

European Investment Bank Loan

Hunan *Camellia oleifera* Development Project (HCDP)

Social Assessment Report

Hunan Provincial Forest Foreign Fund Project Management Office
Social Assessment Team of HCDP

April 27, 2013

Abbreviations

CFB: County Forestry Bureau

FC: Forest Cooperative

HCDP: Hunan *Camellia oleifera* Development Project

HH: household

HN: Hunan Province

PCP: Participatory consultation and planning

PFD: Provincial Forestry Department

PPMO: Provincial Project Management Office

PRA: Participatory Rural Appraisal

SA: Social Assessment

TFS: Township Forestry Station

Preface

Entrusted by the PPMO of European Investment Hunan *Camellia oleifera* Development Project, social assessment experts from Hunan Forestry Investigation and Planning Institute, Xu yongheng taken roles of team leader, went to 3 project target counties/cities/ prefectures including Qiyang, Ningyuan, Huayuan county to do the field survey for social assessment on "European Investment Loan Hunan *Camellia oleifera* Development Project" from February 19 to February 28 2013. Meanwhile, the SA team also collected the second-hand baseline data from 14 project counties (city, district). Data processing was done in one month since March 1 to April 15, 2013. The draft reports on SA of HCDP were ready on April 20, 2013.

HCDP covers 14 project counties. Project construction scope mainly include:1) Construction of *Camellia oleifera* production base which cover camellia new plantation 21863.3 ha, *Camellia* young stands tending 10900 ha, Low-yield *Camellia* stands improvement 4153.8 ha, and construction of necessary ancillary facilities; 2) Institutional supporting and technology improvement include camellia cooperatives supporting, technology research, promotion and service, monitoring and evaluation, project management and construction of National *Camellia oleifera* Engineering Research Center.

In order to ensure that different interest groups and different types of farmers could actively participate in project consultations on tasks and impacts, the SA team adopted a participatory impact assessment methodology and tools including village meeting, opening semi-structured interviews, stakeholders' interviews, village resources survey, resource mapping, participatory scoring and ranking, matrix analysis of project's impact, etc. In the preparation stage, the SA team identified the main social influential factors on the project: 1) The main social influential factors include people's ways of behavior, community participation,

institutional arrangements, poverty, protection of farmers participats' interests. 2) The social factors affecting ethnic minorities include relative policies for ethnic minorities, population, social and cultural characteristics. Therefore, consultiaon could be a good way to understand the specific requirements of ethnic minorities, to gain supports from then to the project, and put forward some measures so that the negative impact on minority communities from the project could be avoided or reduced.

Considering the social factors discussed above, the SA team analysed the second-hand data from the 14 project counties and the survey results in Qiyang, Ningyuan, Huayuan counties, and got the following conclusions on project impacts.

1) Project impacts on participants, particular the impacts on the Camellia professional cooperatives:

Because of Camellia professional cooperatives and companies are major participants of this project, which are the greatest stakeholder group impacted by project. The SA survey found that individual farmer household has Camellia area is relatively small, and they have commercial woodland or can be used for afforestation and which are intended for commercial forest management area even smaller. In project target area, most of the labor force migrant to outside, it is very difficult to organize individual farmer household implementing the project. In addition, this project have requirements of management forests in scale, and the plots for project target construction relative centralized and contiguous to facilitate project operation and management. Consequently, farmer households only through lease or became a shareholder approaches transfer their Camellia land to Camellia professional cooperatives or companies, camellia development organized by Camellia professional cooperatives or companies. County PMO shall negotiate with all project participants, including farmer households, group of farmer households, Camellia professional cooperatives or companies, and sign-

ing contract of the implementation of the project. In accordance with the results of project design and findings of SA investigation only when farmers involved in the project could receive technical trainings, appropriate financial supports and corresponding benefit returns, they would participate in and support the project and receive the expected benefits. Therefore, the SA team recommended that HCDP to help farmers to establish forest cooperatives (FC) or other organizations to promote small-scale farmers' participation in the project and safeguard the interests of individual farmers' HH. The project has various impacts upon the participants, especially on the income of farmers' households. In the social assessment interviews, SA team found several farmers talk about forest land transfer income, camellia seed picking time, to participate in the project, they are worried about the woodland into commercial forest operations, camellia seed picking labor inputs. Therefore, SA particular pay attention to the protection of the project participants benefits, especially the benefit of farmer households.

2) Project impact on the minorities:

The project area lives many nationalities of Han, Miao, Yao, Tujia, Dong, Hui and other ethnic groups. Compared with the mainstream society, most ethnic minorities in HN are still a relatively vulnerable group as they live mostly in undeveloped, remote mountainous areas. The SA team found that the majorities of the project area do not have their own unique ethnic culture and customs any more. According to the policy of European Investment Bank, only Miao and Yao minority fit the particular working conditions in the project area. Therefore, the SA team paid special attention to the survey and consultation on Miao and Yao minority concentrated area. It was found that they are very interested in the activities of HCDP

3) Project impact on women and the poor populations:

The project is designed to cover women and the poor population. The SA team found that far more women labor force than men stay in the villages, furthermore

most of them in old age, while most of the poor population also stay in the villages due to lack of skills. Therefore, the project will have positive impact on women and the poor population. In addition, the special terms of the project for example camellia seeds picking and camellia oil processing will help the poor to restore their livelihood and provide opportunities for development.

4) Project impact on labor supply and labor capability:

SA found that in the project area, most young men and women migrated out for work in Guangdong, Zhejiang, Jiangsu, Fujian Provinces and Shanghai Municipality, and a considerable number of people work in their county towns. The labor force in the village is constituted mainly by women and the elderly who generally lack skills and strong working capability. Therefore, the quality and capability of labor force might be a problem and bring slight risks to project implementation. However, it is also found that the labor force outside the project area may be attracted in if the project could provide appropriate labor payments. For example, in Ningyuan County where the forestry industry develops well, there are about two to three thousand of labor from Guangxi Zhuang Autonomous Region working in its forestry industry every year. This could be a good way to control or avoid the labor risk of project implementation.

5) Project impact on key stakeholders:

In order to identify the impact of project on different stakeholders, the SA team carried out a variety of surveys and consultations. They analysed the development problems, project requirements, project impacts and proposals with main stakeholders through key informants forum, village meetings, semi-structure interviews, mapping, ranking and other means. They have also made outlines for the participation of main stakeholders.

SA team believes that the social effects of the HCDP are mainly reflected in:

1) The project will drive regional economic development. Firstly, it can promote

HN Camellia industry development and facilitate the sustainability of economic development. Secondly, through the implementation of the project, the project can resolve the problem of afforestation fund deficiency, and it will help to develop local seedling nurseries, increase regional camellia oil yield, adjustment structure of edible oil and reinforce the foundation of forestry development with sufficient funds. thirdly, it make a solid foundation for the development of forestry, driving the development of camellia oil processing and other related industries; Fourth, the during the construction period, and after completion of the project construction, increase the rural surplus labor employment channels from relevant industries, thereby increasing the labor income of farmers.

- 1) The project will have a great impact on improvements of regional ecological conditions in the drainage areas of Xiangjiang River and Yuanshui River. It will also play a positive role to improve the structures of forest types, reduce soil erosion, protect ecological environment, improve farmers' awareness of environment, optimize the local investment environment, improve the social image of the regions and promote new rural development.
- 2) The project will also promote institutional capacity building of forestry management institutes through advanced project management methods and office management system, which is helpful to train a group of forestry project managers and enhance management capacity and service levels of forestry and forestry-related organizations.
- 3) Minorities are the main beneficiaries of the project. The implementation of the project can promote their communication and exchanges with the outside world and thus obtain more development opportunities. It will also improve the ecological environment of ethnic minorities and help them to increase income from forests.

- 4) The project also covers the rural poor population who will get their living environment and quality improved from the project. They will also be provided with employment opportunities and income increase.

By means of field survey and analysis of second-hand data, the SA Team considered the following potential social risks for the project.

- 1) Social risks triggered by forest land ownership disputes. During the process of SA, some poor villagers express that chosen lease the land by reason of they can achieve income earlier and safely. One of provisions in *Collective forest land contract Ordinance* is all the collective land which planted trees or have vegetations-covered should be contracted manage to farmers, forest land use rights contract period is 70 years, the land has been contracted which still can be subcontracted, used for debit and credit mortagage, and use for investment capital of collaborate shareholders. The SA found that 70-80% of the project target counties woodland and barren wasteland suitable for forest has been contracted to households, some villages of project all the woodland and wasteland have been contracted to households. Clearly, diversity land ownership involved the project, including state-owned forest, collective forest, and forest contracted to households, which would increase the difficulty of the project management. Thus, in these cases, it should be evaluated as a potential risk of the project.
- 2) The risk caused by improper selection of camellia varieties. In the process of SA, forestry officials from Ningyuan County and Huayuan County indicated that improved camellia varieties have great contribution to Camellia oil production. If improper selection of camellia varieties, there are great potential risks for the project camellia oil production. It is recommended that strengthen tracking the provenance of camellia species, and take forestry insurance against the risk.
- 3) Institutional capacity building. Institutional construction shall adapt to different

nature of the project and different project phases, as well as adapt to objective needs of optimize the construction of Camellia production base, and also it is an important guarantee for the smooth going of the project implementation.

- 4) Post-project management. Post project management is crucial to guarantee the impacts and sustainabilities of the project after the completion of the project investment, meanwhile, it is the sustainability symbolize of the project. After completion of the project investment, Camellia plants still require a lot of labor input to reclamation, fertilization, pruning and shaping, pest and diseases control, camellia seeds picking, it need a large amount of labor, and take on seasonal. Most of the project area young labor force migrant for workers, it has a potential impact on project camellia seeds harvesting. In order to reduce this potential risk, beneficiaries can contact with local schools, safety condition to be ensure, invite local high school students and high-grade primary school students enter into the camellia production base picking camellia seeds, it can improve their laboring skills, increase their physical exercising, and properly paid them for labor payments.
- 5) In specific project areas, in camellia seed ripen season, there are might be happen camellia seeds illegal picking phenomenon, or because beneficiaries worrying about illegal picking, they picking camellia seeds too early, it would serious impact on yield of camellia oil, subsequently, which would seriously affect the economic benefits of the project.
- 6) Management activities of the project, such as land preparation, reclaimtion, fertilization, pruning and shaping, pest control may result in light soil erosion, decline in soil fertility, soil structure changes, excessive pesticide residues, etc. those negative factors would have impact on the ecological environment and food safety.

Regarding the social risks discussed above, SA team proposed some recommendations as below:

- 1) Optimize designing. It is proposed that project owners and forestry technical units should fully considerate the interests and views of the various stakeholders, expressed and embodied in project designing, and take fully consideration the views of local people on the selection of tree species, and through variety of channels to security stakeholders involved in the project, from the source to avoid social problems that the project may bring
- 2) Strengthen participatory consultations. Adopt discussion, questionnaires, visiting and information feedback method, strengthen communication among local Government and relevant departments of the project and stakeholder groups, so that people consciously involved in the whole process of the project designing, implementation, management and evaluation. Regular consultation meetings for report project progress and listen to the opinions of the government and relevant departments, constantly improve the implementation of the project measures, come up various issues appeared in the implementation of the project, and find the solution of the problem
- 3) Strengthen ecological and environmental protection knowledge education and training. Strengthen training of Camellia plantation management technical, and improve the popularity forest carbon monitoring knowledge, make stand stress resistance achieve its goal. It is recommended government organize relevant departments, joint publicity section, education bureau, women's organization, radio and television bureau, newspaper office, township and village, aims at all the people, popularity relevant national and local ecological and environmental protection knowledge, ecological and environmental protection regulations, Help local residents of project area to recognize the impact of forest restoration on the region development.
- 4) Establish a reasonable mechanism of beneficiary participation. It is recommended that forestry sector, project target area government officials, and SA group jointly together to prepare a guideline of beneficiaries participation, and

carry out monitoring and evaluation participation activities, to ensure main stakeholders participate throughout the project, including project preparation, designing, implementation, evaluation and monitoring throughout the project periods, and enhance the ecological awareness and the concept of green development in the project implementation process.

- 5) Provide employment opportunities. It is proposed that project construction units, jointly with Civil Affairs Bureau, Social Security Bureau, the Ethnic Affairs Commission and other sectors, provide employment opportunities for the rural poor households, women and minorities, enable them participate in the construction of the project.
- 6) To formulate and implement preferential policies for vulnerable groups. The participation of women, poor people, minority groups should be ensured in open and transparent ways. Selection of tree species and modes of forest management shall respect the wishes of local residents. The residents themselves or their trusted representatives could participate in the project implementation. The collective forest land in the project shall be agreed and monitored by local civil juristic person. Training to the vulnerable groups should be designed to improve their capacity in participating in the project.
- 7) Give full consideration to the development of ethnic minorities in poverty, in the project design should more inclined to poor minority government, forestry sector should take the initiative to take involved in many convenience minority residents, so that they could share project benefits, and adopt measures to protect benefits of minority residents and minority traditional culture. To facilitate the poor minorities get out of the vulnerable position and ensure sustainable development of the project, For fundamentally poor minority residents out of on the mechanism to ensure the sustainable development of the project. The SA group recommended that the project remain 1-2% of the

project funds for the organization of FCs in minority ethnic communities on the basis of traditional social organization, in accordance with the principle of the autonomy of the villagers, set up the forestry cooperatives or the legal community of the "Company" nature.

- 8) Using advanced concepts and methods of pest early warning and control to instruction the project forest pests and diseases prevention and control, the using monitoring network of national and local pest and disease for accurate forecasting project forest pests and diseases. Vigorously promote physical control and biological control, stringently chemical control of use high efficient, low toxicity pesticide, realize prevention and control of the project forest pest and disease.

- 9) To construct post-project management system. Local residents in project area shall be included to participate in the post-project management. Post-project management teams could be organized on the basis of community management team during project implementation. Members of the team could be elected by the villagers, while women and minority representatives must be present in the team. From 10 days prior to the maturity of the camellia seeds, camellia forest farm authorities, beneficiary (or owners), company managers and other stakeholders constitute a defense group, to prevent the theft of camellia seeds.

1. Project Background and construction purposes

1.1 Project Background

Camellia oleifera Abel is a species of *Camellia* (*Camellia* L.) genus, Theaceae family (Theaceae), evergreen small tree or shrub, Chinese endemic species, woody edible oil tree, China has more than 2000 years history of cultivation and utilization *camellia oleifera*. *Camellia oleifera*, olive, oil palm and coconut known as the world's four major woody oil plants, Chinese tallow tree, oil tung , walnut and *camellia oleifera* known as China's four major woody plants. *Camellia* oil is the main products of *camellia oleifera*, the unsaturated fatty acid content in *camellia* oil reached 90.47%, regular edible *camellia* oil can lower cholesterol, and it has a function of prevent ion cardiovascular disease. *Camellia* oil is a non-drying oil, storable, clear color with fragrant flavor, it also called "Oriental olive oil ", as one of best-selling products on the international market. According statistics data source from National *Camellia* industry development plan (2009 ~ 2020)(the State Forestry Administration, July 2009), Chinese *camellia* area is about 3.2008 million hectares, annual *camellia* seeds output is 1 million tons, annual output of *camellia* oil is approximately 260,000 tons, the output value is around 11 billion Yuan, *camellia oleifera* mainly distributed in 14 provinces (cities, districts) south of the Yangtze River. Hunan is one of three main *Camellia oleifera* producing areas in China. Hunan is called "the hometown of the *Camellia*". At present, Hunan province has *Camellia* forest area of 1,185,300 hectares, accounting for 39.24% of the total area of the National *Camellia* Forest, ranking first in the whole country.

In recent years, our country attaches great importance to the development of *camellia* industry, and introduced a series of policies successively. Such as "the State Council suggestion on the promotion of the development of oil production" (State Council office issued [2007] No. 59 document), "the State Council suggestion on the promotion of edible vegetable oil industry healthy development and security supplying" (State Council issued [2008] No. 36), in this suggestion, it was

clearly proposed to vigorously develop camellia oleifera and other specialty oil crops. The State Forestry Administration issued a "State Forestry Administration views on the development of camellia oleifera industry, elaborated the" National Camellia oleifera industrial development plan (2009 to 2020). No. 1 Document of Central Government of 2009 was about the "CPC Central Committee and the State Council in 2009 opinions on promote the stable development of agriculture and continuing increase farmers income " said "supporting favorable areas focus on the development of oil and other economic crops production, elaborate and implement the National woody oil industry development plan as soon as possible , focusing on the development of appropriate areas Camellia woody oil industry, accelerating the breeding and promotion of high-yielding superior varieties; 2010No. 1 Document of Central Government bring forward that "boosting oil production, accelerating high-quality rapeseed, peanut production base counties building, and actively expanding camellia oleifera, walnuts, etc. woody oil development. "

In order to implement the national Camellia industrial policy, transfer Hunan Camellia resource unique advantage into economic advantage as soon as possible, boosting the development of camellia oleifera industry, make camellia oil industry into a pillar industry of Hunan regional characteristics of competitive industries, Hunan Provincial Government introduced a "speed up the development of tea industry," and it proposed development goals: "to 2015, Hunan total area of Camellia oleifera will reach 1.333 million hectares, including construction of Camellia oleifera forest base of 667,000 hectares of which camellia oil production reach 750 kg / ha. Aimed at large-scale development and utilization of Camellia oleifera resource, revive the Camellia industry development that has great potential and broad prospects.

Framework of European Investment Bank for China forestry special loan programs aims to further strengthen bilateral cooperation in the field of climate change, in particular, strengthen cooperation in increase the forestry carbon sequestration, and play an active role in the mitigation of global climate change. The

project has positive significance on promoting China's forestry development and sustainable economic and social development. February 13, 2012, the Ministry of Finance signed "People's Republic of China and the European Investment Bank of China Forestry special framework loan agreement" with the European Investment Bank. The agreement loan amount € 250 million, mainly for the supporting new shelterbelts afforestation, timber forest, economic forest, forest tending , inefficient forest stand improvement, forest ecosystem restoration, sustainable development and biomass energy forest base construction, etc.

After three years of preparation, European Investment Bank loans Hunan Camellia development project list in National Development and Reform Commission and the Ministry of Finance "alternative projects use of the European Investment Bank forestry special framework loan ". The project achieved approval of introduction European Investment Bank loan 35 million euros in 14 counties (cities) of 8 prefectures/ cities, for establishment of new camellia oleifera plantation, young stands tending, low-yielding camellia stands improvement, construction of Camellia production base 21,861.3 hectares. At present, the preparatory work of the project entered the final stage.

1.2 Project Construction Objectives

Through the implementation of the European Investment Bank loan Hunan Camellia development project, selection improved varieties of camellia oleifera, application new technologies of Camellia oleifera forest cultivation and management, construction of high-quality Camellia fertility production base, demonstration and promotion of high-yielding Camellia management technology, for the purpose enhance capacity of project management institution, construction of 21,861.3 ha Camellia production base, improve the promotion ability and operational skills of Camellia technicians and forest farmers, make the project management agency provide good service for the project construction; driving the development of camellia industry in project area, radiation surrounding areas, facilitate to Hunan Camellia industry developed into bigger and stronger, to further promote the

Camellia industry development in Hunan Province.

1.3 Project construction Contents

European Investment Bank loans Hunan Camellia development project construction scale is 21,861.3 hectares, in which Camellia new plantation 6807.5 ha; Camellia oleifera young stands tending 10,900 hectares; low-yielding Camellia oleifera stands improvement 4153.8 hectares (Table 1); and build the necessary ancillary facilities. The construction place including Liling, Hengyang, Hengshan, Qidong, Shaoyang, Miluo, Pingjiang, Sangzhi, Qiyang, Ningyuan, Xupu, Zhongfang, Huayuan, Baojing 14 counties (cities), thereinto Huayuan, Baojing are Minority counties (Miao, Tujia Ethnic).

Camellia oleifera production base construction scale

Table 1

Unit: ha

Project Target County/City	New plantation	Young stands tending	Low-yielding stands im- provement	Total
Total	6807.5	10900.0	4153.8	21861.3
Lilin City	300.0	1058.9		1358.9
Hengyang County	300.0	1058.9		1358.9
Hengshan County	757.7	600.0		1357.7
Qidong County	300.0	700.0	343.4	1343.4
Shaoyang County	500.0	900.0	557.6	1957.6
Miluo City	300.0	800.0	247.7	1347.7
Pingjiang County	250.0	741.3		991.3
Sangzhi County	500.0	700.0	425.1	1625.1
Qiyang County	800.0	1000.0	503.4	2303.4
Ningyuan County	500.0	1000.0	300.0	1800.0
Xupu County	900.0	1000.0	301.3	2201.3
Zhongfang County	500.0	900.0	233.7	1633.7
Huayuan County	499.8	341.0	931.0	1771.8
Baojing County	400.0	100.0	310.6	810.6

According to estimate, the project total investment volume is 560 million RMB, of which, European Investment Bank loan 35 million Euros, if the exchange rate of Euros:RMB is 1:8, thus European Investment Bank loan is 280 million RMB, the loan accounts for 50 % of project total investment; provincial counterpart financing is 56 million RMB, accounts for 10% of the total investment; county counterpart financing is also 56 million RMB, accounts for 10% of the total investment; project beneficiaries self-financing is 168 million RMB, accounts for 30% of the total investment.

2. Social Assessment (SA) process and methods

2.1 Process

2.1.1 Team Organization

1) Provincial team. Hunan Provincial Project Management Office organized the social assessment team (provincial supporting team). 5 team members mainly are technicians and experts from Hunan Provincial Forestry Exploration Institute, and experts from Hunan Academy of Forestry Sciences. Their major tasks are:

- i. To organize and coordinate the project counties to conduct social assessment;
- ii. To compile guidelines of social assessment (textbook for training) and conduct trainings for the county SA working groups;
- iii. To compile interview outlines, questionnaires, outlines of social assessment report and minority development report, manual for consultation;
- iv. To conduct on site guidance and supervision in all project counties.
- v. To collect data and documents on forestry development at national level and provincial level;

- vi. To analyze and write report on the data collected by county SA working groups.

Xu Yongheng, as the team leader, a professor and senior engineer of Hunan Forestry Survey Institute, he takes charge of comprehensive coordination of SA team and takes part in the entire process of social assessment.

2) County working groups

In each project county, SA working group is established with personnel from County Bureau of Forestry and township Forestry Station. Each working group consists of three to five members among whom one member should have received training from the provincial SA team. In every group, there is a team leader and also a female member. Their responsibilities include information dissemination, documents and regulations collection; organization and implementation of consultations (Participatory Rural Appraisal, PRA) in counties, towns, villages and among farmers' households; recording, analyzing and collection of consultation results; contact with provincial team; accept the guidance from the provincial team; provision of documents required by the provincial team.

2.1.2 Assessment Training

Training courses are conducted separately for provincial team and county working groups. The provincial team received training in Changsha from April 7 to April 8, 2011. The training contents consist of purposes, process and main tools of PRA; semi-structure interview, questionnaire and filed survey; contents and methods of social assessment of the project; collection and analysis of social assessment data.

2.1.3 Field Survey

Provincial SA team conducted field survey based on the requirements of *Euro-*

pean Investment Bank's Environment and Society Practices Manual. Considering limited time and human resources of the Provincial team, typical sampling methods is adopted with the criteria of camellia forest construction scale, farmer household enthusiasm for forest management, farmer willingness of in project participation. 28 villages in 14 project townships in 10 sampled project counties are selected to conduct field survey. In total, 239 questionnaires for farmers are collected, 87 interviews are conducted on village carders; 28 village meetings are organized with 503 villagers participants; 14 workshops for officials in project area with 147 participants; as well as 147 questionnaires for officials (See Table 2).

Table 2 Project target counties SA sampling questionnaire

Project county/city	Township/Town name	Village Name	Farmer HHs Questionnaire(Copies)	Cadre Questionnaire(Copies)	Interviewee
Total	14	28	239	87	503
Lilin City	Bansha Township	Leiguqiao Village, Babuqiao Village	18	8	20
Hengyang County	Jiepai Town	Taogong Village, Jiejiang Village	17	6	50
Hengshan County	Xuanzhou Town	Tangpu Village, Yanjiang Village	17	5	28
Qidong County	Lingguan Town	Yanzhu Village, Baosheng Village	18	7	36
Shaoyang County	Caiqiao Township	Choushan Village, Shuikou Village	17	5	36
Miluo City	Sanjiang Town	Qiao Village, Fengxing Village	16	7	30
Pingjiang County	Wushi Town	Dongshan Village, Shiqiao Village	17	5	50
Sangzhi County	Shataping Township	Damutang Village, Siyuanpo Village	17	6	28

Project county/city	Township/Town name	Village Name	Farmer HHs Questionnaire(Copies)	Cadre Questionnaire(Copies)	Interviewee
		lage			
Qiyang County	Babao Town	Longqiao Village, Putang Village	18	7	26
Ningyuan County	Taiping Town	Baitu Village, Maopingtou Village	17	6	36
Xupu County	Youyang Township	Zexi Village, Laixi Village	16	6	30
Zhongfang County	Tongmu Town	Banjie Village, Huangjiawan Village	16	5	53
Huayuan County	Changle Township	Taohua Village, Gupo Village	17	6	40
Baojing County	Qingshuiping Town	Xiama Village, Daba Village	18	8	40

County SA team is established with county SA working group and other county level forestry agencies. It is responsible for first-hand data collection at county, township and village levels. The survey and consultation include: 1) to conduct survey at county level: project information dissemination, consultation with concerned stakeholders at county level and learning about their attitude to the project and collect recommendations for project management and implementation; 2) to do primary project assessment through interviews and forestry policies and documents; 3) to collect data of population and resources; 4) to interview officials and collect social economic data in sampled townships; 5) to organize village meeting and interview with village cadres, conduct survey on farmers and village resources reconnaissance.

2.1.4 Data Sources

The data sources of the assessment include: 1) first-hand field survey such as questionnaire, interviews, symposium, community resource map and various video information; 2) background information and reports such as proposal and feasible research report of the project, etc. 3) official statistical data, such as statistical almanacs of government at all levels, statistical bulletin, outline of the “twelfth five-year plan”, relative policy documents of government at all levels; 4) local historical documents, such as County Annals and City Annals.

Generally, the latest official statistical data is selected. In terms of population, economic and social development, the data in 2010 selected. Data at village level are collected from field survey as much as possible to ensure the objectivity and accuracy. Analysis and discussion on relative issues have taken into account the views of major stakeholders, management institutions and project owners to make it more comprehensive and objective.

2.2 Methods

Participatory appraisal method is applied in the whole social assessment process. Data are collected through information disclosure and consultations. In the 14 project counties, tools of participatory appraisal are applied to conduct social assessment, including semi-structural interview, workshops, scoring and sorting, matrix analysis of the project impacts, community resources mapping, to ensure that different stakeholders and various types of farmers’ households can take part in the project voluntarily, enthusiastically and equally. Flyers, announcements and meetings are adopted to disseminate project information to concerned government departments and villages so that they could learn more about the objectives, components, principles and procedures of the project.

2.2.1 Cadres’ Workshop

The county SA team organized workshops for officials at county level. The pro-

vincial SA team organized workshops with local officials in Qiyang, Ningyuan and Huayuan counties. The participants include officials from the Bureau of Forestry, Bureau of Financial Management, Bureau of Development and Reform, Bureau of Agriculture, Bureau of Water Resource Management, Environmental Protection Bureau, Women's Federation, Bureau of Minority Religious Affairs and Bureau of Culture. The contents of the workshop include: 1) introduction of the basic information of HCDP and the purposes of the workshop; 2) Collection their understanding, extent of support and recommendations about HCDP; 3) Interviews and questionnaire survey. In-depth consultation was conducted by SA team with concerned officials ethnic and religious affairs in Ningyuan County, Huayuan County.

2.2.2 Villagers Meeting

Village meetings have been organized with main stakeholders in each sample village. Special attention has been paid to the interests of poor farmers, ethnic minorities and women, as well as the voice from disadvantaged groups in village meetings and consultations. The provincial SA team conducted 6 workshops with main stakeholders, including 4 in Yongzhou City, 2 in Xiangxi Autonomous Prefecture. The decision of time and location or venue of village meetings has fully taken into account farmers' convenience so that to ensure their full participation. In the meetings which are moderated by cadres, the SA team introduced the requirements, attitude, expectations and suggestions of the project.

2.2.3 Questionnaire Survey

Questionnaire survey has been conducted on different types of stakeholders, including women, ethnic minorities and the poor. In total, 326 questionnaires (including 87 on officials) have been collected, including 48 in Huaihua City, 22 in Shaoyang City, 26 in Zhuzhou City, 53 in Yongzhou City, 45 in Yueyang City, 60 in

Hengyang City, 23 in Zhangjiajie City and 49 in Xiangxi Autonomous Prefecture respectively. With regard to the age of the informants, the majority is in the age group of 22 to 65 years, covering 83.1% of the total, and among which 56.8% are in the group of 46 to 65 years. In terms of the nationality, the informants of Han nationality accounts for the majority of 67.2%, while Miao, Tujia, Yao and Dong minority informants account for respectively 15.5%, 4.2% and 8.4% in the total.

2.2.4 In-depth Interviews

In key investigate project impact regions, SA group carried out in-depth interviews. The selected interviewees include certain percentage of women, minorities and the poor households, and certain percentages of low income, medium income and high income households. Interview was conducted in farmers' houses, field or other appropriate places at appropriate time after the village meetings.

SA interviews focus on farmer households and village-level survey. Interviews on village cadres helped to identify the stakeholders, impact of project as well as forestry tenure innovation, to collect socio-economic data of village-level. Wealth ranking was applied to identify participants sort by farmers groups, interviewees. Interviews with farmers were conducted to learn about their behavior in forest production, resource management practices and livelihood characteristics. Land resource survey was applied to collect information about vegetation and forest land use, forest tending and modes of land use in the villages. Women and poor farmer households received special attention during the interviews.

2.2.5 Mapping

The SA team has drawn a community map and a resource map in each sample villages. In-home interviews, we prepared daily life chart and seasonal calendar figures.

3. OVERVIEW OF SOCIAL ECONOMY IN PROJECT AREA

3.1 Natural Condition

3.1.1 Location

Hunan Province is located at the middle branch of the Yangtze River. Most part of it is in the south of Dongting Lake, with Jiangxi Province bordering to east, Guangdong Province and Guangxi Province bordering to the south, with Guizhou Province and Sichuan Province bordering to the west, with Hubei Province bordering to the north. It lies mostly between longitudes $108^{\circ}47'-114^{\circ}15'$, between north latitudes $24^{\circ}38'-30^{\circ}08'$. The width from east to west is 667 km, and the length from south to north is 774 km. Its total area is 211,829 km².

3.1.2 Natural conditions

(1) Topography

Hunan Province lies in the transition zone between the Yunnan-Guizhou Plateau and the southern hills and Nanling mountainous and Jiangnan Plain. East, south, and west sides surrounded by mountains, central region mainly hilly, lake plains distribution in north, it was formed an asymmetric horseshoe-shaped contour. East is the Hunan-Jiangxi bordering, altitude of Luoxiao mountain above 1,000 meters, highest peak of Luoxiaoshanmai, Douli peak hit 2052 m; Wuling Mountains to the south, mostly north-east to South-West direction, the Yangtze River and Pearl River watershed Xuefeng Mountains; southwest to northeast direction, the southern section of Xuefeng Mountain altitude above sea level 1500 meter, highest peak hit 2021 meter, northern section lower, altitude between about 500

to 1000 meters; the northwest is Wuling Mountains which altitude more than 1,000 meters the highest peak above 2099 meters, Central HN are mostly hilling, upland and alluvial plain on both sides of the valley.

The topography in HN is varied, including mountains, uplands, hills, mounds, basins and plains, among which uplands and hills are dominant and account for 51.22% of the total area. Among the total area of the province, there is 2.779 million ha of plain, accounting for 13.12%; 3.262 million ha of upland, accounting for 15.4%; 2.938 million ha of mountains, accounting for 13.87%; 1.3533 million ha of water surface, accounting for 6.39%.

(2) Water system

Water resource in HN is relatively rich. There is the second largest fresh water lake in China, Dongting Lake and four big rivers as Xiangjiang River, Zijiang River, Yuanjiang River and Lishui River and the Milo River, Xingqiang River imported from the east, south, and west sides of Dongting Lake, through Chenglingji converge in Yangtze River, forming a relatively complete fan-shaped water systems. Xiangjiang a total length of 856 km, 670 km length pass through Hunan, the basin area of 94,660 square kilometers; Zijiang River a total length of 713 km, the basin area of 28,142 square kilometers; Yuanjiang River a total length of 1033 km, 568 km length pass through Hunan, the basin area 89,163 square kilometers; Lishui River a total length of 388 km, the basin area of 18,496 square kilometers. Xiangjiang River, Zijiang River, Yuanjiang River, Lishui River and Dongting Lake size tributary of 5315, the river total length of 4.3 million km. The large-scale reservoirs 20, medium-sized reservoir more than 240, Dongting Lake water area of 2691 square kilometers. There are also includes part of the region of the Zhujiang River and Ganjiang River water system. In short, Hunan River has two main fea-

tures, one is dense river network formed a complete water system; second is Hunan have large amount of water and rich in water resources.

(3) Climate

Hunan has a humid subtropical monsoon climate, with characteristic of mild climate, four season distinctive, adequate heat, frost-free period long, rich in precipitation, wet and dry season distinctly. Due to the impact of the monsoon, and Hunan lies in the transition zone between summer and winter monsoon and cold and warm air, the frequently frontal and climate activities, coupled with the complexity of the terrain, formation the spring temperature changeable, wet and rainy in spring, hot summer last a long period, high temperature and humidity or drought in summer, cold winter in short period.

The average annual temperature is 16 to 18 ° C. Coldest in January, an average temperature is 4 to 8 ° C; hottest in July, with an average temperature of 27 ° C to 30 ° C; daily average temperature is greater than or equal to 10 ° C active accumulate temperature of 5000 to 5800 ° C, the first day present in mid-March, or late-March, last 240 to 260 days; frost-free period 270 to 310 days. April to October total radiation and accumulated temperature and precipitation accounted for 70 to 85% of the whole year, above 10 ° C active accumulated temperature above 5000 °C, annual rainfall of 1200 mm to 1700 mm, wind direction seasonal variations distinctness, more north wind in winter and spring, south wind in summer.

(4) Soil

Hunan Province most of soil parent rock are sedimentary and metamorphic rocks, mainly include shale, sandstone, limestone, purple grit rock, Quaternary laterite, phyllite, phyllitic slate, quartz sandstone. In southern Hunan and central Hunan have sporadic igneous rock, mainly is granite. Hunan province has a total of eight

soil types, 25 sub-categories. View from horizontal distribution, it can be roughly divided into two parts along the Wulu Mountain and the eastern foot Xuefeng Mountain, western part is yellow soil, eastern part is red soil. View from vertical distribution, mostly red soil distribution in 500 to 700 meters above sea level, yellow soil distribution in altitude of 600 to 700 meters, the mountain yellow brown soil distribution in altitude above 1000 meters, the mountain meadow soil distribution in altitude above 1600 to 1,700 meters. In northwestern Hunan and southern Hunan hills have limestone soil distribution; purple soil distribution in the middle reaches of the Xiangjiang River and Yuanjiang River, Yuanjiang River downstream and Lishui mostly distribution of lake and river sediments, most of them developed into paddy soil.

(5) Wildlife

Hunan Province has superior natural condition, rich in animal and plant resources. According to the survey results, it has been found in wild terrestrial vertebrates 579 species, 101 families of 32 order, accounting for 27.86% of the total national number of terrestrial vertebrates. Reference to Professor Qi Chengjing of the Central South Forestry University, whom edited book of *Overview of Hunan seed plants* in 2002, Hunan has known plant 4320 species, belonging to 1245 genera and 348 families, accounting for 70.3%, 39.1% and 14.7 % national families, genera, and species respectively, plant resources in Hunan ranking seventh in the country. The Hunan Province vegetation types major include shrub, bamboo, ferns, grass, coniferous forest, evergreen broad-leaved forest, coniferous evergreen and deciduous mixed forest, bamboo broad-leaf mixed, conifer and deciduous broad-leaved forest.

3.2 The socio-economic conditions

3.2.1 administrative divisions and population

Hunan Province jurisdiction over 13 prefecture-level cities, an autonomous; located 16 county-level cities, 72 counties (autonomous counties), 34 municipal districts, a total of 122 county-level administrative units; 221 street offices, 1159 townships, 1,097 towns, 98 townships. In 2011, the total population of Hunan was 7135.60 million, of which urban population 2974.62 million and rural population 3620.98 million.

3.2.2 Transportation and communication of Hunan

Hunan has convenient transportation, Beijing-Guangzhou, Hunan-Guizhou, Hunan-Guilin, Hunan-Liuzhou, Zhejiang and Jiangxi six railway lines across the east-west and north-south. Just a few years, highway mileage of Hunan has exceeded 2000 km, 14 cities/prefectures of province's all lines across highway. Huanghua International Airport, Zhangjiajie and Changde Airport, connected Hunan with national major cities, and Hunan available international direct flights can direct access to Hong Kong, Bangkok, Seoul. Chenglingji have two 5000 ton inland docks can transport through rivers and seas. Hunan has formed a three-dimensional land, sea and air transportation system. The telecommunications industry has entered the national advanced level, all villages and towns in the province had opened the program-controlled telephone.

3.2.3 Economic development of Hunan

According to data from Hunan Province National Economic and Social Development Statistics Bulletin, in 2011, Hunan GDP hit 1.963519 trillion Yuan, an 12.8% increase over the previous year. Among which, the first industrial added value hit 273.366 billion Yuan, an increase of 4.2%; second industrial added value of 932.473 billion Yuan, an increase of 17.0%; tertiary industry added value of

757.68 billion Yuan, an increase of 11.0%. Residents per capita GDP hit 29,828.00 Yuan, an increase of 11.2%. Total fiscal revenue hit 246.066 billion Yuan, an increase of 30.98%. The total fixed asset investment of 1.143148 trillion Yuan, an increase of 27.9% over the previous year. The province's urban residents per capita disposable income of 18,844.00 Yuan, 6567.00Yuan per capita net income of rural residents.

3.3 Forest Resources

According to the year two thousand and eleven forest resources in Hunan Province Statistical Yearbook show that the province's total land area of 21,183,500 hectares, of which: woodland area of 12,923,300 hectares, accounting for 61.01% of the total land area; non-forest land area of 8,260,200 hectares, of the total land area of 38.99%. The forest coverage percentages reach 57.13%. In the woodland, woodland 10,188,900 hectares, accounting for 78.82% of the forest area; 89,900 hectares of open forest land, accounting for 0.69% of the total forest area; shrub land 1,294,900 hectares, accounting for 10.02% of the forest area; 333,000 ha of immature forest, accounting for 2.58% of the forest area; non-forest land 1,012,700 ha, accounting for 7.86% of the total forest area; nursery of 03,900 ha, accounting for 0.03% of the total forest area.

3.4 Camellia Development status quo

Hunan Province is the center of the cultivation area of Camellia, Camellia cultivation area has been among the first in the country. According to the Yearbook of Hunan Statistical forest resources data of 2011, the province's existing Camellia forest area of 1.2787 million hectares, accounting for 14% of the province's forest land. Hunan has 122 counties (cities, districts), except Anxiang County and Nanyang County two pure Lake counties, the rest of counties camellia forest distribu-

tion relative concentrated. There are 17 counties have camellia area range from 0.67 to 1.33 million hectares, There are 12 counties have camellia area range from 1.33 to 1.50 million hectares There are 20 counties have camellia area more than 15,000 hectares. Leiyang County is the largest area of Camellia forests which has 77,300 hectares Camellia forest, ranking first in the camellia cultivation counties (cities, districts). Camellia forest distribution in the province, mainly concentrated in seven cities and prefectures, namely Hengyang, Huaihua, Zhuzhou, Yongzhou, Changde, Chenzhou and Xiangxi Autonomous Prefecture.

In recent years, Hunan forestry achieved rapidly development. By the end of 2010, Hunan's forest coverage rate reached 57.01%, forestry output value reached 115 billion Yuan. Especially Camellia woody grain and oil industry showing an unprecedented momentum of development, annual output of Camellia oil reach 134,000 ton, annual revenue reached 10.72 billion Yuan, account for 52% and 63% of the country's total respectively, ranking first in the country. Camellia industrial is increasingly becoming a new growth point and a breakthrough of Hunan rural economy, became the main starting point of promoting county-level economic development, and a new bright spot of construction of new socialist countryside and green Hunan.

In the late 1960s, Hunan Province started to Camellia breeding work in a wide range. From survey the camellia production, resources and varieties, to excellent tree selection, the selection of varieties from farm households, excellent genealogical identification, asexual propagation techniques, and construction of camellia scion nursery, the identification of superior clones, Hunan has completed 18 research results, one of which achieved second prize and one achieved third prize of the National Science and Technology Progress Award respectively, and

among of which achieved one first prize, 6 second prize, 8 third prize of provincial and ministerial level award, one result won the national invention patent, Hunan elaborated 3 national standards of Camellia industry, Hunan selection and breeding 8 farm households varieties, 6 excellent genealogicals, 10 excellent hybridize combinations such as Yongxing mid-size bud with red balls, and more than 110 superior clones of the "Xianglin", improved varieties gain increment 15 ~ 60%, camellia seeds yield 5 ~ 9 times more than natural forest, it shows a good potential of high yield camellia.

There are existing more than 2,000 camellia oil processing enterprises in Hunan Province, 17 enterprises with processing capacity more than 1000 tons, which are mainly distributed in Hengyang, Yongzhou, Chenzhou, Huaihua, Zhuzhou, Changsha, Yueyang, Loudi cities/prefectures, "Jin Hao", " Jiuyishan", "Jintuo-tian", " Shan run "brands of refined camellia oil in the market. Annual output of refined tea oil more than 40000 tons, tea saponin 2500 tons, tea residues 1.3 million tons. There are 6 key enterprises of provincial level forestry industry in Hunan which achieve certification of Hunan forestry department, including 2 Chenzhou-based, 1 Yongzhou-based, 1 Huaihua-based, 1 Zhuzhou-based, 1 Yueyang-based.

3.5 Land resource requirement of the project construction

Because project target counties (cities) are rich in Camellia plantation resources, there are plenty of land area suitable for planting Camellia, since 2008, the practice of introduce improved Camellia oleifera varieties for plantation, so currently the young tea oil forest area reached in scale, it is able to meet the needs of the project forestland resource. Project target counties (cities) land resource condi-

tions are shown in Table 3.

Project Target Counties/Cities Land resource

Table 3

Unit: ha

County/City	Total Land Area	Forested Land Area	Existing Camellia Area	Suitable for Camellia Planting Area	Young forest area(Improved varieties of Camellia planted in 2008)	Suitable for Stands improvement Area
Total	2615797.	1584267.7	278986.2	85795.2	31047	149069.3
taLiling	215819.6	125857.1	46000.0	2803.6	3000.0	13500.0
Hengyang County	255861	134546.9	22400.0	15029.9	1500.0	18000.0
Hengshan	93397.4	51711.7	8320.5	978.7	700.0	6000.0
Qidong	187118	76451.6	4999.5	3595.2	1748.0	3369.8
Shaoyang	200200.5	97497.4	31133.3	2297.3	3267.0	30000.0
Miluo City	153050	64174.8	7000.0	900.7	1800.0	1500.0
Pingjiang	412518	289132.6	41870.0	15337.8	5400.0	20000.0
Sangzhi	347183.3	256349.2	4866.7	1956.6	1942.5	4000.0
Qiyang	199746	102714.1	31113.3	7628.6	3653.3	13973.3
Ningyuan	251287	111696.3	19900.0	15771.4	3500.0	13120.0
Xupu	344004	235429.1	23300.0	1965.2	1600.0	4300.0
Zhongfang	141835.6	101572.2	21929.9	2061.1	2042.8	8806.2
Huayuan	110870	68407.3	11000.0	1688.8	433.4	8000.0
Baojing	174587.6	129131.4	5153.0	31613.8	460.0	4500.0

3.6 The definition of project Area

The principles that EIB adopts to designate the project area are as follows: The project area selected principles are: (1) the government designated as commercial forest areas, or in region of returning farmland to forestland which local government and land owner have intention to establish commercial forest; (2) areas incorporate into the project should be existing Camellia plantation faced obvious environmental degradation or low economic efficiency; (3) Camellia oleifera plantation within three year old ; (4) Individual farmers, cooperatives and profes-

sional communities participate in projects should be entirely voluntary; (5) areas selected in the project should be in outside boundary of ecological forest, nature reserves and cultural heritage, inexistence of claim for compensation and disputes; (6) at least in future 10 years there is no land confiscation proceeding in selected project area.

Selected based on the voluntary application of project counties, the HPFD chose 14 counties in 8 prefectures including Zhuzhou, Hengyang, Yongzhou, Shaoyang, Yueyang, Huaihua, Zhangjiajie and Xiangxi as the area for HCDP (as shown in Table 4).

Table 4 14 project target counties (city, district) of 8 prefectures

Number	Prefecture	County (city, district)
1	Zhuzhou	Liling
2	Hengyang	Hengyang, Hengshan, Qidong
3	Shaoyang	Shaoyang
4	Yueyang	Pingjiang, Miluo
5	Yongzhou	Qiyang, Ningyuan
6	Huaihua	Xupu, Zhongfang
7	Zhangjiajie	Sangzhi
8	Xiangxi Autonomous Prefecture	Huayuan, Baojing
total		14 project counties

4. IDENTIFICATION OF PROJECT STAKEHOLDERS

Since the project is a commercial forest construction project. The direct stakeholders of the project are farmers, forestry cooperatives, companies/big holder, women, ethnic minorities, while the in-direct stakeholders include village-level organizations, township forestry station, the project county forestry sector , the Forestry Department of Hunan Province, the each project target counties' government and relevant government authorities, township government that will be involved in project implementation.

4.1 Farmers

Farmers are a direct participant of the project, but also the direct benefits of the project. Ownership of the camellia production bases belongs to collective ownership. Farmers own land management right, farmers in the project area via forestry cooperatives, companies, big holders provide land for the project and get profit from their land.

14 project target counties in Hunan Province are all key counties of Camellia production, the smallest of existing Camellia area in Sangzhi County with camellia area of 4866.7 hectares. 80% of farmers of the project area in higher degree of dependence on Camellia, besides of self-supplying edible oil, there are some ex-crescent camellia oil farmers can sale on market or sold to camellia oil processing factory for further refining ,therefore, camellia is one sources of their incomes. This project is a commercial forest construction project. Farmers in the project area are welcome the project and actively participation of the project. In addition to the land profits, labor payment of farmers from the project construction and after completion of the project camellia would have potential output.

4.2 Forest Cooperatives

As one form of farmers' cooperatives, FCs is a voluntarily associated organization with democratic management by suppliers and users of the same type of forest products or services, which is based on the household contract system of collective forest land. Members in the cooperatives are all producers of forest products or suppliers of forest service who cooperate together to improve economies of scale that a single farmer cannot do or cannot do well, such as project implementation, organization and management, the ways of farmers cooperate on land use and participation, labor sources and interest distribution. Usually, farmer members contribute by their labor and the cooperatives provide farmers with production materials, techniques and information, which is easier to achieve the economy of in scales and improve efficiency.

4.3 Company (or big holders)

The company (or big holders) will be the main body of the implementation of the project. Although the company is a form of organization, while big holder is lone or several natural persons, but their status in the project is the same. Both of them need access to forest land use rights transfer of land from the farmers, and they are both possess certain amount of funds for the purpose of get profit from forest management activities. The project will pre-selection from which have Camellia management conditions, financial keep in order, with strong capacity of solvency, stable operation companies or big holders as the main bodies of the project implementation. The company (or big holder) with advantages of technology, capital and other aspects, some company have demand of construction processing raw material base, the project implementation plan to adopt mechanism of company (or large forestry) plus farmer households, company / big holder provide money, the farmers supply land and labor for implementation of the project, both sides of counterpart need sign contract (agreement) to clear the responsibilities, rights and interests.

4.4 Women

Woman as a family member of farmer household, female took on the dual role of family responsibility and social responsibility. In general, the woman of the project

area with her husband has same family and social status. Gender factors will not become matters of farmers directly involved in the project evaluation. With the improvement of all-around development of women, women's social status constantly enhanced, mountain region women gradually step out of the house, and actively participate in productive labor. And men enjoy the same interests in life, health, education, employment and other aspects, women more and more become "self-esteem, self-confidence, self-reliance, self-reliance." It also should be noted that in some places women work at home account for 70% of the total population.

4.5 Minorities

Huayuan, Baojing are two ethnic counties of proposed project counties, Miao, Tujia ethnic group in these two counties. Minority population is 20,543 in Huayuan, Baojing, accounting for 72.8% of the total population of the project target counties (project area total population is 28,225). Miao, Yao, Dong and other ethnic minorities scattered in project other target counties, only has very few number. Hunan minorities have been recognized by the Chinese Constitution and these minorities basic fully integrated into the mainstream Han community. However, there are still some problems worthy of attention: ① in the project counties which ethnic minorities are concentrated, there economic development relatively in low level, ethnic minority groups sometimes is population of rural poverty, overall living standards generally lower than average level . Farmers of two ethnic counties annual income was 3,250 Yuan per capita which far below the average of Hunan Province (4512 Yuan). ② Mostly of ethnic minorities living in rural and mountain region. Farmers owned typically "small land and much mountain". (3) Minorities in low levels of education.④ project area minority living in rural villages where a general lack of water conservancy, transportation and other infrastructures, drinking water of human and livestock, irrigation water very difficult, and harsh conditions of labor. ⑤ Most minorities are the native peoples of that area whom has a long history, and they have relatively abundant traditional cultural

resources. However, influenced by the Han, some places Miao and Yao minorities characteristics already not obvious, or it is in changing.

4.6 Village-level Organization

Village-level organizations as the grassroots organization, with close relation with farmers, it can publicize the government information downwards in time; and it can also reflect farmers' opinion upwards to management agencies and improve the project implementation. In some villages where there are still had some collective forest lands, the village committee could play a role in the project.

4.7 Township forestry station (TFS) and County Forestry Bureau (CFB)

As the major agency for forestry management, CFB will be the backbone of the successful implementation of the project, as it provides overall guidance and policy management for HCDP and coordinates between the project, company and farmers. Therefore, it is an important stakeholder for HCDP.

The township forestry station (TFS) acts as bridges between township government and farmers, forestry agencies and farmers, and among farmers. TFS helps township government to make forestry development planning and annual plans, organize and directs forest production activities for individuals and collectives. It also extends forest technologies, conduct trainings and consultancy services for forest farmers all through the production process.

4.8 County People's Government and related units

County government is the local government institutions between the prefecture and township governments. It participates in HCDP by organizing farmers and FCs to participate in the project with laws policies. It is also the main carriers of the WB loan, and responsible to supervise the CFB to carry out and monitor all the project tasks. CFB is the main functional agency when preparing for the project and is also the main coordinative agency during implementation.

County Forestry Bureau select the project villages in ethnic County, county ethnic and religious departments ethnic minorities and residents to provide details of religious belief, ethnic and religious project management executive Camellia development projects with the European investment bank combined with the For-

estry Administration mobilizing and organizing the project area of minority villagers use of resources, labor, capital and other involved in the project cooperation, guidance and in accordance with the characteristics of ethnic minorities in the project area, to solve the problems in the cooperative afforestation, protection of the legitimate rights and interests of ethnic minorities.

The Nationality and Religion Administration Bureau (NRAB) at County level provides information about minority and religion for sampling villages in SA. It combines its own projects with HCDP, and mobilizes minority farmers to participate in the project with their labor, resource and funds. It also offers guidance on the characters and problems of minorities in project area and helps to guarantee their interests.

County Women's Federation provides information about women for sampling villages in SA. It combines its own projects with HCDP, and mobilizes women to participate in the project. County Poverty Alleviation Office of the Forest Service to select project villages on poverty alleviation; Poverty Alleviation Office of the implementation of the project with the European investment bank Camellia development projects combined with the forestry sector through afforestation activities to fulfill poverty alleviation responsibilities.

Township Government is the grassroots government organization in China. It will assist the county government to organize major companies, forest farms and farmers to participate in HCDP, provides information about the administrative villages for SA team in sampling villages. It combines its own projects with HCDP, mobilizes villages to participate and monitor them to guarantee the quality of the project.

4.9 Hunan Provincial Forestry Department (PFD)

Hunan PFD is the top leader of Hunan forestry management agencies. It makes forestry development planning, organize the implementation of all kinds of forestry development activities, and manage at macro level the nature reserves, forestry enterprises, township forestry stations, state-owned and collective forest farms. The PMO under PFD will be the macro manager for project and carries the re-

sponsibility to supervise the repayment of loans. The PFD will participate in project with roles of macro-guidance and policy management, organizer and coordinator between the project, companies and farmers.

In nearly 20 years, Hunan has the implementation of the "World Bank loans national afforestation project" World Bank loans forest resources development and protection project, "World Bank loan poor areas of forestry development project", "World Bank Loan Forestry continued development project", "China-EU cooperation Natural Forest Management Project", "Sino-German financial cooperation Dongting Lake in Hunan ecological afforestation project", "Sino-German financial cooperation of small farmers in Hunan Afforestation Project", "Sino-German technical cooperation in southern China Sustainable Forest Management Policy and mode" eight loans and grants to projects totaled 323,400 hectares afforestation project investment of 1.065 billion Yuan, 640 million Yuan of which the use of foreign capital. Forestry foreign investment projects implementation throughout the counties (cities, districts), in the implementation process of these foreign-funded projects, the project at all levels accumulated rich experience in project management and technical experience accumulated a lot of valuable research and extension project experience, which will contribute to the European Investment Bank loans Camellia Hunan implementation of development projects.

5. POLICIES AND LEGAL FRAMEWORK

Forest Law of the People's Republic of China, the People's Republic of China Forest Law Enforcement Ordinance, the People's Republic of China Law of the People's Bank of China, the People's Republic of China Women's Rights Protection Law, Regulation on Ecological Benefit Forest Compensation Fund Management of the Central Government, Regulation on Soil Conservation of the State Council, Anti-desertification and Desertification Control Law of the People's Republic of China, the National Public Benefit Forest Cognizance Approach, Hunan Province Engineering Management Approach of Greenery Three Types Tough Terra ,etc.

5.1 Policies and Laws on Ecological Restoration

Regarding laws on Ecology Protection in China, there are *Forest Law of People's Republic of China*, *Water Law of People's Republic of China*, *Grassland Law of People's Republic of China*, *Wild Animal Protection Law of People's Republic of China*, *Regulations on Land Conversion Program*, *Regulations on the Protection of Natural Resources*, *Regulations on Nature Reserve of People's Republic of China*, *Ecological Environment Construction Planning in HN Province*. The *Regulations on Nature Reserve of People's Republic of China* mainly prohibits logging, hunting, fishing, cultivation, burning, mining, quarrying and other activities in nature reserves, and regulates housing construction standards in nature reserves. In order to restore the ecological environment, China had issued *Regulations on Land Conversion Program* to implement land conversion from farmland into forests throughout the country. HN Province promulgated *the Ecological Environment Integrated Management Programs in Xiang River Basin in HN Province* which requests to orient various production factors to gather into favorable fields that in favor of eco-environmental protection.

5.2 Policies and Laws Relative to Mitigating Climate Changes

The Chinese government issued *China's National Climate Change Program* and *Chinese science and technology program to address climate change* in June, 2007, which stated China's overall objectives to address climate change till 2010. They are: effective control on greenhouse gas emissions, enhanced capability of adapting to climate change, improved research capacity on climate change, new progresses in scientific researches on climate change, strengthened public awareness of climate change reinforced institutional mechanisms of dealing with climate change. Furthermore, *Cleaner Production Promotion Law*, *Prevention and Control Law of Solid Wastes in Environmental Pollution*, *Circular Economy Promotion Law*, *Administrative Regulations on Urban Living waste* and *Recommendations on accelerating the development of circular economy* were issued by People's Republic of China. In 2009, HN Province formulated the "HN Provincial Climate Change Program."

5.3 Policies and Laws Relative to Ethnic Minorities

About the nationality affairs, either national or provincial government has a series of laws and regulations. *The Law of the People's Republic of China on Regional National Autonomy* clarifies the state policies on ethnic affairs. The White Paper Book on this law was officially publicized in 2004 for the first time. *The Law of the People's Republic of China on Regional National Autonomy* is fully applicable to HFRDP. Article 2 in Chapter 1 points out that ethnic autonomy shall be applied in areas inhabited by minorities; Article 28 in Chapter 1 indicates that the ethnic autonomy governments should manage and protect local natural resources, and it has the priority to utilize local natural resources in suitable ways for local development in accordance with the planning of laws or national government. Article 65 also stipulates that when the state to utilize resources in autonomous minority area for development, the interests of minority autonomous region and arrangements in favor of local economic development, local minorities' life and production shall be taken into account. The State should compensate for when natural resource export happens in ethnic autonomous regions. In the Preamble of 1982

Constitution, it states that: "The People's Republic of China is a unitary multi-national state built up jointly by the people of all its nationalities. Socialist relations of equality, unity and mutual assistance have been established among them and will continue to be strengthened". Constitution Article 4 indicated that "All nationalities in the People's Republic of China are equal. The state protects the lawful rights and interests of the ethnic minorities and upholds and develops a relationship of equality, unity and mutual assistance among all of China's ethnic groups. Discrimination against and oppression of any nationality are prohibited; any act which undermines the unity of the nationalities or instigates division is prohibited. The state assists areas inhabited by minority nationalities in accelerating their economic and cultural development according to the characteristics and needs of the various minority nationalities. In the struggle to safeguard the unity of the nationalities, it is necessary to combat big-nation chauvinism, mainly Han chauvinism, and also necessary to combat local-national chauvinism. The state will do its utmost to promote the common prosperity of all the nationalities. " The *Common Program of Chinese People's Counter Political Consultative Conference* settled in 1949 and the *Constitution of the People's Republic of China*" in each amendment have clearly pointed out that the minorities have the freedom to preserve or reform their ethnic customs. In 1994, the CPC HN Provincial Party Committee and HN Provincial People's Government issued a number of preferential policies on ethnic minorities and socio-economic development in their inhabited areas, and the No.23 document of 1994 have actively helped the Ethnic minority to develop forestry economy.

5.4 Policies and Laws Relative to Women

Achieving gender equality is a basic state policy of China. The *Constitution* expresses clearly that "Women in the People's Republic of China enjoy equal rights with men in all spheres of life, political, economic, cultural and social, and family life." The article 2 in *The People's Republic of China Law on the Protection of Women's Rights* issued in 1994 states that the state shall take necessary measures to gradually improve various institutions to protect the rights and inter-

ests of women and to eliminate all kinds of discrimination against women. The state shall protect the special legal rights and interests enjoyed by women. Discrimination, abuse, abandonment, mutilation of women are prohibited. Article 6 in *The People's Republic of China Law on land contracts in rural areas* requires that women and men enjoy equal rights for the rural land contracts. Women's legal rights is protected in land contracting, any organization or individual shall not deprive and offend against the land contracting right that women have. *Development of Chinese Women (2011-2020)* brings social gender awareness into the legal system and public policies, proposing to promote the comprehensive development of women and harmonious development between the two genders, to promote simultaneous development of women and social economy, to protect women's equal access to economic resources and participation in economic development, national and social affairs and social security. It also pays special attention to the fundamental rights of rural women. *The Regulations to Protect the Legitimate Rights and Interests of Women and Children in HN Province* and *HN Provincial Women's Development Plan (1996-2000)* issued in 1996 are milestones for women's development in HN Province. In 2000, People's Government of HN Province developed and issued *HN Provincial Women's Development Plan (2001-2010)* which mainly secures women's equal access to capital, credit, land, technology, information and other rights, and that rural women enjoy equal rights with men in their habited area in land contract rights, production and operation rights, homestead allocation right, land compensation, stock dividends and other rights. And we should make specific investments in favor of women's survival and development to improve their economic situation.

5.5 Camellia industrial policy

The General Office of the State Council (State Issued [2007] No. 59) Opinions on promotion of the development of oil plant production; the State Forestry Administration suggestion on the development of camellia industry (SFA [2006] No. 274); National Camellia Industry Development Plan (2009 to 2020) "(State Forestry Administration, July 2009); Views on accelerating the development of tea oil

industry of Hunan Provincial People's Government (HGI [2008] 22); the People's Republic of China National Standard of Camellia High-yielding Forest "(GB7906-87); LY/T 1557-2000 priority economic forest base construction technical regulations (State Forestry Administration); LY / T 1328-2006 Camellia Cultivation Techniques (SFA).

5.6 forest land ownership policy

Article III of Forest Law of the People's Republic of China indicate that forest resources belong to the state, except which prescribed by law belong to the collective. Local governments above the County level responsible for register, record and issue certificates to confirm the ownership or use rights of the state- owned forests and collectively forests, trees and woodlands, private trees and woodland. Legitimate rights and interests of owners and users of forests, trees, woodland protected by law, it shall not be violate by any unit or individual. Forest and forest land ownership registration management approach provision that forest tenure rights is the owner of the right of ownership or use of forests, trees and woodlands. Forest ownership certification issued by the forestry department under the State Council or Government of provinces, autonomous regions and municipalities and government of districts directly admin by the city and the autonomous region. In accordance with the provisions of the Forest Law and its implementing regulations, the registration authority shall inform relevant local people government about which should be issued forest ownership certification. Forest land ownership dispute resolution approach provisions that before forest tenure dispute resolution, no permission any unit or individual harvest woods in disputed forest land and no permission engaged infrastructure or other productive activities in the disputed forest land.

July 16, 2008, the State Forestry Administration issued *Regulations on contracting collective forest land*. According to the regulations, all the collective land which had been planted trees or vegetation-covered should be contracted with farmers to management, contract period of forest land use rights is 70 years, the contractor can application for an extension of the contract period. The contracted land

can subcontract, as mortgage for debit and credit, and used as investment capital for co-developer share holder. According to the new woodlands contracting policy, contract period is 70 years and contractor can renew the contract period. Woodland contractor can subcontract the operation and use rights, and use forest land property as mortgage, forest land owner can be used as a co-operative capital shares, such property rights arrangements, endue more forest operation rights to the contractor, mobilize the enthusiasm of farmers to use woodland the resources.

5.7 Credit Policies (including private lending)

In the *Lending General Provisions* issued by People's Bank of China, Article 4 states that "Lending and borrowing activities between a borrower and a lender shall abide by the principle of equality, voluntariness, fairness, honesty and trustworthiness". Its Article 5 states that "In the development of lending business, lenders shall abide by the principle of fair competition and close cooperation, and may not engage in unfair competition". The loan policies in China general includes 3 facets: 1) Concerning expansion of gross loan, there are some regulations about currency multiplier and flow of currency, for example, the regulation on the down payment of car and housing purchases, ratio of stock mortgage and so on. 2) Concerning the flow of loans, such policies like discount loans are issued to encourage the loans to be invested in areas and industries that require state supports. 3) There are also some restrictions on loans. "Window Guidance" is applied on commercial banks on amount of loans, credit risk rating and evaluation to guide some loans not to flow into certain industries or areas.

6. EXPECTED BENEFITS FROM HCDP

Based on the data collected in SA, the expected ecological, social and economic benefits from HCDP are concluded as the followed.

6.1 Economic Benefits

European Investment Bank loan Hunan Camellia development project construction can bring significant economic benefits for the farmers in the project area, reinforce the solid material foundation and create a broad platform for the farmer poverty alleviation in the project area. Predict according to the scale of project construction and the yield per unit area that during the calculation period (25 years, the same below) can produce 905,500 tons of camellia seeds, operating income is 7,696,331,100 Yuan, the total cost is 4,706,876,200 Yuan, an average annual cost is 188.275 million Yuan, total profit is 2,989,454,900 Yuan, an average annual profit is 119,578,200 Yuan, investment profit rate is 21.35%. Project cumulative net cash flow is 3,008,091,300 Yuan, an average annual cumulative net cash flow is 12032.37 Yuan; project financial internal rate of return of 13.4%, in the benchmark rate of return is 8%, financial net present value is 475,433,700 Yuan, static investment payback period is 11.36 years (including construction period). Meanwhile, project will effectively promote the development of related industries, the formation of a new regional economic growth point. The improved environment will favor the development of the third industry and green industries such as tourism, entertainments and social services, and will be more attractive for investments.

6.2 Social Benefits

(1) to promote local economic development and prosperity

Project construction is conducive to the adjustment of industrial structure, promote the development of tea-oil processing industry, transportation, agricultural and other related industries, with a strong leading role of radiation on the surrounding area, the project area and the surrounding area will effectively promote

economic sustained and health development.

(2) to increase the employment opportunities in the project area, increase farmers income

Project investment and construction and operation of the process, including afforestation, tending, management and protection, mining, transportation and other production processes, labor expenses amounted to 3,666,406,900 Yuan, 100 Yuan /perposn/day calculated, the calculation period 3666.40 (an annual average of 146.66) million a labor and employment. In addition, considerable land rental income for the forest farmer in the project area, to reduce the pressure on employment of rural surplus labor force, active rural economy, maintaining social stability will play a good role.

(3) The development and expansion of the forestry industry

Due to lack of tea seed oil raw material forest reserve resources, affecting the competitiveness of enterprises, which restricts the development and growth of the forestry industry. The development of high-yielding *Camellia oleifera* forest base is conducive to the development and growth of the forestry industry system.

(4) Facilitate to forestry transformation and application of scientific and technological achievements

Project construction to promote the transformation of scientific research of *Camellia oleifera* is conducive to further improve the level of scientific research *Camellia* and operating levels.

6.3 Eco-benefits

Camellia is not only a economic species, it is a ecological species have significant ecological benefits. Development of *camellia* industry, *camellia* oil and other products, resulting in considerable economic benefits, but also has significant ecological benefits. Improve the quality of regional ecological. Implementation of the project, through large-scale afforestation, the forest coverage rate will largely be improved, it can be expected that the project area forest coverage rate improve 1-2 percentage. Stand improvement, to restore the vitality of existing *Camellia* Forest, forest productivity. In *Camellia* forest not only plants, but also fruit and soil

system has a strong carbon sequestration capacity, meanwhile, camellia also plays an important role in water and fertilizer, landscaping, reduce wind, fire, frost and other natural disasters.

7. PROJECT IMPACTS ANALYSIS

7.1 Social and Economic Impacts

Obviously, the implementation of this project will promote the project area where the region's economic development, increase employment opportunities for farmers to increase employment opportunities for poor rural households, minority population, especially to improve the income of the farmers in the project area to improve the standard of living of the farmers in the project area.

7.2 Impacts on ecological environment

Camellia plant, a kind of species with economic value and good ecological benefits, project implementation can significantly improve the ecological environment and Human residents living environment, improve people awareness of ecological and environmental protection. In addition, the implementation of this project will greatly improve forest productivity and forest quality. No doubt, the impact of the project is positive.

7.3 Institutional and technical impacts

Duration the implementation process of the project, the project area technical service agencies to learn from international experiences and technologies, continuously improve their management level and technical ability. Therefore, technical trainings provided by HCDP will improve the capacity of technical services at county and township level. The forestry management agencies at all levels could also have their capacity enhanced by learning from the international forest project management models.

7.4 Impacts on minorities

Overall project the participation opportunity for minorities and mainstream society (Han) is equal. The implementation of the project will impact on regional economic development in ethnic minority areas, for example, improvement of environmental quality, positive impact on the overall quality of beneficiary. The project can effec-

tively promote the sustainable development of ethnic minorities, narrow the gap between ethnics, promoting equality of ethnic groups. However, it should be pay attention to (1) As for areas inhabited by ethnic minority (Huayuan County, Baojing County), due to there are a relatively large population, relevant perfect policies and institution had been established, so that ethnic group interests and aspirations liable to be concerned, while some scattered minority residents, they national identity and interest demands easily be neglected, it is need stress in the implementation of the project. (2)Some the project area, there are a lot of young migrant workers (minority youth), foreign culture concussion them, minority culture is gradually close to mainstream society.

7.5 Impacts on women

As previously chapter described (2.4) the social and family position of women in the project area increasing high, a lot of women being self-esteem, self-confidence, self-reliance, self-reliance, enjoy the same social activities, family owned, education, employment and other aspects of interest with men, in the project area, female has even become the main labor force and decision makers in agriculture and forestry production, obviously, the implementation of this project will provide development opportunities for the women. Therefore, HCDP is helpful to improve the socio-economic status of women and promote gender equality.

8. RISK IDENTIFICATION AND CONTROL

8.1 Risks and Risk Control for Beneficiaries

1) Project area and participants are both beneficiaries and implementers of the project. As the main body of the project, their education level and ideology will safeguard the project success, but could also be risks on project implementation.

Risk control measures:

- a. to strengthen information dissemination with an emphasis on the importance of increase farmer's income. Farmers could decide by themselves whether to participate in project. Those farmers who are not willing to participate will not be forced to do it.
- b. To pay attention to farmers' demand on knowledge and technology improvements. Various types of trainings in different ways shall be provided for farmers to address their demands at different project stages, so as to improve their knowledge system and their income or benefits from the project.

2) The poor farmers and social disadvantaged groups may be marginalized during the planning and implementation of HCDP, in particular during decision-making process. There is a distinct gap of opportunities and capacity for project participation among rich and poor farmers. Generally speaking, poor farmers and social disadvantaged groups in one community have less land, lack of skills, economic and social capital, so their capacity to participate in HCDP is very weak. Due to the lack of ability to participate and poor households may be marginalized in the implementation of the project.

Risk control measures:

- a. To promote establishment of the forestry cooperative organizations, so that vulnerable groups have more opportunities to participate in the pro-

ject through cooperation organizations. To pay special attention to the poor households, women and other vulnerable groups and given equal opportunities to absorb them to join the organization of cooperatives.

- b. To invite social disadvantaged groups such as poor households, women, ethnic minorities and other vulnerable groups to participate in the project design process, and provide them with sufficient right to speak. During the selection of project participation and installments of project funds, they shall also receive special care. Farmers the choice of projects, that project is particularly concerned about the appropriate to take care of the weak.
- c. To provide technical trainings for them and strengthen their capability for development.

3) Project implementation entities include companies, cooperatives, big holders, there are might have risk of land, management, funds, technology risk.

Countermeasure

- a. Establish and improve consultation mechanisms. The project proponents do not have their own land or only a small amount of land, most of the land resources from the project area farmers, it is necessary to the establishment of a consultation mechanism. ① give wide publicity to the farmers in the project area, meaning a deep understanding of the purpose of the project is to increase the role of the household income must be active, extensive publicity. ② projects designed to respect the wishes of farmers, especially the use of land resources to the agreement signed with the farmers to use the land, clear land location, area, time limit, use and distribution of benefits principle, method and ratio. (3) guide farmers to adopt high-quality seeds and seedlings, to change the traditional Camellia management methods, and actively promote new cultivation techniques.
- b. Selection from those fund strong, clear debt, contracted, credibility of forestry management company or big holders involved in project implementation. County Government (Finance Bureau) entered into a

lending agreement with the project implementation unit, clear the loan repayment time limits and penalties.

- c. Central South Forestry University, Hunan Academy of Forestry, Hunan forest resources and ecological environment monitoring center as the project technical supporting unit, and actively provide management and technical support, provide technical services for project implementation .

8.2 Land ownership risk and countermeasures

Woodland ownership of the bases for collective ownership, the right to operate all farmers, put thousands of families woodland together the scale of operation, and to maintain the decades-long operation is quite difficult, if the land can not be implemented, will affect the project the progress of construction and input costs.

Countermeasure

- a. Project owners should take full account of the interests of the woodland operators, under the premise of ensuring the interests of the operators, seeking an effective way of doing business, signed a land use contract or agreement, clearly the responsibility of both obligations and interests, and ensure that the projects successfully carried out.

- b. To strengthen ties and communication with all levels of government in the project area, the project area at all levels of government owners to give strong support to actively carry out the work of the foresters to assist owners to maintain the operation of the woodland; given some preferential policies, especially the project should be loans to fight into the agricultural (forest) industry subsidized loans, lower investment and operating costs, enhance the competitiveness of the project.

8.3 Minority risks and countermeasures

Minority is mainly engaged in agriculture, forestry and animal husbandry highly dependent on land resources, relatively few other sources of income, are more vulnerable to domestic economic base; local resources and the environment but it is also the foundation of their traditional culture, therefore, land resources development take advantage of changes in the way they might be interested in a cer-

tain impact. Some minority residents in the project area, especially the lives of the people of the economically backward areas of fuel is wood, construction materials wood, living relatively large demand for timber, this more or less be the pursuit of economic efficiency objectives contradictions, which might be interested in the project objectives and the continuing negative, but it will not have serious and substantial threat to the implementation of the project.

Improve the rural life energy structure. the project county government need to consolidate the results of returning farmland to forest, agricultural development, bond projects, project funding, and implementation of alternative energy projects in the project area, vigorously promote using saving stoves, solar, biomass gas and other new stoves .

Countermeasures

- a. Increase local residents income. (1) Provide technical training, farmers grasp the opportunity for local natural conditions, labor demand for practical technology. (2) Provide market information. (3) Help farmers to open up markets, promote products and other ways to improve the income of the farmers in the project area in order to solve the farmers in the wood, food and other daily needs.
- b. Increase the of minorities participation and decision-making opportunities in the project. Farmers land resources for the project construction, project implementers and beneficiaries. The spirit of the farmers voluntarily, the principle of freedom involved in the project, to allow farmers to participate in the project design part of the process or the whole process to make decisions by themselves.

8.4 Management Risks and Countermeasures

The risk mainly exist with project implementers, or in other words, the incapable management will be risky for the success of HCDP.

1) Funds management on both the loan and the counterpart funds.

Risk control measures:

- a. Project management shall be independent from loan management. The

Forestry departments shall be only responsible for project implementation, instead of loan management which shall be managed by financial departments. This could also be risky for the project. However, it could be controlled when all relative agencies are fully informed about the objectives, contents and implications of HCDP and a good system of communication, coordination and cooperation could be establish among different agencies.

- b. Project funds shall have an independent account and be audited separately. All project funds should be earmarked for specific use of HCDP. Both the loan fund and counterpart funds shall be fully installed to farmers in time.

2) Planning management risk control

- a. The government departments should play well the role of coordinator to ensure the smooth implementation of projects. The leadership of project organized shall be strengthened and project planning shall be well developed.
- b. Unreasonable forest management measures, because they do not take technical operation and artificial forests, clear cutting, full-digging, slash burning, tending, pruning and other measures, will result in ecosystem reversed. Even if the project is no input in the area of tourism, but in the planning and capacity building related to the project, the potential of tourism development should be taken into account.

3) Fire risk control

As government departments, the forestry departments shall enhance the fire prevention management after forest restoration. More village level rangers shall be employed. Fire Prevention Headquarters should strengthen the publicity of fire prevention, especially during the Tomb-sweeping Day and the period of prescribed burning and site preparation when personnel, material and vehicles shall be well deployed and coordinated.

8.5 Natural Risks and Countermeasures

As we all know, forest is most vulnerable to natural disasters including forest fires, pests and climate disasters. This kind of risks is relatively low for HCDP (See Table 5)

Table 5 Natural Disaster Risks Analysis Matrix

Risk items	Risk analysis	Level of risks
Forest fires	Comprehensive bio-fire prevention zones have been cultivated, professional forest fire brigade have been established and mountain closures have been set up in project area. Therefore, the capability of fire prevention and fire extinguishing have been significantly increased. There is low level risk of large scale forest fire.	Medium
Freezing injuries	Even though Cold injuries have strong impact on plant growth, it generally occurs every 10 years. Furthermore, it will not do destructive harm to plants. The species selected by HFRDP and the indigenous trees are generally resilient to coldness.	Low
Typhoon	The project area is located in inland, typhoons and storms have low impacts on HFRDP.	Very low
Drought	The project area is in the subtropical region with plenty of rainfall. In the meantime, trees species selection and the promotion of dry-land cultivation techniques can reduce the effects of drought.	Very low
diseases and pests	Perfect quarantine systems and forecasting networks of pests and diseases have been established in project area, and they are able to provide accurate forecasting work for timely prevention and treatment.	Medium

Risk control measure:

Public awareness on forest fire prevention shall be strengthened through intensified information publicity. The system rangers at village level shall be established. Forest fire cases shall be investigated and punished seriously. In this way, forest fires could be terminated.

Breeding of pest-resistant varieties, strengthen pest and disease monitoring, prevention and treatment in a timely manner, to do all kinds of pest and disease control contingency plans. At the same time, we need to further improve the forestry pests forecasting ability.

8.6 Technical Risks and Countermeasures

National Camellia Engineering Technology Research Center, Hunan Academy of Forestry, the Hunan forest resources and ecological environment monitoring center, Central South University of Forestry Science and Technology for technical support, through the integration of forestry science and technology strength in Hunan Province, relying on the project area counties (cities) are now Some forestry science and technology promotion agencies, construction of this project to improve the technology research, technology application and promotion system, complete circumvention of technological risk.

8.7 loans those loans and repayment risk

European Investment Bank loans first by the Ministry of Finance lending to credit and debt representative of the Hunan Provincial People's Government - Hunan Province Department of Finance, Department of Finance lending to credit and debt representative of the target counties/cities government-County (City) Financial Bureau.- county (city) Finance Bureau. The final repayment obligations of the loan funds by the relevant loan project departments, local governments, and project owner.

Countermeasures:

- a. The Project shall state clearly that the government is responsible for the repayment of loans, and County financial Bureau shall issue a letter of commitment on loan repayment guarantees. Thus, the relation of lenders

and borrowers is clear.

- b. An account for loan repayment reserves shall be established to reduce the risk of repayment. Provincial Department of Finance to set up a provincial accounts, each of the 14 counties (cities) Finance Bureau set up a special account accounting project loan funds. Original financial materials of reimbursement from HCDP archives in PMO. The designated account at the provincial level in the Department of Finance and Foreign Economic Department, 14 counties (cities) Bureau of Finance set the county (city) level account, used to pay the county (city) afforestation, procurement and training costs.
- c. Each project counties (cities) must project "Subsidiary Loan Agreement" to determine the amount of lending and the proportion of payment, payment method to apply for the loan funds withdrawals are accounted for.

8.8 Policy and Institutional Risks and Countermeasures

The so-called policy risk refers to the implementation difficulties of HFRDP caused by inadequate or inappropriate and insufficient policies, including state macroeconomic policies and specific policies developed by the project.

At the macro level, the state policies on ecological and environmental protection will not change, neither will the forest land tenure system change after the reform on it. Therefore, there is little risk with policies and institutions. The impacts of HFRDP on improving ecological environment, ensuring ecological safety of land, and improving human living environment is in line with state policies and strategies of ecological construction that stated in *The Decision on Accelerating Forestry Development by the State Council of Central Committee of CPC, National Plan for Ecological Environmental Construction, Twelfth Five-Year Plan of National Economic and Social Development, Twelfth Five-Year and Mid-long Term Plan of Forestry Development*.

Countermeasures

The HCDP could come-up principle in favor its implementation, for example, to provide equal opportunities to women and poor farmers, as well as other social

disadvantaged groups participating in the project including trainings and benefit from the project. Reforestation contracts should be better designed and implemented to ensure the responsibilities and benefits of the participants

8.9 Comprehensive analysis

(1) The purpose of the project on the development of eco-forestry in line with the Chinese government use of foreign policy and national planning. The main purpose of the purpose is to improve the income of the farmers, and constantly improve the project area living environment, ecological and social environment, with the national focus on people's livelihood and ecological goals are the same.

(2) The significant economic benefits, social benefits, positive ecological benefits, the implementation of this project does not exist serious social risk.

(3) The project received the general support of the various stakeholders. Project area beneficiary groups are holding welcome and positive attitude to the project

(4) The project received the support of all levels of government in Hunan. Government, the forestry sector and the relevant government agencies have shown great enthusiasm, and expressed the strong willingness of support the project.

Appendix I Project Stakeholder Analysis Matrix

Stakeholders	Impact on stakeholders		Several key issues			Risk control	
	Positive	Negative	Importance	Attitude	Benefit condition	Risks	Risk control
Direct stakeholders							
1. Farmers	1. employments; 2. income increase; 3. knowledge and skills on forest management; 4. ecological awareness building	Low level of forest income	Very important	Willing to participate	1. income from thinning 2. labor income from the project	1. different opportunities between farmers with large area and small area of forest land; 2. difference between ecological protection of the project and economic objectives of farmers	1. PCP for all farmers to know about project info., to have equal access and rights to participate; 2. to develop some economic species and generate income for farmers.
2. Forest cooperatives	1. forest tenure reform promotion 2. impact reinforcements by FCs	Low level of forest income	important	Willing to participate	Financial supports and income generation	Destruction by cattle and sheep, fire wood collection, mining, quarrying	Develop maintenance system and groups, establishment of FC and management improvement
3. Village-level organizations	1. water conservation water; 2. reinforcement of national unity and social stability	1. Low level of forest income 2. potential pollution by inappropriate pesticide and fertilizer use	important	Willing to participate	Benefit through the high and stable yield farmland	Fire, chilling injury, frost, pests and other natural disasters	Prevention mainly, together with treatment
4. The TFS	1. improvement in forestry management;	none	Very important	Willing to participate	institutional capacity enhancement	weak technological capability	Technological trainings

Stakeholders	Impact on stakeholders		Several key issues			Risk control	
	Positive	Negative	Importance	Attitude	Benefit condition	Risks	Risk control
	2. income generation by service provision						
5. Women	1. social position improvements 2. gender equality promotion	Increased workload	important	Willing to participate	benefits from thinning	Lack of skills, being marginalized	Invite women to participate in projects
6. Minorities	1. improvements in production and living conditions 2. income generation 3. national unity reinforced	More inputs and less income generation in short period	important	Willing to participate	benefits from thinning and economic plantation	Weak participation capability, being marginalized	Invite minority people to participate in projects
Indirect stakeholders							
7. Hunan PFD	Management improvements	none	important	strongly supportive		None	
8. County Government	1. water conservation, soil and water conservation to promote the development of tourism 2. maintaining social stability	Increased Financial burden	important	strongly supportive		Risks of borrow loans and repayment	Revenue increase
9. County Forestry Bureau	Improvements of forestry technology and management level	Add workload	important	Willing to participate		Weak forestry technology capability	Training provisions and capacity building
10. County Finance Bureau	Improvements of management	repayment of loans	common	strongly supportive		Not timely disbursement of	Strict financial management and timely

Stakeholders	Impact on stakeholders		Several key issues			Risk control	
	Positive	Negative	Importance	Attitude	Benefit condition	Risks	Risk control
reau				portive		funds	disbursement of funds
11. County Agricultural Bureau	high and stable yield Safeguard for land	None	common	strongly supportive		Not timely disbursement of funds	
12. County Water Conservancy Bureau	Water conservation	None	common	strongly supportive			
13. County Land and Bureau	Sustainable land management	None	common	strongly supportive			
14. County Environmental Protection Bureau	carbon sequestration increase	None	common	strongly supportive			
15. County Cultural Affairs Bureau	tourism development on culture and ecology	None	common	strongly supportive			
16. County Bureau of Nationality and Religious Affairs	promote ethnic equality and unity	None	common	strongly supportive		destruction of cultural heritage and cultural relics	A forestation projects selection shall avoid artifacts and monuments

9. RECOMMENDATIONS FOR PROJECT DESIGN AND IMPLEMENTATION

9.1 Consultation

Purposes of participatory consultation shall be clarified.

- 1) To ensure voluntary participation by stakeholders in HCDP;
- 2) To avoid the possible social risks and social conflicts caused by the project, and formulate risk control and conflict prevention measures with stakeholders;
- 3) To design the project's technical plan by consulting with farmers, including selection of tree species, afforestation model design, contract arrangements after planting and post-project forest management and maintenance programs;
- 4) To guarantee equal chances of participation for the low-income households, poor households, minority households, women and other social groups in the project;
- 5) To conduct participatory consultation with beneficiaries, which are also a good process of capacity building and awareness construction of forest resource protection for farmers. This is also crucial to ensure the long-term impact of the project.

The consultation mechanism should be further improved. Workshops, questionnaires, interviews and information feedbacks shall be adopted to reinforce the communication between government departments, project-related agencies and stakeholder groups, so that people could be willing to participate in the processes of design, implementation, management and evaluation of HFRDP. Consultation workshops shall be conducted regularly to learn about questions and recommendations from government and other relative agencies, to develop solution plans and improve the project.

9.2 Participatory Consultation and Planning (PCP)

The main objective of PCP is to ensure the voluntary participation of farmers. In this process, stakeholders make decision to participate the project on the premise of fully understanding the project information and relative afforestation models. The HFRDP has designed the “PCP Guidelines” for participants to understand clearly its requirements, conditions and procedures.

The main steps of PCP are as follows (refer to Table 9-1):

- 1) Information dissemination and farmers’ application: In the preparation phase, Various types of dissemination materials shall be prepared by the project offices. After a minimum period of 1 week for dissemination and mobilization through leaflets, banners, posters, broadcasts, television and so on, village and farmers’ households shall fill in the application forms on a voluntary basis.
- 2) Consultation workshops with stakeholders: consultation workshops will be conducted to identify possible project farmers’ households and make a list of project participants, as well as to organize village meetings, consultation workshops in groups or with different stakeholders on topics including tree species, afforestation models, maintenance after planting and so on. This step shall achieve farmers’ full understanding of the project and make voluntary decisions on participation.
- 3) Signing of project agreement: Project participation agreements shall be signed with farmers HHs or united HHs. Village meetings shall be organized to announce the list of project participants and results from consultation.

Main requirements of PCP:

- 1) Project design should adhere to principles of suitable plants for certain site

condition and emphasis of ecological functions.

- 2) Information should be open and transparent, discussions shall be free and offer freedom for voices of different views towards the contracts. Communities and farmers should be given sufficient time to make a final decision.
- 3) Local people's views on tree species selection shall be taken into full account. Project beneficiaries shall be provided with opportunities to fully express their opinions in project planning and implementation and achieve their interest requests, so that the sustainability of the project could be ensured.
- 4) Information announcements shall be organized, especially on land use contracts. Trainings shall be enhanced on forestry technology, researches on forest restoration and regeneration models, as well as monitoring on carbon sequestration shall be reinforced.

9.3 Project Monitoring & objectives

After the project starts to be implemented, project monitoring (PM) will be conducted to investigate and evaluate the effectiveness of the project in every year, and report to relevant authorities. It aims to ensure the project implementation could follow the design. In order to ensure the participation and benefits of target groups, PM indicators in this regard shall be developed and included in the PM system of HCDP. As the direct participants and beneficiaries, project farmers shall also participate in PM in the following ways, so as to identify problems and make improvements at any time.

- 1) PMO should regularly inform the progress of the project and organization of work to the villagers. It is recommended that each PMO edit and print newsletters and post it in the communities.
- 2) After each major activity, such as the implementation of reforestation, forest protection, fire prevention, centralized training, PMO or village project management team should collect and document the feedbacks from participants, which will also accumulate information and data for fu-

ture project evaluation.

- 3) A number of farmers could be employed for daily monitoring on certain indicators. To encourage more farmers to participate and achieve fairness, the employed farmers could be changed regularly.
- 4) PMO should develop plans and objectives of PM, and organize the implementation of PM plan. PM teams shall be organized by relevant technicians to carry out various monitoring work. Monitoring office equipped with necessary facilities and tools shall be established in each forestry technical station to ensure timely and smooth monitoring activities.

9.4 Recommendations for Project Implementation

- 1) **To formulate and implement preferential policies for vulnerable groups.** The participation of women, poor people, minority groups should be ensured in open and transparent ways. Selection of tree species and modes of forest management shall respect the wishes of local residents. The residents themselves or their trusted representatives could participate in the project implementation. The collective forest land in the project shall be agreed and monitored by local civil juristic person. Training to the vulnerable groups should be designed to improve their capacity in participating in the project.
- 2) **To fully consider the development of poor ethnic minorities.** Measures shall be adopted by local government and forestry agencies to make participation convenient for minorities so that they could share project benefits, and to protect their traditional culture. To facilitate the poor minorities get out of the institutional advantaged situation and ensure sustainable development of the project, the SA team recommended that the project should encourage the organization of FCs in minority ethnic communities in accordance with the principles of village autonomy.
- 3) **To construct post-project management system.** Local residents in project area shall be included to participate in the post-project management.

Post-project management teams could be organized on the basis of community management team during project implementation. Members of the team could be elected by the villagers, while women and minority representatives must be present in the team.

Appendix II Procedures and methods of PCP

Procedures	Main tasks	Methods and tools	Outputs	Main participants
Step 1: Introduction and mobilization	<ol style="list-style-type: none"> 1. To design and distribute the project brochure 2. To introduce the project by various means 3. To distribute the project application forms 4. To design project participation contracts 	<p>Formats of brochure (shall be provided by PFD);</p> <p>copies of brochure (prepared by CPMO);</p> <p>Distribution of brochures and leaflets</p>	<p>Villagers including women, low-income and poor farmers fully understand the project information.</p>	<p>County and township officials, village cadres and villagers</p>
Step 2: Consultation workshops and village meetings	<ol style="list-style-type: none"> 1. To introducing project information 2. to collect application forms from farmers and group them on the basis of types of the land tenure 3. to consult with different types of farmers' HHs on topics of afforestation species and models, seedling production and supply, tending arrangement, resource use restrictions and compensation plans, demands of training and technical services 4. To design on site the project activities 5. To consolidate the area to be reforested with what kind of models 	<ol style="list-style-type: none"> 1.Small group consultation coordinated by Cts and Tts 2. Consultation workshops attended by representatives of different types of farmers' HHs 3. field reconnaissance 	<ol style="list-style-type: none"> 1.Detailed lists of project participants identified 2. Tree species, afforestation models, tending, resource use restrictions and compensation plans agreed by relative farmers' HHs 3. Project plots consolidated with farmers HHs 	<ol style="list-style-type: none"> 1. T Cts and Tts as representatives for the project party 2. Farmer HHs who contracted collective forest land as project participants party 3. Farmers that may be influenced by resource use restrictions 4. Township officials and village cadres
Step 3: Signing the project participation contracts	<ol style="list-style-type: none"> 1. To sign contracts with farmers HHs or village committees that will take part in the project 2. To announce the list of project participants in villages 3. To introduce the project content and other results from consultations 	<ol style="list-style-type: none"> 1.Public announcements 	<ol style="list-style-type: none"> 1. Project participation contracts signed 2. Project information and other consultation results 	<ol style="list-style-type: none"> 1.Farmer participants in the project 2.Village cadres, as the party for collectively managed project land 3. Representatives of the CFBs
Step 4: signing project management and protection contracts	<ol style="list-style-type: none"> 1. To sign contracts with farmers HHs or village committees that will take part in the project 	<ol style="list-style-type: none"> 1. Project management and protection contracts that be held by both parties 	<ol style="list-style-type: none"> 1. Project contracts signed 	<ol style="list-style-type: none"> 1. Farmers, village cadres, or legal representatives of other participants as the party for project land owners

				2. Representatives of County Forestry Bureaus as the Project Party
--	--	--	--	--