

Ethnic Minorities Development Plan

Wudang Qiankanqing Irrigation System Rehabilitation Ethnic Minorities Development Plan
Document Stage: Draft
Project Number: P38594
September 2006

PRC: Guiyang Integrated Water Resources Management Sector Project

Prepared by Black & Veatch (Asia) Ltd., in conjunction with the Guiyang Municipal Government for the Asian Development Bank (ADB).

The ethnic minorities development plan is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature.

**GUIYANG INTEGRATED WATER RESOURCES
MANAGEMENT PROJECT
IN THE
PEOPLE'S REPUBLIC OF CHINA**

**Ethnic Minorities
Development Plan
Wudang Qiankanqing
Irrigation System Rehabilitation**

September 11, 2006

[FINAL DOCUMENT TO BE ISSUED BY]

GUIYANG MUNICIPAL GOVERNMENT

THIS REPORT WAS PREPARED BY THE BORROWER
AND IS NOT AN ADB DOCUMENT

ENDORSEMENT OF THE ETHNIC MINORITIES DEVELOPMENT PLAN

The Guiyang Municipal Government has requested, via the Central Government of the Peoples Republic of China, a loan from the Asian Development Bank (ADB) to finance part of the Guiyang Integrated Water Resources Management Project. The Project will therefore be implemented in accordance with the social safeguards policies of the ADB. This Ethnic Minorities Development Plan (EMDP) represents a key requirement of the ADB. The EMDP presents the situation and actions to be taken to comply with social safeguards concerning ethnic minorities for the subproject. It includes procedures for implementation and monitoring to ensure that the EMDP prepared for this subproject of the sector loan will be effectively executed.

The Guiyang Municipal Government hereby endorses the attached EMDP and guarantees that funds will be made available as stipulated in the budget. The Guiyang Municipal Government authorizes Project Management Office for the Guiyang Integrated Water Resources Management Office as the responsible agency to implement the project and related EMDF activities.

Approved on 26 September 2006

_____, Guiyang Municipal Government
(original signed)

SUMMARY ETHNIC MINORITIES DEVELOPMENT PLAN

A. Introduction

This plan is prepared to better safeguard the all the affected people, within the subproject area (SPA). For this subproject, 15.4% of the affected populations are minorities. Adequate provisions to enhance the economic conditions of vulnerable groups have been integrated in Project design. Provisions for special mitigation measures have been included in the resettlement plan, which will help ensure that vulnerable groups are not disadvantaged by the project. Current government policies and programs further help to protect and enhance project benefits to ethnic minority groups.

Guiyang Water Resource Bureau, with the assistance of PPTA consultants and the design institutions, had constantly consulted the affected people and their communities, the Guiyang Municipal and the project county governments and their line agencies. The consulted line agencies included ethnic minority affairs bureau, poverty reduction office, land administration bureau, reform and development bureau (i.e., planning bureau), water resource bureau, the women's federation, etc. This document, therefore, represents the joint decisions of both GM and project area authorities.

B. Ethnic Minorities in the Project Area

Total minority population in the subproject area is estimated to be 1,545 or 15.4% of the total population by 2004, which is as same as the average municipal proportion of ethnic minority. The largest ethnic minority is Bouyei, 73.4% of the total ethnic minority population in the project area, the second largest is Miao, and others are Gelao and Yi.

C. Socioeconomic Characteristics of the Ethnic Minorities

Ethnic Minorities live in harmony in the area and inter-marriages are common amongst Miao, Yi, Bouyei and Han. Bouyei and Miao people have distinct ethnic identities and language. They celebrate special festivals of their own during the year. Some people, especially women, wear distinctive ethnic clothing, at least on some occasions. Most ethnic minority people also speak the Guiyang dialect of Chinese. In the subproject area, most agricultural and other livelihood activities are very similar for ethnic minorities and ethnic Han people.

Income and Poverty. The net income per capita in the rural area is CNY 3,140, higher than the provincial average. There are 203 rural poor in the subproject area, accounting for 2 percent of total population.

D. Impacts of Resettlement

No houses will be demolished.

The permanent land loss from the subproject will be 1.2 mu, and temporary occupied land will be 22 mu.

E. Overall Impact and Minority Beneficiaries

The project have minor negative impacts and more positive impacts of improving agricultural irrigation conditions, providing drinking water for human and animals in the irrigation area, and water supply to the town.

The project will directly benefit 10,016 local residents, of which, 1,545 are ethnic minority people.

F. Expectations and Concerns

The overall conclusion from public consultation is that the needs and aspirations of ethnic minorities in the project area are the same as their Han neighbors. They want improved water supplies for domestic use and agriculture. They want to be fully included in project activities and are similarly interested in participating in the water user association. They want fair compensation for any major land acquisition.

G. Action Plan

The Project will apply a mainstreaming strategy to ensure full participation of ethnic minority people and will ensure that any persons affected by land acquisition and resettlement are better off after the project.

Table 9 presents the main ways in which the project will have impacts on ethnic minority people, targets, number of ethnic minority people affected, budget information, and timing.

H. Implementation Arrangement, M&E

The PMO, and Wudang Water Resource Bureau, the Implementing Agency, and the contractors, will play a leading role in implementing most of the construction-related measures. County governments will take the leading role in implementing the supportive measures such as agricultural extension, rural infrastructure improvement, etc.

The PMO will monitor the targets identified in the EMDP and update information as implementation proceeds. An independent external monitoring agency will be engaged in the annual review of ethnic minorities development in the project and may be asked to advise if specific needs are identified.

TABLE OF CONTENTS

ENDORSEMENT OF THE ETHNIC MINORITIES DEVELOPMENT PLAN
 SUMMARY ETHNIC MINORITIES DEVELOPMENT PLAN
 ETHNIC MINORITIES DEVELOPMENT PLAN

1. Introduction.....	1
1.1 Project description	1
1.2 Subproject description	2
1.3 Objectives of the EMDP	4
1.4 Policy Framework	5
2. Ethnic Minorities in the Subproject Area	5
2.1 Population.....	5
2.2 Socioeconomic Characteristics	7
2.3 Government Activities for Ethnic Minority Development in the Subproject Area	7
2.4 Local Social Organization and Stakeholder analysis.....	8
2.5 Cultural beliefs.....	9
2.6 Territory	9
2.7 Resource use patterns	10
3. Subproject Impacts on Ethnic Minorities	10
4. Participation Process and Results.....	11
4.1 Consultation during subproject preparation.....	11
4.2 Aspirations, needs, and preferred options.....	11
5. Action Plan	11
5.1 Measures to avoid, mitigate, or compensate for the adverse project effects;	12
5.2 Measures to ensure project benefits will accrue to indigenous peoples.....	13
5.3 Measures to strengthen social, legal, and technical capabilities of government institutions to address indigenous peoples issues.....	13
5.4 Involvement of local organizations and non-governmental organizations with expertise in indigenous peoples issues	14
5.5 Implementation Schedule	14
6. Budget Allocation	14
7. Monitoring and Evaluation.....	14
Annex 1: Records of Public Consultation	17

ETHNIC MINORITIES DEVELOPMENT PLAN

1. INTRODUCTION

1.1 Project description

1. The Guiyang Integrated Water Resources Management Project will support a variety of activities to improve provision of water in rural and urban areas of the municipality. The project will support construction of new reservoirs and water supply infrastructure, irrigation system rehabilitation, and soil and water conservation, together with development of management institutions for assuring improved delivery of water services and integrated management of water for social, economic, and environmental objectives.

2. The project is expected to have substantial positive impacts on ethnic minority people in providing improved supplies of water for domestic use and irrigation. Subprojects developed under the project should reduce poverty by providing reliable access to clean water for drinking, bathing and other domestic use, and water for irrigating crops for household consumption and for sale, including expansion in profitable cultivation of high-value crops such as vegetables, flowers, herbs, fruits. A significant number of ethnic minority people will be affected by land acquisition and resettlement, with measures undertaken to ensure that adverse impacts are mitigated and they are beneficiaries of the project.

3. The Project will invest with CNY 2.4 billion (\$300 million) for the construction of medium and small reservoirs, dams, agriculture irrigation systems, urban and rural water supply schemes, rainwater collection structures, and soil and water conservation. The Project is planned to be implemented over 6 years. The proposed Project aims to:

- (i) improve reliable and safe water supply, support economic and social development in response to the demands on water resources, and to promote the comprehensive management and optimized allocation of water resources;
- (ii) raise grain output, speed up rural economic development, promote the construction of new socialist countryside, and to structure harmonious society; and
- (iii) protect water resources, improve ecological environment, and to ensure the sustainable utilization of water resources.

4. The Project includes the following components:

- (i) establishment of one medium-sized and two small reservoirs for urban water supply, including construction of dams, water conveyance tunnels, transmission pipelines, water treatment plants, and extension of the municipal water distribution networks;
- (ii) construction of 43 small reservoirs for rural water supply and irrigation, water conveyance systems, small township treatment facilities, and irrigation systems;
- (iii) rehabilitation and upgrading of irrigation schemes in 9 areas including installation or repair of intake structures, canals and aqueducts;
- (iv) provision of 127,890 small water storage structures (ponds, tanks, and cisterns) in rural areas to store spring water for humans and livestock and rainfall run-off for irrigation; and
- (v) protection from water and soil losses in the upper catchments of the water sources (800 km²) with farm land restructuring, conversion of sloping farmland to terraces, tree or grass planting areas, and fruit tree planting.

5. During the PPTA stage, six core subprojects have been selected:

1. Yudongxia Reservoir Urban Water Supply Subproject,
2. Jinlong Reservoir County Water Supply Subproject,
3. Liaojiuzhai Reservoir Water Supply and Irrigation Subproject,
4. Wudang District Midsize Irrigation System Rehabilitation Subproject,
5. Xifeng County Small-scale Water Storage Subproject, and
6. Huaxi Reservoir Soil and Water Conservation Subproject.

6. On the basis of the review of six selected core subprojects by PPTA consultant and Guiyang Project Management Office (GPMO), four core subprojects are to have ethnic minorities development plans. Ethnic minorities development plans for Yudongxia and Jinlong Reservoirs, Wudang Irrigation Rehabilitation and Water and Soil Conservation are needed as part of the project preparation.

1.2 Subproject description

7. The Wudang District Midsize Irrigation System Rehabilitation Subproject comprises Qiankanqing Reservoir, Bashanqiu reservoir and Sanjiang diversion works with a total irrigated area up to 6,980 mu, which at the same time supplies sufficient drinking water for 3,654 local people and 6,300 animals.

8. This modification project consists of three parts; 1) the Qiankanqing Reservoir irrigation project, 2) the Bashanqiu Reservoir irrigation project and 3) the Sanjiang-Dagou diversion irrigation project. These three projects are all located within the bounds of Shuitian Township of Wudang District. The Qiankanqing and Bashanqiu reservoirs are located 5km and 1km north of the Township Government, respectively. The Sanjiang-Dagou diversion dam is located 13 km southwest of the Township Government. The total irrigated area is 6,980 mu (rice paddy field: 4060 mu; upland fields (non-paddy rice land): 2920 mu). The irrigation area of the Qiankanqing Reservoir irrigation area is 6,080 mu (rice paddy field: 3,380 mu; dry-land fields: 2,700 mu), that of the Bashanqiu Reservoir irrigation area is 100 mu (rice paddy field: 80 mu; dry-land fields: 20 mu), and that of the Sanjiang-Dagou irrigation area is 800 mu (rice paddy field: 600 mu; dry-land fields: 200 mu).

9. The Wudang District is located north of Guiyang City and the site of the Government is 10 km away from Guiyang City. According to the data of 2004, the total area of the state land of the whole district reaches 964.9 km². The total area of the cultivated land is 144,600 mu, of which the rice paddy field covers an area of 102,200 mu and the land (referring to the cultivated land for dry-land crops) covers an area of 42,400 mu. Under the administration of Wudang District are 14 villages, townships and offices, 35 residents' committees and 131 village committees, with a total population of 303,200, of which the agricultural population is 213,300, non-agricultural population being 89,00 and ethnic group population being 53,400, about 25% of the population.

10. The economic development of Wudang District is characterized by agriculture at present time. In 2004 the total production output of the whole district is worth CNY 5,264 million, of which the output of primary industry is CNY 564 million, that of secondary industry is CNY 3,192 million, and that of tertiary industry is CNY 1,508 million. The rate of economic development of Wudang District ranks the first in Guiyang Municipality. As Wudang District is located in the near suburbs of Guiyang City, it has an advantage of being accessible to Guiyang City. As a result, vegetables, fruits and varieties of famous brand and special products have become the leading agricultural products in Wudang District. So, planting industry occupies a considerably important position in the primary industry. In 2004 the grown area of farm crops reached 451,900 mu and the production output came up to 165,500 ton.

11. This project is a modification project that will concentrate on improving canal distribution networks. For the headworks of the three projects, risk-elimination and intensification of the Bashanqiu Reservoir Dam is under way separately, and the hinge structures of the other two projects have been preliminarily completed. What still needs to be done is to replace the bottom hole-emptying sluice valve of the Qiankanqing Reservoir. For the Sanjiang-Dagou diversion dam, what needs to be done is to reform the water-inlet gate and empty the sand-sluicing bottom holes. So in this practice what is mainly to be done is to maintain and reform channels including field channels and to add water-control facilities.

12. Qiankanqing Reservoir is located 5.5 km northwest of Shuitian Town, Wudang District, Guiyang City, on an upper tributary of the Putuo River, 33 km away from Guiyang City. It is small-sized (I) water resources project, used mainly for irrigation with an area amounting to 6,080 mu, with drinking water for people and animal and supply to villages and towns. Qiankanqing reservoir has a rainfall catchment area of 4.5 km² and length for main river course is 3.4 km, with average slope of 42.6%.

13. Bashanqiu Reservoir is situated in the north suburbs of Guiyang City, within the area under control of Shuitian Village, Shuitian Town, Wudang District, Guiyang City, 27 km from Guiyang City, 0.5 km north of Shuitian Town, closely adjacent to Guiyang-Kaiyang highway, and connected with Qiankanqing Reservoir by canals. Bashanqiu Reservoir lies in the catchment of the Putuo River branch, originating from Caijiaguan, converging into Putuo River through Zhulin Village. Bashanqiu Reservoir has a rainfall catchment area equivalent to 1.25 km² featuring a small-sized (II) reservoir, which was originally built in 1958 and re-constructed or enlarged successively in 1977, 1982 and 2000.

14. Sanjiang Diversion Project is situated at west of Shuitian, 20 km from Guiyang City. It is designed for irrigation in Sanjiang and Niuchangba, drawing water from Sanjiang River of Xiadu River, in the vicinity of Xiashuizhai, Dula Township, and Baiyun District. This is primarily a run-of-the river diversion project, with 110 km² catchment area upstream of the diversion dam site, including 68.5 km² behind Shalaohe Reservoir on the left tributary upper reaches. The catchment area deducting Shalaohe Reservoir, covers 41.5 km². Sanjiang River originates from the area of Xiaolongtan, Baiyun District, flowing northeast, turning eastward at the area of Shangshui through Duxi, DulaBouyeizu Township and converging into Nanming River in the vicinity of Dingpa through places such as Xiashui, Sanjiang, Xiaba. The Guiyang North Suburb Water Plant is ready to build the Sanjiang Reservoir Dam at a site 4.46 km from the lower reaches of inlet channel, after construction of which, a pipeline will be used to pass through the right dam abutment to connect channels in the front and rear, and in the behind of which, a water-gate valve will be equipped. When the water level retained in the Reservoir is relatively high, and channels inside the Reservoir are submerged, the valve will control the irrigation water, and when the Reservoir is at a low level, irrigation water will still be obtained from the available dam.

15. The originally designed irrigation area for this project was 6,980 mu, occupying 55% of the cultivated land in Shuitian Town. The area for Qiankanqing Reservoir irrigation is designed to be 6,080 mu. This is one of the largest water storage works following the Shisungou Reservoir among the conservancy projects in Qiankanqing Wudang District. It is not only the main grain-producing area for Shuitian Town but the key one for which the structural rearrangement is conducted due to its favorable cultivating conditions. Relevant scientific and technological units have been invited to make agricultural planning of the irrigation.

16. Aside from the headworks, such quality defects as deposit, collapse, seepage and damage appear generally for ditches and the canal system. For example, the actual irrigated area is 120 mu as the result of seepage of trunk canal, damaged canal system buildings,

unmatched sub-canals and filed works. Bashanqiu Irrigation has no irrigated area due to the perilous and risky condition of the reservoir and damaged canals. Qiankanqing Reservoir Irrigation was designed to have one trunk canal and 5 sub-canals featuring a total length of 26.58 km. Subsequently, the sub-canals were prolonged by agricultural development project with local financing. As a result the total length of the trunk canal and sub-canals is 28.55 km.

17. Presently Wongpeng Sub-canal is only able to irrigate 200 mu above the inverted siphon, due to the blocked inverted siphon at Bashanqiu. Less than 10 mu is irrigated by Huangchenshan Sub-canal and only 300 mu by Huanghuashao Sub-canal due to occupation and blockage of the Huangchenshan Sub-canal 0+600~1+100 and Huanghuashao Sub-canal 0+245~2+415 for construction of Guiyang-Kaiyang Highway. Only 400 mu is irrigated by Dongnong Sub-canal due to adverse slope at the front canal segment, less water conveyance capacity and seepage. Only 350 mu is irrigated by the Lizi Sub-canal due to canal collapse and seepage. The trunk canal actually irrigates 1,340 mu, and the current actually irrigated area totals 2,420 mu for the project. This is only 34.7% of the designed irrigated area, while the remaining 4,560 mu fails to be irrigated.

18. The irrigated area will continuously be reduced in case there are no improvements. Presently, water has been the main restrictive factor for growth of the agricultural economy in Shuitian Town. In the case this project is implemented, the agricultural structure of the town shall have great readjustment, agricultural economy shall grow rapidly and the agricultural output value shall be at the higher level. This shall play a positive role in the social tranquility and acceleration of prosperity. Otherwise, the agricultural economy shall be kept in a single structure, single variety with low output. This project has been listed as part of the comprehensive utilization and development of Guiyang's water resources. Therefore it is of great necessity to implement the project.

19. The work under this sub-project is mainly used for irrigation to water 6,980 mu of cultivated land, while Qiankanqing Reservoir also provides water for humans and livestock in the town. As viewed from comprehensive utilization, Qiankanqing Reservoir Irrigation Works and Bashanqiu Reservoir Irrigation Works are water storage and irrigation projects. Sanjiangdagou is a water diversion and irrigation project and has extremely small storage capacity. Qiankanqing Reservoir has total storage capacity of 1.05 million m³ and the water area of 142 mu at the normal stored water level, the road is accessible to the dam of the reservoir, and it is permissible to develop aquaculture and tourism. Bashanqiu Reservoir has a total storage capacity of 130,000 m³ and the water area of 61 mu at the normal stored water level, and the water area suitable for fishing reaches 34 mu, the tourist facilities have been available to a certain scale in the reservoir area. The reservoir dam is being consolidated to remove the risks and shall be put into use subsequently. As the reservoir is located only 1 km away from the Tianshui Town, the newly built and old Guiyang-Kaiyang Highways pass in the vicinity of the reservoir, therefore it is possible to develop fish cultivation and fishing, which shall be the favorable place for urban dwellers to enjoy amusement and sightseeing and offer a certain maintenance and repair funds for the project.

1.3 Objectives of the EMDP

20. This Ethnic Minorities Development Plan has been prepared to ensure that ethnic minority people have opportunities to participate in and benefit equitably from the Guiyang Integrated Water Resources Management Project. It describes the measures to be undertaken in the subproject to improve livelihoods, reduce poverty, and to mitigate negative impacts, particularly those related to land acquisition and resettlement.

1.4 Policy Framework

21. This Ethnic Minorities Development Plan is based on the Ethnic Minorities Development Framework (EMDF) for the Guiyang Integrated Water Resources Management Project, and, as discussed in the EMDF, on the relevant laws and regulations of the Peoples Republic of China (PRC) and the Asian Development Bank Policy on Indigenous Peoples, including Policies and Procedures in the ADB Operations Manual. The 1949 PRC Constitution established the legal equality of all ethnic groups. Government policies and regulations include a variety of measures to address the needs of ethnic people, including autonomous governments at various levels, special consideration in education, and funding to assist ethnic people. ADB policy is that "poverty reduction and improvement in the quality of life realized from development must be extended equitably and reach each segment of society, including indigenous peoples."

2. ETHNIC MINORITIES IN THE SUBPROJECT AREA

2.1 Population

22. Table 1 shows the number of ethnic minority people living in the project area. Overall, 15.4 percent of the people belong to ethnic minorities, with the two largest minorities being Bouyei and Miao. The irrigation area covers six administrative villages, that is, Shuitian, Dongnong, Wengpeng, Lizi, Zhulin and Sanjiang, with the total population of 10,016 and beneficiary population of 8,512. One of the villages, Dongnong is an ethnic minority village. In the other villages, the proportion of ethnic minority population is less 10%.

Table 1: Ethnic Minority Population in the Project Area

Village	Total Population	Ethnic Minority Population	%	Largest ethnic group	2 nd Largest ethnic group	Other ethnic groups
Dongnong	1150	784	68.2	701 Bouyei	48 Miao	33 Gelao, 2 Dong
Wengpeng	1086	26	2.4	20 Bouyei	4 Miao	2 Yi
Lizi	2621	179	6.9	122 Miao	37 Bouyei	16 Yi, 2 Dong, 2 Tujia
Shuitian	2432	205	8.7	131 Bouyei	36 Miao	29 Yi, 4 Gelao, 2 Dong, 3 Bai
Zhulin	993	309	31.1	241 Bouyei	62 Yi	6 Miao
Sanjiang	1672	42	2.59	27 Yi	5 Bouyei	4 Miao, 4 Tujia, 2 Bai
Total	10016	1545	15.4	1093 Bouyei, 122 Miao, 27 Yi	88 Miao, 62 Yi, 37 Bouyei	33 Gelao, 18 Yi, 4 Dong

Figure 1: Location Map of Wudang Subproject Area Showing Ethnic Minority Distribution



2.2 Socioeconomic Characteristics

23. In the Town of Shuitian in Wudang District where the project is located, the per-capita farmland of this town is 0.69 mu person. Poverty population accounts for 8.6% of the total beneficiary population in the irrigation area; and the income of the poor population only accounts for 10% of per capita income. Because of the restricted natural conditions, inaccessible traffic and information, poor productive mode and lack of development, the rural poverty population is behind in social development. They have not made many changes in their livelihood practices. Moreover, the shortage of labor makes it hard for poor people to escape poverty and attain prosperity. Basically, 60% of rural poor households are labor-short households. Remote and inconvenient traffic is the most restrictive factor for the development of the rural poor. This subproject will become a motivating force to help the rural poor in attaining prosperity. Aiming at stably solving the problem of food and clothing of the poor masses, it is needed to perfect water infrastructure, strengthen agricultural training, adjust planting structure and improve the basic conditions of production and living in the poor areas. Thus, the construction of harmonious society will be pushed forward in an all-round way.

Table 2: Poverty Data for the Subproject Area

Village Name	Male	Female	Total	Persons below poverty line	Persons receiving minimum livelihood subsidy	Female household heads, registered (de jure)	Female household heads, de facto, (estimate)	Beneficiaries (est.)	Beneficiaries below poverty line (est.)
Dongnong	654	568	1222	38	0	3	8	1222	39
Wengpeng	608	478	1086	27	0	2	5	1086	15
Sanjiang	861	811	1672	31	0	3	7	1672	24
Lizi	1412	1199	2611	56	0	2	10	2611	75
Zhulin	500	493	993	37	0	2	4	993	41
Shuitian	1223	1209	2432	51	0	5	12	2432	82
Total	5258	4758	10016	203	0	15	42	10016	276

Note: persons below poverty line from City Civil Administration Bureau. Estimate of beneficiaries below poverty line from District Water Resources Bureau and all the village committees.

Table 3: Investigation of basic conditions of population

Village	Total population	Per capita income (CNY)	Beneficial population	Beneficiaries below the poverty line	Proportion %	women	Proportion %	Ethnic minority population	Proportion %
Dongnong	1222	2100	1150	39	3.2	500	43.5	784	64.2
Wengpeng	1086	3000	1086	15	1.4	478	44	26	2.4
Sanjiang	1672	3100	1320	24	1.4	750	56.8	42	2.5
Lizi	2611	3450	2611	75	2.9	1197	45.8	179	6.9
Zhulin	993	1900	993	41	4.1	493	49.6	309	31.1
Shuitian	2432	3400	2345	82	3.4	1142	48.7	205	8.4
Total	10016	3140	8512	276	2.8	4067	47.8	1545	15.4

Note: Beneficiaries below poverty line from the Wudang District Water Resources Bureau and all the village committees.

2.3 Government Activities for Ethnic Minority Development in the Subproject Area

24.

Table 4 summarizes the main government activities implemented to support social and economic development in the project area, including specific programs implemented by the Bureau of Ethnic Minorities and Religious Affairs.

Table 4: Ethnic Minority Development Programs in the Subproject Area

Programs	Target/indicators	Budget ('000CNY)	Implementation Agencies	Timing
Agriculture Development Plan	(1) Readjusting the agricultural pattern, (2) Reforming the low-yield farmland, (3) training programs on the plantation and livestock breeding, etc	1,000 (subproject area)	Agricultural Bureau, BEMA & Township Governments	2006-2010
Rural infrastructure – electricity, road, and water	(1) All earth village road hardened with pavement or sand/gravel, and (2) 80% of farmland being irrigated	800 (subproject area)	Communications Bureau, Water Resources Bureau, Agricultural Bureau, BEMA & Township governments	2006-2010
Minority Health Care Assistance	(1) 80% of farmers have Rural Cooperative Medical Insurance (2) all villages have a clinic equipped with 2-3 doctor/nurses.		Public Health Care Bureau, BEMA & Township governments	2006-2010
Rural Education Support	(1) Improving the facilities of schools in rural area, (2) increasing children's average education to 8-year, (3) providing training program for adults, esp. remote training program	2,000/year	Education Bureau, BEMA & Township governments	2006-2010
Social assurance	All elders and poor people in rural area/Minimum Living Assurance	17,000/year (GM)	Civil Affairs Bureau, GM	2006-2010
Micro-credit	186 ethnic minority villages	250/year (GM)	BEMA	
Policy reform of recruit civil servant from EM		No budget requirement		
Total				

* Data from Longli County Government is not available

Source: Guiyang Municipal Government and the town government

2.4 Local Social Organization and Stakeholder analysis

25. As shown in Table 5, the main stakeholders for this project are the farmers in the irrigation area. Secondary stakeholders include the Water Resources Bureau and governments at township and village levels. Generally speaking, the farmers in the irrigation area are impacted by fewer unfavorable factors and will gain greater benefits. According to the analysis of similar projects, they will increase economic income by CNY 200-300 per person per year as a result of the project. Therefore the farmers in the irrigation area welcome the construction of this project very much. As for the governments at various levels, their objective is to enrich the locality. The construction of this project will strengthen agricultural infrastructure, which can help guarantee increased agricultural yield and income. The project owner is the Water Resources Bureau which is the department authorized to administer water on behalf of the government. Its management objective is should follow that of the government. The project itself has a certain promotional role for local economy, which will drive the development of building material and service sectors, in keeping with the development purpose of owner and township/village governments. In addition, the design

institute will gain benefit from doing the design work. In short, all different stakeholders welcome the construction of this project.

Table 5: Summary Stakeholder Analysis for Subproject

Stakeholder	Primary/ Secondary	Issues concerned or involvement with the project
Farmers of Shuitian, Dongnong, Sanjiang Villages, etc.	PS	Impacts of potential construction, resettlement, land acquisition, etc.
Farmers of 6 Villages	PS	Irrigation water
Water user association (WUA)	SS	To be established for irrigation water use arrangement and management
Shuitian Town Government	SS	Arrangements and management in construction and operation phases
Committees of 6 Villages	SS	Arrangements and management in construction and operation phases
Asian Development Bank	SS	Loan, performance and sustainability of the project
Water Bureau	SS	Executive Agencies, construction management, operation and maintenance
Development and Reform Committee	SS	Sector planning
Finance Bureau	SS	Financial support and guarantee
Environmental Protection Bureau	SS	Environmental monitoring, management & supervision
Land and Resources Bureau	SS	Land acquisition review and approval
Agriculture Bureau	SS	Farming structure adjustment
Bureau of Civil Affairs	SS	Resettlement, minority, poverty, etc.
Deputies to the People's Congress	SS	Issues on socioeconomic development and people's livelihood

2.5 Cultural Beliefs

26. Bouyei and Miao people have distinct ethnic identities and language. They celebrate special festivals of their own during the year. Some people, especially women, wear distinctive ethnic clothing, at least on some occasions. Most ethnic minority people also speak the Guiyang dialect of Chinese. In the subproject area, most agricultural and other livelihood activities are very similar for ethnic minorities and ethnic Han people.

2.6 Territory

27. Land use rights are specified in thirty-year contracts. Land allocations were calculated based on the number of people in the household, and all of whom are listed on the contract for land use rights. In the subproject area, only 34.7% of the farmland, totaling 6,980mu, is effective irrigated area, while other areas are short of irrigation water due to the defects as deposit, collapse, seepage and damage in the existing irrigation system. The improvement of the existing irrigation system will recover the irrigation area to its original designed status to ensure the water provision for agriculture use in the subproject area. The people, including the ethnic minority people living in the subproject area will surely benefit from the improvement of the subproject. Common land held by each of the six villages in the project area will be provided by local PMO and IA.

2.7 Resource use patterns

28. Lowland areas are used for cultivation of field crops, rapeseed followed by rice where sufficient water is available. Some sloping land is terraced and some is planted with fruit trees.

3. SUBPROJECT IMPACTS ON ETHNIC MINORITIES

29. Table 6 gives an overview the major impacts from the project. The main impacts will come from rehabilitation of the irrigation canal network, including development of improved irrigation management institutions. Improved management is also expected to contribute to improved supply of domestic water.

Table 6: Overview of Project Impacts

Type of impact	Yes /No	Impacts	Strategy
Upstream watershed management	No	Existing reservoir, no changes proposed	
Resettlement	No	No homes affected	
Land acquisition	Yes	Minor land acquisition for improved secondary canals affecting 1.2 mu and 47 persons and ## ethnic minority persons. Community-managed construction of tertiary and quaternary canals	Short Resettlement Action Plan for compensation
Rural water supply	Yes	10,016 persons of whom 71% are ethnic minorities	Ethnic minorities to participate fully
Irrigation		6980 mu, estimated 8,000 persons of whom 71% or about 5,600 persons ethnic minorities	Ethnic minorities to participate fully
Tourism	No	No existing tourism	
Fisheries	No	No changes expected	
Downstream environment and ecological habitats	Yes	Reservoir operation may affect downstream flows, including availability of water for villages along river	Reservoir releases to assure environmental ecological flows

Table 7: Ethnic Minority Beneficiaries

	Area (mu)	Benefi- ciaries total	Male	Female	EM total	Male	Female
Domestic Water - Qiankanjing Reservoir	Not Applicable	3654	1872	1782	989	507	482
Irrigation - Qiankanjing Reservoir	6,080	8145	4171	3973	1261	464	615
Irrigation - Bashianqiu Reservoir	100	301	87	83	26	14	12
Irrigation - Sanjiang-Dagou Weir	800	1570	696	663	211	108	103

30. Qiankanqing Reservoir has capacity of 282,000 m³ available. It is necessary to solve the water supply problem for 9,500 people and 6,300 animals. The original water allocation of this reservoir for the human population and animals was only 109,800 m³, and was unable to satisfy the demand. The remaining reservoir capacity may be taken as the supplement to improve the water supply.

31. This is an existing reservoir. Some temporary and permanent land acquisition will occur as part of canal network rehabilitation, but no homes will be displaced. There will be a

total of 23.2 mu affected by land acquisition; of which, permanent land use is 1.2 mu and temporary land use of 22 mu. The category of land occupied would be the dry and grass land.

4. PARTICIPATION PROCESS AND RESULTS

4.1 Consultation during subproject preparation

32. Table 8 shows the public consultation activities carried out at the site, including a general roundtable discussion about the project in April and a meeting in May to more specifically discuss options for water user association development. In addition to this information, consultation has occurred more informally as part of field walkthroughs for irrigation system design, preparation of resettlement action plan, environmental impact assessment, and other activities. At the first meeting, eight out of forty participants were ethnic minorities, one Miao, one Tujia and six Bouyei. For the second meeting 18 out of 37 participants were ethnic minorities.

Table 8: Public Consultation Activities

Type of consultation	Date	Location	Participants Total	Male	Female	Notes
Roundtable symposium	2006-4-7	Wudang Shuitian town government meeting room	40	33	7	8 EMs
Consultation on WUA formation	2006-5-9	Wudang Shuitian town government meeting room	66	51	15	
Focus group discussion	2006-6-1	Donglong village, Shuitian town	32	14	18	32 EMs
2 nd public consultation	2006-6-1	Donglong village, Shuitian town	37	19	18	32 EMs

4.2 Aspirations, needs, and preferred options

33. For the EMDP, the overall conclusion from public consultation is that the needs and aspirations of ethnic minorities in the project area are the same as their Han neighbors. They want improved water supplies for domestic use and agriculture. They want to be fully included in project activities and are similarly interested in participating in the water user association. They want fair compensation for any major land acquisition, but are willing to voluntarily provide minor amounts of land for expansion or construction of field canals.

5. ACTION PLAN

34. The Project will apply a mainstreaming strategy to ensure full participation of ethnic minority people and ensure that any persons affected by land acquisition and resettlement are better off after the project.

35. Table 9 presents the main ways in which the project will have impacts on ethnic minority people, targets, number of ethnic minority people affected, budget information, and timing. Details on this action plan will be provided by the local PMO and IAs. It is noted that Dongnong and Zhulin Villages are the two villages in Wudang that have a substantial number

of ethnic minorities, and special attentions must be paid to these two villages during the next phase of project implementation.

Table 9: EMDP Action Plan

Measures	Targets/Indicators	Ethnic Minority People Beneficiaries/Affected Persons	Budget	Timing
Irrigation rehabilitation	Full inclusion of ethnic minorities	1,496 persons	In project budget	2006-##
Land acquisition (no resettlement at this subproject)	##% for vulnerable people	1,496 persons affected temporarily 47 persons affected permanently	In Resettlement Action Plan	
Construction employment	Local labor ##%, with proportionate inclusion of ethnic minorities	## labor days, ## months/person; ## persons	In civil works contracts	
Communicable disease control	Clinic services for construction camps and communities Health education in project area villages	## laborers ## residents	In project budget	
Water management capacity development	WUA developed Service Agreement WUA O&M Plans & budget, O&M and fee collection	## WUA members	In project budget	
Agricultural extension	Full inclusion of ethnic minorities	## persons trained ## demonstration sites	In separate government budget	

5.1 Measures to avoid, mitigate, or compensate for the adverse project effects

36. This project involves rehabilitation of an existing irrigation system served by an existing reservoir. During design, the need for land acquisition has been minimized whenever possible. Compensation will be provided for temporary and permanent land acquisition for improvement of primary and secondary canals. For development of field canals (tertiary and quaternary canals) provision of land will be coordinated through village committees and WUA, with voluntary consent of those with land use rights documented for any voluntary donations, exchanges and other locally-managed arrangements.

37. *Labor safety and hygiene.* Public health education and service outreach will be provided jointly by the employer and the contractor, with assistance from the local communicable disease control center, to prevent negative impacts for construction workers and neighboring communities from communicable diseases including HIV/AIDS. In light of construction requirement for the project, technically feasible and economically practical safety and protection facilities shall be designed to prevent from occurrence of safety accident and occupational injury and to ensure life and property safety and designing principle shall conform to national and industrial laws and rules as follows:

- (1) Safety production law of PRC (November 1, 2002);
- (2) Labor Law of PRC (January 1, 1995);
- (3) Occupational disease protection and cure law of PRC (May 1, 2002); and
- (4) Fire prevention law of PRC (September 1, 1998).

38. The construction contractor(s) should have an investigation of the communicable disease situation among the construction personnel before they enter the site, which should be documented. Construction personnel should receive sampling health examination regularly and annually at construction stage, the number of which is reached by 10% of the number of persons investigated and put on file. Each construction contractor should clearly appoint the responsible person for sanitation & epidemic prevention who are supposed to manage according to the epidemic situation control and report system promulgated by local disease control authority, and to accept the supervision by sanitation and disease control authorities. In the project area, the CDC will ensure the extension of on-going government funded programs to cover issues related to water-borne diseases and STI/HIV/AIDS.

5.2 Measures to ensure project benefits will accrue to indigenous peoples

39. The primary strategy is a mainstreaming approach to ensure full participation. Beneficiaries are participating in planning for irrigation system rehabilitation, including preparation for future operation and maintenance in which the WUA will have the primary responsibility for management of secondary and tertiary irrigation canals. Preference will be given for local labor during construction, including women and men, with inclusion of ethnic minorities in appropriate proportion to their presence in the local population.

40. The engineering is a reconstruction project with single content of reconstruction. Except a rebuilt inverted siphon, the rest is canal reconstruction whose technical degree is not high. Components of metal structure will be all purchased in complex manner with relatively low requirements for installation. Therefore, tender packages do not need to be separated for metal structures. For convenience of local people's participation in construction, it is planned that the engineering works will be arranged in 5 packages:

- Package I: Qiankanqing irrigation main canal, Huanghuashao branch canal as well as Bashanqiu irrigation and its relevant temporary engineering
- Package II: Dongnong branch canal and relevant temporary engineering thereof
- Package III: Lizi branch canal as well as Huangchenshan branch canal and relevant temporary engineering thereof
- Package IV: Wengpeng branch canal and relevant temporary engineering thereof
- Package V: Sanjiang Dagouirrigation's main canal, branch canal and relevant temporary engineering thereof

41. Integrated planning for multi-purpose reservoir management will provide a means to assure input from stakeholders and consideration of their interests in balancing reservoir water allocation among multiple uses for rural domestic water supply, agriculture, and environmental ecological flows. All villages, including the Dongnong Autonomous Ethnic Minority Village, should be represented in the stakeholder panel established to provide stakeholder input on planning for multipurpose reservoir operation.

5.3 Measures to strengthen social, legal, and technical capabilities of government institutions to address indigenous peoples issues

42. The Wudang County Water Resources Bureau will be the Implementing Agency for this subproject, which will be supported by the related township level officials. An interagency task force to carry out field activities will include staff from the Bureau of Ethnic Minority and Religious Affairs.

43. Some relevant capacity already exists in the Bureau of the Ethnic Minorities and Religious Affairs at the Municipal, County and Township levels. They will be involved in

planning and implementation project activities, including coordination of relevant activities done using their own resources. There is one autonomous ethnic minority government in the project area at the village level.

44. Training will be provided to develop capacity for all aspects of project implementation, which will include the measures to ensure full participation of ethnic minorities in the project and equitable treatment of those affected by land acquisition. The Guiyang Municipal Bureau of Ethnic Minority and Religious Affairs will provide oversight and support.

45. The Municipal Bureau of Ethnic Minority and Religious Affairs and equivalent bureaus and staff at lower levels of government will carry out activities to promote the welfare of ethnic minorities. Table 4 summarizes activities that are expected to have actions on the subproject area which may support or enhance project impacts.

5.4 Involvement of local organizations and non-governmental organizations with expertise in indigenous peoples issues

46. The Ethnic Minorities and Religious Affairs Bureau for Wudang County will be part of the Project Implementing Office. Relevant experts from the Guizhou Nationalities Institute may take part in the annual review of ethnic minorities development in the project and may be asked to advise if specific needs are identified.

5.5 Implementation Schedule

47. The implementation schedule for the subproject is presented in Figure 2.

6. BUDGET ALLOCATION

48. The budget sources for activities in this EMDP are shown above in the EMDP Action Plan in

Table 9 Funding will be provided as part of the project budget, including civil works, and the resettlement action plan for the subproject. Related activities by the Ethnic Minorities and Religious Affairs Bureau in the Project Area were discussed above and shown in

Table 4 on Related Government Activities for Ethnic Minority Development.

7. MONITORING AND EVALUATION

49. It is necessary to carry out monitoring and evaluation of the implementation on the EMDP to ensure the plan could be implemented to meet the determined target. The Implementing Agency shall be the primary responsible for the monitoring and evaluation, with support from the Bureau of Ethnic Minorities and Religious Affairs, and with support from independent local experts. The local experts used for monitoring might be the same as that entrusted for the external monitoring of resettlement or overall project.

50. The monitoring and evaluation plan shall include:

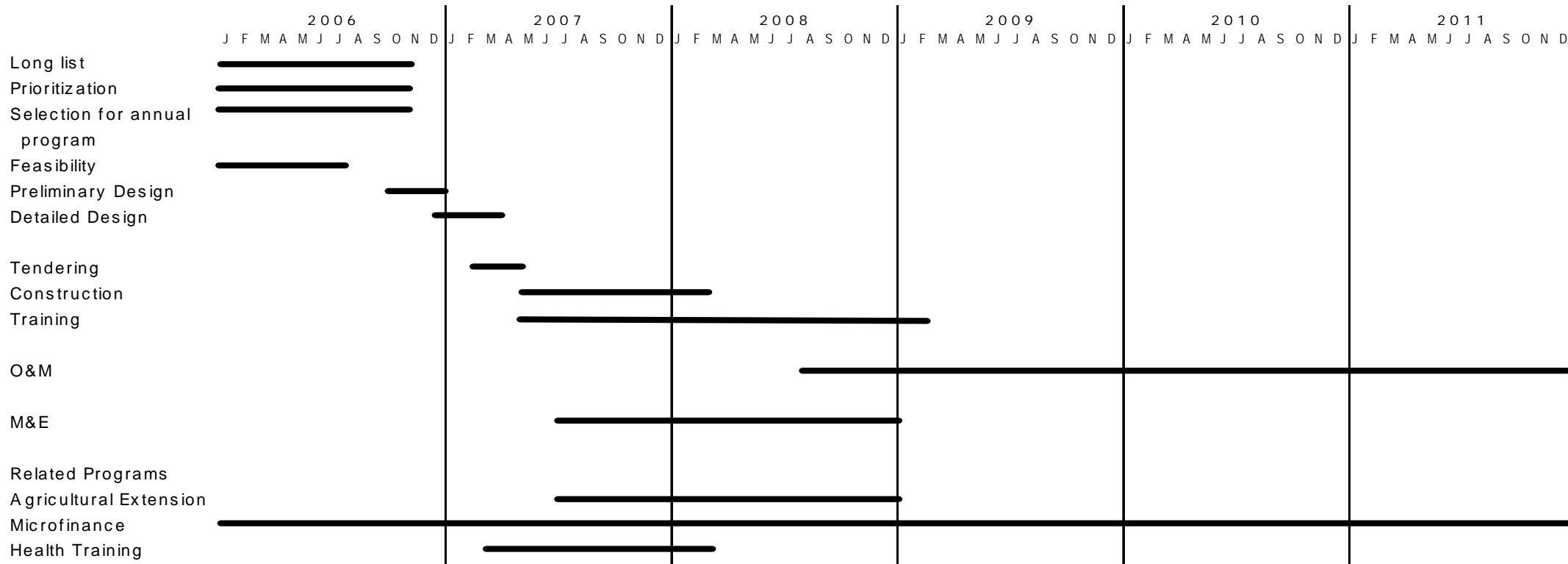
- Baseline survey to collect information of key indicators for monitoring and evaluation;
- Preparation of semiannual reports on progress in implementing the EMDP; and
- An annual review of EMDP implementation that will compile and analyze relevant information and prepare recommendations for enhancing impacts.

51. The budget for monitoring and evaluation activities will be listed in the project construction investment.

Table 10: Illustrates a Format to Summarize Impacts on Ethnic Minorities in the Subproject

	EM IMPACTED	Total impacted	EM population	Total population	EM/Total impacted %	EM/Total population %
Rural water supply	989	3654	989	3654	27.1	27.1
Irrigation	1545	10016	1545	10016	15.4	15.4

Figure 2: Subproject and EMDP Implementation Schedule (Gantt Chart Timeline of Activities and Milestones)



Annex 1: Records of Public Consultation**1st Round of Public Consultation Symposium**

Name	Wudang District Qiankanqing Reservoir Irrigation Area Improvement Project Public Consultation
Time	April 7, 2006
Location	Wudang District Shuitian Town
Participated Department	Wudang District WRB, Wudang District Civil Administration Bureau, Wudang District Financial Bureau, Wudang District Land Bureau, Wudang District Agriculture Bureau, Wudang District Environmental Protection Bureau, Shuitian Town Government, 10 representatives, including 3 women and 7 men. (staff list attached below)
Participated villages	40 deputies from Shuitian Village, Wengpeng Village, Shuizi Village, Sanjiang Village, Zhulin Village, Donglong Village, including 7 women and 33 men. In which there is 1 Miao minority, 1 Tujia minority and 6 Bouyei minorities. (list attached below)
PPTA Staffs	Bryan, Zhou Shan, Jiang Gongliang, Xu Yingxin, Nie Danping, Luo Zheng
PMO	Pan Lin
Moderator	Pan Lin, Chief of Planning Department of Guiyang Municipality WRB
Notekeeper	Luo Zheng
No.	Proceedings
I	Pan Lin introduces project background
II	Zhao Huaqing, Deputy Director of Wudang District WRB, introduces general information of this project
III	Bryan introduces the purposes of conducting PPTA field survey and consultations
IV	Group Discussion. Participants divided into five village groups based on administrative village areas, plus a separate group for government officials. Each group discussed their concerns and suggestions for the project. These were written down by a recorder chosen by the group and presented in a plenary session. The main points and summarized as follows:
1	<p>Lizi Village</p> <p>(1) The Qiankanqing Reservoir will impact on 14 village groups, covering an extremely large irrigation area. In consideration of actual situation of our village, we think this project is feasible and necessary, it will contribute much to our agricultural structure adjustment, increase farmers' income, and facilitate economic development of our village as well.</p> <p>(2) Management arrangement: it is suggested that the canals be managed and cleared up by villagers of each village. Although the villagers are willing to afford certain water tariffs, we hope the government can take practical actions to manage it considering the great number of staffs involved.</p> <p>(3) The tributary ditches for 1# and 2# aqueduct bridges haven't been constructed to Guantian Group (only earth canals)</p> <p>(4) It is suggested that all the canals measured previously must be repaired, as well as some other tributary ditches.</p> <p>(5) During spring ploughing, it's hard to convey the water through the farmland (many water stealers).</p> <p>(6) Farmers are willing to pay water tariffs only if smooth conveyance of water can be guaranteed.</p> <p>(7) As for agricultural structure adjustment, certain technical training should be provided to farmers.</p>

2	<p>Wengpeng Village, Zhulin Village</p> <ol style="list-style-type: none"> (1) The major canal of Wengpeng Village Qiankanqing Reservoir was broke down badly, presenting an urgent need of repairing. (2) Canals were out of maintenance for a long time due to the lack of funds, resulting ultimately in the absence of irrigation. (3) Canals should be repaired to serve the irrigation needs firstly and then followed by further upgrading. (4) Farmers are willing to pay water tariffs after the completion of this project. (5) Villagers will establish a management commission to manage, repair and maintain the completed irrigation facilities in a timely manner. (6) Presently the leakage of canals is significant and conveyance time is too long, hence the villagers cannot irrigate their farmlands in time. (7) Since previous canals are subject to damages caused by various reasons, special concerns must be paid to quality and standard measurement in new-constructed project. (8) Upgrading of canals will be helpful in drought and flood protection, as well as the land rehabilitation (converting land to farmland). (9) Existing water resources are heavily polluted, placing impacts on the quality of drinking water for people and livestock and the quality of crops.
3	<p>Shuitian Village</p> <ol style="list-style-type: none"> (1) WRB is asked to repair the main canal for all the villager groups of Shuitian Village. Existing canals have several damages and breakages, which need to be repaired. (2) Each end of 1# and 2# tunnels shall be covered with boards for 20 meters. Sedimentation tank shall be constructed. The bottom of tunnels shall be floated with concrete. Cover boards shall be placed from Changtuguanzhai to 1# tunnel, and from 2# tunnel to Dachonggou small reservoir as well. Canals from Dachonggou small reservoir to Zhulingou shall be covered for prevention of landslides; from Xiaopobian to Zhongzhai Group shall be covered for the difficulties in cleaning; from Yetouchong to Ma'anshan shall be covered for the great depth; and from the government to Daba Group 3# shall be covered. The main canals from Dakan to Linchang Group need for reconstruction and sedimentation ponds shall be built in front of all the inlets. During rainy season, Xinglong Group 1# and 2# will be flooded by the mountain torrents in Qiankanqing major canal, therefore flood discharge ditches are required. For other sections, flood discharge ditches shall be constructed and well-maintained based on practical situations. (3) Sections of canals should be widened and heightened. (4) Canals should be constructed into the farmland and water diversion facilities must be built with concrete. (5) Each group should be responsible for the management of facilities after their completion. (6) People have comments on the increase of water tariff. (7) Small tanks should be considered for non-irrigated areas. (8) Construction quality must be ensured by the participation of villager groups in the quality supervision. (9) People and livestock drinking water supply system is self-financing and lack of facilities, needing to be improved (solved). (10) A large sedimentation tank is suggested to be built between

	<p>reservoir and canals.</p> <p>(11) Overflow gutters should be constructed in canals and tunnels.</p> <p>(12) Local workers should be employed in preference.</p> <p>(13) Drinking water quality cannot be guaranteed and need to be solved. And water demand must be controlled as well.</p> <p>(14) Strengthen capital management during construction stage.</p>
4	<p>Sanjiang Village</p> <p>(1) Zhou Zhichang, NPC deputy, villager of 2nd group: we, all the beneficiaries, are very glad about the implementation of this project and sincerely hope this project to be successful. This project will contribute much to the economic development and agricultural adjustment of Sanjiang Village, alleviate the farmers' burden, and increase their income.</p> <p>(2) Tang Zhongfu, director of village commission: I, on behalf of all the villagers, express our thanks to ADB experts and technical department of the Party committee. We will establish a water demand management group to ensure the water demands and water conservation, and to guarantee all the households can benefit from this project.</p> <p>(3) Li Zhaogui, 4th group, youth deputy: we are very glad to hear about the improvement of major canal and will try our best to support the construction of this project.</p> <p>(4) Wang Shunfu, 6th group: formerly the irrigation area of major canal cannot cover the land owned our group which placed a heavy burden on us, we hope the implementation of this project will conduct the major groove into our land and we will be very thankful to ADB.</p> <p>(5) Zhang Yuejuan, woman deputy, 1st group: I am very happy to participate in this meeting as the representative of all the women of our village. We greatly thank all the leaders for implementing this project in our village and believe that this work will resolve former difficulties in water intake and contribute much to the increase of farmers' income as well as agricultural structure adjustment. We will provide all our supports to the implementation of this project.</p> <p>(6) Wu Xingpei, 5th group: thank for ADB's support to our village, we will increase our livestock breeding and plantation production, organize night shifts to ensure water discharge, and actively assist the Party committee's in the management work.</p>
5	<p>Donglong Village</p> <p>(1) Liu Yixing: our village is a natural beneficiary; will there be any impacts of reservoir construction on irrigation? Will the loan be paid by farmers? Can you heighten existing canals? How this project will be managed after its completion?</p> <p>(2) Wei Fuyuan: Is there any non-accessory canal of Qiankanqing Reservoir be constructed? Build the canal bank wide enough for walking and provide some flood discharge facilities as well as tractor roads.</p> <p>(3) Wei Fuhuan, female: this project is beneficial; we will enhance the management and water conservation. And we will assist the construction agency in coordination and rear service after the commencement of this project.</p> <p>(4) Wang Bangliang: Now we are using the water from Qiankanqing Reservoir, as the water tariff is high whilst the canals are too small, we hope the tariff could be adjusted downwards.</p> <p>(5) Wang Yong: Will the barrage located in irrigation area be</p>

	<p>reconstructed? Will the remaining 100μ rice field, which hasn't been irrigated with the water from Qiankanqing Reservoir, be irrigated after the completion of this project? Can you resurvey the irrigation to achieve an all-round irrigation for the whole area?</p> <p>(6) Luo Wenge: Excluded canals and other facilities can be included in next stage's schedule? We will make effort in land coordination and develop a set of proposals. The design must be feasible and ensure the perennial running of water. The project is necessary but cannot be just a sample project or a jerry-built project.</p> <p>(7) Liu Yiwen: An investment project of such scale can meet all the infrastructure needs of our village, we will try our best to support it.</p>
3	<p>Relevant department:</p> <p>(1) Bureau of Land Resources: the purpose of this project is to ensure food supplies and improve the productive conditions of farmland. This project is in compliance with relevant guidance on farmland rehabilitation issued by land resources department as well as the overall planning of land utilization. The funds can be financed according to relevant documents.</p> <p>(2) Environmental Protection Bureau: this project is an ADB financed project, having little impacts on surrounding environment. Relevant agencies should submit materials for record.</p> <p>(3) Bureau of Agriculture: agricultural department will closely work with water resource department to ensure the successful implementation of this project. Full consideration should be paid to flood discharge issues.</p> <p>(4) Development and Reform Bureau: we will facilitate this project in its application and approval.</p> <p>(5) Civil Administration Bureau: Resettlement and minority affairs shall be the responsibility of district-level authorities. This project is beneficial and will be supported by us in all respects.</p> <p>(6) Shuitian Town: (Director Huang) we will actively support this project and conduct relevant publication and coordination work to make the villagers fully realize the importance of this project. (Deputy Town Leader Xie) The implementation of this project will improve the condition of water use for irrigation and facilitate the future development of Shuitian Town. As for agricultural structure adjustment, water demands in terms of nursery stock and vegetable plantation can be guaranteed sufficiently. We will conduct relevant publication and coordination work actively. It is planned to establish the largest domestic fungus base in this province along Gui-Kai Highway and the provincial agricultural science institute has been engaged to prepare the planning. It is also planned to develop village tourism in Caijiazhai.</p> <p>(7) Pan Lin of Municipal WRB: the ADB loan for this project can only be invested in construction of infrastructure.</p>
V	Summary of Consultation Results
	<p>(1) Most of participants agree that this project will contribute much to the agricultural structure adjustment and increase farmers' income.</p> <p>(2) They prefer to manage the facilities by their own through establishing relevant committees.</p> <p>(3) Relevant training in agricultural restructuring is necessary.</p> <p>(4) The breakage, damage and leakage of existing canals are significant and water conveyance time is too long, requiring repairs.</p> <p>(5) Existing water resources are polluted heavily, putting impacts on the</p>

	<p>quality of drinking water for people and livestock as well as the quality of crops.</p> <p>(6) The ends of tunnels should be covered with boards and sedimentation tank should be placed in front of the inlets for easier dredging. Canals located in sections subject to landslides should be covered to prevent the earth from entering the canals. Canals getting through villages should be covered. Flood discharge ditches shall be constructed and well-maintained based on practical situations.</p> <p>(7) Sections of canals should be widened and heightened.</p> <p>(8) Canals should be constructed into the farmland and water diversion facilities must be built with concrete.</p> <p>(9) Small pools should be considered for non-irrigated areas.</p> <p>(10) Construction quality must be ensured by the participation of villager groups in the quality supervision.</p> <p>(11) Overflow gutters should be constructed in canals and tunnels.</p> <p>(12) Local workers should be employed in preference.</p> <p>(13) Drinking water quality cannot be guaranteed and need to be solved. And water demand must be controlled as well.</p> <p>(14) Capital management should be enhanced during construction stage.</p> <p>(15) Build the canal bank wide enough for walking and provide some flood discharge facilities as well as tractor roads.</p> <p>(16) All the participants expressed their concerns on management enhancement and water conservation.</p> <p>(17) It is suggested that the survey and design must be all-sided and take full consideration on irrigated areas.</p> <p>(18) Some people said they don't want this project to be a sample project or jerry-built project.</p>
--	--

Minority Focus Group Discussion

Title	Discussion of Minority Team on Wudang Irrigation Area Project
Time	From 9: 30 to 10: 45 am on June 1 st , 2006
Venue	Dongnong Village Shuitian Town Wudang Area
Government Agencies	Wudang Area Water Resource Bureau, Shuitian Town Government
Villagers	32 representatives, among which 18 females.
PPTA	Miss Xu Yingxin, Mr. Luo Zheng, Miss Nie Danping
PMO	Kong Lingkun
Recorder	Miss Xu Yingxin, Mr. Luo Zheng
<p>The 1st Team:</p> <p>(1) The local minorities basically speak Chinese, with a few over 40 speaking national language, which is seldom used in daily life, but of some significance for the nationality.</p> <p>(2) The nationality has its own national dresses and adornments, mainly for women, especially for older ones, but seldom used in daily life. They consider the national dresses and adornments have significant meaning for maintaining minority traditions.</p> <p>(3) Mar. 3rd, April 8th, June 6th and Jan. 9th of the lunar calendar are national holidays for local residents, when activities such as singing meeting will be held. There are no special religion activities and locations for which in the place.</p> <p>(4) The men and women are equal in the marriages, matching freely, with no discriminations to nationalities. It is popular marrying with other nationalities among</p>	

<p>local people.</p> <p>(5) Wooden houses basically in former days, but concrete-and-brick construction and brick-and-wood construction are common now. No remove habit in local minorities.</p> <p>(6) There's elementary school in the local place, with high education (in Chinese) in the town. The local youth and children can get high school education basically, and equal education for both male and female. Preferential policy on the minorities in the higher education entrance is acknowledged.</p> <p>(7) Present low lever irrigation is not guaranteed, so improvement on minority production and living condition after the reconstruction is expected to realize earlier.</p> <p>(8) Men and women are equal both in the housework and farm work, and in the family income with some emphasis on the housework by women and some on the farm work by men.</p> <p>(9) Family economy management and spending are dominated mainly by women, also with discussion within the family.</p> <p>(10) There's little difference in the production and living compared with other nationalities, but with some difference in the marriage.</p> <p>(11) The local residents are relatively poorer compared with surrounding villages.</p> <p>(12) Normal crops are paddy, corn, rape, vegetable, and fruit tree.</p> <p>(13) Going-out labor during spare seasons makes the income besides planting.</p> <p>(14) The government has provided health care, planting and breeding technology training; industrial structure is expected to be adjusted so as to increase the incomes and continuing provision of related training is expected also.</p> <p>(15) Few items adopted in local place result in inexperience with related organizations.</p> <p>(16) Minorities should participate in the supervision and coordination of the projects.</p> <p>(17) Local Water User Association Preparing Team is established, with its members elected by the masses, and its membership fees will be drawn from the water charges. The benefited masses may provide labor in the maintenance of ditches, which was done one time per year in the winter.</p> <p>(18) The masses are willing to contract with the management and maintenance of the ditches and provide labor to the normal maintaining.</p> <p>(19) Members can be elected by the masses and participate in the supervision and management of the projects.</p> <p>(20) There's no special requirement on the development of local minorities, but they expect that the project can bring in benefit to the local people and the government can give help to the construction of machine-plowing road and flood ditches.</p> <p>(21) The local minorities give great support to the project, but with some emphasis on the quality aspect.</p>
<p>Conclusion:</p> <p>The local minorities have small difference in the aspect of production and living compared with Han Nationality and without special taboos. They support the project and expect the water user members through election can participate into the supervision of the project and production and living conditions can be improved thereafter.</p>

The 2nd Round of Public Consultation

Title	The 2nd Round Public Consultation on Yudongxia Reservoir Subproject in Longli
Time	From 2: 00 to 4: 10 pm on June 1 st , 2006
Venue	Dongnong Village Shuitian Town Wudang District
Government Agencies	Wudang Area Water Resource Bureau, Longli County Xingshi Town
Villagers	37 representatives, among which 18 females and 32 minorities.

PPTA	Miss Xu Yingxin, Mr. Luo Zheng, Miss Nie Danping
PMO	Xu Ping, Kong Lingkun
Recorder	Mr. Luo Zheng
<p>The 1st team:</p> <ol style="list-style-type: none"> (1) Fully consideration to the supporting construction of machine plowing road during the project construction is requested. (2) Irrigation of 200Mu land near the Wanzi Back Hill using inverted siphon is requested. (3) Maintenance of local overfills is requested. (4) Widening and heightening of all the ditches in Taizi is requested. (5) Widening and heightening of ditches from Sha Dam to Dazhai is requested. (6) Direct water stream flow from Qiankanqing into the land is requested because there is 200 mu land in the back slope of Taizi and Niugan. (7) Drinking water problem of Niugan and Taizi must be solved for future economy development. (8) The team of Taizi requests maintenance of their Big Pond. (9) The villagers suggest to provide labor if there are some constructions. (10) Maintenance of ditches from Yuanshangbian to Yangliuguan is requested. (11) Maintenance of ditches from Wanzi Team Longjing to Shahuang Temple is requested. (12) Widening and increasing of ditches from Yangliuguan to Shahuang Temple is requested. (13) The irrigation charges should be increased in a reasonable way, being unbearable if too high when the ditches get maintained. (14) The use of land during maintenance of the ditches will be coordinated among us. (15) Too much occupation of land will be asked for compensation. 	
<p>The 2nd Team:</p> <ol style="list-style-type: none"> (1) Solution to 300Mu paddy field irrigation in Gaojia Team and Wanzi Team Laoyou Slope is requested. (2) Machine plowing road construction in Gaojia Team and Wanzi Team Laoyou Slope is requested. (3) We support the project. (4) We give support to the occupation of land in the project. (5) We actively participate in the Water User Association in the project. (6) Valve installation is requested for the ditch gaps for the convenience of management. (7) Ditches unplanned are requested to be put into the plan. (8) After the start of the project, supervision and management on the project by Water User Association is requested. 	
<p>Conclusion:</p> <p>The masses' opinions have been put out in the first round public participation. From the 2nd round conversation, we can see that the masses are welcome to the project and hope the construction can expand the irrigation area, with consideration to the unplanned part. They also hope that the existing ditches are to be maintained, widened and heightened, and full consideration to the endurance of the water charges after running of the project must be pay attention to. The masses expect participation of supervision and management of the project through Water User Association. Concerning the takeover of land in the project, the masses express great support to it, by giving coordination actively to small occupied land, and expect standard compensation on large takeover of land.</p>	