads that may give rise to flying dust must be covered. Building materials on the construction site should be covered to prevent flying dust. The construction site and surrounding roads should be cleaned daily. Clean energy sources should be used for cooking and heating to reduce air pollution, such as smoke and SO₂. However, due to the short construction period, air pollution will be minor.

2) Water pollution: Industrial wastewater produced during construction will be collected in settling tanks, and then recycled for such purposes as vehicle washing, dust suppression and sprinkling. The construction team should utilize existing public toilets where possible, and their domestic sewage covered with soil after each day's work.

3) Noise pollution: The construction agency should prepare the construction organizational design before staging to define equipment models, noise levels, operating regulations and noise control measures, make rational planning to reduce equipment and manmade noise, schedule construction rationally to prevent the concurrent operation of high-noise equipment, and prohibit the use of high-noise equipment during 22:00-7:00 a.m. and 12:00-14:00 p.m. Overnight construction must be approved by the local environmental protection bureau in advance and notified to nearby residents.

4) Solid waste pollution: During construction, topsoil should be stacked properly and used for landscaping after the completion of construction, and mounds covered to prevent flying dust. Earthwork and construction waste produced by construction must

be carried to the designated dump, and domestic waste carried to the designated landfill timely.

5) Environmental pollution: Land occupation should be minimized during construction by balancing earthwork excavated with that filled. Dump sites should be protected from floods and provided with drainage facilities in advance; temporary drainage facilities should be combined with permanent ones; means for preventing water and soil losses should be provided around the construction site. Slope protection works based on vegetation and cement mortar should be constructed where excavation depth is high. In addition, strict construction management should be practiced to reduce water and soil losses, and the construction site should be reclaimed and landscaped timely to protect the environment and vegetation.

6) Temporary roads will be built during construction to provide for the daily traffic of minority residents, and warning signs in ethnic languages set up near religious places, stores, schools and canals to ensure safety. The IAs, local governments and schools should develop strict safety measures for students and give construction safety education at schools. No school was identified in the project area at the feasibility study stage.

7) The construction agency must strengthen publicity and education on minority policies and customs for the construction staff, which may be given by local ethnic and religious affairs bureaus, in order to avoid violations of minority or religious customs.

8) A safety supervisor should be appointed for each bid segment; visible warning lines and marker lamps should be provided on the construction site to prevent nearby minority residents, especially children and old people, from entering the construction site.

7.2.1.3 Environmental protection

Environmental impacts of quarries and borrow areas during construction include vegetation destruction, water and soil losses, etc. Since the demand for sand and earth for the construction of maintenance and emergency response centers, and management stations is relatively low, it is advised to purchase building materials from existing stockyards and avoid opening new borrow areas where possible.

In addition, the IAs, construction agency and local governments should develop detailed measures for environmental protection through adequate consultation. The construction staff should develop a strong sense of environmental protection during construction through publicity and education.

7.2.1.4 Protecting public and human health

Construction camp management and protection measures for public and human health are aimed at the construction staff and their dependents, tertiary service staff, and local minority residents.

The main concern about the public health of the construction camp is the disposal of solid waste, for which the following measures will be taken: setting up a fixed trash bin in the construction camp to collect domestic waste centrally, transferring domestic waste to landfills for unified disposal, setting up a number of public toilets, and taking dust prevention measures to prevent air pollution.

Human health protection measures are aimed at all groups in the construction camp. The transport department and contractor will support local health quarantine agencies to take the following measures to prevent the outbreak and dissemination of infectious diseases.

(1) Conducting health quarantine on the construction staff and dependents before staging and during construction in order to learn their health status, and prevent and control diseases;

(2) Sterilizing the construction camp properly, especially public facilities, and applying chemicals that kill mosquitoes, flies and rodents at their temporary residence to control infectious diseases effectively;

(3) Practicing a health supervision system on food entering the construction camp;

(4) Establishing a medical care agency to reserve necessary drugs for disease prevention and control, such as drugs for hemostasis, and diarrhea and cold prevention, so that emergency measures can be taken when necessary; and

(5) Giving health publicity and education properly so that the construction staff and dependents develop good health habits.

7.2.1.5 Encouraging women to participate in decision-making

Local women's federations have involved minority women in the preparation of this EMDP to ensure that they benefit equally from the Project. Women in the directly affected area (along the national and provincial highways) will further benefit from the Project by offering catering and other services to the construction staff during construction. In addition, the Project will promote the development of crop cultivation and stockbreeding, and the circulation of farm and sideline products in poor areas, thereby improving women's income and living standard in the long run. The contractor will make less physical demanding jobs, such as cleaning and catering, first available to local women.

7.2.2 Benefit Enhancing Measures

7.2.2.1 Promoting tourism development

There are many natural scenic spots and historical sites in the project area. The Project will promote local tourism development greatly. Local governments should take the following measures to promote tourism development in the long run:

- 1) Providing visible and normative signs for different types of tourists;
- 2) Exhibiting minority cultures and improving tourism infrastructure;
- 3) Distributing tourism brochures and posters to travel agencies;
- 4) Introducing tourist resources on websites; and
- 5) Building a number of minority festival brands based on local resources.

Table 16 Minority Participation in Tourism Development

No.	Program	Details
1	Training of minority tour guides	Giving professional training to minority tour guides or reducing their pass score for the certificate of qualification
2	Vocational skills training for minority tourism workers	Vocational skills training with focus on etiquette, communication skills, health, etc., given by municipal tourism bureaus, ethnic and religious affairs bureaus, labor and social security bureaus, in order to improve tourism service level
3	Developing a scientific minority tourism plan	Developing a specific minority tourism plan to fully tap minority tourism resources, integrate religious, dietary, clothing, residential and festival experiences, promote the economic development of minority areas, and involve minority residents in tourism
4	Developing ethnic tourism commodities	Developing utensils, clothing, food and artworks with ethnic characteristics as commodities, and exhibiting them for sale
5	Building ethnic villages	Building ethnic villages while developing tourism as an effective way of balancing ethnic culture inheritance, economic development and environmental protection
6	Encouraging minority residents to offer services	Encouraging residents of some ethnic minorities without the tradition of doing business to offer catering services like Hui and Dai people do, such as running agritainment sites in or around scenic zones
7	Giving priority to minority residents in scenic zones	Recruiting minority residents for folklore performances and allowing them to offer services in scenic zones with priority in order to increase their income
8	Encouraging minority residents to deal with tourism transport	Training and examining minority drivers of sightseeing vehicles in scenic zones

7.2.2.2 Appointing minority officials for the contractor

Since most of the project area is located in minority areas, the contractor should have workers familiar with local minority cultures and customs for the effective consultation and communication with local minority residents, and the effective participation of local minority residents in the Project.

The above measures are based on the project design at the feasibility study stage, and should be applied to any additional affected population arising from design change.

7.2.2.3 Utilizing local building materials and transport resources

The gross investment in the Improving Trunk Highway Maintenance and Emergency Response Systems component is 860.5116 million yuan, including offices, workshops and machinery. Building materials for their construction may be purchased from the local market, such as steel, timber, cement, sand, stone, tiles and bricks, and should be transported using local transport resources where possible in order to promote the development of the local building material and transport industries, increase local minority residents' income, and enable them to benefit from the Project.

7.2.2.4 Absorbing local labor

Although the construction agency requires skilled workers to ensure construction quality, the owner and local governments expect that job opportunities are available to local minority residents to increase their income. Accordingly, the owner should organize training and place eligible local minority residents to suitable jobs during construction in full consultation with the construction agency, and make unskilled jobs first available to minority residents and women in order to increase their income and enable them to benefit from the Project. Priority should be given to poor households in labor recruitment, job allocation, and the utilization of local materials and transport resources.

Women's federations are willing to provide assistance in labor skills training for women under the Project. The contractors should provide required types of work and workforce to women's federations, and organize training in consultation with them so that more women can benefit from the Project. Not less than 10% of local laborers used should be women.

7.2.2.5 Offering catering and other services

During construction, a large number of employees from the construction agency will live locally, so that local operators of catering and other services can benefit from the Project temporarily.

7.2.2.6 Increasing jobs for minority residents

During construction, local residents can receive direct job opportunities from the construction of maintenance centers and new material testing segments, as well as many indirect job opportunities, thereby improving their income level and living standard.

In sum, the Project will promote local economic and tourism development, and generate more job opportunities.

It is estimated that 158 jobs will be available to minority residents after the completion of the Project (highway maintenance), as detailed in Appendix 4.

7.2.2.7 Promoting local logistics development

The survey team also interviewed some county-level administrative departments, including land and resources, environmental protection, forestry, cultural relics, planning, transport, and tourism bureaus. The local county governments have a deep understanding of the importance of the Project, and think that the Project will play an active role in facilitating the circulation of materials, promoting local economic development, improving the investment environment, and improving local people's

living standard.

The Project will improve logistics efficiency and promote the development of the local logistics industry greatly.

Table 17 Logistics Network Construction

City / prefecture	Project	Scope of construction	Funding source
Xishuangbanna	Menghan Logistics Center	120 mu, further improving the logistics network focused on Jinghong City, and covering Menghai and Mengla Counties	Government investment, loan and self-raised funds
Pu'er	Lancang Logistics Center	120 mu, further improving the Lancang logistics center	Government investment, loan and self-raised funds
Lincang	Lincang Logistics Center	120 mu, constructing a modern logistics center	Government investment, loan and self-raised funds
Chuxiong	Chuxiong Automobile Logistics Park	80 mu, further improving the logistics network focused on Chuxiong City	Government investment, loan and self-raised funds

7.2.2.8 Skills training for population affected by temporary land occupation

In order to further improve the overall capacity and labor skills of the population affected by temporary land occupation, the county agriculture and forestry departments will invite technicians to train rural minority APs on stockbreeding, disease prevention and control, and crop cultivation by means of field instruction, broadcast, television, etc. Such training will be given in minority languages when necessary. In addition, skills training on project construction will be provided to minority residents.

Currently, the size of temporary land occupation and the affected population are unknown. When these are clear, the affected population will be provided with skills training in conjunction with local development-oriented poverty reduction projects so that they can get employed more easily.

Table 18 Skills Training for Population Affected by Temporary Land Occupation

City / prefecture	Scope	Funding source
Pu'er	Skills and reemployment training for farmers in poor areas, covering catering, electric home appliance repair, etc.	Government investment
Lincang	Practical skills training for minority residents, including cultivation, stockbreeding, etc.	
Dehong	Employment skills and business startup training for rural laborer, especially in habitats of ethnic minorities with small populations	
Chuxiong	Reemployment training to laid-off workers	
Kunming	Flower cultivation training	
Zhaotong	Practical skills training	
Yuxi	Training industry leaders of poor villages to lead the development of local characteristic industries and help poor households get rich	
Honghe	Giving pertinent practical skills training on crop cultivation, stockbreeding, etc. based on local industries	
Wenshan	Organizing employment skills training oriented to junior and intermediate professional qualification certificates for young and adult laborers from poor households	
Qujing	Giving practical skills training to poor farmers so that they are able to participate in the development of local characteristic industries	
Diqing	Giving labor skills training aimed at high-altitude areas for Tibetan farmers, such as stockbreeding, and cultivation of barley and special edible fungi	

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Lijiang	Giving service skills training on catering, transport and logistics services to minority APs	
Dali	Giving service skills training, including catering and tour guide	
Baoshan	Giving industrial and commercial skills training, and business startup guidance	
Nujiang	Giving training on the cultivation and breeding of special plants and animals in mountain areas to improve the income-generating capacity of local residents composed of Lisu people mainly	

8 Investment in the EMDP and Funding Sources

In order to eliminate or mitigate the Project's negative social and impacts on local minority residents, and enable them to benefit from the Project, this EMDP has been prepared. Funds for the implementation of this EMDP are from the project investment (including planning and design costs, consulting costs, civil works and installation costs, resettlement planning costs, environmental protection costs, etc.), and local governments. The estimated budget of this EMDP is about 60.4 million yuan, including an investment in mitigation measures of 9.8 million yuan and an investment in benefit enhancing measures of 50.6 million yuan, and will be disbursed from the budget of the Project (utilizing local building materials, etc.), and local minority development and poverty projects mainly.

8.1 Investment in Mitigation Measures and Funding Sources

Mitigation measures under the Project including optimizing the design to protect rights and interests of potential APs, mitigating or eliminating construction impacts, environmental protection, protecting public and human health, encouraging women to participate in decision-making, support for vulnerable groups, etc.

Table 19 Summary of Investment in Mitigation Measures and Funding Sources

No.	Measure	Funding source	Budget (0,000 yuan)
1	Optimizing the design to protect rights and interests of potential APs	Resettlement Framework	50 (varying with the impact of temporary land occupation)
2	Mitigating or eliminating construction impacts	Project investment / construction contract	200
3	Environmental protection	Environmental protection investment / construction contract	600
4	Protecting public and human health	Environmental protection investment / construction contract	120
5	Encouraging women to participate in decision-making	Owner, contractors, women's federations	10
Subtotal			980

8.2 Investment in Benefit Enhancing Measures and Funding Sources

Benefit enhancing measures of the Project include promoting tourism development, appointing minority officials, utilizing local building materials and transport resources, absorbing local labor, offering catering services, increasing jobs for minority residents, promoting logistics development, etc.

Table 20 Summary of Investment in Benefit Enhancing Measures and Funding Sources

No.	Measure	Funding source	Budget (0,000 yuan)
1	Promoting tourism development	Local governments	500
2	Appointing minority officials	Contractors	20
3	Utilizing local building materials and transport resources	Construction contract	3000

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No.	Measure	Funding source	Budget (0,000 yuan)
4	Absorbing local labor	Construction contract	500
5	Offering catering services	Operators, individuals	/
6	Increasing jobs for minority residents	Individuals	/
7	Promoting logistics development	Local governments	1000
8	Skills training for population affected by temporary land occupation	Resettlement Framework	40
Subtotal			5060

9 Implementation Management

9.1 Organizational Structure and Responsibilities

In order to ensure the successful implementation of the Project, the PMO and local governments have established necessary agencies to coordinate and supervise project and EMDP implementation. These agencies mainly include the provincial PMO, municipal PMO and county PMO, and external M&E agency. In addition to construction coordination, these agencies are also responsible for implementing the EMDP to protect the rights and interests of the minority APs, and promote the economic and social development of minority areas, as well as conducting M&E on the implementation process and outcomes.

The construction agency is responsible for the design, implementation and supervision of the measures in this EMDP; the contractors are responsible for putting such measures into practice; the local governments and departments concerned (poverty reduction, traffic, education, health, environmental protection, women's federation, etc.) participate in the design, implementation and supervision of such measures. The consultants shall guide and train the PMOs, minority communities or organizations, local women's federations, and other organizations on social impact analysis and assessment, and EMDP preparation and implementation.

9.2 Implementation Schedule

The EMDP should be implemented in coordination with project construction on the following principles:

- (1) EMDP preparation should be completed before the beginning of project construction;
- (2) Canal reconstruction and temporary passage setup should be scheduled before the beginning of project construction;
- (3) Impacts of construction on local residents (e.g., noise, flying dust) should be addressed in the project design; and
- (4) Skills training, public participation and environmental protection should run through the whole process of project preparation, construction and operation.

This EMDP will be implemented by the PMOs and local governments.

The PMOs will implement most measures related to construction through the IAs and contractors; the county governments will implement such measures as skills training, tourism promotion and small-amount loans, through the participation of departments concerned, such as ethnic and religious affairs bureaus, land and resources bureaus, poverty reduction offices, forestry bureaus, agriculture bureaus, women's federations, and township governments.

The drafted implementation schedule below will be adjusted to the progress of project preparation and construction.

Table 21 EMDP Implementation Schedule

No.	Measure	Details	Implemented by	Time frame
1	Optimizing the design to protect rights and interests of potential APs	Optimizing the design and preparing a feasible RAP to restore the production level and living standard of the population affected by temporary land occupation	Owner, design agency, consulting agency	2014
2	Mitigating or eliminating construction impacts	Taking site management measures to eliminate or mitigate construction impacts, repairing all affected irrigation facilities timely, and compensating for losses arising from irrigation interruptions (to be	Contractors, local governments	2015-2019

No.	Measure	Details	Implemented by	Time frame
		specified in the construction contract)		
3	Environmental protection	Conducting construction in strict conformity with the design, and implementing the environmental protection measures	Contractors, local governments	2015-2019
4	Protecting public and human health	Taking precautions as per local regulations and enhancing staff management to protect public and human health	Contractors, local governments	2015-2019
5	Encouraging women to participate in decision-making	Encouraging women to participate in decision-making, and making jobs generated by the Project first available to women	Contractors, local governments	2015-2019
6	Promoting tourism development	Setting up signboards, distributing brochures, and making tourism jobs first available to poor people and women	Local governments	2015-2019
7	Communication and consultation with minority residents	Each contractor has at least 1-2 minority officials.	Contractors	2015-2019
8	Utilizing local building materials and transport resources	Utilizing local building materials, such as cement, steel and stone, as well as vehicles	Contractors, local governments	2015-2019
9	Absorbing local labor	Absorbing local labor in project construction to account for over 50%	Contractors, local governments	2015-2019
10	Offering catering and other services to increase income	Providing convenience for local residents to offer catering and other services	Local governments, individuals	2015-2019
11	increasing jobs for minority residents	Recruiting minority workers for the highway management system	Local governments, highway bureaus	2015-2019
12	Promoting development	Promoting the implementation of local poverty reduction and tourism projects in conjunction with the Project	Local governments	2015-2019
13	Skills training for affected population	Training on crop cultivation and stockbreeding	Local governments	2015-2019

9.3 Fund and Quality Management

Most costs related to the EMDP will be included in the general budget of the Project, and relevant contracts. The PMO will disburse funds to the IAs (including the design agency, consulting agency, and contractors) in batches one month before project implementation so that they have enough time to prepare and implement the EMDP.

To ensure the successful implementation of the EMDP and the timely disbursement of funds, the PMO must establish financial and supervisory agencies at different levels.

All project preparation and implementation activities will be conducted in strict conformity with the applicable state and local laws and regulations. The external M&E agency will monitor the whole process of project implementation and make corrections timely to ensure that the Project is implemented as desired.

9.4 Acceptance

The EMDP will be inspected by the IAs, competent authorities, M&E agency and supervising agency in stages and at different levels together with the inspection of the Project, and final acceptance will be conducted after project completion. All information and

comments on acceptance will be included in the semi-annual M&E reports.

10 Implementation M&E

10.1 Implementation Monitoring

The PMO, local governments and departments concerned should monitor EMDP implementation regularly. New findings and suggestions should be included in monitoring reports for submission to the Bank. The external M&E agency appointed under the Project should serve as the consultant to the PMO, conduct follow-up monitoring on EMDP implementation, and give advice accordingly. The external M&E agency should sample affected households, especially minority households, for survey and interview semi-annually.

External EMDP M&E will be performed by an agency with relevant experience appointed by the Yunnan Provincial Highway Bureau. Semi-annual monitoring report should be submitted to WB.

10.2 Implementation Evaluation

As required by the Bank, the implementation process and outcome of the EMDP should be evaluated to ensure that it is implemented as planned. Before project implementation, the PMO will appoint an external M&E agency to develop an M&E plan, which should include the following in addition to the measures specified in the EMDP:

(1) Collecting relevant data and information, and analyzing socioeconomic changes of minority population and communities to reflect project outcomes;

(2) EMDP implementation, including progress, quality, satisfaction, fund disbursement and use, etc;

(3) Learning economic, environmental, employment and community conditions of affected households (especially minority households) through participatory study, and developing and implementing programs accordingly;

(4) Paying attention to key actions and procedures in project implementation, and drawing on experience from project implementation for extension to other areas

Data collected should be as detailed as possible, especially data that is usually deemed unavailable. Some broad indicators are set out below, covering the implementation of measures, restoration of affected population, beneficiary area and degree, contract provisions on EMDP measures, etc. See the terms of reference of M&E for details.

The provincial PMO will appoint an experienced external M&E agency to develop a detailed M&E plan together with the Bank, and will assist the consultants in conducting M&E and submitting M&E reports in coordination with the IAs and local governments.

10.3 M&E Indicators

The following M&E indicators have been proposed to monitor EMDP implementation:

Table 22 M&E Indicators of the EMDP

Proposed action	Target groups	Relevant agencies	Monitoring indicators
A. Mitigation measures			
1. Optimizing the design to protect rights and interests of potential APs	Affected population	Owner, design agency, IAs	<ul style="list-style-type: none"> Grievances and appeals on temporary land occupation
2. Mitigating or eliminating construction impacts <ul style="list-style-type: none"> Avoiding air pollution Avoiding water pollution 	Nearby villages	Owner, contractors	<ul style="list-style-type: none"> Grievances received and redressed Length of temporary water supply, drainage, irrigation

Proposed action	Target groups	Relevant agencies	Monitoring indicators
<ul style="list-style-type: none"> Controlling construction noise Reducing solid waste pollution Avoiding overnight construction near settlements Controlling construction dust Cleaning up the construction site after completion Providing temporary water supply, drainage, irrigation and access during construction 			<p>and access offered during construction</p> <ul style="list-style-type: none"> Recovery rate of irrigation and drainage facilities upon completion
<p>3. Environmental protection</p> <ul style="list-style-type: none"> Purchasing building materials from existing stockyards Developing environmental protection measures Strengthening environmental protection publicity and education for construction staff 	Nearby villages, construction staff	Owner, contractors	<ul style="list-style-type: none"> Percentage of materials purchased locally Workforce subject to publicity and education
<p>4. Protecting public and human health</p> <ul style="list-style-type: none"> Disposing of domestic waste on the construction camp properly Providing some public toilets Conducting health quarantine on construction staff and dependents properly Sterilizing the construction camp regularly Supervising food entering the construction camp Establishing a medical agency and reserving necessary drugs to respond to emergencies Conducting publicity and education for the construction staff 	Contractor staff, construction staff, villagers	Owner, construction agency, contractors, centers for disease prevention and control	<ul style="list-style-type: none"> Inclusion of AIDS awareness publicity for workers and nearby residents in the contract Number of workers and nearby residents covered Number of training sessions Publicity materials distributed Number of condoms distributed Number of mosquito curtains provided Number of disinfectant applications Number of workers treated
<p>5. Encouraging women to participate in decision-making</p> <ul style="list-style-type: none"> Encouraging local women to provide catering and other services to the construction staff Making less physically demanding jobs first available to women 	Local women	Owner, construction agency, contractors, women's federations	<ul style="list-style-type: none"> Jobs received by women at the construction and operation stages Average pay of women
B. Benefit enhancing measures			
<p>1. Promoting tourism development</p> <ul style="list-style-type: none"> Setting up normative signs Exhibiting minority cultures and improving tourism infrastructure Distributing tourism brochures and posters to travel agencies Introducing tourist resources on websites 	Minority villages with potential for tourism development	Local governments, tourism bureaus	<ul style="list-style-type: none"> Number of websites Number of brochures Number of jobs generated for minority residents
2. Appointing minority officials	Contractor	Owner,	<ul style="list-style-type: none"> Number of minority officials

Proposed action	Target groups	Relevant agencies	Monitoring indicators
<ul style="list-style-type: none"> Appointing minority officials familiar with local minority cultures and customs for the contractors 	staff, construction staff	construction agency, contractors, ethnic and religious affairs bureaus	appointed
<p>3. Utilizing local building materials and transport resources</p> <ul style="list-style-type: none"> Purchasing local building materials where possible Utilizing local transport resources where possible 	Local poor and minority population first	Owner, contractors	<ul style="list-style-type: none"> Purchase costs of local materials Percentage of materials purchased locally Local enterprises participating in transport
<p>4. Absorbing local labor</p> <ul style="list-style-type: none"> Organizing training and place eligible local minority residents to suitable jobs during construction Maki unskilled jobs first available to minority residents and women Not less than 10% of local laborers used should be women. 	Local poor and minority population, and women first	Owner, contractors, labor and social security bureaus	<ul style="list-style-type: none"> Number of skilled and unskilled jobs Percentage of women in local labor Average pay of local labor
<p>5. Offering catering and other services</p>	Residents near the construction camp	Owner, contractors	<ul style="list-style-type: none"> Derived job opportunities
<p>6. Increasing jobs for minority residents</p>	Local minority residents	Owner, contractors	<ul style="list-style-type: none"> Number of additional jobs for minority residents
<p>7. Promoting local logistics development</p> <ul style="list-style-type: none"> Building logistics centers 	Local minority residents	Local governments	<ul style="list-style-type: none"> Number of newly built logistics centers
<p>8. Skills training for the population affected by temporary land occupation</p> <ul style="list-style-type: none"> Cultivation skills of commercial crops Nonagricultural skills 	Local minority residents	Poverty reduction offices, agriculture bureaus, labor and social security bureaus	<ul style="list-style-type: none"> Number of training sessions Number of minority residents trained

See Appendix 2 for details.

Appendix 1: Current Situation of Minority Development in the Project Area

1. Diqing Tibetan Autonomous Prefecture

1) Infrastructure condition

Area of farmland with high and stable yield reached 11,000 mu in 2013; road accessing to village was 1,004 kilometers long; number of new water conservancy facilities was 2,297, solving the difficulty and the safety of drinking water for 42,900 people; construction of 30 new model villages was carried out, earthquake safety engineering of 2,380 rural households was implemented, and nomad settlement project of 1,000 households was started, greatly improving the rural production and living conditions. Cultivation of characteristic industry was accelerated. Agricultural structure shall be optimized, leading industry shall be cultivated, and characteristic high-quality agricultural products base scale shall be expanded unceasingly. Training and transfer of rural labor force should be well grasped

2) Social service facilities

At the end of 2013, enrollment rate of primary children of school age reached 98.8%, gross enrollment rate of junior high school reached 103.71%; the work to expand senior high school enrollment went well, with enrollment rate of 40.1%. Annual investment in capital construction of medical treatment and public health reached 16.47 million yuan, new construction and reconstruction area reached 10,401 square meters, and infrastructure got improved. The new rural cooperative medical system was strengthened, standard of fiscal subsidies at all levels increased from 40 yuan to 85 yuan per person, and 270,043 farmers around the prefecture joined in the new rural cooperative medical system, with rate of 90.41%. Development of traditional Tibetan medicine was accelerated. Prevention and control of major infectious disease such as HIV/AIDS was strengthened. Medical-sanitary system reform was further deepened Food and drug supervision was strengthened. In 2013, there were 5,218 new job opportunities for urban residents, completing 113.4% of planned quantity; there were 488 laid-off and unemployed workers finding the job again, complete 162.7% of planned quantity; the quantity of “zero-employment families” achieved zero; number of people joining in “five insurance” reached 98,146, an increase of 10,923. number of people joining in basic medical insurance reached 19,367; annual funds providing disaster relief was 33.25 million yuan, an increase of 24.91 million yuan. Rural minimum living security and subsidy of poor old people aged over 60 were carried out orderly, annual funds of minimum living security was 70.1261 million yuan, increasing 18.1605 million yuan over last year, which was beneficial for 98,308 urban and rural poor population around the prefecture. More than 20 households get the electricity, “village to village” project of radio and television in natural village was progressing well, and coverage rate of radio and television reached 81.6% and 81.6% respectively.

3) Economic income

In 2013, the prefecture’s GDP reached 11,362.81 million yuan, with a year-to-year increase of 16% calculated at comparable prices and the increasing degree fell 3.1 percentage points from the previous year. Added value realized by the primary industry was 908.79 million yuan, with a year-to-year increase of 7.0%, a contribution rate to economy of 3.7% and stimulating economic growth by 0.6 percentage points; added value realized by the secondary industry was 4,571.2 million yuan, with a year-to-year increase of 16.3%, a contribution rate to economy of 41.3% and raising economic growth by 6.6 percentage points; added value realized by the tertiary industry was 5,882.82 million yuan, with a year-to-year increase of 17.3%, a contribution rate to economy of 55% and raising economic growth by 8.8 percentage points. Calculated at the total population, the per capita GDP was 28,133 yuan,

with an increase of 4,137 yuan over the previous year, up by 15.4% if calculated by comparable prices.

2. Lijiang City

1) Infrastructure condition

Lijiang implemented the construction of 100 new socialist model villages, started the construction project of 3 county-level hospitals, 3 Xiang (town) health centers and 3 community health service centers. It built 7,944 new rural biogas digesters, implemented firewood saving and kitchen transformation for 6,691 households, built oil line in Xiang (town) of 168 kilometers long and road accessing to village of 400 kilometers long, and built 10 new rural passenger station (bus shelter). It implemented earthquake safety engineering for 13,000 rural households, transformed 3,250 old and dilapidated houses, and built 300 low-rent houses with 15,000 square meters. It built 19 Xiang (town) general cultural centers and 162 peasant book houses.

2) Social service facilities

Lijiang strengthened the construction of scientific and technological innovation, science and technology service system, intensified the science popularization, strengthen the promotion of new technology, new varieties, new product introduction, implemented 67 key projects of science and technology, made efforts to promote the transformation of scientific and technological achievements, with science and technology's rate of contribution to economy increasing from 40% to 46%. It actively implemented the transformation of schoolhouses of junior middle school, schoolhouse safety engineering of primary and secondary school and modern distance education project of rural primary and secondary schools. Area of newly-built schoolhouses was 368,000 square meters, eliminating dilapidated building of primary and secondary schools of 300,000 square meters. Nine-year compulsory education was basically popularized, and illiteracy among young and middle-aged adults was basically eliminated, passing the national examination and acceptance. It implemented 76 health care infrastructure projects, rate of joining in new rural cooperative medical service increased from 88.6% to 93.9%. It supported and promoted the development of traditional Chinese medicine. It improved the urban and rural medical assistance system. It implemented 25 county and township family planning service network construction projects, and annual average natural population growth rate was controlled within 5 ‰. It actively implemented cultural infrastructure construction projects such as city, county and township cultural centers (stations), libraries and museums, and built 53 Xiang (town) general cultural centers. It actively carried out "village to village project" of radio and television and wireless coverage project of the central radio and television programs, with television coverage rate reaching 95% and radio coverage rate reaching 88%. It cultivated and supported more than 300 mass artistic performance teams. Number of people joining in endowment insurance, medical insurance, unemployment insurance, work-related injury insurance and maternity insurance increased from 204,000 to 476,000, with average annual growth of 18.5%. 26,000 urban job opportunities were created, and 8,591 unemployed people were re-employed. "zero employment" family was kept zero. It implemented rural residential earthquake safety engineering for 30000 households. 1,734 new low-rent houses with 89,000 square meters was built. 14,000 elder people got the support, and 41,000 urban residents and 102,000 rural residents enjoyed the minimum living security.

3) Economic income

At the end of 2013, gross industrial output value increased from 2.57 billion yuan to 8.88 billion yuan, with average annual growth of 20.9%. Industrial added value increased from 1.01 billion yuan to 3.31 billion yuan, with average annual growth of 19.5%. VI hydropower station in the midstream of Jinsha River was built successively, and the construction of clean energy base obtained the breakthrough. It seriously carried out industrial doubling plan, actively extended hydropower industry chain, and implemented a batch of key industrial

projects in electric power, building materials, biology, metallurgy and tourism commodity development. It actively provided support for the backbone enterprises with local characteristics, and the number of enterprises with operating income exceeding one hundred million yuan reached 11. Industrial park became the main platform for concentrated development of characteristic industry. Construction investment of three industrial parks: Yulong, Yongsheng and Huaping was 2.52 billion yuan, and 65 enterprises entered the park for development, realizing the gross industrial output value of 2.1 billion yuan. Economic added value with non-public ownership increased from 2.92 billion yuan to 6.97 billion yuan, with average annual growth of 13.9%, and became a new growth point of the regional economic development.

3. Dali Bai Autonomous Prefecture

1) Infrastructure condition

Dahlia expressway had completed and opened. Capacity expansion of railway and control engineering of Darui Railway were under steady implementation, and preliminary work of the project of expressway from Dali to Lincang, from Dali to Panzhihua as well as railway from Xiangyun to Lincang were advancing orderly. Construction of the first-class highway from Shangguan to Eryuan County and from Shangguan to Heqing was accelerated. 195 rural traffic projects were implemented, with 1,863km long. 6 key water projects of Yunlong Baoluo Reservoir were completed, and 9 projects under construction of Chongqing Reservoir in Midu County are being implemented smoothly. 161 dilapidated reservoirs were conducted reinforcement and consolidate, 10 water source projects like Qingshui River Reservoir were started, and construction of irrigation district were implemented orderly. Water conservancy investment reached 3 billion yuan. Longkaikou Power Plant was built to generate electricity, construction of Ludila and Miaowei Power Plant was accelerated, and 9 power transmission and transformation projects with more than 35 kv were built. China-Myanmar oil and gas pipeline was built to transport gas. Information infrastructure was strengthened, eith 3G network coverage was expanded, and 4G networks construction is starting. Effect of Haidong development was obvious. Regulatory detailed planning realized the full coverage. Cumulative collection and storage land was 56,000 mu, and financing reached 6.45 billion yuan. Paid-in investment of inviting investment was 3.67 billion yuan, and fixed-asset investment was 3.08 billion yuan. Dali Health School's 30 major projects including integral moving, construction of auxiliary commercial housings and security housings were implemented smoothly. Infrastructure and industrial development projects such as urban road and bridge project, creative economic park, Yuerongzhuang Hotel and Western Yunnan international commerce and trade logistics base have begun.

2) Social service facilities

In 2013, there were 1,900 all kinds of schools, including 2 higher education schools, 3 secondary specialized schools, 196 ordinary middle schools, 14 vocational middle schools, 1,008 primary schools and 677 kindergartens. There were 603,518 students, among them: 18,461 students from higher education schools, 16,470 from secondary specialized schools, 192,244 from ordinary middle school, 16,322 from vocational middle schools, 267,295 from primary schools, and 92,724 from kindergartens. There were 174,136 students being recruited, among them: 4,813 from higher education schools, 5,583 from secondary specialized schools, 68,836 from ordinary middle school, 5,773 from vocational middle schools, 38,640 from primary schools, and 50,491 from kindergartens. There were 167,113 graduates, among them, 3,841 from higher education schools, 5,711 from secondary specialized schools, 59,412 from ordinary middle school, 7,832 from vocational middle schools, 50,383 from primary schools, and 39,904 from kindergartens. Enrollment rate of school-aged children was 97.4%, and enrollment rate of primary school graduates was 98.8 %. There were 5 artistic performance organizations, 14 cultural centers, 13 public libraries and 6 museums. Coverage rate of the population of radio and television reached

97.0% and 99.75% respectively. There were 50 broadcast transmitters and 41 TV transmitters. There were 1,878 health agencies. The health agency had 15,835 beds and 12,326 health technical personnel. There were 6 independent natural scientific research institutions with county level and higher level, with 235 personnel. Scientific research expenditure was 35.48 million yuan. There were 429 times of patent application, and 266 patents were approved.

3) Economic income

Its GDP achieved 76.1 billion Yuan in 2013 with an increase of 12.2%. For this, the added value of the primary industry is RMB 16.2 billion Yuan, with an increase of 6.9%, and that of the secondary industry is RMB 32 billion Yuan, with an increase of 14.3%, and that of the tertiary industry is RMB 27.9 billion Yuan, with an increase of 12.7%. The prefecture's per capita GDP reaches 21,727 yuan and non-public economy achieved the added value of 36.41 billion yuan, up by 16.4% over the previous year, accounting for 47.9% of the whole prefecture's regional GDP. The residential consumption prices rose by 2.7% over the previous year, including the price for services rising by 6.9%. Rural economy develops healthily with a gross grain output of 1,688,000 tons which has increased by 3%. Develop plateau characteristic ecological agricultural base. There is a continue increase in industrial economy; the total industrial output value reached 90,500 million yuan, up by 15.7%. The tertiary industry was growing stronger and stronger, tourism development and comprehensive reform pilot got the achievements, the tertiary industry realized the added value of 27.9 billion yuan, an increase of 12.7%.

4. Nujiang Lisu Autonomous Prefecture

1) Infrastructure condition

At the end of 2013, Longjiang highway tunnel was cut through. Liubing highway phase-I, Liuku Nujiang Erqiao traffic loop line project and Gongde Highway construction were promoted smoothly, and 75 rural highway projects were under the implementation. Construction of "two stations and one highway" in Lanping County went smoothly. Construction of Huangmu Reservoir, Wagu Reservoir and Buladi Reservoir and Liuku Ershui Factory was speeded up, "five small" water conservancy construction project of Banwa Reservoir and Fugong mountainous area started smoothly, and flood control security system construction of main stream of Nujiang River was of solid progress. Municipal infrastructure construction such as water supply and drainage, garbage disposal facilities of county and designated town was implemented steadily. Construction of the national stadium, radio, film and television national language dubbing broadcasting center was accelerated.

Preliminary work of key projects such as Nujiang Civil Airport, Baolu Highway, Yunnan-Tibet New Channel, hydroelectric development of main stream of Nujiang River and relocation of Gongshan County was promoted orderly. In accordance with the work requirements of "six hundred" key project construction, and around infrastructure, characteristic industry and social development, 180 investment promotion projects were planned, developed and reserved.

2) Social service facilities

In 2013, Nujiang Prefecture put 0.339 billion yuan special fund into the education, thoroughly promoted Innovative Yunnan Action Plan, organized and implemented the main science and technology engineering, declared 54 science and technology projects at various levels and with different kinds, applied for 25 patents, and identified 1 high and new technology enterprise, and 22 provincial agricultural science and technology demonstration parks and small and medium-sized technology-based enterprises. Talent resource work was further strengthened. Work on medical subsidy and medical assistance for serious illness was pushed forward steadily, and urban and rural residents medical security level was further improved. National free pro-gestational health check-up project was seriously implemented, and natural population growth rate was controlled within 7.18 ‰. In 2013, Nujiang Prefecture

took the lead to complete the Twelfth Five-year Plan task of “village to village” of radio and television, successfully held “Grand Canyon” 2013 Yunnan Chess Tournament, the Eighth Yunnan Farmer Gateball Championship and other sporting events. There were 3648 new urban job opportunities, 449 laid-off and unemployed workers found the job again, 281 difficult employed people found the job, 250 public service jobs were developed, and zero-employment family was eliminated for six consecutive years. Start-up loans of “loan, tax exemption, support and subsidy”, small-sum guaranteed loans for unemployed personnel and labor-intensive small business loans totaled 35.65 million yuan. Registered urban unemployment rate was controlled within 3.7%. Number of people joining in “five insurance” reached 175,200, and joining in new rural and urban social endowment insurance reached 243,300 people; basic old-age insurance of 2,907 the emeritus and retired was adjusted, with a per capita capital increase of 222 yuan. Subsidy standard of medical insurance for urban residents and 70-year-old town and above urban employee basic medical insurance treatment were improved. There were 204,300 urban and rural residents around the prefecture being brought into the scope of minimum living security, with 268 million yuan minimum living security allowances being issued. There were 3,759 people in temporary and sudden straitened circumstances getting the help. 494 security housings were built, and 5,950 dilapidated houses were transformed . The income of urban and rural residents has gone up steadily. Allowance and subsidy standards in the arduous remote areas were adjusted to per capita 300 yuan of reformatory allowance, the standard of minimum wage, social pension and retirement pension were raised, and various favorable policies for farmers were carried out comprehensively. The urban per capita disposable income is 15,999 Yuan, with an increase of 12.5% and net income of peasant per person is 3,251 Yuan, with an increase of 17.2%.

3) Economic income

The prefecture’s average annual increase of GDP was 18% and that of per capita GDP is 15.38%; the average annual increase of local fiscal general budget revenue was 22.2%, and that of expenditure was 26.7%; the average annual increase of total fixed assets investment was 28.96%. the annual GDP of 2013 reached 8,582 million yuan, up by 14.5%; the fixed assets investment above designated size was 8,287 million yuan, up by 30.2%; the total retail sales of social consumer goods was 2,351 million yuan, up by 13.9%; the local public fiscal budget revenue was 841 million yuan, up by 12.1%; the general level of residents’ consumer price rose by 2.7%; the energy consumption of unit GDP fell by 1.7%.

5. Baoshan City

1) Infrastructure condition

At the end of 2013, total mileage of highway in Baoshan City was 12,646.11km, an increase of 377km. By the end of the year, the number of car ownership was 597,198, of which, there were 106450 cargo and passenger vehicle, an increase of 13,318 and increase rate of 14.3%. The city’s volume of freight traffic reached 19.96 million tons, an increase of 15.4% over the previous year; turnover volume of freight transport reached 4.323 billion ton kilometre, an increase of 17.3%; passenger capacity reached 19.47 million persons, an increase of 17.73%; and turnover volume of passenger transport reached 1.88822 billion passenger kilometres, an increase of 16.55%.

2) Social service facilities

In 2013, expenditure on people’s livelihood in Baoshan City was 11.53 billion yuan, an increase of 10.1%, accounting for 76.7% of the public finance budget expenditures, an increase of 2.8% over the previous year. Income doubling plan was implemented steadily, and growing rate of urban per capita disposable income and rural per capita net income was more than economic growth level in the city. Food and drug supervision was strengthened more. Gross enrollment rate of senior high school education was 69%, and the rate of reaching and exceeding admission score of college entrance examination was higher than

the average level around the province for seven consecutive years, achieving the zero breakthrough of more than 700 points. Policies on “two exemptions and one assistance” of education and nutrition improvement subsidy policy were fully implemented, and schoolhouse security and schoolhouse reconstruction as well as construction of education park were promoted vigorously. Science and technology innovation project construction was strengthened, and innovation platform construction achieved tangible results. The city obtained 3 provincial-level key new product certifications, 3 new state-level cultural protection units and 4 provincial-level intangible cultural heritage projects. Basic medical security system covering all the people was preliminary established, and the rate of people joining in new rural cooperative medical system reached 97.4%. Employment and start-up work were comprehensively strengthened, 22,000 job opportunities were developed, urban newly-increased jobs were provided to 15,800 people, and transfer of rural labor was 510,000 person-times. Number of people joining in urban basic endowment insurance, medical insurance, unemployment insurance, work-related injury insurance and maternity insurance was increasing, with rate of more than 95%. Housing accumulation fund system covered 90,000 people, and total deposits reached 4 billion yuan. Agriculture-related subsidies was 358 million yuan, and 30,000 peasant households completed the national scientific grain storage engineering. It was planned to build 20,000 security housings, with 9,000 being basically built. 26,300 dilapidated houses was reconstructed.

3) Economic income

In 2013, GDP of Baoshan City totaled 45.3 billion yuan, an increase of 14%; fixed-asset investment of above designated size grew by 30%, total retail sales of social consumer goods grew by 16%, total import and export volume grew by 23.4%, general financial revenue grew by 19.8%, public finance budget revenue grew by 20.5%, urban per capita disposable income grew by 15%, rural per capita net income grew by 17%, urban registered unemployment rate and natural population growth rate were controlled within 4.5% and 6.1 ‰ respectively, overall level of consumer price rose by 3%, and energy consumption per unit GDP fell by 1.9%.

6. Dehong Prefecture

1) Infrastructure condition

At the end of 2013, reconstruction project of Dehong section of 320 national road was completed, Nongzhang Bridge in Yingjiang was built, construction of Longling-Ruili Highway, Ruili-Longchuan Highway, Mang-Ruili Avenue and Ruili-Wanding Avenue was accelerated, and preliminary work of Dehong section of Dali-Ruili Railway, China-Myanmar Ruili-kyaukpyu, Zhangfeng-Bhamo, Ruili-Bhamo road went well. Longling-Ruili Highway will strive to provide transport service at the end of this year, and Ruili-Longchuan Highway is expected to be completed in 2016. 500 kilometers long rural roads were completed reconstruction, road patency rate in designated villages was 60.7%, an increase of 15.5% over the previous year, 100% of townships had shuttle bus, and 94% of incorporated villages had shuttle bus, the urban and rural bus coverage rate was 42%, and rural road traffic service level was improved significantly. Airport construction aquired substantial progress, and heliport in Ruili was basically built. Joint inspection and check facility project planning of port airport in Mang City passed the review, preliminary work of runway extension project started, and Wanding port Mangman channel realized the temporary opening. New hydropower projects were successfully completed, and new installed capacity reached 253,000 kilowatts. 20 major projects and 20 key work were basicly completed. Farmland water conservancy facilities was further strengthened, investment of 630 million yuan was put into the continued construction of large irrigation districts and other auxiliary projects in Yingjiang, and new effective irrigation area was 19000 mu. Problem of drinking water safety of 84,000 rural population was solved. 53 square kilometers of soil erosion area was under the control, and 106 kilometers of main canal and branch canal completed the seepage-proofing. Investment of 560 million yuan was

put into the implementation of 7 “internal develop and external harmony” projects and 19 requisition-compensation balance land reclamation projects. Investment of 340 million yuan was used to complete the transformation of 129,000 mu of medium and low-yield farmlands, and high and stable-yield farmlands reached 1.34 million mu. Infrastructure construction made major breakthrough, laying a solid foundation for the sustainable development of the economy of the whole prefecture.

2) Social service facilities

At the end of 2013, Dehong Prefecture increased more investment in education, nutrition improvement plan of rural compulsory education students and living subsidies of rural boarder achieved the complete coverage, teaching conditions was improved significantly, overall quality of teaching staff and teaching quality were improved steadily, and number of people with college entrance examination score above 600 points increased by 39 over the previous year. New 4 academician and doctoral workstations were built to strongly support and guide the development of characteristic industry. Payment standard of new rural cooperative medical system and urban basic health insurance and their reimbursement ratio all increased, and rate of joining in new rural cooperative medical system and urban basic health insurance reached 98.6% and 99.9% respectively. “Two cancers” (Cervical cancer and breast cancer) free screening for rural women was carried out around the province, benefiting more than 60,000 people. Various channels were used to raise funds; vulnerable groups will be subsidized in medical expenses; the various medical treatment activities benefiting the people were effectively implemented; free pre-pregnancy inspection and rural free folic acid supplementation project achieved full coverage. “Village to village”, “household to household” and public welfare movie projection projects were implemented effectively, and radio and television coverage rate reached 94.5% and 95% respectively. Sending movie to countryside, square cultural activities and national fitness campaign were carried out vigorously, and the 60th anniversary celebration of founding prefecture, the first sports meeting, China-ASEAN international football game were held successfully. 10 activities benefiting people were completed. “Urban and rural residents’ income doubling plan” was implemented in a deep-going way, with the minimum wage standard was reasonably adjusted, and income of urban and rural residents was steadily improved. Problem of 4,056 people’s employment and reemployment was solved effectively, and 1.012 million people were covered under various social insurance. There was no major food and drug safety accidents all year round. Urban security housing construction was fully promoted, with 6,697 houses being basically completed and 10,542 having been distributed. 6,965 rural dilapidated houses were reconstructed. Power grid updating was under the overall implementation. Rehabilitation and reconstruction in Yingjiang after the earthquake were under solid development. Rural poverty alleviation through development was actively promoted, pilot project was launched in 3 whole Xiangs, and promotion project in 206 poor villages was completed, carrying out a series of poverty relief and development projects, such as relocation, industrial poverty alleviation, credit poverty alleviation and transfer of labor force.

3) Economic income

At the end of 2013, Dehong Prefecture achieved a GDP of 23.09 billion Yuan, with an increase of 12% over the previous year. Public finance budget revenue reached 2.796 billion yuan, an increase of 14.9%. Investment in fixed assets exceeded 20 billion, reaching 21.28 billion yuan, an increase of 34.8%. Foreign trade export-import volume totalled 2.76 billion dollars, an increase of 72.5%. The urban per capita disposable income reaches 19,659 Yuan, with an increase of 11.3%. Per capita net income of rural residents reaches 5608 with an increase of 17.7%

7. Lincang Prefecture

1) Infrastructure condition

Lincang insists on driving the big development with large project, and achieving new

breakthroughs with infrastructure construction focusing on traffic and water conservancy. National road 214 Lincang through-traffic highway and provincial road 319 Lincang-Xinhe highway were completed and open. Provincial road 319 Linxiang through-traffic section and Yangtouyan-Zhenxingqiao section of high-grade highways project was accelerated. Mengding (Qingshui River) to Myanmar (Dengni) cross-border highway, Mengding in Gengma to Lixin in Cangyuan second-class highway, Cangyuan and Zhenkang border defence highway and 643 kilometers unobstructed projects started. Cangyuan Washan Civil Airport won the approval of the State Council and the Central Military Commission. Renovation and extension project of Lincang airport was started. Yuxi (Xinping) – Lincang (Qingshui River) highway via Pu'er (Zhenyuan) has been approved by provincial government to start construction. Xiangyun-Lincang railway has been included in the national survey and design the Ministry of Railways. Strategy of “water conservancy projects powering Yunnan” was fully implemented. Water transportation infrastructure construction of Lancang River Xiaowan and Nuozhadu reservoir area was promoted solidly. Continued construction of 16 backbone water source projects and reinforcement project of 60 small reservoirs were accelerated. The construction of 3 medium-sized reservoirs in Guodazhai in Fengqing, Jiucaiba in Shuangjiang and Dongding in Cangyuan, and 3 small reservoirs in Heilongtan in Gengma, Baishatian in Linxiang and Dazhuanshui in Yunxian started. 20000 “five small water conservancy” project was completed, and construction of 50,000 “water cellars” in mountainous area was accelerated, helping 180000 people solve drinking water safety problem effectively. 340,000 mu of medium and low-yield farmlands completed the transformation; 190 square kilometers of water and soil loss area field was under the control, and irrigation safeguard rate around the prefecture reached 30%.

2) Social service facilities

At the end of 2013, Lincang transformed 401 old villages, 44,000 old houses, 1.23 million square meters of old city area, 520,000 square meters of old school buildings, and basically eliminated grade D dangerous houses in middle and primary schools. 12,000 new jobs were provided for urban residents, 3,337 urban laid-off and unemployed workers found the job again, 2,420 people with job hunting difficulties also found the job again, and new rural labor force transfer employment benefited 185,000 people. Wages of enterprise employee increased normally and local subsidies adjustment mechanism was continuously improved, so rights and interests of migrant workers were effectively protected. Resettlement of inhabitant and follow-up support in power station reservoir area was promoted solidly. All the households can access to electricity. Work-related injury insurance of staff, maternity insurance of staff, urban and rural residents medical insurance and social endowment insurance achieved the full coverage. Reimbursement ratio of urban and rural residents in hospital and compensation proportion of supplementary insurance in the medical treatment of serious illness increased significantly. 1.229 million people joined social endowment insurance of urban and rural residents, 225,000 people enjoyed the urban basic medical insurance, 89,000 people enjoyed urban employees endowment insurance, 108,000 people enjoyed work-related injury insurance, 91,000 people enjoyed birth insurance, 79,000 people enjoyed unemployment insurance, and 1.941 million people enjoyed the new rural cooperative medical insurance, with rate of 96.9%. Nutrition improvement plan for rural compulsory education students was seriously implemented, benefiting 293,000 students from 1,236 schools. “village to village” project of radio and television was under the full implementation, with radio and television coverage rate of more than 97%. Medical and health services ability was constantly improved, and 49 health infrastructure construction project were promoted continuously.

3) Economic income

At the end of 2013, GDP around the city totaled 34.5 billion yuan, an increase of 16%; social investment in fixed assets reached 47 billion yuan, an increase of 35.8%; local public finance budget revenue reached 3.02 billion yuan, an increase of 41.3%; urban per capita disposable

income was 15,921 yuan, an increase of 12.4%; rural per capita net income was 5,584 yuan, an increase of 30.3%; total retail sales of social consumer goods was 10.2 billion yuan, an increase of 17%; total foreign trade import and export volume was 2.1 billion yuan, an increase of 26.5%; natural population growth rate was 6.2‰; registered urban unemployment rate was 3.8%; overall level of consumer price was 3.9%; energy consumption per unit GDP fell by 1.8%, achieving the goal of energy conservation and emissions reduction.

8. Pu'er City

1) Infrastructure condition

At the end of 2013, Lincang built Mohei-Simao Highway and 8 second-class roads like Simao-Lancang and Simao-Jiangcheng, new high-grade highways was 835 kilometers, and patency rate in townships reached 97%. A batch of large and medium-sized power plants such as Nuozhadu, Gelantan, Jufudu and others were put into production, with generator set's installed capacity of 7.67 million kilowatts. Nuozhadu 800kv DC transport project was put into use. Construction of key water source projects was accelerated, and a series of water conservancy projects construction such as reservoir project in Lancang were completed, with total accumulative new capacity of 55.41 million cubic meters, and helping 806,000 rural people solve drinking water safety problem. "Two pollution" project was implemented in 19 towns, and was put into use by National Pu'er Tea Supervision and Inspection Center, the Municipal Civil Air Defense Command Center and Simao District Central Hospital.

2) Social service facilities

Lincang built new school buildings of 1.04 million square meters, the policy of "two exemption and one subsidy" was under the effective implementation, and nutrition improvement plan of rural primary and middle school students was under full implementation. Level-4 public cultural service system was basically established, and mass cultural activities was carried out vigorously. Rate of joining in new rural cooperative medical system was 97.7%. Minimum living security, endowment insurance and other social insurance were expanded. 4.3 billion yuan of small-sum guaranteed loan was issued, 70,000 people got the support for start-up, and 48,000 new jobs were added. 49,000 urban security housings were built, solving the living problems of 173,000 people. Conducted 135,000 rural dilapidated houses reconstruction and earthquake security housing project. The task of "village to village" and "household to household" was first completed around the province. The city actively supported the development of immigrant and ethnic groups with small populations, and carried out the action of "vitalizing border areas and enriching the people living there", reducing 453,000 poverty populations. All ethnic minorities united together and kept progress, border area was prosperous and stable, and construction of demonstration area was of steady progress. In 2013, construction of 36,000 urban security housings was carried out, and 32,000 rural dilapidated houses were reconstructed; 11,000 new jobs for urban residents were added and 3,134 unemployed people obtained the job again; Urban and rural minimum living security level increased by 15%; 133,000 rural people got rid of the poverty; 13,4000 rural people's drinking water safety problem was solved; 1780km long highway benefiting peasants was built; 940 financial payment service stations benefiting peasants were added; and 3 social welfare center, 40 home-based care service centers and 10 rural nursing homes were built.

3) Economic income

At the end of 2013, GDP of Pu'er increased from 18.49 billion yuan in 2008 to 42.54 billion yuan, an average annual increase of 14.2%; local public finance budget revenue increased from 1.37 billion yuan to 5.37 billion yuan, an average annual increase of 31.4%; local public financial budget expenditures increased from 5.93 billion yuan to 20.16 billion yuan, an average annual increase of 27.7%; Total retail sales of social consumer goods increased from 5.2 billion yuan to 11.62 billion yuan, an average annual increase of 17.5%; Urban per capita disposable income increased from 11,344 yuan to 19,170 yuan, an average annual increase

of 11.1%; Rural per capita net income increased from 2,536 yuan to 5,873 yuan, an average annual increase of 18.3%.

9. Xishuangbanna Prefecture

1) Infrastructure condition

Xishuangbanna focused on the construction of major projects. Xishuangbanna airport terminal was put into use, multi-purpose wharf phase-I project in Menghan and highway subgrade engineering of Menghan-Guanlei Port were completed, and the construction of Jinghong-Mengkuan second-class road started. Huangcaoling Reservoir, Manman Reservoir and Menglun Reservoir closed sluice gate to retain water, reinforcement of 38 large and medium dilapidated reservoirs and 40 small dilapidated reservoirs was conducted, new anti-seepage main canal and branch canal was 60km long, 40 square kilometers of soil and water loss area was under the control, new water storage capacity reached 20 million cubic meters, and irrigation rate reached 48%. City construction: water diversion into the city project was under the construction, construction of Xishuangbanna international tourist resort was accelerated, and construction of 3 cities and counties and 3 districts was also accelerated overall.

2) Social service facilities

In 2013, Xishuangbanna promoted the construction of 100 new model villages, the comprehensive development of mountainous area in three townships, conducted hardening of 314km of rural roads, promoted 4,393 solar water heaters and 1,624 new rural biogas digesters, and conducted firewood saving and kitchen transformation for 1466 households. 9000 households completed electric network transformation, 17,4000 mu of medium and low-yield farmlands and 234,000 mu of low-function forest completed the reconstruction, newly-added effective irrigation area was 20,000 mu, and 160,000 rural people's drinking water safety problem was solved. Investment was used for the development of 81 poor villages, and support was given to the development of 28 settlement villages with less population, reducing poverty population of 15,000.

Rate of joining in new rural cooperative medical service was 97.9%, and 21 new medical and health projects were under the construction. 100 rural new basketball courts and 45 county rural cultural and sports facilities were built, 5,300 radio and television coverage project was completed, 31 new farmers quality education network training schools were built, editing and publishing of national book projects Wu Sha Ba Luo and Bei Ye Wen Ku were completed. 7,727 new jobs for urban residents were added, 5,045 laid-off and unemployed workers found the job again, 3,434 people with job hunting difficulties also found the job again, and at least one job for zero-employment family. Number of people joining in all kinds of social insurance was kept at more than 1 million, 13,600 urban security housings all were under the construction, and 7,278 rural dilapidated households completed reconstruction and earthquake security housing project.

3) Economic income

At the end of 2013, GDP of Xishuangbanna totalled 23.26 billion yuan, an increase of 13.7% over the previous year; public finance revenue was 2.23 billion yuan, an increase of 26.5%; public finance expenditure was 8.06 billion yuan, an increase of 20.1%; urban per capita disposable income was 17,909 yuan, an increase of 14.3%; rural per capita net income was 6,174 yuan, an increase of 15.9%; urban registered unemployment rate was controlled within 2.6%; natural population growth rate was controlled within 6.3‰; growth rate of overall level of consumer price was controlled within 2.9%; energy consumption per unit GDP fell by 1.7%.

10. Yuxi City

1) Infrastructure condition

At the end of 2013, Jinning-Hongta District Highway and Jinning-Jiangchuan Highway have

been under comprehensive construction, with total mileage of 105 kilometers and estimated investment of 16.4 billion yuan. Preliminary work of Hongta District-Jiangchuan and Jiangchuang-Tonghai Highway with total mileage of 68 kilometers and estimated investment of 10.6 billion yuan, Tonghai-Huaning-Mile Highway with total mileage of 71 kilometers and estimated investment of 10.6 billion yuan, and Xinping Dakaimen-Lincang Highway with total mileage of 108 kilometers and estimated investment of 19.1 billion yuan was being carried out, laying the solid foundation for the economic and social leaping development.

2) Social service facilities

Urban jobs in Yuxi City of five years from 2008 to 2013 increased by 109,000, registered urban unemployment rate was controlled within 4%, and transfer of rural labor force reached 174,000 people. Pilot program of urban and rural residents' social endowment insurance realized the complete coverage. Object meeting the standard of minimum living security shall receive the government subsidy, and old people above 80 enjoyed subsidy of health care without retirement pension. 49,981 urban security housings were under the construction, 100,000 dilapidated households conducted rural earthquake security housing project and reconstruction, and 4,004 affordable housings for people of Yi nationality living in mountainous area was built. 290,000 rural population got rid of poverty. Resettlement of inhabitant in reservoir area shall be given great attention, 328 support projects were carried out, and direct subsidies of late-stage support were 57.09 million yuan. "Three exemption and one subsidy" during the stage of compulsory education realized the full coverage, nutrition improvement plan of students during the stage of compulsory education was under the full implementation, the new rural cooperative medical care level increased year by year, medical reform Yuxi mode of "basic medical care has security, relief of serious disease has mechanism, and chronic disease has the compensation of outpatient service" was created. 263 infrastructure projects of health medical institutions were completed, and natural population growth rate was controlled at 5.8 ‰. 50,000 households completed the direct broadcast satellite "household to household" project, villages with more than 20 households all realized radio and television "village to village", basically completing the integral transition of digital TV. Urban and rural public sports facilities was constantly improved.

3) Economic income

At the end of 2013, GDP of five years totaled 386 billion yuan, an average annual increase of 12.4%, general financial revenue was 154.8 billion yuan, an average annual increase of 15.8%, local public finance budget revenue was 33.7 billion yuan, an average annual increase of 18.3%, urban per capita disposable income increase was 10,191 yuan, an average annual increase of 13.8%, and rural per capita net income was 3,620 yuan, an average annual increase of 13.7%. Marked achievements were scored in the economic structure adjustment. Proportion of tertiary industry was adjusted from 10.6:60.3:29.1 to 9.7:62.4:27.9, of non-public economy was 32.4%, increasing by 6.9%, and of non-smoking economy was 61.6%. The newly added industrial value will be 59.83 billion Yuan, with an annual average increase of 14.8%. The added value of non-public economy reached 32.4 billion yuan, an average annual increase of 16.2%. The added value of the tertiary industry reached 27.88 billion yuan, an average annual increase of 9.8%. The total retail sales volume of the social consumer goods reached 19.86 billion Yuan, an increase by 19.9%.

11. Chuxiong Yi Autonomous Prefecture

1) Infrastructure condition

In 2013, projects involved in provincial "three 100", and key projects of prefecture-level "three 30" was solidly promoted. Three sections of railway engineering including Kunming-Guangzhou complex line progressed smoothly; construction of three arterial highways including Chuxiong-Guangtong Highway, Chuxiong-Nanhua First-class Highway and 108 national road with investment of 1.5 billion yuan was promoted, building, rural roads newly built and rebuilt was 1,353 kilometers long, with investment of 950 million yuan,

achieving the goal of all administrative villages having road. Investment into water conservancy reached 3 billion yuan.

2) Social service facilities

At the end of 2013, Chuxiong Yi Autonomous Prefecture added 26,000 urban jobs, and transferred rural labor force for 56,000 people. Average reimbursement ratio of hospitalization expenses covered by endowment insurance for urban workers, medical insurance for urban residents and new rural cooperative medical system policy was kept at more than 80%, 70% and 75% respectively, both minimum wage standard and unemployment insurance benefits rose 15%, basic pension if enterprise retiree had an increase of 205 yuan per month. 20,000 security housings were built, and 15,000 were under the construction. Equalization level of basic public service was further improved, education work was steadily promoted, health people-benefit task was fully completed, and cultural people-benefit engineering was under the implementation. Scientific and technological innovation was strengthened, and 36 technology projects with provincial level or above were newly added.

3) Economic income

At the end of 2013, GDP of the prefecture totaled 63.25 billion yuan, an increase of 10.6%; investment in fixed assets above the designated size was 45.2 billion yuan of, an increase of 30%; local general financial revenue and local public finance budget revenue were 14.05 billion yuan and 5.64 billion yuan respectively, increase of 12.9% and 21.7% respectively; total retail sales of social consumer goods grew by 14.1%; total foreign trade import and export volume grew by 39.7%; Urban and rural resident income reached 22,934 yuan and 6,357 yuan respectively, increase of 13% and 17.3% respectively; consumer prices rose 3%; Registered urban unemployment rate was 3.3%; Natural population growth rate was 4.4‰; Unit GDP energy consumption fell by 2.6% or so.

12. Zhaotong City

1) Infrastructure condition

Total highway mileage in Zhaotong City was 552 kilometers, 8 second-class highways with a total investment of nearly 10 billion yuan including Zhenwei, Shifeng, Zhaoqiao and others all were under the construction, Shuifugang phase-II expansion project was basically completed, oil way project was 333km long, access engineering was 333km long, and 10 passenger transport stations were built. In water conservancy, construction of Tongluoba Reservoir in Shuifu, Luohanping Reservoir in Suijiang and Shuanghe Reservoir in Yiliang was accelerated, reinforcement of 19 reservoirs such as Liangfeng Reservoir in Yongshang and Changhai Reservoir in Qiaojia was basically completed, and Ludian section phase(I) of Zhaotong-Ludian large irrigation area was started. In power grid, 500kv transmission and transformation project in Yongfeng Town, Zhaoyang District was put into production in advance, over transmission and transformation projects with 220kv in Beimen, Shuifu and phase II 220kv were put into use, and investment in providing electricity and upgrading of urban and rural power grid reached 690 million yuan.

2) Social service facilities

Basic education in Zhaotong City realized the historic leap. Appropriation in “two exemption and one subsidy” reached 644 million yuan. 404,000 square meters of dilapidated houses in primary and secondary schools were eliminated. Number of students of ordinary high school and secondary vocational school was expanded to 59,000 and 23,000, with rate of reaching and exceeding admission score of college entrance examination increased by 7.2%. Grassroots medical and health service facilities were gradually improved. New rural co-operative medical system was of healthy development, rate of farmers joining in it increased by 8.4%, and exemption funds reached 440 million yuan. Public health events were handled properly, city broadcasting and television center was put into use, and 4,580 households completed the radio and television coverage direct broadcast satellite project.

Afforestation areas reached 1.466 million mu. Number of people joining in social insurance reached 655,000, an increase of 54.1%. 507 million yuan of minimum living security grants was issued to 105,000 urban people in straitened circumstances and 430,000 rural people in poverty. Construction of 11 central nursing homes was accelerated, health care subsidies were issued to 64,000 people with aged 80-year-old or above, low-rent houses with construction area of 269,000 square meters were completed, and 19,200 households completed the rural earthquake safety project.

3) Economic income

GDP of Zhaotong City in 2013 totaled 63.47 billion yuan, an increase of 13.4%, with fourth growth rate in the province, among them, added value of primary industry reached 12.865 billion yuan, an increase of 7.2%, added value of the secondary industry reached 31.894 billion yuan, an increase of 19.8%, and added value of tertiary industry reached 18.71 billion yuan, an increase of 6.2%. Investment in fixed assets above the designated size reached 54.85 billion yuan, an increase of 30.04%, with seventh growth rate in the province. Local public finance budget revenue and expenditure were 4.747 billion yuan and 26.113 billion yuan, increasing by 20.3% and 20.3% respectively. Urban per capita disposable income was 18,724 yuan, increasing by 14.2%, with the first in the province. Rural per capita net income was 4604 yuan, increasing by 18.1%, with the second growth in the province. The total retail sales volume of the social consumer goods reached 16.988 billion Yuan, with an increase of 13.6%. Overall level of consumer price rise amount was controlled within 2.7%, lower than the national and provincial average rise amount.

The per-capita disposable income of urban residents was 18724 Yuan, rising by 14.2% over last year; Among them, income from wage and salary was 13,320 yuan, an increase of 8.2%. The per capita consumption expenditure was 10649 Yuan, rising by 7.2%. Rural per capita net income was 4,604 yuan all year round, an increase of 18.1% over the previous year, and among them, income from wage and salary was 2,221 yuan, an increase of 17.2%. The rural per capita consumption expenditure was 3,899 Yuan, rising by 16.4%. Rural Engel coefficient was 48.6%. Number of people brought into list of minimum living security throughout the year was 155,652, the number of people living on minimum subsistence allowances was 620,773, urban and rural per capita subsidies for minimum living security were 235.66 yuan and 104 yuan respectively, 22.8 yuan and 10 yuan more than the previous year. Objects meeting the standard of five insurance will be included into the scope of support, up to 44021 people.

13. Kunming City

1) Infrastructure condition

In 2013, turnover volume of highway passenger transportation was 12.605 billion passenger per kilometers, an year-on-year growth of 10.9%, turnover volume of freight transportation was 1.085 billion ton per kilometers, an year-on-year growth of 18.1%; turnover volume of railway passenger transportation was 9.199 billion passenger per kilometers, an year-on-year growth of 0.1%, turnover volume of freight transportation was 37.968 billion ton per kilometers, an year-on-year growth of 2.7%; Kunming airport security flight was 230,300 sorties throughout the year, an increase of 4.8%; passenger throughput was 23.9826 million person-time, an increase of 7.7%, and goods throughput was 262,300 tons, an decrease of 3.7%. At the end of 2013, the city has 1.6868 million vehicles, up 11.9% from a year earlier. Which car ownership 1.1917 million, up 17.3% from a year earlier. Postal business income of city was 391 million yuan, an increase of 9.2%. At the end of the year, number of fixed-line telephone subscriber was 1.7434 million (including PHS). Total tourism income of the city was 42.668 billion yuan, increasing by 16.2%.

2) Social service facilities

At the end of 2013, there were a total of 41 regular higher educational institutions, with 361,000 students and 22,800 full-time teachers. There were 94 secondary specialized

schools, with 172,300 students and 5,900 full-time teachers. There were 268 ordinary secondary schools with 313,800 students and 21,100 full-time teachers. There were 989 ordinary primary schools, with 495,400 students and 26,300 full-time teachers. Gross enrollment rate of primary-school-age children was 108.79%. Gross enrollment rate of junior middle school was 111.11%. Gross enrollment rate of senior high school education was 88.56%. The city implemented 585 science and technology planning projects (including 408 new projects), among them, there were 16 major science and technology planning projects. The city accepted 5,994 patent applications throughout the year, and won 3,593 licensing patents. There were 2,895 spare-time artistic performance groups at the end of the year around the city, and 15 cultural centers and mass art galleries. There were 15 public libraries and 112 museums (including listed museum). Cable TV subscriber in Kunming reached nearly 1.7 million, and direct broadcast satellite users outside the cable network were 230,000. There were 4480 health institutions around the city, including: 236 hospitals and 44,500 sickbeds in health agency. There were 20,200 doctors and 46,600 health technical personnel. At the end of the year, number of people joining in basic endowment insurance around the city was 1.1093 million people,. Number of joining in land-lost farmers endowment insurance was 186,400. Number of people joining in unemployed insurance was 822,700, maternity insurance was 690,200, work-related injury insurance was 805,300, and medical insurance for urban workers was 1.6611 million. Number of people joining in basic medical insurance for urban residents was 1.7275 million. Rate of people joining in new rural cooperative medical service was 97.6%. The urban recorded unemployment rate was 2.38%. At the end of the year, there were 6 rural nursing homes, with 4,126 beds. There were 51 old-age nursing institutions, with 9,952 beds. Among them, there were 6 old-age nursing institutions, with 2,352 beds, and 45 civilian-run old-age nursing institutions, with 7600 beds.

3) Economic income

In 2013, the regional GDP totaled 301.114 billion yuan, exceeding 300 billion, year-on-year growth of 14.1% calculated at comparable price. In which, the completed added value of the primary industry was 15.916 billion Yuan, with a year-on-year increase of 6.4%; the completed added value of the second industry was 137.848 billion Yuan, with a year-on-year increase of 16.1%; the completed added value of the tertiary industry was 147.35 billion Yuan, with a year-on-year increase of 13.0%. The proportion of the three industries was 5.3: 45.8: 48.9. Per capita GDP reached 46256 yuan. In 2012, industrial added value reached 100.842 billion yuan, an increase of 15.6% over the previous year, among them, the industrial added value above designated size increased by 15.7%. In the industry above designated size, added value of light industry grew by 15.5%, and added value of heavy industry grew by 15.9%. In the industry, the added value of the tobacco industry increased 15.5%, and the metallurgical industrial increased 18%, mechanical and electrical industrial fell by 2.2%, and the medicine industrial increased 19.8%.

14. Honghe Hani & Yi Autonomous Prefecture

1) Infrastructure condition

Infrastructure was constantly improved. By 2013, road skeleton network and comprehensive transportation system were built, and Yunnan-Vietnam international big pathway was built. Irrigation and urbanization level was improved unceasingly. Center city in the south of Yunnan was gradually formed. Traffic mileage increased from 17700 km to 19700 km, and highway traffic mileage was 340 km. Pingyuanjie-Suolongsi Highway, Mengzi-Xinjie Highway, Xinhe Highway and Milushi and Gedun first-class highway were built, six second-class highways including Shilin-Mengzi Highway, Yuanyang-Lvchun Highway, Man-Jinping Highway were under the construction, 46 rural road unobstructed projects and 561 access projects were completed, with the rate of 95.3% for townships highways and 99.2% for designated villages respectively. Three electrified railways including Yuxi-Mengzi Railway,

Mengzi-Hekou Railway and Yungui Railway started construction successively, mileage under construction was 350 kilometers, accounting for 20% of provincial mileage under construction. The Red River Airport started soon; there were 8 medium and small (I) reservoirs, 36 reservoirs conducted reinforcement, newly-added water storage capacity was 40 million cubic meters, helping 839,400 people solve the safety problem of drinking water. Coal production capacity holds the second place in the province, with six medium-sized hydropower stations and three 2×300,000 kw thermal power units were built, and 3.4 million kw of electric power installed capacity was added. Construction project of Red River power grid was under the full implementation, and its capability of power supply guarantee was constantly enhanced. The total investment in municipal infrastructure was 5.819 billion yuan, urban water supply and drainage, two sewage treatment, urban road, greening and lighting projects were completed, urban built-up area reached 150 square kilometers, the urbanization level increased from 31% at the end of the “10th Five-Year Plan” to 36.2%. Communication conditions continue to improve, communication capacity and penetration rate of the Internet and mobile telephone network increase steadily. “Digitized village” covered the whole prefecture.

2) Social service facilities

In 2013, preliminary work of the projects including construction of county 120 emergency center, Baiyun Health Center and county hospital of TCM was completed, and construction of Xinxian health center, Xinhua health center, Wantang health center and 21 village clinics was pushed forward orderly. Construction of 3 “village-level cultural activities squares” and 7 “Colorful Yunnan National Fitness Project” was completed, and restoration project of Wan Baobang old home was started. Base station construction of “Household to household” terrestrial digital television coverage project center and the planning and stationing of 6 backbone base stations and 4 supplementary base stations were completed successfully. Enrollment ratio of kindergarten was 59.1%, net enrollment ratio of primary school was 99.3%, gross enrollment ratio of the junior middle school was 99.3%, rate of finishing school was 95.9%, gross enrollment ratio of senior high school was 57%, and rate of reaching and exceeding admission score of college entrance examination in 2013 was 100%. Students’ nutrition improvement plan of the rural compulsory education achieved the full coverage. Bilingual broadcasting was opened, radio and TV security broadcast achieved “zero accident”. Coverage of new rural cooperative medical service continued to expand, rate of people joining in 2013 was 99.42%, and benefit rate was 240%. The unemployment rate on record in urban areas was 3.87 percent.

3) Economic income

In 2013, per capita GDP around the prefecture reached more than 2000 dollars. General budget revenue of local finance reached 22.56 billion yuan, the total fiscal expenditure was 55.994 billion yuan, and the proportion of non-public economy among the total was 33.1%. 46.124 million domestic and foreign tourists were received, and tourism revenue reached 23.1 billion yuan. Total volume of retail sales of consumer goods around the prefecture grew by an average of 18.8% a year, the added value of the tertiary industry increased from 8.78 billion yuan at the end of the “Tenth Five-Year Plan” to 20.1 billion yuan, the average annual growth of 14%, and rate of contribution to economic growth increased by 8.3% over that during the Tenth Five-Year Plan period.

15. Qujing City

1) Infrastructure condition

In 2013, Qujing City invested 1.55 billion yuan of construction funds to ensure that the north-south thoroughfare Huize section and Puli-Xuanwei Highway were pushed forward smoothly; “reconstruction of first-class Xiqiao-Shilin road into highway” and construction of national road 213 line Jiangdi-Gangchang section were started; preliminary work of 5

highways including Xuanqu, Qujing southeast border line went well, and newly-built and reconstructed rural roads were 3100 km long. Water conservancy construction was strengthened, 20 backbone water source projects in Dongshang, Hongshiyuan and other places, reinforcement projects of 320 dilapidated reservoirs including Lianhuatian Reservoir, Wangjiachong Reservoir and others was accelerated, and proposal for Agang Reservoir and Chemabi Reservoir project has been submitted to the state ministries for review. 59,000 “Five small” water conservancy projects were completed, helping 467,000 people solve the drinking water safety problem. 516,000 mu of medium and low-yield farmlands was transformed. “Qi Zhan Ma” integrated power grid planning was perfected, 6 key power transmission and transformation projects were completed, 1,546.9km long rural power grid and 226km urban power grid completed the transformation. Six counties realized 4G network coverage, and coverage of information was expanded.

2) Social service facilities

In 2013, 32,000 urban jobs in Qujing City were created, and registered urban unemployment rate was 3.3%. Transfer of new rural labor force employment reached 119,000 people. Number of people joining in various social insurance was more than 4.761 million. Reconstruction of 7 rural nursing homes was completed. 24,600 security housings were under the construction, and 13,400 dilapidated households completed the reconstruction and earthquake security housing project. Opinions on accelerating educational reform and development were issued, each new primary and secondary school would get assistance of 15 million yuan and 10 million yuan respectively, and new standardized kindergarten was granted of 250,000 yuan subsidy per class. Relocation of ethnic middle school, and branch school construction of First Middle School and Second Primary School in Qujing were started, new construction and expansion of 228 primary and secondary schools, as well as 228 kindergartens were also started, and 339,000 square meters of Grade-D dilapidated primary and secondary schools were eliminated. Preschool education was under fast development, the compulsory education was consolidated and enhanced, and high school education level took the lead in the whole province. Relocation and construction of municipality TCM Hospital and Maternity and child Health Care Hospital were started, one county-level hospital was under the construction, construction of 247 village clinics and 24 health clinics in townships was completed, and construction of 100 village clinics was also started. 165 general cultural centers in townships, community cultural activity centers, and village cultural rooms were built. Afforestation areas reached 866,000 mu, 500,000 mu of low-yield forest completed the transformation, 103,000 mu of steep land was under the controlled, 245,000 mu of desertification was also under control, and forest coverage rate reached 43%.

3) Economic income

In 2013, GDP of Qujing City totaled 158.39 billion yuan, year-on-year growth of 13.1%; investment in fixed assets above designated size was 102.08 billion yuan, year-on-year growth of 23.7%; fiscal revenue was 37.43 billion yuan, year-on-year growth of 9.2%; local public finance budget revenue was 12.15 billion yuan, year-on-year growth of 17%; total retail sales of social consumer goods was 37.83 billion yuan, year-on-year growth of 14.1%; urban per capita disposable income was 24,261 yuan, year-on-year growth of 12.2%; rural per capita net income was 6,861 yuan, year-on-year growth of 15.3%.

16. Wenshan Zhuang-miao Autonomous Prefecture

1) Infrastructure condition

Wenshan Zhuang-miao Autonomous Prefecture seized the policy opportunities such as construction of Yunnan bridgehead, poverty alleviation of stony desertification area, and battle of Yunnan for implementing comprehensive transportation construction within three years, 6 new water source projects were under the construction, reinforcement of 45 small dilapidated reservoirs was completed, 50,000 “five small” water conservancy projects were

completed, helping 260,000 rural population solve drinking water safety problem. 300,000 mu of medium and low-yield farmland was transformed, and effective irrigation efficiency of farmland was 26.3%. Construction of Wenshan section of Yungui Railway progressed smoothly, Pingyuan-Wenshan Highway and Funing-Napo Highway were under the construction, feasibility study report of Mengzi-Wenshan-Yanshan Highway has won the approval of National Development and Reform Commission, 203 rural highway projects were under the continued construction and new reconstruction, with 2,966 kilometers long, and main road of characteristic industry was 88.6 kilometers. New results were obtained in the energy construction, with two 220kv and a batch of 110kv, 35kv power transmission and transformation projects were under the construction, and rural power grid transformation was accelerated. A batch of central supermarkets, goods distribution centers, rural market, urban and rural distribution network were further improved.

2) Social service facilities

Wenshan Prefecture implemented 378 school safety projects of primary and middle schools, with construction area of 243,000 square meters; reconstructed the canteen of 593 primary and middle schools, with construction area of 224,000 square meters; built 484 teacher relocation housings, with construction area of 16,900 square meters; implemented 226 promotion projects of rural preschool education, built and expanded schoolhouse of kindergarten, with construction of 86,000 square meters, and the whole prefecture realized the complete coverage of digital education resources. Gross enrollment ratio of 3-6 year-old children increased from 33.6% to 42.6%, enrollment ratio of primary school was 99.5%, gross enrollment ratio of junior middle school was 100.7%, and gross enrollment ratio of senior high school was 56%. 722 villages realized the "village to village" of broadcasting and television, 113,000 households realized the "household to household" of direct broadcast satellite, and comprehensive coverage rate of the population of radio and television reached 95.8% and 95.8% respectively. Rate of people joining in new rural cooperative medical system was 98.2%. 16,700 urban jobs were created throughout the year, with 2,225 laid-off and unemployed workers finding the job again, and 1,698 people with difficulties in finding jobs obtaining the job again, and employment situation was basically stable. Number of people joining in various social insurance reached 2.469 million. Disaster relief was comprehensively strengthened, urban and rural minimum living standard totaled 757 million yuan, living costs of rural "households enjoying the five guarantees" reached 26.307 million yuan, 26,000 urban and rural residents with financial difficulties enjoyed the provisional relief, with money of 39.09 million yuan. Construction of security housing was under steady progress, 28,070 urban low-rent housings and public rental housings were under the construction, 27,850 dilapidated households conducted the reconstruction. Support for exceptional poverty population was made new progress, helping 81,000 people get rid of poverty.

3) Economic income

Grain total output in 2013 reached 1.55 billion kg, an increase of 3.6%; Total value of agricultural output was 22.7 billion yuan, an increase of 7.1%; Total value of Notoginseng industry output was 11.73 billion yuan, an increase of 17%, sales revenue was 17.06 billion yuan, an increase of 24.8%; tobacco purchases were 1.417 million dan, income of tobacco grower was 1.76 billion yuan, an increase of 9.4%; Cultivated area of pepper was 1.676 million mu, and comprehensive output value was 4.5 billion yuan, an increase of 15%; Cultivated area of sugarcane was 805,000 mu, and Cultivated area of tea-oil tree was 211,000 mu, with replanting area of 152,000 mu; output value of animal husbandry achieved 9.08 billion yuan, an increase of 8.4%. Gross industrial output value broke through 50 billion yuan, reaching 51.1 billion yuan, an increase of 24.2%; Industrial added value was 15.73 billion yuan, an increase of 20.6%; Industrial added value above the designated size was 13.7 billion yuan, an increase of 22.7%; added value of private economy was 28.22 billion yuan, an increase of 13.9%. There were 28 enterprises entering in the park all year round, and industrial added value of the park was 9.33 billion yuan, an increase of 36.9%.

Appendix 2: Terms of Reference for External M&E on Ethnic Minority Development

1. Purpose of EMDP M&E

To conduct independent M&E and follow-up evaluation on the implementation of the EMDP of the Project as required by the Bank to see if the EMDP is implemented as expected and point out any problem, submit reports to the Bank, Yunnan Provincial Highway Bureau and other competent authorities, and provide information and advice as a reference for decision-making and improvement

2. Scope of EMDP M&E

M&E will be conducted pursuant to the implementation plan based on the mitigation and benefit enhancing measures specified in the EMDP to cover the following:

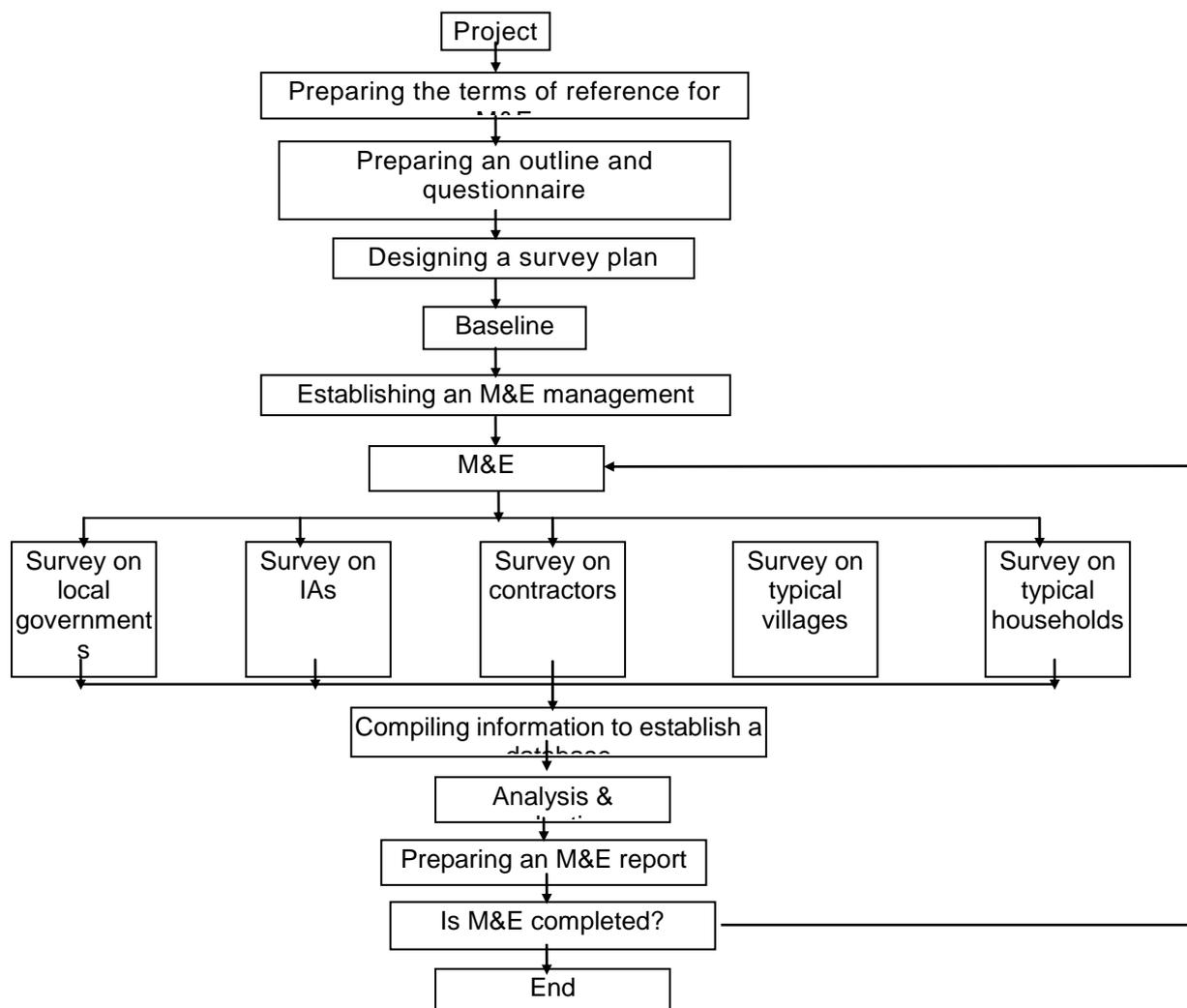
(1) Implementation of mitigation measures: optimizing the design to protect rights and interests of potential APs; mitigating or eliminating construction impacts; environmental protection; protecting public and human health; Encouraging women to participate in decision-making; support for vulnerable groups

(2) Implementation of mitigation measures benefit enhancing measures: promoting tourism development; utilizing local building materials and transport resources; absorbing local labor; offering catering and other services; increasing jobs for minority residents; promoting logistics development, etc.

The above scope will be modified based on the EMDP approved by the Bank.

3. Technical route

The technical route for external M&E is as follows:



Technical Route of M&E

4. External M&E agency

External EMDP M&E will be undertaken by an agency with experience in EMDP M&E in similar domestic projects appointed by the Yunnan Provincial Highway Bureau.

5. Organization and division of labor in EMDP M&E

(1) The external M&E agency is responsible for the M&E survey, data collection, calculation, analysis, and result review.

(2) The EMDP M&E team established by the external M&E agency is responsible for conducting M&E on EMDP implementation under the direction of the Bank officials, preparing the terms of reference for M&E, setting up M&E points, conducting fieldwork and office work, and preparing EMDP M&E reports.

(3) The Yunnan Provincial Highway Bureau and local governments should provide support in manpower and traffic during the fieldwork of the EMDP M&E team.

6. Modes of EMDP M&E

- 1) M&E should be conducted through a mix of fieldwork, qualitative and quantitative

analysis, and expert evaluation.

2) The survey should be conducted in a dot-line combination manner. EMDP implementation progress, funding, organization and management should be investigated comprehensively, and a sampling survey should be conducted on the sample villages and households covered by the EMDP.

3) A follow-up survey should be conducted on the sample villages and households chosen based on a number of factors, including location, ethnic group, gender, cultural differences, livelihoods, and project impacts. 68 sample households should be chosen. The survey methods include questionnaire survey, in-depth interview, FGD, field visit, and random survey.

4) The comprehensive survey should involve all agencies covered by the EMDP (Yunnan Provincial Highway Bureau, IAs, 16 local municipal/prefectural governments and departments concerned, contractors, county and township governments, supervising agency, design agency, etc.) using such methods as questionnaire survey, FGD, literature study, and field observation.

5) The external M&E team should provide EMDP implementation statistics (including tables, indicators, methods, etc.) and reports as a reference for the Yunnan Provincial Highway Bureau, IAs, provincial departments concerned (department of forestry, department of land and resources), 16 local municipal/prefectural governments and departments concerned, and contractors, as well as for the owner to enter into construction contracts with contractors and establish the internal monitoring system.

6) In addition to written materials, photos, videos, sound records, physical objects, etc. should also be collected.

7. External EMDP M&E schedule

Semi-annual report should be submitted to WB and the PMO.

Appendix 3: Socioeconomic and Traffic Survey on Local Households

_____ Village, _____ Town, _____ County, _____ City/Prefecture

I. Family members

	Head	Member 2	Member 3	Member 4	Member 5	Member 6	Member 7
Name (head only)							
Relationship with the household head							
Gender							
Age (year)							
Ethnic group							
Registered residence (agricultural or not)							
Educational level							
Disabled or not							
Main job							
Income							
Second job							
Income							

1.1 Respondent information

Name:

Age:

Gender:

Ethnic group:

1.2 If you family does business, please describe specific activities:

- (1) Increasing the added value of farm products
- (2) Repair (machinery, vehicle, home appliance, blacksmithing)
- (3) Wholesale
- (4) Retail (grocery)
- (5) Manufacture (e.g., clothes, tools, food)
- (6) Service (e.g., photography)
- (7) Transport
- (8) Other (specify)

II. Agriculture

2.1 Land area

Land type	Cultivated land	Hilly land		

2.2 Your family's output of farm products:

Crop	Annual output	Unit price in 2013
	Qty. (kg/mu)	yuan/kg

2.3 What livestock does your family raise?

Type	Unit	Qty.
Cattle	Head	
Horse	Head	
Pig	Head	
Sheep	Head	

III. Transport and traffic

3.1 Does your family have its own means of transport?

Yes No

If No, skip to Q3.3.

3.2 If yes, what is it?

- (1) Animal cart
- (2) Motorcycle
- (3) Motor tricycle
- (4) Tractor
- (5) Car
- (6) Truck
- (7) Other (specify)

3.3 Main mode of transport

	Township	County/city	Prefecture	Provincial capital
Learning				
Shopping				
Seeing a doctor				
Visiting relatives				
Outside employment				

Means of transport include motorcycle, bus, coach, self-driving, tractor, animal cart, etc.

3.4 What is the most urgent traffic problem in your mind?

- (1) Bad road condition
- (2) Limited means of public transport
- (3) Infrequent runs
- (4) Limited roads
- (5) Inability to pay traffic expenses

(6) Other (specify)

3.5 How many farm products did you sell last year?

No.	Type	Qty.	Traffic expenses
1			
2			
3			
4			
5			
6			

IV. Living conditions

4.1 Housing conditions

House structure (m ²)					Per capita housing size (m ²)
Subtotal	Masonry concrete	Masonry timber	Earth timber	Earth	

4.2 What fuel does your family use?

LNG Firewood Coal

4.3 Does your family have TV signal?

Yes No

4.4 Does your family have a telephone?

Yes No

4.5 Does your family have municipal water supply?

Yes No

V. Household properties

Home appliances	Qty.	Means of transport and production	Qty.
TV set		Tractor	
Refrigerator		Motorcycle	
Washing machine		Automobile	
		Bicycle	

VI. Income and expenditure

6.1 Income

Item	Amount (yuan)
1. Household operating and service income	
1) Crop cultivation	
2) Stockbreeding	
3) Forestry	
4) Fishery	
5) Industry	
6) Construction	
7) Transport	
8) Catering	
9) Service income	

2. Property and transfer income	
Total	

6.2 Expenditure

Item	Amount (yuan)
1. Household productive expenses	
1) Crop cultivation	
2) Stockbreeding	
3) Forestry	
4) Fishery	
5) Industry	
6) Construction	
7) Transport	
8) Catering	
2. Nonproductive expenses	
1) Food	
2) Clothing	
3) Residence	
4) Equipment, supplies and services	
5) Medical care	
6) Traffic and communication	
7) Entertainment and educational supplies and services	
8) Other supplies and services	

VII. Traffic safety

7.1 Has any child in your family received education on road safety?

Yes

No

7.2 Are you aware of basic road traffic rules, such as right-hand driving and traffic signals?

Yes

No

7.3 Is there any necessary relationship between drinking and traffic accidents?

Yes

No

7.4 Has any member of your family been injured or killed in a traffic accident?

Yes

No

VIII. Attitude to and expectations for the Project

8.1 What's your attitude to strengthening the highway maintenance team, improving road conditions, and prohibiting vehicle overload?

1) Support; 2) Not related to me; 3) Oppose

8.2 What suggestions do you have for the Project (multiple choices)?

1) Joining the highway maintenance team

2) Strengthening the control over vehicle overload

3) Sharing job opportunities generated by the Project

4) Doing small business in suitable road segments

Other:

Appendix 4: Additional Jobs Generated by the Project

No.	Highway section	Management office	Township	Minority distribution		Current office			After project Implementation		
				Total population	Minority population	Total work force	Female work force	Minority work force	Workforce (incl. maintenance staff) possibly increased	Jobs for women	Jobs for ethnic minorities
1	Kunming general section			1240808	143614	641	225	146	191	72	36
1	Kunming	Ma village Management Office	Ciba Sub-district	38368	5525	17	5	1	0	0	0
2	Songming	Yanglin Management Office	Yanglin Town	63000	2200	64	30	24	21	10	6
3	Songming	Yangjie Management Office	Yangjie Town	67500	8100	87	33	42	23	7	8
4	Xundian	Gongshan Management Office	Gongshan Town	41762	4438	43	9	4	0	0	0
5	Xundian	Jin Management Office	Rende Sub-district	136749	29485	47	10	6	0	0	0
6	Dongchuan	Tangdan Management Office	Tangdan Town, Dongchuan District	44529	1224	26	2	1	0	0	0
7	Dongchuan	Yubeidi Management Office	Yingpan Village, Tongdu Town, Dongchuan District	3115	22	35	10	3	0	0	0
8	Fumin	Yongding Management Office	Daying Town	22809	1721	36	22	3	0	0	0
9	Fumin	Kuanzhuang Management Office	Kuanzhuang Xiang	22000	2700	0	0	0	31	18	3
10	Luquan	Longtan Management Office	Pingshan Town	65627	15300	19	5	5	6	1	2
11	Luquan	Cuihua Management Office	Cuihua Town	36920	11919	1	0	0	8	2	3
12	Anning	Qingwu Mountain Management Office	Lianran Sub-district	85096	4564	35	9	5	10	5	4
13	Anning	Lubiao Management Office	Lubiao Sub-district	11856	1499	0	0	0	12	6	3
14	Chenggong	Qidian Management Office	Qidian Xiang	14114	94	50	26	14	0	0	0
15	Chenggong	Sanchakou	Longjie Community,	194419	14293	75	40	35	0	0	0

No.	Highway section	Management office	Township	Minority distribution		Current office			After project Implementation		
				Total population	Minority population	Total work force	Female work force	Minority work force	Workforce (incl. maintenance staff) possibly increased	Jobs for women	Jobs for ethnic minorities
		Management Office	Longcheng Sub-district								
16	Yiliang	Beigucheng Management Office	Beigucheng Town	60800	3000	37	5		10	3	1
17	Yiliang	Tangchi Management Office	Tangchi Town	68900	2500	12	2	2	10	2	2
18	Yiliang	Jiuxiang Management Office	Jiuxiang Xiang	18600	5000	24	5	1	20	5	1
19	Shilin	Shilin Management Office	Lufu Sub-district	51437	7218	8	4	0	15	4	1
20	Shilin	Lunan Management Office	Lufu Sub-district	51437	7218	0	0	0	20	6	2
21	Jinning	Jincheng Management Office	Jincheng Town	57592	6335	15	5	0	3	2	0
22	Jinning	Kunyang Management Office	Kunyang Town	84178	9259	10	3	0	2	1	0
II	Qujing general section			1001679	104840	249	60	13	47	12	4
23	Qilin	Yuezhou Management Office	Yuezhou Town	78606	965	12	3	0	3	1	1
24	Fuyuan	Yingshang Management Office	Yingshang Town	72114	6368	10	2	1	0	0	0
25	Fuyuan	Fucun Management Office	Fucun Town	91410	12109	15	2	3	0	0	0
26	Xuanwei	Xuanwei Management Office	Xining Sub-district	50330	1428	15	4	1	0	0	0
27	Xuanwei	Geyi Management Office	Geyi Town	53842	1258	12	0	0	0	0	0
28	Xuanwei	Jichang Management Office	Yangchang Town	58787	1364	11	0	0	0	0	0
29	Xuanwei	Xuantang Management Office	Xining Sub-district	50330	1428	13	4	2	0	0	0

No.	Highway section	Management office	Township	Minority distribution		Current office			After project Implementation		
				Total population	Minority population	Total work force	Female work force	Minority work force	Workforce (incl. maintenance staff) possibly increased	Jobs for women	Jobs for ethnic minorities
30	Huize	Yiche Management Office	Yiche Town	80600	1266	10	3	0	8	2	1
31	Huize	Zhejiang Management Office	Zhejiang Town	104800	18200	17	4	0	10	3	1
32	Huize	Jiache Management Office	Jiache Town	25500	2560	9	1	1	10	3	1
33	Luliang	Banqiao Management Office	Banqiao Town	90652	2367	6	3	0	12	3	0
34	Shizong	Wulong Management Office	Wulong Xiang	35219	12869	10	4	1	3	0	0
35	Shizong	Lugu Management Office	Gaoliang Township	30594	23436	9	0	0	1	0	0
36	Luoping	Luoping Management Office	Lashan Sub-district	44934	4947	12	2	1	0	0	0
37	Malong	Malong Management Office	Tongquan Town	39800	310	52	19	2	0	0	0
38	Luoping	Zuantianpo Management Office	Majie Town	58783	7176	9	1	0	0	0	0
39	Zhanyi	Shibanjing Management Office	Jinlong Office	35378	6789	27	8	1	0	0	0
III	Zhaotong general section (including stations beyond the construction of World Bank)			533380	85540	989	282	56	0	16	4
40	Zhaoyang	Zhaoyang Management Office	Longquan Sub-district	84000	2244	88	36	8	0	0	0
41	Ludian	Wenping Management Office	Taoyuan Xiang	8100	7700	39	12	5	4	2	0
42	Ludian	Xinjie Management Office	Xinjie	18896	3500	0	0	0	2	1	0
43	Yiliang	Jiaokui Management Office	Jiaokui Town	114729	6790	7	4	0		0	0
44	Yiliang	Xiaocaoba Management Office	Xiaocaoba Township	22399	/	11	3	0	12	0	0

No.	Highway section	Management office	Township	Minority distribution		Current office			After project Implementation		
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45	Yiliang	Kuixiang Management Office	Kuixiang Town	44823	8295	22	2	6	11	0	0
46	Daguan	Chahe Management Office	Shoushan Town	25470	/	25	12	0	14	3	1
47	Shuifu	Louba Management Office	Louba Town	24000	105	9	4	0	4	0	0
48	Yongshan	Tongbao Management Office	Ganhe Xiang	25300	13400	15	2	2	18	6	2
49	Yongshan	Lianfeng Management Office	Lianfeng Town	18750	35100	21	5	2	5	2	1
50	Qiaojia	Baihetan Management Office	Baihetan County	94650	3647	29	11	0	0	0	0
51	Zhenxiong	Wude Management Office	Wude Town	52263	4759	23	11		28	2	
IV	Yuxi general section			578713	273362	272	92	52	42	10	8
52	Hongta	Daliyuan Management Office	Yanhe Sub-district	6200	5380	25	12	1	4	1	1
53	Eshan	Huanian Management Office	Huanian Town	9581	3280	9	4	0	2	0	0
54	Eshan	Chahe Management Office	Chahe Town	9805	9033	10	5	2	4	2	1
55	Eshan	Shihua Village Management Office	Shuangjiang Sub-district	48091	38596	21	7	6	5	1	1
56	Xinping	Yaonan Management Office	Jiasa Town	21542	15380	15	2	2	6	2	2
57	Xinping	Jiasa Management Office	Jiasa Town	21548	15380	14	4	0	0	0	0
58	Xinping	Sanjia Management Office	Laochang Xiang	20265	16088	19	8	5	0	0	0
59	Xinping	Doujia Management Office	Guishan Town	33194	12466	11	5	5	3	1	1

No.	Highway section	Management office	Township	Minority distribution		Current office			After project Implementation		
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60	Xinping	Longshu Management Office	Mosha Town	35394	13980	18	7	5	2	1	0
61	Yuanjiang	Yuanhong Management Office	Yuanhong	34235	12341	14	4	2	2	0	0
62	Yuanjiang	Anding Management Office	Yinyuan Town	28890	25491	10	2	2	3	0	1
63	Tonghai	Xiangshan Management Office	Xiangshan Town	23659	11802	12	4	4	2	0	0
64	Jiangchuan	Houjiagou Management Office	Jiangcheng Town	70358	23421	18	4	2	0	0	0
65	Chengjiang	Guanglong Management Office	Longjie Sub-district	48995	5840	10	5	1	2	1	0
66	Chengjiang	Haikou Management Office	Haikou Town	11000	3450	13	3	2	0	0	0
67	Huaning	Xinzhuang Management Office	Ningzhou Sub-district	80300	23000	20	7	5	3	0	1
68	Huaning	Panxi Management Office	Panxi Town	52970	23774	20	5	6	3	1	0
69	Yimen	Pubei Management Office	Pubei Xiang	22686	14560	13	4	2	1	0	0
V	Wenshan general section			1687749	831339	368	124	90	284	7	3
70	Wenshan General			983301	517740	206	70	55	182	6	2
71	Wenshan General	General road maintenance station	Walong Sub-district, Wenshan City	21289	15402	24	8	2	0	0	0
72	Wenshan	Wenshan Management Office		55433	30827	18	6	11	16	0	1
73	Wenshan	Tianshengqiao Management Office		55433	30827	12	7	7	9	0	0
74	Yanshan	Zhujie Management Office	Zhujie Town, Guangnan County	39618	8144	6	5	2	2	0	0
75	Yanshan	Yanshan Management	Jiangna Town,	70233	28093	34	13	6	0	0	0

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		Office	Yanshan								
76	Yanshan	Pingyuan Management Office	Pingyuan Town, Yanshan County	85858	62075	8	2	1	3	0	0
77	Yanshan	Yanshan Road Maintenance Station	Jiangna Town, Yanshan	70233	28093	0	0	0	19	0	0
78	Xichou	Xingjie Management Office	Xingjie Town, Xichou County	49606	11132	25	7	3	6	0	0
79	Xichou	Xichou Management Office	Xisa Town, Xichou	45141	3002	0	0	0	8	0	0
80	Malipo	Chuantou Management Office	Tianbao Town, Malipo County	17080	9032	4	2	2	4	1	0
81	Malipo	Dongzhan Quarry	Mali Town, Malipo County	48240	11439	0	0	0	6	0	0
82	Maguan	Bazhai Management Office	Bazhai Town, Maguan County	42123	1032	5	1	1	5	0	0
83	Qiubei	Qiubei Management Office	Jinping Town, Qiubei County	57977	38265	10	1		4	0	0
84	Qiubei	Xindian Management Office	Xindian Township, Xindian County	17657	16301	16	2	0	10	0	0
85	Qiubei	Qiubei Maintenance Station	Badashao Xiang, Qiubei County	28527	19935	/	0	0	10	0	0
VI	Honghe general section			459635	77363	147	44	13	47	10	5
86	Luxi	Airport Management Office	Jinma Town	12689	418	23	8	5	3	1	0
87	Luxi	Dongshan Management Office	Dongshan Xiang	13980	10121	5	1	1	5	2	2
88	Mile	Xinshao Management Office	Xinshao	49439	/	10	2	1	2	0	0
89	Jianshui	Jianshui Management Office	Nanzhuang Town	48991	/	5	1	0	4	1	0
90	Shiping	Shiping Management	Yilong Town	87141	/	15	5	3	3	1	1

No.	Highway section	Management office	Township	Minority distribution		Current office			After project Implementation		
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		Office									
91	Yuanyang	Yuanyang Management Office	Nansha Town	19048	15301	10	3	2	4	0	1
92	Yuanyang	Xinjie Management Office	Xinjie Town	71886	/	20	7	3	0	0	0
93	Lvchun	Lvchun Management Office	Daxing Town	45784	/	12	3	2	3	0	0
94	Lvchun	Dashuigou Management Office	Dashuigou	18559	17259	13	4	6	2	0	1
95	Lvchun	Pinghe Management Office	Pinghe Township	28334	27687	8	2	0	2	0	0
96	Hekou	Nanxi Management Office	Nanxi Town	16857	/	15	6	5	3	1	0
97	Hekou	Hekou Management Office	Kehou Town	12004	/	6	2	0	8	2	0
98	Honghe	Honghe Management Office	Yisa Town	34923	6577	5	0	0	8	2	0
VII	Pu'er general section			879547	380862	271	70	121	162	5	2
99	Mojiang	Lianzhu Management Office	Tongguan Town	29903	19724	20	4	9	5	0	0
100	Mojiang	Tongguan Management Office	Lianzhu Town	84978	66048	10	5	4	10	1	0
101	Mojiang	Yuwanshui Management Office	Yayi Town	22560	20129	10	2	6	11	0	1
102	Mojiang	Yayi Management Office	Sinanjiang Town	22053	17624	7	1	8	12	1	0
103	Mojiang	Sinanjiang Management Office	Lianzhu Town	84978	66048	14	7	9	11	2	0
104	Simao	Damengpa Management Office	Yixiang Town	36000	/	10	3	3	10	/	/
105	Simao	Simao Management Office	Simao Town	91000	/	23	5	5	2	/	/

No.	Highway section	Management office	Township	Minority distribution		Current office			After project Implementation		
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106	Jingdong	Jinping Management Office	Jinping Town	43000	/	34	5	7	/	/	/
107	Jinggu	Nuanli Management Office	Weiyuan Town	84854	/	12	2	7	8	/	/
108	Jinggu	Yunhai Management Office	Weiyuan Town	84854	/	17	4	9	3	/	/
109	Jinggu	Yongping Management Office	Yongping Town	71011	34504	11	3	6	9	0	0
110	Zhenyuan	Anban Management Office	Anban Town	21791	15690	9	5	6	11	0	0
111	Zhenyuan	Dapuzi Management Office	Enle Town	34443	10512	4	1	1	16	0	0
112	Zhenyuan	Heping Management Office	Heping Town	12000	8880	3	0	1	17	0	0
113	Lancang	Huimin Management Office	Huiming Town	17000	13600	8	1	4	12	0	0
114	Menglian	Mengma Management Office	Mengma Town	28349	24296	4	1	2	16	0	0
115	Menglian	Yunjiao Management Office	Nayun Town	35609	31346	34	11	13	0	0	0
116	Ximeng	Mengsuo Management Office	Mengsuo Town	25578	14300	15	4	9	5	1	0
117	Jiangcheng	Liangzizhai Management Office	Jiahe Xiang	14321	12065	0	0	0	4	0	1
118	Jiangcheng	Menglie Management Office	Menglie Town	35265	26096	26	6	12	0	0	0
VIII	Banna general section		Jihong City	123609	/	47	7	19	14	4	1
119	Jinghong	Jinuoshan Management Office	Jinuoshan Xiang	11917	/	7	2	1	3	1	0
120	Jinghong	Mengkuan Management Office	Menghan Town	15544	/	9	1	3	1	0	1

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121	Menghai	Daluo Management Office	Daluo Town	23729	/	6	0	4	5	1	0
122	Mengla	Mengla Management Office	Mengla Town	47055	/	10	2	3	0	0	0
123	Mengla	Guanlei Management Office	Guanlei Town	12682	/	8	1	5	2	1	0
124	Mengla	Mengyuan Management Office	Guanlei Town	12682	/	7	1	3	3	1	0
IX	Lincang general section			3195075	1335809	388	178	119	20	17	6
125	Yunxian	Yunxian Management Office	Linxiang District	2363825	960184	258	113	80	0	0	0
126	Yunxian	Xiaoluozha Management Office	Aihua Town	106054	32695	7	3	3	/	/	/
127	Yunxian	Chafang Management Office	Xiaojie Xiang	39505	6830	5	2	1	/	/	/
128	Fengqing	Mengyou Management Office	Chafang Xiang	34844	5161	/	/	/	5	2	0
129	Fengqing	Yueyatang Management Office	Mengyou Xiang	1869	494	/	/	/	3	2	1
130	Linxiang	Dawanzi Management Office	Fengshan Town	6142	766	/	/	/	4	0	0
131	Linxiang	Mangpan Management Office	Mangpan Sub-district	35068	7730	11	10	3	9	2	0
132	Shuangjiang	Mengmeng Management Office	Mangpan Sub-district	35068	7730	18	3	1	12	3	2
133	Shuangjiang	Xiaoheke Management Office	Shahe Xiang	30081	15028	18	5	0	4	2	1
134	Gengma	Mengsa Management Office	Yanshuai Town	32000	29456	5	2	3	0	0	0
135	Gengma	Gengma Management Office	MengsaTown	39361	14286	9	4	2	4	1	0

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136	Gengma	Mengding Management Office	Gengxuan Town	56150	32286	9	4	3	4	1	0
137	Yongde	Mangjiantian Management Office	Mengding Town	91939	52187	9	4	1	4	1	0
138	Yongde	Dawazi Management Office	Dedang Town	47883	14364	15	12	8	0	0	0
139	Zhenkang	Hongmushu Management Office	Yongkang Town	56330	33480	15	13	11	0	0	0
140	Zhenkang	Nansan Management Office	Fengwei Town	17429	3429	2	1	1	2	0	0
141	Zhenkang	Hewai Management Office	Nansan Town	39527	16703	-	-	-	5	2	2
142	Cangyuan	Mangfa Management Office	Mengding Town	100000	52000	-	-	-	4	1	0
143	Cangyuan	Bawei Management Office	Mengdong Town	31000	25500	2	0	0	0	/	/
144	Cangyuan	Mangka Management Office	Mengdong Town	31000	25500	5	2	2	3	/	/
X	Chuxiong general section			740573	65418	16	16	16	48	8	7
145	Lufeng	Yangjiazhuang Management Office	Jinshan Town	39368	4588	15	4	2	3	1	0
146	Lufeng	Donghucun Management Office	Jinshan Town	39368	4588	9	2	0	5	0	1
147	Chuxiong	Chuxiong Management Office	Lucheng Town	98000	/	21	7	5	4	0	1
148	Chuxiong	Xiaohokou Management Office	Lucheng Town	98000	/	25	7	4	0	0	0
149	Chuxiong	Guangtong Management Office	Guangtong Town	32900	9616	10	2	0	4	1	2
150	Nanhua	Nanhua Management Office	Longchuan Town	80648	/	18	6	3	2	1	0

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151	Nanhua	Shaqiao Management Office	Shaqiao Town	22000	/	12	4	3	2	0	0
152	Yongren	Yongren Management Office	Yongding Town	27815	11339	10	3	0	0	0	0
153	Yongren	Yijiu Management Office	Yijiu Town	16519	8293	9	3	0	4	1	1
154	Yuanmou	Dashuijing Management Office	Liangshan Xiang	4017	3720	8	2	4	4	0	0
155	Yuanmou	Yuanmou Management Office	Yuanma Town	56124	9982	20	5	2	2	0	0
156	Yuanmou	Huangguayuan Management Office	Huangguayuan Town	36037	/	15	3	1	0	0	0
157	Wuding	Jincheng Management Office	Jincheng Town	54000	/	12	4	2	5	1	0
158	Mouding	Mouding Management Office	Gonghe Town	15000	/	8	2	0	4	1	1
159	Shuangbai	Shuobai Management Office	Tuodian Town	39633	13292	10	2	0	3	0	1
160	Yao'an	Yao'an Management Office	Dongchuan Town	81144	/	20	6	3	6	2	0
XI	Dali general section			1008303	349940	269	79	85	136	46	51
161	Xiangyun	Qinghuadong Management Office	Xiangcheng Town	136350	/	20	6	3	5	1	2
162	Xiangyun	Xiazhuang Management Office	Xiazhuang Town	54582	3868	8	3	2	4	1	1
163	Xiangyun	Midian Management Office	Midian Town	27581	10858	5	1	0	6	2	2
164	Nanjian	Nanjian Central Management Office	Nanjian Town	47056	14046	38	17	2	0	0	0
165	Nanjian	Gonglang Management Office	Gonglang Town	30151	21492	4	1	0	0	0	0
166	Nanjian	Fenghuangshan	Bixi Xiang	17919	8705	16	4	6	0	0	0

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		Management Office									
167	Dali	Huangping Management Office	Huangping Town	34119	6437	1	0	0	9	0	3
168	Yangbi	Yangbi Central Management Office	Canshanxi Town, Yangbi County	49197	22027	8	4	4	12	5	5
169	Yangbi	Dapingdi Management Office	Taiping Xiang, Yangbi County	7029	5594	4	1	1	10	3	3
170	Yangbi	Lishupo Management Office	Canshanxi Town, Yangbi County	41979	22027	7	1	4	15	3	6
171	Yongping	Yongping Central Management Office	Bonan Town	51425	12830	10	3	1	5	1	2
172	Yongping	Yangjie Management Office	Longjie Town	22108	15119	8	1	1	4	1	1
173	Yongping	Shizhaobi Management Office	Changjie Xiang	18699	9799	4	1	1	8	2	3
174	Binchuan	Qiaodian Management Office	Qiaodian Town	22196	13860	5	1	2	10	3	3
175	Binchuan	Shuanglong Management Office	Jinniu Town	97010	6686	0	0	0	20	5	4
176	Eryuan	Luopingshan Management Office	Fengyu Town	33647	32947	8	2	8	15	7	5
177	Jianchuan	Xianghu Central Management Office	Jinhua Town	52563	48375	22	6	21	4	2	1
178	Jianchuan	Shanglan Management Office	Shanglan Town	18091	17548	7	1	6	3	1	1
179	Heqing	Yunhe Central Management Office	Yunhe Town	23039	11452	17	6	7	4	2	2
180	Weishan	Daloufang Management Office	Weibaoshan Xiang	13368	7701	/	/	/	/	/	/
181	Weishan	Hedijie Management Office	Yongjian Town	51602	26598	35	14	6	/	/	/

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182	Yunlong	Shimen Central Management Office	Ruodeng Town	22801	20343	9	2	5	2	/	1
183	Midu	Zhuguanying Management Office	Micheng Town	83783	5233	22	4	2	26	5	2
184	Midu	Guoyuan Management Office	Hongyan Town	52008	6395	11	0	3	16	2	4
XII	Lijiang general section			231484	47154	80	18	40	68	4	4
185	Gucheng	Zhengming Management Office				5	1	3	0	0	0
186	Yulong	Zhongxing Management Office	Liming Xiang	8021	7329	10	2	6	5	1	0
187	Yulong	Nankou Management Office	Huangshan Town	10252	9841	25	8	12	5	2	1
188	Yongsheng	Qina Management Office	Qina Town	37303	/	10	0	2	0	0	0
189	Yongsheng	Tuanjeping Management Office	Renhe Town	24652	15115	7	1	2	0	0	0
190	Yongsheng	Banshanhe Management Office	Sanchuan Town	63688	480	0	0	0	0	0	0
191	Huaping	Rongjiang Management Office	Zhongxin Town	43137	6338	10	5	5	20	0	1
192	Huaping	Laguhe Management Office	Tongda Xiang	8527	8051	2	0	2	0	0	0
193	Ninglang	Zhanhe Management Office	Zhanhe Xiang	16345	/	11	1	8	20	0	2
194	Ninglang	Ganhe zi Management Office	Daxing Town	19559	/	0	0	0	18	1	0
XIII	Diqing general section			96211	84094	429	167	332	105	9	6
195	Shangri-la	Yangjiahe Management Office	Hutiaoxia Town	19756	15588	384	140	288	20	2	0
196	Shangri-la	Quwadi Management	Hutiaoxia Town	19756	15588	11	6	11	20	3	0

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		Office									
197	Shangri-la	Gezan Management Office	Xiaozhongdian Town	10536	10348	7	1	7	15	2	2
198	Shangri-la	Chengguan Management Office	Gezan Xiang	6842	6819	0	0	0	20	0	1
199	Deqin	Shusong Management Office	Jiantang Town	39321	35751	27	20	26	30	4	3
XIV	Baoshan general section			/	/	179	46	10	24	4	2
200	Longyang	Xinjie Management Office	Xinjie Xiang	68823	1010	30	8	1	0	0	0
201	Longyang	Pupiao Management Office	Pupiao Xiang	49961	/	12	6	0	4	1	1
202	Longling	Zhen'an Management Office	Zhen'an Town	40783	/	44	12	3	0	0	0
203	Longling	Mengnuo Management Office	Mengnuo Town	17685	/	20	7	2	2	0	0
204	Changning	Goujie Management Office	Kejie Town	28000	/	16	5	1	4	1	0
205	Changning	Youwen Management Office	Wenquan Xiang	26128	/	10	2	0	0	0	0
206	Shidian	Yaoguan Management Office	Yaoguan Town	38515	5582	0	0	0	8	0	0
207	Shidian	707 Management Office	Shuichang Xiang	17832	8916	14	1	0	0	0	0
208	Tengchong	Maojiaying Management Office	Zhonghe Xiang	36541	/	13	1	1	6	1	1
209	Tengchong	Dongmen Management Office	Tengyue Town	109620	/	20	4	2	5	1	0
XV	Dehong general section			339333	203805	99	32	14	61	23	17
210	Mangshi	Mangshi Management Office	Mangshi Town	44641	25675	15	7	1	5	1	1
211	Mangshi	Zhefang Management	Zhefang Town	54970	41016	11	2	1	8	2	2

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		Office									
212	Ruili	Moli Management Office	Wanding Town	11028	5445	6	2	2	10	6	1
213	Longchuan	Mangdong Management Office	Husa Town	24726	17350	7	2	0	5	3	2
214	Longchuan	Jinghan Management Office	Jinghan Town	27531	15570	7	2	0	5	2	2
215	Longchuan	Zhangfeng Management Office	Zhangfeng Town	44656	24548	15	3	2	5	1	2
216	Yingjiang	Nongzhang Management Office	Nongzhang Xiang	48156	31853	10	4	3	7	2	2
217	Yingjiang	Pingyuan Management Office	Pingyuan Town	58291	32798	9	3		6	3	2
218	Yingjiang	Tongbiguan Management Office	Tongbiguan Xiang	6530	4407	7	2	2	3	0	1
219	Lianghe	Zhedao Management Office	Zhedao Town	18804	5143	12	5	3	7	3	2
XVI	Nujiang general section			171283	/	74	18	15	20	3	2
220	Gongshan	Puladi Management Office	Puladi Xiang	6572	5200	7	2	1	5	2	0
221	Fugong	Shangpa Management Office	Shangpa Town	88127	86893	24	7	5	6	1	0
222	Lushui	Rende Management Office	Laowo Xiang	15231	11127	8	1	3	3	0	1
223	Lushui	Dadunzi Management Office	Shangjiang Xiang	26051	12300	15	3	2	3	0	0
224	Lushui	Pianma Management Office	Pianma Town	1706	/	5	1	1	3	0	1
225	Lanping	Yingpan Management Office	Yingpan Town	33596	/	15	4	3	0	0	0