

Environment and Social Systems Assessment

Forest Ecosystem Improvement in the Upper Reaches of Yangtze River Basin Program

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ACRONYMS

DLI	Disbursement-linked Indicator
EIA	Environmental Impact Assessment
EPB	Environmental Protection Bureau
EPL	Environmental Protection Law
ERAB	Ethnic and Religious Affairs Bureau
ESSA	Environmental and Social System Assessment
FGB	Forestry and Grassland Bureau
FWS	Forest Work Station
FYP	Five-year Plan
LSGS	Large-Scale Greening Sichuan Program
MEP	Ministry of Environmental Protection
MOA	Ministry of Agriculture
NFGB	National Forestry and Grassland Bureau
NPC	National People's Congress
PAP	Program Action Plan
PB	Petition Bureau
PCS	Pest Control Station
PDO	Program Development Objective
PforR	Program for Results
PMO	Program Management Office
PRC	People's Republic of China
RAP	Resettlement Action Plan
RMB	Renminbi
SA	Social Assessment
SC	State Council
NFGA	National Forestry and Grassland Administration
WB	World Bank
WF	Women's Federation

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EXECUTIVE SUMMARY

The proposed Forest Ecosystem Improvement in the Upper Reaches of Yangtze River Basin Program (the Program) will support a comprehensive forest development and improvement program in Sichuan province of China. An environmental and social screening has been conducted at early stage to define the boundary of the Program . As a result, the Program supports three types of activities, i.e. (i) afforestation/reforestation with the main objective of generating ecological benefits, (ii) forest quality improvement with supplementary plantation and tending of existing forests, (iii) natural forest regeneration promotion.

All of these are environmental protection and environmental enhancement activities, and there are little, or no adverse environmental impacts envisaged. The participation of rural communities and individuals in the Program is through a bottom-up voluntary approach, and adverse social impact are expected be minor as well. Therefore, the current activities within the boundary of the Program have low environmental and social risks and are suitable for a Program lending approach.

An Environmental and Social System Assessment (ESSA) has been conducted to review the existing legal framework, institutional setup and performance in terms of environmental and social management for the Program implementation. The assessment concluded that national and provincial rules and regulations for addressing environmental and social risks related to this Program are principally consistent with the Bank's policy and directive. Recommendations mainly relate to further strengthening of the institutional capacity for implementation.

Recommendation 1: Formulating a Community Participation Manual

The participation of communities and farmers in the program planning and implementation process is an effective tool to create ownership and to ensure that long-term forest management is sustained. Given the previous practice and good experience with community participation in the World Bank loan projects in Sichuan province, it is proposed that the "Community Participation Manual" will be prepared to standardize the communities and farmers' engagement. The objectives and purposes of the Handbook are: (i) to formulate a procedure to ensure the voluntary participation of communities and farmers; in particular, for ethnic minority groups, women, and poor people, to have equal opportunities to participate the program in an inclusive and culturally appropriate way; (ii) to improve communities' and farmers' capacity to participate in the design of project technical scheme, such as the choice of appropriate tree species, the forestation models, and the subsequent management approaches, etc.; (iii) to enhance stakeholders' ecological protection awareness by training and education programs; and (iv) to avoid the potential social conflicts and to manage social risks through implementing mitigation actions.

Recommendation 2: Capacity training on environmental and social safeguards

The assessment concluded that there are sound institutional arrangements and capacity in place to address the potential environmental and social risks and impacts related to the Program . While the Program is designed to include general capacity building activities, it is recommended that environmental and social risks and impacts management should be explicitly built into the general training program in order to further enhance the systematic knowledge and skills of the staff of

forestry and grassland bureaus at provincial/municipal and county levels, as well as forestry work stations staff at township level and forest patrol rangers and local villagers participating in the Program , to handle environmental and social issues in line with international good practice. The key areas of training should focus on methods and procedures of community participation in Program activities; participation of ethnic minorities, women and other disadvantaged peoples; continuous and systematic training on technical specifications of afforestation/reforestation, tendering and natural regeneration promotion; safety measures of forest pest control practice; forest fire monitoring and emergency responses; awareness of forest protection including wildlife protection.

During the ESSA preparation, the Bank task team conducted a number of consultations with relevant stakeholders including relevant government departments at provincial/municipal and county levels and local communities during the field visits. A formal consultation workshop on the draft ESSA was organized on June 26, 2019, with participation of multi-stakeholders to solicit comments and feedbacks on the findings and recommendations of the draft ESSA. Before the workshop, the ESSA draft was disclosed locally in Sichuan Province on May 31, 2019 and on the World Bank's website on June 3, 2019. The draft ESSA was accepted by the participants, and the comments for further clarification and revision have been incorporated into the finalization of this ESSA. The final ESSA report has been locally disclosed on November 18, 2019 in Sichuan Province and it will be disclosed automatically through the World Bank Operations Portal after RVP approving the Program Board package.

CHAPTER I: INTRODUCTION

1.1 Objectives and Scope of the ESSA

1. The proposed Forest Ecosystem Improvement in the Upper Reaches of Yangtze River Basin Program (the Program) will support a comprehensive forest development and improvement program in Sichuan Province of China. The three types of activities under the Program are: (i) afforestation/reforestation; (ii) tending of existing forests / restoration of degraded plantation forest; and (iii) natural forest regeneration promotion.

2. The implementation of this Program will rely on the existing country legal framework and institutional systems on various administrative levels for managing environmental and social safeguards issues. The purpose of this ESSA is to provide a comprehensive review of relevant national and local environmental and social safeguards systems and procedures in China and Sichuan province; identify the extent to which the country/local systems are consistent with the core principles and elements of World Bank Policy for Program ; and recommend necessary actions to address gaps, as well as opportunities to enhance performance during implementation. Specifically, the main tasks of ESSA are:

- Review the national and provincial legal policy framework related to environmental and social safeguards applicable for the Program ;
- Review management and implementation procedures of environmental and social safeguards systems in Sichuan province with regards to the activities supported under the Program ;
- Review and assess the institutional capacity of various relevant agencies involved in the environmental and social impacts management during implementation; and
- Recommend actions to improve the performance of existing systems in line with country system requirements as well as the core principles of Program .

1.2 Methodology

3. The ESSA is a World Bank document prepared by the World Bank staff and consultants through a combination of reviews of existing program materials and available documents, interviews with government staff, and consultations with key stakeholders and experts. Consultations were carried out during preparation stage to better understand the environmental and social concerns of stakeholders and to seek feedback on the findings and recommendations of the ESSA team. During the ESSA preparation, the Bank task team conducted numbers of consultations with relevant stakeholders including government departments at provincial/municipal and county levels and local communities during the field visits. In addition, a consultation workshop involving key counties and local stakeholders was organized in Chengdu, Sichuan on June 26, 2019 during the program appraisal mission. The feedback of the consultation meeting has been incorporated into the final ESSA.

4. The methodology involved: (i) identification of the potential impacts from the activities to be supported by the Program ; (ii) a desk review of the laws, regulations, requirements, and

guidelines to prevent or mitigate the identified risks; (iii) meetings and interviews with key stakeholders ranging from forestry departments at various levels, other relevant departments, and township governments and representatives of local villages (see annex 4); and (iv) visits to a number of project sites in selected counties. The visited sites include the entire scope of activities (afforestation, enrichment of poor forests, and forest natural regeneration promotion). Observation and discussions during these visits provided a greater understanding of the potential environment and social impacts associated with these types of activities and the capacity and procedures of government departments in dealing with such impacts, including relevant measures currently adopted in accordance with relevant laws and regulations.

CHAPTER II: PROGRAM DESCRIPTION

2.1 Government Program

5. The proposed World Bank Forest Ecosystem Improvement in the Upper Reaches of Yangtze River Basin Program will support the Government Large-Scale Greening Sichuan Program (LSGS) implementation. The LSGS was launched in 2016 to spearhead greening activities in the province under the 13th Five-Year Plan (FYP) with extending one year (2016-2021). The objective of the LSGS Program is to improve forest ecosystem functions by increasing forest coverage and improving forest quality, which will substantially improve the ecosystem functions of forests, grasslands, wetlands and deserts so as to establish a fully-fledged ecological safety system in one of the most important upstream areas of the Yangtze River Basin. The program plans to establish around 0.9 million hectares of plantations; around 1.1 million hectares of mountain closure (including 250,000 hectares of degraded and un-stocked forest lands, 520,000 hectares of shrub lands and the management and maintenance of 293,000 hectares of closed immature forestlands), restore 1.6 million hectares of wetland areas, improve 660,000 hectares of ecologically vulnerable areas, rehabilitate 2.0 million hectares of grasslands, and improve the quality of 1.3 million hectares of degraded forests. The LSGS Program activities will focus in 183 counties of the province.

6. Nine tasks are to be undertaken under the LSGS Program, including:

(1) *Afforestation and reforestation sub-program.* It aims at afforesting/ reforesting barren hills, slopes land and watersheds, which are not suitable for farming but suitable for forests. The intention is to gradually increase the forest area and accelerate the greening process. During LSGS program period (from 2016 to 2021 with LSGS period was extended for one more year), 740,000 hectares of new plantation forests will be established, and 886,000 hectares will be closed for protection and recovery.

(2) *Planting along the upper reaches of Yangtze River and wetland protection sub-program.* It assigns priority to afforestation activities along the Yangtze River corridor. The afforestation will focus on main river basins, namely, Yangtze River and its tributaries Dadu River, Minjiang River and others for the purposes of soil and water conservation and waters retaining to restore forest ecosystem and its environmental functions. It aims at establishing 20,000 kilometers of green ecological corridors to protect water catchments (the afforestation areas are included in (1) afforestation and

reforestation subprogram) and protecting of 1.67 million hectares of wetlands and 60 wetland parks.

- (3) *Forest quality improvement sub-program.* This sub-program focus on improving forest quality of the degraded forests, through enrich planting broadleaf trees to fill the canopy gaps and diversity tree species to the existing monoculture forest and through thinning and retaining sparse trees retaining superior trees and more diverse species, as well as to promote nature regeneration to optimize the structure of the stands, to promote the establishment of stable and bio-diversified forests and improve forest quality, forest productivity and ecologic functions. The selected lands should be monoculture plantations. Under this subprogram, the quality of 800,000 ha of poor quality and degraded plantation will be improved.
- (4) *Management of ecologically vulnerable areas sub-program.* It comprises interventions for desertification control, karst area management, arid and semi-arid land management. It covers around 404,000 hectares of decertified land, around 242,000 hectares of karst landscapes, and around 20,000 hectares of arid and semi-arid land, mainly on grassland and restoration of the areas that have been disturbed by both nature disaster and industry.
- (5) *Roadside Greening sub-program.* The roadside and railway side planting sub-program will aim to improve scenic quality through planting along roadsides and railways. Roadside greening includes the greening and beautification along railways and highways, which are the ties connecting cities, towns and townships, villages, communities, residential areas and other nodes and serve as an important part of the land greening program. Around 1,800 kilometers will be planted along railways and around 40,000 km along roadsides.
- (6) *Ecological Restoration of grasslands sub-program.* It will restore degraded grasslands through reseeding and natural regeneration. Around 1.8 million hectares of grassland will be improved, comprising around 1 million hectares of new grass planting, around 400,000 hectares of grassland improvement, around 200,000 hectares of planted grassland, and the seeding of 200,000 hectares of barren wasteland.
- (7) *Rural homeland greening sub-program.* In line with the construction of new rural and residential areas, it will make full use of natural landscapes of villages and select indigenous species for afforestation and greening along rural roads and rivers and canals, around houses, on lands unsuitable for farming, to promote greening new village and green homeland. It is planned to enhance green cover in 93,000 hectares of rural settlements and towns.
- (8) *Urban tree planting sub-program.* It is planned to develop forest cities for townships and park cities in urban areas to improve the living environment, including the construction of wetland parks, mountain parks and green corridors in the established areas of cities, and to improve the town/township sceneries and living environment by

the establishment of green networks, belts, plots and landscape forest belts. It is expected that 25 forest cities will be established and around 200 forest townships.

- (9) *Maintaining of Forestry Achievement sub-program.* This sub-program aims to expand areas under protection. This will involve creating 500 natural protection sites (including 200 forest parks) and forest reserves covering at least 23.6 million hectares with a standing volume of 1.8 billion cubic meters of wood.

2.2 Scope of Program for Results

7. Considering the size, complexity and diversity of the LSGS, the Sichuan provincial authorities and the Bank have agreed that the proposed Program for Results (Program) should focus on a subset of activities with the priority giving to improving the quality and efficiency of afforestation and forest management in rural areas. The will therefore focus on sub-programs which aim at improving the delivery of ecosystems services and enhancing carbon sequestration through forest cover extension and forest quality improvement. Inputs from the initial Environmental and Social Systems Screening and Assessments exercise were also used to help define the program boundary. The main thrust of individual program activities is outlined below.

- (a) Afforestation/reforestation of new areas, including site selection, seedling production, planting, tending, monitoring, training, and technical assistance where the primary objective is ecological restoration and not large-scale timber production
- (b) Forest restoration, where the forest quality and structure would be improved to strengthen its resilience to stress and multiple functions; activities would include thinning the overstory, underplanting and tending new planting in poor-quality monoculture forests to improve their quality, growth, multiuse potential, and environmental protective functions
- (c) To assist natural regeneration on degraded mountain slopes on state forest farms; activities would include tending, interplanting, and seeding to assist natural forest regeneration; typical areas would comprise degraded forestland and scrub on steep and rocky slopes in remote areas.

8. Most field interventions will comprise the establishment and rehabilitation of multi-functional plantation forests with a mixture of tree species, including rare and precious species. The overriding aim will be the restoration and enhancement of forest ecological functions and resilience and the improvement of forest quality and carbon sequestration capacity. Activities aimed at promoting commercial planting/ logging, large scale and short-term industrial plantations will not be included in the Program boundary.

9. The LSGS is a “governmental plan” which forms the basis for the proposed Program. Activities (1) through to (3) fall within the boundary of the Program running over the three years from 2019 to 2021 for afforestation and forest quality improvement (see Annex 1 initial environmental and social screening), and can be grouped thematically into afforestation, forest

tending/enrichment planting, and natural generation promotion. More specifically, interventions under actions 1- 3 of the LSGS include: around total 217,000 hectares with afforestation for around 50,000 hectare and degraded forest restoration including nature regeneration for around 167,000 hectares in the 35 program counties (Program boundary) in Sichuan. No activities will take place in Ganzi, Aba and Liangshan prefectures which are located at high elevations with a predominance of conifers for protection, and majority of plantations targets are economic tree crops (more than 80%) for income generation in poor areas under LSGS. The Program will mainly finance the afforestation and degraded forest restoration including nature regeneration promotion relevant activities within the Program boundary, with focus on supporting mixed species and multi-function planting and forest management. Those 35 county government have committed to adopt the innovation technical models developed under Program to increase mixed species and multiple functions planting and forest management areas.

2.3 Institutional Arrangement for Implementation

10. Responsibility for Forestry in Sichuan lies with the Sichuan Provincial Forestry and Grassland Bureau (SFGB), with responsibility at lower levels being devolved in Forestry and Grassland Bureaus (FGB) at the levels of prefecture-city and county. The SFGB consists of 21 internal institutions and 24 subordinate institutions, all of which play a role in forest management, seed and seedling production, forest pest and disease control, forestry research, training, inventory, management and planning. The similar institutional systems are also set in FGBs at prefecture and county levels, each of which is well equipped to handle forestry matters in their areas. Together, these institutes provide a very robust framework in support of the sustainable management of Sichuan's forest resources.

11. The Sichuan Provincial Greening/Afforestation Committee would coordinate overall LSGS Program design and implementation on behalf of Sichuan provincial government, it will also coordinate the activities of line agencies, including such matters as fund mobilization, fund allocations from central and provincial levels, overseeing program implementation and tracking its progress. The implementation of LSGS Program is the responsibility of the SFGB. It is responsible for day-to-day program management, quality control, monitoring, and impact evaluation. County FGBs play a leading role in planning and organizing program implementation, monitoring and evaluation, and technical assistance provision. Individual forest farmers, collaborative farmer's associations, collective forest farms, and State-owned forest farms implement the program's field activities.

CHAPTER III: POTENTIAL ENVIRONMENTAL AND SOCIAL EFFECTS

3.1 Environmental and Social Screening

12. The Program supports a portion of the LSGS. During the Program preparation, environmental and social screening was conducted to facilitate the definition of the Program boundary. Following the World Bank Program for Results Policy and Directive, activities with potential significant environmental and social impacts are excluded from the boundary of Program, such as afforestation or greening related to major infrastructure construction projects as

compensation / offset measures (expressway, railway etc.), commercial timber logging, industrial contaminated sites, urbanization, activities involving sensitive natural protection areas or natural forests, activities that have potential negative impacts on livelihoods, such as wetland protection, mountain closure with restriction of farmers' livelihood, returning farmlands to forests and forestland use right transfer etc. (Detailed initial environmental and social risk screening process is shown in Annex 1).

13. Based on the environmental and social screening, three types of activities are included in the Program lending, i.e. (i) Afforestation and reforestation sub-program; (ii) Forest quality improvement through enrichment planting and tendering; and (iii) Afforestation and reforestation of Planting along upper reaches of Yangtze River Basin. Specifically:

- **Afforestation/Reforestation** in barren mountains, including land unsuitable for agriculture and suitable forestland in order to promote mixed species plantations while preserving existing native species and natural surface vegetation;
- **Rehabilitation of degraded forests** of low productivity and degraded forest stands with low vitality (poor growth) and canopy cover through enrichment planting diversified species, tendering and thinning. These mainly include improving forest structure, marking of dominant trees for retention, removal of selective trees competing with target trees and inferior trees/dying trees, enrichment with seedlings or broadcast sow seed of rare and valuable tree species etc.;
- **Promotion of natural regeneration** in forest land, sparsely stocked woodlots, shrub land and young afforested land that are capable of regenerating naturally through necessary tending for target undergrowth seedlings and seeding.

14. These three types of activities are technical environmental enhancement interventions and are expected to increase forest coverage of barren and waste land, enhance the quality of existing degraded forest, and improve the ecosystem services and biodiversity of the project areas, therefore, there is little adverse environmental impacts envisaged. The potential environmental impacts of such activities would typically include: temporary and site-specific surface disturbance and short-term soil erosion during tree planting and early growth period, temporary decrease of biomass due to thinning of forests, and concerns of safe pest management practice and forest fire prevention and control. The activities involve rural collectives and individuals are all based on voluntary participation approach, and there is little adverse social impact expected as well.

15. There are two issues that warrant more specific social risk screening as follows:

16. Natural regeneration promotion. Natural regeneration promotion is a way to restore forest vegetation by using the natural generation ability of the forests with limited human intervention in the mountainous areas where natural conditions are suitable for vegetation restoration naturally. To reduce the human interventions, the measure of mountain/site closure is promoted by the government to restrict farmers accessing to those land for firewood cutting, grazing and other activities in the areas potentially having human's intervention, such as the land owned and used

by the communities and individual farmers. Reported by SFGB and noticed in the field visits, the majority of areas with natural regeneration promotion activities are located in very remote mountainous areas, with most of local farmers (around 70-80%) having paid jobs elsewhere, and local farmers not relying on the forest land for their livelihoods. In addition, the government provides gas and electricity for their cooking, and supports local residents with the generation and use of biogas to supplement their energy needs. Hence, there is little need for firewood from forests as energy source. A field survey in Ebian county confirmed that mountain closure areas are located in very remote areas, and that in the surrounding communities most people have paid jobs outside the communities (more than 80% of labor force). Also, the lands are largely owned and managed by communities. Farmers basically do not cut wood for cooking, they normally use electricity at preferential tariffs (0.28 yuan /Kwh) or biogas (2 yuan /cubic meter) for daily cooking. Therefore, the local people do not rely on forests for their livelihoods. Nevertheless, to avoid any potential social impacts, natural regeneration promotion in individual and collective forest-lands was excluded from Program. As such, all natural regeneration promotion activities are designed in state-owned forest-lands where no any farmers' livelihood activities, and the Program operation focuses on technical intervention to promote natural regeneration, excluding site closure measures.

17. Forest land use right transfer. According to statistics of SFGB, the total area of forest land in Sichuan province is 360 million mu, including 196 million mu of state-owned forest land, 164 million mu of collective forest land (around 90% of the confirmed use right to farmers), and the rate of forest land use right transfer is around 2% provincial wide. It is estimated that there is about 1.6% of forest land use right transfer in the proposed Program areas on a voluntary basis. To avoid social risks any activities that will cause land use right transfer activities are excluded from Program operation.

18. Based on the discussions with the provincial and county FGBs, other relevant government departments and local communities, as well as the observation of field visits in project counties, it is noted that such of environmental and social impacts and concerns are well managed by established institutional arrangements and technical specifications. In summary, these three types of activities within the boundary of the Program have moderate environmental and social risks and are suitable for Program lending approach.

3.2 Potential Environmental Benefits and Risks

3.2.1 Environmental Benefits

19. As an environmental enhancement activity, the Program is expected to have significant environmental benefits, including the increase of forest coverage, quality improvement of existing forests, promotion of regeneration of forests, improvement of forest ecological systems and biodiversity, contribution to water conservation and soil erosion control, and contribution to mitigation and adaptation of climate change, etc.

3.2.2 Potential Risks and Impacts

20. The potential environmental risks of such activities would include:

- ***Temporary surface disturbance and soil erosion during plantation:*** The planting of trees will require excavation of individual pits and clearing of surface vegetation at the specific tree locations, which may result in certain extent of minor and temporary soil erosion. As the project aims to promote mixed forest while preserving existing native species and surface vegetation, such surface disturbance is limited to the small scope of each individual tree location where needed, and the impact is temporary and only occurs during tree planting stage.
- ***Shor-term decrease of biomass due to thinning of existing forests:*** Forest tending and thinning practice will include cutting of unwanted/dead trees, tree branches and shrubs, which will result in short-term decrease of biomass of the existing forests. This is an established and tested practice to improve the log-term quality of the forests with benefits for forest health, ecosystem and biodiversity.
- ***Disturbance of wildlife during plantation and tending practice:*** Tree plantation and tending practice may disturb the habitat of wildlife (e.g. nests of birds). Such impact is temporary and limited in specific scattered locations within the existing forests. The project activities are not in the nature reserve or protected areas and will not involve critical natural habitats. Protection of wildlife and bird habitats and nests is inherent in the project design and technical specifications for afforestation, forest tending and cutting (e.g. excluding the nesting season from certain activities). Therefore, such risks / impacts can be effectively managed.
- ***Safety of forest pest management practice:*** Forest management includes routine pest monitoring. In case of pest and diseases identified, pest management practice will be conducted, which may involve the use of pest control chemicals. The safety of handling forest pest control chemicals will be a public health concern. It is noted that there is well established management system for forest pest control chemicals in China and these provinces, with comprehensive laws/regulations, established institutional system and implementation mechanism. The safety of forest pest management practice is well implemented.
- ***Forest fire prevention and emergency response:*** Forest fire is a risk for forest management and is treated as a top priority for all levels of governments and communities. There is a comprehensive forest fire prevention and emergency response mechanism established and has been functioning for decades in China. Therefore, such risk is low.

21. In summary, the proposed Program activities are by nature environmental enhancement interventions and will not have significant environmental impacts and risks. Minor potential adverse impacts are temporary and limited to specific sites and can be effectively avoided and mitigated by following the existing technical regulations for afforestation/reforestation, forest tending, and natural regeneration promotion. The overall environmental risk for the Program is low.

3.3 Potential Social Benefits and Risks

3.3.1 Potential Social Benefits

22. According to the statistical data in 2017, the proposed 35 priority counties (cities and districts) under Program, for which the local governments have committed to adapt the diversified mixed species technical models for afforestation and degraded forest restoration, had a total number of 6,340,600 households, with a population of 18,698,100, and a female population of 8,904,000 (47.6%). Among the 35 counties, 14 were designated as poverty-stricken counties, with 2,157 poor villages and 1,033,820 people living in poverty (see annex 2 for details).

23. The activities under Program will support increasing forest coverage and improving forest quality, which will substantially improve the ecosystem functions of forests, so as to establish a fully-fledged ecological safety system in one of the most important upstream areas of the Yangtze River. It will also contribute to improving the quality of local people's life. More specifically, the Program will:

- (a) Improving local people's living environment and quality. The program will contribute to realize ecological and healthy development of the Yangtze River Economic Belt through the improvement of forest quality and structure in Sichuan province, ecosystem service functions will be strengthened, such as: conserving water resources, retaining water and soil, improving soil quality, preventing geological and climate-related disasters (landslides, mud slides, flash floods) and maintaining biological diversity. This will in turn positively affect local people's living conditions, including protecting farming land from soil erosion and retaining water for agriculture production.
- (b) Increasing rural employment opportunities and their income generation. The beneficiaries include incremental number of employees of the program activities. It is estimated that by 2021, farmers will get an additional per capita income of around 2,000 RMB from forest management activities under Program. This would benefit poor and / or female population, which tend to be more involved in forestry activities, such as afforestation, forest thinning, tending and management. In addition, training programs have greatly enhanced the technical capacity of local people in planting and forest management. Furthermore, the improvement on sustainability of the environment will drive the development of local eco-tourism, with the potential to revitalize rural areas, promote the return of migrant workers for employment, improve the income of farmers, and support poverty reduction program.
- (c) Increasing local farmers income and improve their livelihood. In addition to the income that will be obtained from labor inputs to afforestation and forest management activities, the local farmers will also benefit from the sale of timber from forest thinning and non-timber forest (NTFP) products.

24. The survey in Ebian Yi ethnic minority county and Qianwei county found that the local communities/farmers are willing to engage in the government program to gain subsidies (around

RMB 2,000-5,000/ha with forest tending activities to promote natural generation and forest quality). This will help them improve the environmental for ecotourism and improve their living conditions. The rehabilitated forests will also provide good conditions for them to develop understory mushroom, medicine plant for income generation, which will be suitable activities for the elder people left in the remote mountainous areas.

3.3.2 Potential Social Risks/Aspects

25. The social risk assessment of the three types activities to be supported by the Program, concludes that the communities or farmers will be encouraged to participate the forestry program in a voluntary basis, and there would not be any land acquisition activities. In addition, negative impacts on livelihoods, such as wetland protection, mountain closure with restriction of farmers' livelihoods, returning farmlands to forests and forestland use right transfer (around 2%) are all excluded from the Program boundary.

26. There is no forestland use right transfer under the Program boundary. If the farmers and communities would like to participate in the afforestation /reforestation activities in their own lands they will apply for participating in the Program with informed technical requests and government subsidies, and local government will approve the applications. The farmers and communities then will plant trees with government's technical supports. All these trees belong to farmers and communities themselves. The government will pay the subsidies after quality checking the planting sites (see table 1). The State-owned forestry farms will also obtain these subsidies for their afforestation and forest management engagement on state owned lands. Subsidies are usually paid from the governmental budget as a reward for incentivize farmers to plant trees. The subsidies are not cost based.

27. Three types of activities will be implemented in barren mountains including land unsuitable for agriculture and suitable for forest land, as well as the degraded plantation forest sites: (i) afforestation /reforestation, (ii) rehabilitation of degraded forests and (iii) promotion of natural regeneration under the Program boundary. The concerned areas are state owned (around 30%) and collective owned /farmers use right (around 70%) respectively. To encourage farmers and communities participating in afforestation and forest management on a vulnerary basis, farmers are entitled to get subsidies on afforestation and degraded forest restoration. Subsidy standards are ranged as RMB 3,000-7,500/ha. (see table 1).

Table 1. Three Types Activities Land Use and Subsidy

Three Types	Activities	Land Use / subsidy
Afforestation / Reforestation	Afforestation / reforestation in barren mountains, including land unsuitable for agriculture and suitable forest land under government design for forestry development,	Subsidy payment to encourage farmers and communities participation in voluntary manner (RMB 3,000-7,500 yuan per hectare)
Rehabilitation of Degraded Plantation Forests	Enrichment with seedlings or broadcast sow seed of rare and valuable tree species to the degraded	Subsidy payment to encourage farmers and community's participation in

	forest land; marking of dominant trees for retention, removal of selective trees competing with target trees and inferior trees/dying trees, and other forest management activities.	voluntary manner (RMB 1,500-7,500 yuan per hectare)
Promotion of Natural Regeneration	Selecting sparsely stocked woodlots and shrub land and promoting regenerating naturally through tendering activities.	Subsidy payment to encourage forest entities 'participation (RMB 1,500-3,000 per hectare)

28. In summary, there will no significant social impacts and risks under the Program. Minor potential social risks / aspects need to be assessed and remedied as and when they arise during project implementation, such as lack of standardized community participation and consultation procedures, which is intended to improve the community participation process and further address the community level grievance redress mechanism. The lack of standardized community participation procedure may exposure a risk that ethnic minorities and vulnerable groups are not given the special consideration or not engaged in a cultural appropriate way during the participation process which may result in losing development opportunities from the Program activities. Therefore, a Community Participation Manual is recommended and the overall social risks for the Program is moderate.

Ethnic Minorities

29. Sichuan province is a multi-ethnic colony with 55 ethnic minorities. The main body of Sichuan residents is the Han nationality from ancient times, in addition, there are numbers of ethnic minorities living in the region, of which 14 ethnic minorities¹ have a population of more than 5,000 people. The total population of ethnic minority in Sichuan was about 5.173 million, accounting for 6.4% of the total population.² Ethnic minorities mainly inhabit in Liangshan Yi Autonomous Prefecture, Ganzi Tibetan Autonomous Prefecture, Aba Tibetan and Qiang Autonomous Prefecture and Muli Tibetan autonomous County, Mabian Yi Autonomous County, Ebian Yi Autonomous County and Beichuan Qiang Autonomous County.

30. As technical assessment report (see technical report description in detail), there are total 35 counties involved in the afforestation/reforestation, degraded forest management, and natural regeneration promotions areas under the Program. Those counties expressed their willingness to implement the improved technical intervention that will be introduced by the Program . Among the 35 counties (cities and districts), there are 292,300 ethnic minorities people (1.6%), mainly the

¹ 14 Minority nationalities are Yi Nationality, Tibetan, Qiang nationality, the Miao nationality, Muslim Chinese, Mongols, Tujia nationality, Lisu nationality, Manchu nationality, Naxi nationality, Buyi Nationality, the Bai Nationality, the Zhuang Nationality and Dai Nationality.

² Data source: *Sichuan Yearbook* (2016).

Yi, hui and Miao ethnic groups. Of 35 counties, there are two Yi minority autonomous counties, 21 ethnic minority townships/towns, including 10 Yi, 8 Miao and 3 Hui townships respectively.

31. Due to the constraints of natural conditions, the high elevation plateau areas, where have concentrated ethnic minority group are not included in the project boundary, because most forests in those areas are natural forests, which under fully protection without human intervention, and majority planting are crop species for community income generation, which are not included in the activities supported by the Program. The ethnic minority groups screening table is listed in *Annex 2*.

32. In Sichuan, ethnic minorities, as well as the Han nationality, will equally and voluntarily participate in this program and obtain benefits from the Program. Field visits to Ebian Yi ethnic minority villages found that Yi ethnic minority groups welcome the program and are willing to participate in it. They said that the program will improve forest quality and rehabilitate landscape, to help them improve living environment and develop eco-tourism to increase their income. With the local government support, the eco-tourism is developing in those areas, like many other areas in Sichuan, which is becoming one of main income sources in rural areas. The forestry program will also provide job opportunity to local people.

33. In conclusion, there is no significant/high social impacts identified for ethnic minorities in project areas. More detailed review on ensuring ethnic minority having equal opportunity to participate in and benefit from the program are reviewed in the following sections.

Community and farmers participation and grievance redress measures.

34. The Program will improve the living environment and bring more employment opportunities and income generation to local residents. Local communities and farmers will participate in the activities in a voluntary way. As stipulated in legal framework, local farmers have been consulted about the likely positive and negative impacts of the SLGS Program at various stages, including ethnic minorities, women and vulnerable groups. Community consultations, training and environment protection awareness education program, and effectiveness of communities or farmers voluntary participation mechanism have been assessed to avoid potential social risks.

35. Regarding “voluntary participation of farmers”, “national and Sichuan provincial policies concerning three types activities” required information disclosure and stipulated that forestry projects should adhere to the principle of voluntary. Based on this policy, Sichuan province has established the procedures for farmers' participation in afforestation and forest management activities in a voluntary way. Based on the document review and interview with farmers, the policies, procedures and implementation are all in place. However, there is no standardized manual specifically on the voluntary participation for the SLGS program. To contribute to a systematic improvement in future this ESSA includes recommendations on preparing the Community Participation Manual.

36. Moreover, several Bank financed projects in China have developed the Community Consultation/Participation Manuals, which standardized farmer’s consultation processes and

ensured farmers' participating in the project fully on a voluntary basis, with that all the project social risks are Moderate. Those best practice would provide good examples to this Program.

37. Any complaints or grievances under the program are also necessary to express stakeholders' interests, concerns and to protect their entitled rights. An assessment of the existing grievance redress mechanism to understand its effectiveness is conducted in **Section 5.1.2** and **Section 5.1.3**.

CHAPTER IV: ENVIRONMENTAL MANAGEMENT SYSTEM

4.1 Legal Framework Applicable to the Program

38. Based on environmental and social screening as described in Chapter 3, the main environmental management for the proposed Program will mainly involve environmental protection system, and forestry management, especially forest pest management and fire prevention/control.

4.1.1 Environmental Protection Legislations

Environmental Protection Law (NPC, 2014)

39. Since the promulgation of its first *Environmental Protection Law* (EPL) in 1979, China has gradually established a comprehensive environmental management legal framework, covering all aspects of environmental management fields. The EPL establishes the legitimate position of environmental protection as a fundamental national strategy of China and sets out the overall objective of "protecting and improving people's environment and the ecological environment, preventing and controlling pollution and other public hazards, safeguarding human health, promoting ecological civilization and facilitating economic and social sustainable development."

40. In addition, the EPL establishes an environmental impact assessment (EIA) system for development plans and construction projects. The EIA system is managed by Ministry of Environmental Protection (MEP³) and regulated under the *Environmental Impact Assessment Law*, with support a number of regulations and technical guidelines. According to the EIA Law and guidelines for project EIA classification⁴, the requirement for forestry related activities are as follows:

³ The Ministry of Environmental Protection has been renamed as Ministry of Ecology and Environment (MEE) in the recent institutional reform in China.

⁴ According to EIA Law, projects are classified as either A (significant environmental impacts, requiring a full-scale EIA Report), or B (limited adverse environmental impacts in scope and severity, requiring a simplified EIA report known as EIA Form), or C (likely to have negligible adverse environmental impacts, no specific EIA document is required besides filling an online registration in EPB). The detailed classification criteria for various types of projects is specified in the *Categorized Directory for Environmental Management of Construction Projects (2017 version)*

Table 2. EIA Classification for Forestry Related Projects

Project Type	Category A	Category B	Category C
Economic forest base construction	-	Industrial raw material forest*	Others

* Industrial raw material forest refers to the forest with purpose of production of resin (pine oil, rubber), fiber, white wax, shellac and other industrial raw materials.

41. The activities of afforestation/reforestation, tending of existing forest and for forest natural regeneration promotion under the Program focus on precious and indigenous tree species forest with primary function of ecological service and public welfare, and do not include economic forest base establishment or industrial raw material forest plantation. Therefore, there is no EIA document requirement for the activities under the Program. The environmental management is integrated in the forestry management laws, regulations and technical specifications, as described below.

4.1.2 Forestry Management

Forestry Law (NPC, 1998)

42. The *Forestry Law* sets out the principles for forestry management as “protection of forest, promotion of afforestation, coordination of tending and harvesting, and sustainable utilization.” It specifies that tree plantations are obligations of citizens, and government at all levels should organize public to implement voluntary afforestation activities to increase forest coverage. It requires local governments to establish forestry protection organizations, provide forestry protection facilities, and supervise local forest owners to develop forestry protection agreements and to designate full-time or part-time forest rangers.

43. This law authorizes the establishment of forest police force for forestry areas to protect forestry resources. It also clarifies that forestry department shall be responsible for forest pest control works.

44. The *Implementation Rules of Forestry Law* provides further details of the implementation arrangements. For instance, it specifies that county FGB shall periodically publish long-term, mid-term and short-term forest pest and disease forecast based on the investigation and monitoring and put forward control plans. In the event of forest pest and diseases, the relevant departments and forest operators shall adopt comprehensive control measures.

45. Under the forestry law system, there are various technical specifications which specify detailed technical measures for plantation, tending, low quality forest rehabilitation and harvesting, of which environmental protection is an integral part of these specifications. These mainly include:

- *Technical Specifications for Afforestation (GB/T15776-2016)* emphasizes ecological environmental protection as a priority, and requires protection of natural forest, rare and precious plants, ancient trees and habitat of wildlife. It sticks to the principle of multi-species forests with combination of trees and shrubs, and avoidance of large area of single

specie pure forest. It requires afforestation design for tree plantation with a continuous area over 670m². It provides detailed measures of afforestation, as well as measures of environmental protection during tree plantation operations, e.g. erosion control measures for land preparation and pit excavation, protection of ancient and precious trees, protection of bird nests and habitat of wild animals, application of organic fertilizers, waste management requirement etc.

- *Technical Specifications for Forest Tending (GB/T15781-2015)* provides details of forest tending methods, as well as environmental protection and biodiversity protection measures, e.g. protection of bird and animal nests, protection of habitat and animal corridor, preservation of protected species and precious species (e.g. aesthetic or medical) etc. It also specifies detailed requirement for tending design, operation, and completion acceptance criteria and arrangements.
- *Technical Specifications on Reconstruction of Low Function Forest (LY/T1690-2017)* specifies details of low function forest reconstruction in terms of technical design, implementation, supervision and acceptance inspection. It provides explicit requirements on environmental protection, e.g. protection of biodiversity and habitats, soil erosion prevention, quarantine practice for pest control etc.
- *Technical Specifications for Restoration of Degraded Protective Forests (2017)* specifies technical methods for restoration of degraded protective forests, which include explicit measures on water conservation, erosion control, biodiversity and habitat protection, and control of invasive species and forest pests.
- *Technical Specifications for Restoration and Reconstruction of Degraded Forest Ecosystems (LY/T2651-2016)* is specifically targeted to ecosystem restoration.

46. Other laws and regulations related to general environmental protection issues in forestry activities include:

- *Water Conservation and Erosion Control Law (NPC, 2010)* requires relevant government departments (forestry, agriculture, land resources etc.) to carry out works on soil conservation and erosion control. Erosion control measures are required to be implemented during the afforestation/reforestation and tendering.
- *Wild Animal Protection Law (NPC, 1988)* specifies the protection responsibility of forestry department for terrestrial wild animal protection. It prohibits illegal hunting or damage of wild animals and their habitats and requires proper measures to be taken to protect wild animals in agriculture and forestry production activities.
- *Wild Plant Protection Law (NPC,1998)* calls for protection of wild plants. Illegal harvesting of wild plants and destruction of habitats are prohibited. Wild plant management authority is responsible for taking measures to protect and rehabilitate wild plants habitats. Harvesting of wild plants requires approval certificate from relevant

authority with clear specifications on types, locations, quantities, dates and harvesting methods.

- *Regulations on Nature Reserves (SC, 2017)* requires establishment of nature reserves for the protection of typical natural ecosystem, rare and endangered species and their habitats. Strict measures (entry ban for core area, scientific observation only in buffer zone, and limited non-pollution and environmental damaging activities for outer experimental zone) are clearly defined to protect ecosystem and species of nature reserves.
- *Regulations on Strengthening Protection of Ancient and Famous Trees (National Greening Committee, 2016)* requires protection of ancient trees through inventory registration, labeling, on-site protection etc. Forestry departments and greening departments are required to develop annual plans and implement protection measures for ancient trees protection.
- *Ecological Redline Protection (2013)*. Ecological redline protection was highlighted in the Communist Part of China's 18th congress as one of key national reform decisions, followed by *Technical Guidelines of Ecological Redline Development* (issued by MEE in 2015). The objective is to identify ecological redline protection zones nationwide where development activities are prohibited/restricted to ensure sustainability of ecosystem services. Forest protection and enhancement activities under the Program are well in line with the principle and objectives of the national ecological redline actions.

4.1.3 Pest Management System

Regulations on Prevention and Control of Forest Pests and Diseases (SC, 1989)

47. This regulation sets out the pest control principle of "Prevention first, combined with comprehensive treatment". It requires an Integrated Pest Management (IPM) practice, with priority of forest structure operation and a combination of physical, biological and chemical measures. It specifies that FGBs at county (and above) level are responsible for the forest pest control within their jurisdictions, with pest control units under the FGBs as specific implementation units. Forestry Work Stations (FWSs) at township governments are responsible for organizing pest control in their townships.

48. It specifies pest prevention measures requirements for forest owners to take in afforestation, tending and cutting operation. Anyone who finds pests and diseases should timely report to local government or local FGBs, which shall organize timely pest control actions and report to municipal/Provincial FGBs. County (and above level) FGBs are required to develop forest pest control plan and conduct periodic monitoring.

49. The regulation requires that pesticide application must be conducted following relevant regulations and specifications to prevent environmental pollution, and safety of human and ecosystem.

Pesticide Management Regulation (SC, 2017)

50. This regulation provides an umbrella framework for the pesticide management, which covers pesticides used both for agricultural production and forestry pest and disease control. It mandates the agriculture department be responsible for management and supervision of pesticide use, i.e. agriculture bureau at county (and above) level is responsible for supervising pesticide management within their jurisdiction.

51. It establishes pesticide registration system, which ensures that all pesticides obtain approval before entering market. It also establishes production permit system for pesticide production, and a sale permit system for pesticide sale business. Pesticide dealer must obtain sale permit from agriculture bureau at county (or above) level, with qualification of (i) having staff familiar with professional knowledge on pesticide and pest control, and be able to provide safety use guidance to customers; (ii) having business spaces and warehouses that are effectively isolated from other commodities and drinking water sources, living areas, etc.; (iii) having quality management, accounting records, security protection, emergency handling, warehousing management and other systems that apply for pesticide.

52. Pesticide dealers should check the product packaging, labeling, product quality inspection certificate and the relevant permit documents, and shall not purchase pesticide from enterprises without production permit or other dealers without sale permit. Dealers are also not allowed to process or re-package pesticides.

53. The regulation explicitly requires that county agriculture bureau shall provide free technical training to pesticide users through organizations such as plant protection or agriculture technology extension centers. It also requires the forestry department provide technical guidance on the use of forest pesticides. The regulation also explicitly emphasizes that the state aims at reducing pesticide use through promotion of measures such as biological control, physical control and use of advanced spraying equipment. County governments are required to develop pesticide use reduction plan for their jurisdictions. Township governments shall provide assistance to the pesticide use guidance and service work.

54. The regulation requires pesticide users to protect environment and wildlife, and shall not discard pesticides, pesticide packages and spraying equipment in water resource protection area and river channel. Use of pesticide in drinking water source protection areas is strictly prohibited. The state encourages pesticide users to properly collect the waste packages and requires production enterprises and dealers to recycle pesticide wastes.

55. To regulate the safety of pesticide use, a number of guidelines have been put in place, including:

- *General Guidelines for Pesticide Safe Use (NYT 1276-2007)* provides guidance on pesticide selection, purchase, preparation, application, personal safety, post-application safety, waste disposal and emergency response;

- *Safety Regulations for Storage, Transportation, Sale and Use of Pesticides (GB12475-2006)* specifies requirements for toxic prevention measures for storage, transportation, sale and use of pesticides;
- *Guidelines for Safety Application of Pesticide for Forest Use (LY/T2648-2016)* provides safety guidance of pesticide use specifically for forestry sector, including safety protection measures for persons and disposal of pesticide wastes.
- *List of Forbidden and Restrictive Use Pesticide*: Ministry of Agriculture maintains a dynamic list of pesticides and for restrictive use, which is updated annually.

4.1.4 Forest Fire Prevention

Regulation on Forest Fire Prevention (SC, 2008)

56. This regulation specifies the utmost responsibility of local government leaders for forest fire prevention. It requires establishment of forest fire prevention organization at all levels of governments at county and above level, which shall develop prevention plans and emergency response plans. Forest owners shall establish fire prevention system, assign responsible staff for monitoring and equip with necessary facilities and equipment. Firefighting teams are required to be established at various levels of government, as well as by forestry enterprises, villages/communities in forestry areas, and fire drills shall be performed periodically. It requires establishment of fire alarm system at all levels of governments, with corresponding reporting and response systems. It also establishes the armed forest policy force which is responsible for forest fire fighting tasks under the direction of county (or above) governments. In addition, People Liberation Army is also tasked with forest fire fighting mandate following relevant military regulations.

Sichuan Provincial Regulation on Forest Fire Prevention (2013)

57. Under the national regulation, Sichuan also developed its provincial regulation which echoes the general national requirements and meanwhile provides detailed implementation requirements for the province.

4.1.5 Other relevant legislations

Cultural Property Protection Law (NPC, 2002):

58. Chance-find procedures: during construction projects or agricultural activities, any one or unit uncovers cultural relics shall stop construction and protect the site, and immediately report to local cultural relics authorities for investigation. In case of important discoveries, the local cultural relics authority must report to authorities at higher levels.

Other relevant laws, regulations and guidelines

59. In addition to the main laws/regulations mentioned above, there are a number of other laws, regulations and guidelines related to forestry environmental management at national and provincial level in all Sichuan province, including:

- *Regulation on Plant Quarantine (SC, 1992)*
- *Disinfestation Technical Rules of Forest Quarantine Pest Insect (GB/T26420-2010)*
- *Quarantine Rules for Transport of Forest Plants and Products (GB/T23473-2009)*
- *Opinion on Further Strengthening Forest Pest Control (SC, 2014)*
- Sichuan Provincial Plant Quarantine Regulation
- Sichuan Provincial Regulation on Pesticide Management

4.1.6 Assessment

60. Overall, there is well established legal framework in China governing the general aspects of environmental protection and especially the forestry sector. The related risks and impacts of environmental and ecological protection, forest pest control and forest fire prevention and control are well covered by a series of national and local laws, regulations, procedures and technical specifications, which are consistent with key principles of Program for Results Policy and Directive.

4.2 Implementation of Environmental Management Systems

61. There are three types of activities under the Program, i.e. afforestation/reforestation; tending of existing forests; and natural regeneration promotion. These are all environmental protection and enhancement activities and are not expected to have major adverse environmental impact and risks. The main environmental management systems involved in this Program include the followings:

Table 3. Environmental Activities and Related Environmental Management System

HAPCP Activities	Potential Adverse Environmental Effects	Environmental Management System
Afforestation/reforestation	<ul style="list-style-type: none"> - Temporary land disturbance and soil erosion - Wildlife protection - Pest control - Fire prevention 	<ul style="list-style-type: none"> - Environmental impact mitigation - Forest pest management system - Forest fire control system
Tending of existing forests	<ul style="list-style-type: none"> - Temporary land disturbance and soil erosion - Wildlife protection - Pest control - Fire prevention 	<ul style="list-style-type: none"> - Environmental impact mitigation - Forest pest management system - Forest fire control system
Natural regeneration promotion	<ul style="list-style-type: none"> - Pest control - Fire prevention 	<ul style="list-style-type: none"> - Forest pest management system - Forest fire control system

4.2.1 Environmental Impact Mitigation System

62. According to national EIA laws/regulations, the program activities are exempted from specific EIA document requirements due to its nature of environmental protection and enhancement. Environmental protection measures are integrated in the technical specifications for afforestation, tending and natural regeneration promotion.

Afforestation/Reforestation

63. The afforestation and reforestation include tree plantation in forest land with purpose of increasing forest coverage. There is no land use change and the primary objective is not for commercial timber production. Following national guidelines for afforestation, these activities focus on ecological benefits with emphasis on precious and indigenous tree species plantation.

64. The current afforestation and reforestation activities are planned to follow a bottom-up approach, which mainly include the following steps:

- County and municipals FGBs develop their afforestation plans based on voluntary participation of communities and forest owners, and submit to the Sichuan Provincial FGB;
- Provincial FGB complies a provincial afforestation plan and distributes it to all municipalities, while municipal FGBs develop specific implementation plans and allocate to counties;
- County FGBs distribute their detailed implementation plan to townships;
- Forest owners/farmers are the owners of the forests and responsible for the implementation of afforestation and forest management actions. FWSs at townships will provide technical service and training to farmers. For afforestation project supported under fiscal budget, it will be implemented by contractors selected through bidding process organized by county FGBs and supervised by competent supervision consultant;
- Completed afforestation will be inspected and verified by county FGBs in accordance with relevant guidelines; verification will be conducted directly by county FGBs or third-party verifier through bidding process. This verification covers 100% of the afforestation/reforestation works under the government program;
- Verification of afforestation will be submitted to the county FGBs and will be disclosed. Upon satisfaction of such verification, subsidies will be paid by country finance bureau directly to the farmer/owner;
- Municipal and provincial FGBs will conduct post-review (10-20%) through sample inspections.

65. The potential environmental concerns are temporary land surface disturbance and soil erosion and disturbance of wildlife habitat during tree plantation etc. Such impacts are minor and temporary, and mitigation measures are embedded in the *Technical Specifications for Afforestation (GB/T15776-2016)* e.g. measures specified in *Section 14 Habitat Protection* of this *Specification*:

- Minimize land preparation area, and use cut bushes/grass as cover of bared area;
- Pit excavation method to avoid soil erosion;

- Avoid rainy season for land preparation;
- Limit soil loosening, pit expansion and fertilizer application within immediate surrounding of the target trees;
- Deploy water interception ditch, plant barrier, water collection tanks etc.;
- Protect habitats and prohibit afforestation activity that could alter habitat landscape; Integrate habitat protection throughout the whole process of afforestation;
- Deploy buffer belt for afforestation activities at areas of lakes, wetlands, reservoirs, nature reserves, wildlife habitats etc.;
- Pay close attention on protection of ancient trees and habitats of wildlife, preserve forest near the nests of birds and animals;
- Preserve ecological corridor of natural forest for wildlife;
- Use indigenous species as priority, and avoid use foreign species without test;
- Protect precious and rare/endangered species;
- Do not use herbicide;
- Proper management of fuel/oil and proper disposal of wastes;
- Other safety codes for forestry operations.

66. The implementation arrangement for the environmental protection measures is as follows:

- Environmental protection is the key guiding principle and inherent in the afforestation and reforestation plans. For the activities under the Program, the afforestation/reforestation design is developed by county FGB (through its technical design team), and environmental protection measures are integral part of technical specifications which are built in the bidding documents and contracts for contractors;
- For afforestation/reforestation under the national fund and implemented by state-owned forest farms, supervision engineers are engaged to supervise the implementation of afforestation/reforestation operations with environmental protection measures as an integral part of contractor's performance in accordance with technical specifications; For small scale afforestation/reforestation works conducted by farmers, FWS at township level conducts on-site instruction and supervision following the same technical specifications;
- Upon completion, county FGB (in some cases by engaging third-party consultant) conducts on-site verification to confirm the compliance with the required specifications, in which environmental protection and erosion control is an inherent aspect of verification.

Tending of forest

67. Tending of forests refers to various forest management activities for the period between young forest to mature forest aiming at improving quality and health of existing low function or degraded forests. The main activities include forest thinning, enrichment plantation, branch pruning, brush cutting, irrigation, fertilization, fire prevention and pest control etc. These are the activities to enhance the health of existing forests and have little environmental impacts.

68. Environmental management measures are built into the tending activities as part of the overall implementation practice in accordance with *Technical Specifications for Forest Tending*. These include:

- Preservation of trees with bird nests and near animal nests;
- Preservation of ecological corridor for wildlife;
- Protection of precious, rare and endangered tree species;
- Protection of young trees and bushes that do not affect tending operations;
- Proper use of cutting waste for soil erosion control and fertilization;
- Proper disposal of sick trees following relevant guidelines etc.

69. The implementation of environmental protection measures follows the same procedures as described for afforestation/reforestation.

Natural regeneration promotion

70. Natural regeneration promotion refers to the forest lands/bush lands that are suitable for self-seedling and sprouting to promote natural growth of forest with limited human interventions. It includes activities such as the necessary tending to promote undergrowth seedling growth, seeding in opening areas, routine patrol for fire prevention and pest monitoring, to facilitate restoration of existing forests. These are also environmental and ecological enhancement activities and will not have obvious adverse environmental impacts.



Above: Afforestation in waste land with mixed species
Left: Afforestation in barren mountain slope

71. **Assessment:** The Program activities of afforestation/reforestation, forest tending and forest restoration are environmental protection and enhancement activities and have little or no adverse environmental impacts. Minor impacts related to temporary land disturbance, soil erosion and wildlife disturbance can be readily mitigated as integral part of technical specifications. There are established implementation procedures throughout the whole process of the Program activities with environmental protection measures mainstreamed, implemented and verified. The Bank's task team conducts field visits to a few counties in Sichuan, i.e. Gujing and Didigu villages in

Ebian county, Heping and Dengta villages in Qianwei county, it is observed the tree plantation in barren mountain slopes and unused waste land is well implemented, with no evidence of obvious soil erosion and environmental impacts. The plantation is conducted by villagers collectively under the supervision/guidance of technical staff from township FWS and verified by the county FGB upon completion.

72. Based on field observations and years experiences from previous forest projects funded by the World Bank in Sichuan province, the potential environmental impacts related to afforestation/reforestation, forest tending, and natural regeneration promotion are adequately addressed with the existing system.

4.2.2 Forest Pest Management System

Forest Pest Management

73. Under the overall forest law system, forest pest control is an important component of forest management, for which a comprehensive pest control system is established under the *Regulations on Prevention and Control of Forest Pests and Diseases (SC, 1989)*. It establishes a pest management system with the principle of IPM approach. The system is implemented through three levels of efforts: pest prevention at source; pest monitoring; and pest control.

- (a) Pest prevention at source: As part of national plant quarantine system, there is a strict forest pest inspection and quarantine system in place for tree seeds and seedlings at nursery. All seeds and seedlings from tree nursery are subject to pest inspection to prevent spread of forest pest during tree plantation. Plantation of trees with dangerous forest pest is strictly prohibited by law.
- (b) Pest monitoring and forecast: Routine pest monitoring is an important part of daily forest management practice. All forest bureaus at various levels have pest control plans and are implementing routine pest monitoring within their jurisdictions. At local level, county FGB is the authority to be responsible for overall pest monitoring and pest control. Routine pest monitoring is implemented through county-level Forest Pest Control Station (PCS), township level FWS, and forest patrol rangers at each village. Based on the monitoring results, FGBs at various levels issue pest situation forecasts for their jurisdictions. Anyone finds pest and diseases should timely report to county government or county FGB, which shall organize timely pest control actions and report to municipal and provincial FGB.
- (c) Pest control operation: Once pest or disease is found during the routine monitoring by county FGB or township FWS staff or village forest rangers, it must be reported to county FGB/county PCS. If pest or disease is found in relatively large scale, then the county PCS will take in charge to implement pest control operations by engaging third party professional service providers. In case the pest is occasionally found in small scale, normally no further action will be taken but keeping monitoring. In case of serious infectious disease such as *Bursaphelenchus xylophilus* for pine trees, county PCS/FWS

staff will cut the individual infected trees and burn it safely. Farmers do not participate in the pest control operations for the public welfare forest.

74. The third-party forest pest control service is regulated by a certification system managed by Sichuan provincial FGB, following the *Certification Management for Forest Pest Control Service in Sichuan* (2016). This regulation establishes certifications system for three fields, i.e. pest control survey/design, pest control operation, and pest control operation supervision. It specifies the key qualifications of service providers in terms of technical staff size and capacity, number of staff with mandatory training certificate, necessary equipment, management and operation procedures, and years of experiences for various classes of certificates (three classes for survey/design, four classes for operation, and three classes for supervision). Certificate training is organized by provincial FGB (through its Forestry Association and Forest Pest Control Association) every year to staff of existing/potential service providers, as well as staff within the FGB system. By the end of 2017, there are 41 certified companies for pest control survey/design, 51 companies certified for control operation, and 30 companies certified for supervision in Sichuan. More than 300 people received the training in 2017 and 2018 respectively.

75. As guided by *Regulations on Prevention and Control of Forest Pests and Diseases*, pest control practice is implemented through an IPM approach, with the application of following measures in following priority order:

- Forest management measures: forest tendering, selective cutting, removal of individual sick/dead trees etc.
- Physical measures: removal of pests by hand picks, installation of traps, use of pest lights etc.
- Biological measures: use natural enemy species for pest control.
- Biological agents: Such biological agents are made of biological living organisms (fungi, bacteria, insect viruses, genetically modified organisms, natural enemies, etc.) or their metabolites (pheromones, auxin, sodium naphthalate, 2,4-D, etc.), and is also known as natural pesticides. Based on field visits to the selected counties in Sichuan, it is noted that the common bio-product - *Beauveria bassiana* - is widely used for almost all the pest control applications (if not all) in recent years. This product is a type of fungi, applied in smog form that is effective for control of most forest pests.
- Chemical pesticides: Chemical pesticide is used as a last resort, for severe and large-scale pest outbreaks.

76. This IPM approach is implemented nationwide and regulated by the National Forestry and Grassland Administration (NFGA⁵). This is particularly reflected in the performance evaluation indicators for forest pest control. NFGA enforces four key indicators for the performance evaluation of forest pest control stations at various level, these include: (1) accuracy of pest forecast (>90%); (2) rate of pest control operation using non-hazardous methods, i.e. non-chemical pesticide use (>80%); (3) rate of plant quarantine at local sources (100%); (4) rate of forest pest

⁵ The former State Forestry Administration has been renamed as National Forestry and Grassland Administration (NFGA) in the recent institutional reform in China. The new NFGA is put under the new Ministry of Natural Resources.

and disease outbreak (<0.3%). To promote the use of non-hazard pest control practice, NFGA also issued a *List of Recommended Pesticide Products and Safe Equipment for Forest Pest Control (2005)*. This document emphasizes the IPM approach, with a comprehensive list of natural biological and low-toxic synthetic pesticides, as well as a series of equipment with good safety performance.

77. Based on field visit and discussion with provincial/county level PCSs and township FWSs, it is noted that Sichuan province has good performance of pest control. In terms of use of non-hazardous methods, the rate is 97.47%. According to the field investigation biological agents (*Beauveria bassiana*) are used for the major part of pest control activities. Only one synthetic chemical pesticide has been used for large scale outbreak control, i.e. Chlorantraniliprole (CORAGEN) during recent years. It is a low toxic pesticide, i.e. Chlorantraniliprole is classified as U (Unlikely to cause acute hazard) in the WHO Recommended Classification of Pesticides by Hazard. According to field visits and discussion with county FGBs, it is noted that many counties haven't used any pesticides for long time for forest pest control, e.g. in Ebian and Qianwei counties visited by the task team, it is learned that except occasionally traps are used for pest control, none of pesticide is used for over 10 years.

78. **Assessment:** The pest control system in Sichuan is well established and implemented by professionally certified service providers following the principle of IPM approach. It focuses on source prevention and monitoring/ forecasting and promotes use of physical and natural/biological methods for pest control through operational procedures guaranteed by established institutional accountability system. Low toxic pesticides are used following national guidelines and are only used rarely in major pest outbreak cases by professional staff from forestry authorities/certified companies.

General Pesticide Management System

79. For forest pest control, forest departments are only an end user of pesticides. In China, pesticide production and sale are strictly regulated by Ministry of Agriculture (MOA⁶) and its local level departments, under the legal framework of the *Pesticide Management Regulation (SC, 2017)*. The *Regulation* establishes a national pesticide registration system, which ensures that all pesticides must obtain approval prior to entering the market. It also establishes production permit system for production, and a sale permit system for pesticide product sales. All pesticide dealers (shops) must apply for sale permit from county (or above) level Agricultural Bureaus (ABs).

80. According to the *Pesticide Sale Permit Management Regulation (2017)*, dealers applying for sale permit must provide proof of staff qualification, i.e. at least college level education with major in agriculture, plant, pesticide and other relevant fields, or at least 56-hour training certificate from special pesticide use training organizations. For dealers selling *restricted used pesticides*, they must have technical staff with professional knowledge of such pesticide use and have minimum two years of working experiences in the field of agriculture, plant protection and pesticide use. It is required that all the dealers establish log records for source of pesticide products

⁶ MOA has been renamed as Ministry of Agriculture and Rural Affairs in the recent government institutional reform.

and end use buyers. Dealers are also required to provide detailed explanation and guidance on pesticide use to buyers. The enforcement of pesticide management is implemented by enforcement teams of Agriculture Bureaus at various levels, through on spot inspection on dealers.

81. As mentioned in Section 4.1.3, to regulate the safety of pesticide use, a number of technical guidelines and regulations have been put in place to guide the safety storage, transportation, sale and use. MOA is also maintaining a dynamic *List of Forbidden and Restrictive Use Pesticide* which include a list of high-toxic pesticides that are for restrictive use or phased out. Based on consultation with PCSs in Sichuan province and document comparison, none of pesticides in the NFGA recommended list falls in the MOA restrictive use/forbidden use list.

82. As part of the general pesticide management system under MOA, all counties in China have a county-level agricultural technology extension/plant protection work station, which has a mandate in providing technical services and training to farmers, including training on safety of pesticide use. For instance, in Jianwei county of Sichuan province, the county agricultural work station conducts 153 training workshops in 2017, with participation of about 1500 agricultural farmers, in addition, other training events (mobile education car, distribution of training material, posters etc.) are carried out to cover about 200,000 farmers every year.

83. **Assessment:** There is a comprehensive pesticide management system in China, with well-established registration and permit system for production and distribution, and comprehensive set of regulations and guidelines for safety management and supervision related to pesticide storage, transportation and application.

4.2.3 Forest Fire Prevention and Control System

84. Fire prevention and control is an extremely important part of forestry management. The forest fire prevention and control system are established under the umbrella legal framework of *Regulation of Forest Fire Prevention (SC, 2008)*.

- (a) Heads of the local governments at various levels are held accountable for forest fire prevention and control within their jurisdictions. Forest fire prevention and control organizations are established at county (and above) level governments, with heads of the governments as leaders and various government departments as members. FGBs at county and above level are responsible for daily management and supervision of routine forest fire prevention works. Forest owners/farmers are responsible for fire prevention and control of their forest land.
- (b) All county (and above) governments have developed their forest fire emergency response plans. County governments also organize township governments to develop township level forest fire emergency plans, with detailed arrangements at township and village levels.
- (c) Forest fire response teams are established at village, township and county level governments. A special armed forest force is also established in China, with dedicated task for forest fire control, and can be called by county governments for major fire accidents.

In addition, People's Liberation Army is also standing-by to respond to major forest accidents.

85. Mandatory forest fire drills are implemented, at least once a year at county level. County FGBs organize regular forest fire prevention and control training for response teams at county level (typically on quarterly basis), and once or twice at township/village level; There is an established forest fire duty system at county (and above) governments, with 2420 special hotline and dedicated staff on duty; Daily forest patrol and fire monitoring is implemented by forest rangers at village level, as well as staff of FWS at township levels. In addition, there is also a provincial-wide forest fire monitoring network, with CCTV and watching tower system for key areas prone to forest fire. In addition, at national level, there is a nationwide real-time satellite forest fire monitoring system in NFGA, which provides high resolution and timely reporting of any forest fire events. Very often, this satellite system provides much quicker detection and response than the local monitoring system.

86. Based on field visit, it is noted that Sichuan has established a complete forest fire prevention and control system, which is effective in managing forest fire accidents. For instance, there were 159 forest fire reported in 2017, with total forest damage of 1,002 ha (damage rate is 0.0057%).

87. **Assessment:** Based on the review, it is noted that forest fire prevention and control system in Sichuan is well established, with comprehensive institutional setup and monitoring and response procedures. This system is found effective and well maintained.

4.3 Implementation Agencies and Capacity

88. The main implementation agencies involved in the Program include FGBs at provincial, municipal and county level, forest pest control stations under these three level FGBs, as well as FWSs at township level. The main responsibilities of these agencies for the implementation of the Program are described as follows:

General forestry management

89. At provincial level, the provincial FGB is responsible for the overall implementation of the Program in the province, including development of provincial afforestation, tending and natural regeneration promotion plan; management and supervision of the Program implementation; evaluation of Program performance of municipal and county level FGBs; guidance on forest fire prevention and pest control in the provinces; management of Program funds etc. There are about 100 staff in the provincial FGB, with more than 1,000 staff working in a number of its subordinate institutions, e.g. provincial forest science institute, planning institute, general forest work station, forest pest control station etc.).

- (a) Within the provincial FGB, the main divisions involved in afforestation/reforestation include:

- Afforestation Division: organize and direct afforestation and forest management works; organize the implementation of national and provincial key ecological forests programs; organize and guide pest control and quarantine to the afforestation and forest management;
- Forest Management Division: organize forest resources monitoring and statistics; supervise the completion verification of afforestation and forest management including tending and natural regeneration promotion; develop annual thinning/cutting plan.

(b) At municipal level, municipal FGBs are responsible for the implementation of the Program in the municipalities, including development implementation plans for the cities following the guidance of provincial FGBs; management and supervision of the Program implementation in the cities; evaluation of county FGBs in terms of Program implementation, etc.

(c) County FGBs are the actual Program implementation units at the local level, and are responsible for development specific implementation plans under the overall provincial plans; organization of afforestation and forest tending and regeneration activities; guidance and supervision on quarantine of tree seedlings and pest control; development and implementation of forest pest control plans for the counties; management of forest police force and fire prevention in the counties; and verification of results of all program activities.

Depending upon the size of forest resources, the county FGBs have different size of staff in different counties in Sichuan. Despite size difference, all county FGBs have generally similar internal setup, e.g. general administrative office, forest security office, afforestation design team, forest fire prevention office, pest control station etc. For instance, in Ebian county, there are 170 staff in the county FGB system, within which there 12 specialists/senior specialists in the Afforestation Design Team, 6 staff with certificate in PCS, 6 staff in fire prevention office. While, in Qianwei county which is not a major forest county, there are 27 staff in the county FGB, among which 5 staff in afforestation office/PCS, 10 in design team/technical center etc.

Under the county level, there are FWSs established at township level for each town. Typically, each FWS has around 3 staff, plus additional supporting staff contracted from villages under the township jurisdiction. These people provide technical support and guidance on forest management for villages, as well as on-site supervision of afforestation/reforestation and forest tending activities.

(d) Under the township level, each village has its own forest management responsibilities built in its management structure, with village chiefs and group leaders taking in charge. Patrol rangers are assigned at each village, responsible for routine forest monitoring for fire prevention, wildlife protection, illegal logging etc.

90. To ensure the capacity of forest management, county FGB organizes regular training to townships. For instance, Ebian county FGB has organized twice training for all the towns FWS

and relevant staff in 2018, with total participation of 474 person-times; Qianwei county FGB has organized two training with participation of 120 person-times from 30 towns in the county. These training covers aspects of forest plantation, maintenance, pest control, fire prevention, forest patrol etc. In addition to the training provided by county FGBs, township governments/FWS also organize similar training to local villagers, typically through weekly meetings and opportunities of on-site instruction/supervision. For example, in Ebian county, there are roughly about 8,000 person-times received such training every year from all villages in the county. Based on field interviews in Qianwei and Ebian county, local villagers expressed their confidence in knowledge of various aspects of forest management. Field observation from several afforestation site visits also indicates that environmental protection measures are well implemented on the sites and no evidence of environmental damage or soil erosion issues are identified.

91. **Assessment:** Based on consultation with various levels of FGBs in Sichuan and local communities in selected counties (Qianwei and Ebian), it is noted that the forest management institutions is comprehensively set up at various levels. Adequate management and technical skills and capacity are in place to ensure sound forest management. Sichuan province has made great achievement in the past years in terms of forestry management, in particularly in afforestation and increase of forest coverage, forest tending for forest restoration. For instance, since the “Greening Sichuan” decision made in 1989, total afforestation and forest tending area has reached 13.3 million ha, with increase forest area of 6.7 million ha and increase of forest coverage from 16.81% to 36%. This demonstrates that FGBs at various levels have proven competency in managing forest resources.

Forest Pest Control Stations at provincial/municipal and county levels

92. In Sichuan, forest pest control stations are well established at provincial, municipal and county levels under the leadership of corresponding FGBs at the same level.

- (a) At provincial level, the provincial PCS under the provincial FGB is responsible for overall forest pest control and plant quarantine management in the provinces; monitoring and forecast of pest disease trend; guidance and training of pest control etc. There are 20 staff working in the provincial PCS. These staff receive regular training from NFGA which is organized quarterly with participation of 1-2 staff very time. It also organizes training for the municipal and county PCSs staff, with about 200 staff trained every year.
- (b) The municipal FGBs have the similar responsibilities within the jurisdiction of respective municipalities. At county level, the county PCSs are responsible for implementing pest control and plant quarantine activities at the local level; develop pest control plans and treatment measures; provision of technical guidance and service to pest control; organize verifications of pest control results etc. Typically, county PCS has an average of 3-5 staff. These staff receive regular technical training organized by provincial/municipal FGBs, as described above.
- (c) At the township level, there is another layer of forestry institute, namely FWS, which provides assistance to the pest control work, including daily patrol for pest monitoring.

Each village has at least one dedicated forest ranger who is responsible for daily patrol to monitor the pest situation, forest fire, as well as illegal cutting and poaching activities.

93. Based on field visits and consultation with PCS at various levels, it is noted that pest control work is mainly monitoring of pest diseases. Once pest disease issue is identified, it is reported to county FGBs which will develop pest control plans. The pest and disease treatment may be conducted by technical staff of county PCSs or third-part service provider.

94. The third-party forest pest control service providers are commercial companies. There is a certification system established for the professional competency of such companies (as described in section 4.2.2) which ensures the technical capacity of such companies during their services.

95. **Assessment:** Forest pest control system is well established in Sichuan, with clear institutional setup and staff allocation. Professional certification system is in place to ensure that all staff exercising pest control have competent professional knowledge to handle pest control practice.

Forest Fire Prevention

96. Fire prevention is an important part of forestry management and is built in the institutional structure of FGBs. Fire Prevention Command Office is set up within each FGB at provincial, municipal and county levels, most of them are housed in the Forestry Police Division of the FGB. The main responsibilities of the Command Office are organizing and guiding forest fire prevention at corresponding levels; monitoring forest fire situation and publishing information, etc.

97. Forest firefighting teams are established at county, township and village levels. Typically, the county level forest firefighting team has about 30 staff (some counties may have much larger team, e.g. Ebian county has a team of 120 people), with necessary equipment. Some counties (where there is less forest resources) rely on county firefighting departments for forest fire control demand. At township and village level, the team normally have 15-30 part-time staff.

98. In addition to these arrangement, local firefighting departments at county (and above) level are always available and can be mobilized by local governments. Furthermore, there are special armed forest police force troops which can be called by county government for severe forest fire events. People's Liberation Army is also standing-by for significant fire incidents. Forest fire drills are exercised on a yearly basis, organized by county government, with participation of all relevant departments. Additional training is also regularly organized for emergency response teams.

99. **Assessment:** It is concluded that, as the accountability system is designed, forest fire prevention and control is given highest attention by government at all levels. There is comprehensive forest fire prevention and control system established in the province. There are clear institutional organizations at various levels of government, with well-established fire monitoring and response mechanisms in place.

4.4 Assessment of Environmental System against the Core Principles of Program

100. The legal framework for environment management in China is comprehensive and has been evolving toward international standards over the years. Based on this environmental management system review, it is concluded that in general, the environmental management framework is consistent with the World Bank Program Policy and Directive in terms of core principles and key elements. The domestic legal framework provides a reasonable basis for addressing environment issues likely to arise in the proposed Program .

101. An assessment of environmental management systems relevant to the activities supported under the Program for the core principles of Program policy is presented below, and the assessment of consistency with the Program directives are presented in Chapter VI.

Program Policy (a): Promote environmental and social sustainability in the Program design; avoid, minimize, or mitigate adverse impacts, and promote informed decision-making relating to the Program 's environmental and social impacts.

The legal framework of environmental management aims to promote environmental and social sustainability as ultimate objectives through comprehensive laws, regulations, guidelines, and institutional arrangements as described in chapter 4. These are supported by political commitment at the highest level for developing an Ecological Civilization.

The Program is fundamentally an environmental enhancement activity aiming at increasing forestry coverage, improving forest quality and enhancing ecosystem service functions, which is a direct contribution to environmental sustainability. There are low adverse environmental impacts which basically temporary, small-scale and site-specific, for which mitigation measures are integrated in the technical specifications and common practices for afforestation/reforestation, tending and forest regeneration activities. The above assessment of the relevant management systems and their implementation practice, as well as institutional capacity analysis demonstrates that the overall legal framework of environmental management in China is fully consistent with the Bank Program Policy in this regard.

Program Policy (b): Avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources resulting from the Program .

The environmental protection system in China emphasizes the protection, maintenance and rehabilitation of natural habitats through a comprehensive set of laws, regulations, guidelines and standards. This Program supports afforestation, tending of forest and natural regeneration promotion for forest restoration which are all environmental protection and ecological system enhancement activities, which are undertaken away from critical natural habitats with no negative impacts to the natural habitats. In fact, the Program is expected to significantly improve the forest ecosystem functions and quality, which will restore and rehabilitate landscape favorable to plants and animals.

The *Cultural Property Protection Law* provides adequate legal framework and procedures

for protecting physical cultural resources, including clear provisions for chance-find procedures which provide a legal requirement for any chance-find of culture resources during plantation process.

Therefore, the overall environmental management system and implementation practice of this Program is in line with this core principle of Program policy.

Program Policy (c): Protect public and worker safety against the potential risks associated with: (i) construction and/or operations of facilities or other operational practices under the Program ; (ii) exposure to toxic chemicals, hazardous wastes, and other dangerous materials under the Program ; and (iii) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.

The safety concern under this Program is mainly from the pest control practice in case of forest pest or disease is found, as well as forest fire prevention and control. This assessment concludes that there are well established forest pest and disease control and forest fire prevention/control systems in the Sichuan province, with comprehensive laws and regulations and institutional setup, well trained professional staff teams and full technical regulations/ specifications for personal safety protection. The overall legal framework is consistent with the core principle of Program in this regard.

CHAPTER V: SOCIAL MANAGEMENT SYSTEM AND PERFORMANCE ASSESSMENT

5.1 Legal Framework Applicable to the Program

102. In general, the Chinese legal framework includes three aspects: (i) The laws and regulations issued by the NPC (National People's Congress) and the State Council; (ii) The regulations, standards and technical specifications issued by the Ministries; (iii) The laws and regulations promulgated by the local People's Congress and local governments⁷. In general, it is assessed that a comprehensive social related legal framework has been established and put in place in Sichuan province and local government to appropriately address the potential social risks in forestry sector. The Program would further enhance the social safeguards by standardizing the consultations processes in community/farmers voluntary participation in the afforestation and forest management practice and improving the effective grievance redress mechanism.

5.1.1 Ethnic Minority Development

103. In China, more than 400 legal requirements and regulations concerning ethnic minorities cover almost every aspect of ethnic minority people's life, including political representation, cultural integrity and economic development, and etc. These laws and regulations include preferential treatment to promote the development of ethnic minorities and emphasize the fair access to all groups. Among them, *the Constitution of the PRC* and *the Law on National Autonomy of the PRC* establish a basic framework for all legislations.

⁷ Refers to provincial, prefectural and county level government.

104. In order to guarantee the legitimate rights and interests of ethnic minority people, The PRC, Sichuan province and prefectural level cities have formulated a series of policies and guidance on ethnic minorities development strategies/measures, cultural respect, consultation and participation, information disclosure, the support of vulnerable groups and other perspectives, to promote the unity and common prosperity of all ethnic groups.

- (a) **Regional Ethnic Autonomy.** Regional ethnic autonomy is a system under which ethnic minority inhabited regions establish autonomous authorities and execute the power of autonomy under the leadership of the national government. Autonomous regions may be established where one or more ethnic minorities inhabited communities, in the light of local conditions such as relationships among different ethnic groups and the level of economic development, and with due consideration of historical background. Within an ethnic minority autonomous region where other ethnic minorities inhabited communities, corresponding autonomous authorities or ethnic minority townships may be established (Article 12 of Regional Ethnic Autonomy Law of the People's Republic of China).
- (b) **Respect ethnic groups' views.** In addressing special issues concerning local ethnic groups, authorities of ethnic minority autonomous regions must conduct sufficient consultations with their representatives and respect their views. These authorities shall ensure that members of all local ethnic groups entitle the citizen rights as specified in the Constitution and shall educate them to fulfill their due obligations (Articles 51 and 52 of Regional Ethnic Autonomy Law of the People's Republic of China).
- (c) **Guarantee the political equal rights of minority groups.** *The Constitution of the PRC* stipulates that: "All ethnic minority groups are equal. The State guarantees the legal rights and interests of all ethnic minorities, and maintains and develops the equality, solidarity and mutual assistance between the various minority groups. Prohibit discrimination and oppression against any minorities".
- (d) **Support the development of poor ethnic minority areas.** *Notice of the State Council on printing the 13th FYP to promote the development of ethnic minority areas and minorities with less population* (No. 79, 2016 of the State Council) stipulates that: to support the development of the advantageous industries and the characteristic economy in the impoverished minority areas; to support the poor village of ethnic minorities, through the development of breeding industry and traditional handicrafts of ethnic minorities; to implement "One village, one product" industry promotion action and "Internet +" industry poverty alleviation in impoverished village; to implement the electricity business, photo-voltaic poverty alleviation and rural tourism poverty alleviation projects to increase the local people's income; to promote major infrastructure projects and construction to improve people's livelihood in ethnic minority areas with tackling the challenges and difficulties in the fields.
- (e) **Social Security of minorities.** *Notice of the State Council on the 13th FYP to promote the development of ethnic minority areas and minorities with less population* (No. 79, 2016 of the State Council) stipulates to: improve the basic social service mechanism in ethnic minority areas and provide protection for the masses in the aspects of old-age service, social assistance, social welfare and care resettlement; increase the investment in disaster relief for poor people

in the ethnic minority areas and improve the emergency rescue system; and support the health development of charitable cause in minority areas.

105. At Sichuan Province level, numbers of relevant Laws and regulations are also in place, which is briefed below.

- (a) Planning for promoting the development of ethnic minority areas. *The Opinions of Sichuan Provincial People's Government on the Implementation of 13th Five-Year Plan for Promoting the Development of Ethnic Minority Areas (2017)* put forward several opinions on promoting the overall economic and social development of ethnic minorities in Sichuan province. It develops detailed plans for poverty alleviation, infrastructure construction, development of advantageous industries, promotion of equal access to basic public services, construction of villages and towns with ethnic minority characteristics, promotion of ethnic cultural development, protection of the ecology of ethnic areas, promotion of ethnic unity, and improvement of ethnic minority affairs administration.
- (b) Developing ethnic culture. The *"Implementation Opinions of the Sichuan Provincial People's Government on Further Prospering and Developing the Culture of Ethnic Minorities"* (Chuanfu [2010] No. 11) stipulated to integrate the prosperity and development of ethnic minority culture into the overall planning of economic and social development. Before 2020, the four-level public cultural service networks in provinces, states (prefectures), counties, and townships (towns) covering ethnic minorities and ethnic areas should be basically established, and the construction of the community cultural information sharing platforms should be basically completed; the main indicators should be close to or to reach the average level in the province; the problems that minority people read newspapers, listen to radio and television, and carry out cultural activities should be solved.

106. **Assessment.** The State and Sichuan Province have formulated a series of comprehensive policies on ethnic minority's development, including respecting their views, safeguarding the political equality, respecting the manners and customs, supporting and planning the economic and social development etc.

5.1.2 Participation, Consultation and Information Disclosure

107. Policies to encourage voluntary participation of farmers in afforestation. The *13th FYP for precise improvement of forest quality* (NFGA, 2017) advocates farmer and community voluntary participation process and information disclosure; *Notice of the general office of Sichuan provincial people's government on the issuance of large-scale greening action plan for the whole province* (2016, No.73) stipulates to innovate the working mechanism, adhere to public participation, strengthen the ecological culture education and disclosure of public interest on afforestation, and encourage the whole society to take the initiative in greening action.

108. *Measures for the administration of forestry subsidy funds of the central finance* (2014) stipulates subsidy standards for the afforestation and forest management, encouraging farmers to participate in afforestation activities. State-owned forest farms, individual farmers, forestry workers and farmers' professional cooperatives shall get subsidy on afforestation, reforestation and forest quality enhancement with an area not less than 1 mu.

109. *Administrative measures for the examination and acceptance of afforestation subsidies from the central government* requests to check the area of afforestation areas, planter application for the activities, information disclosure and contract signing with planters of related projects.

110. Women's participation. *The Rural Land Contract Law (2003)* stipulates that women and men entitle equal rights. In addition, *Law on the Protection of Women's Rights and Interests of the PRC (1992)* stipulates that: the people's governments at or above county level shall, in accordance with the *Chinese Women's Development Program/outline (2011-2020)*, formulate plans for the development of women in local administrative region and incorporate them into the local economic and social development plans. The people's governments at or above county level shall guarantee the necessary working funds on women work at all levels with allocated budget. Special funds for the work on women's entitled rights should be established according to local conditions. *Women's Development Program /outline (2011-2020)* in Sichuan Province advocates to ensure that women entitle equal rights with men in land contracting and management rights, forest land use right, etc. In the meanwhile, encourage women to actively participate in ecological environment protection, and develop ecological agriculture and green industries.

111. Women employees' rights and equity. The "*Notice of the Sichuan Provincial People's Government on Issuing the Outline for the Development of Women (2011-2020) and Children's Development (2011-2020)*" stipulates the implementation of equal pay for men and women for equal work; the protection of female employees' labor rights and equity; the implementation and improvement of policies to protect rural women's land rights and equity; the revision of village rules and regulations in conflict with laws and regulations; and the implementation of practical skills training for rural women to improve their production and management levels as well as efficiency for farming activities and other engaged work.

112. Participation of poor groups. *Implementation plan of forestry poverty alleviation(2015-2020)* issued by Sichuan province requires that: in order to promote farmers' participation in ecological forest management and industrial forest development, the government should improve the policy of forestry development to build-up long-term mechanism of the increase of farmers' income from afforestation and forest management. Forestry authorities at all levels shall take full advantage of websites, newspapers and magazines and mobile platforms for consultation and information disclosure and encourage all stakeholders to participate in forestry poverty alleviation work.

113. **Assessment.** For the forestry activities under the Program, the national and Sichuan Province policies require information disclosure, voluntary participation of farmers, and encourage the participation of women and poor groups. However, there is no requirement in the current policy system to establish standardized community participation procedures in forestry programs to fully ensure the farmers' voluntary participation in the forestry activities, nor a standardized document on how to implement the public participation in forestry projects, in particular for the poor, women and ethnic minorities.

5.1.3 Grievance Redress Mechanism

114. Petition mechanism. Government in Sichuan province has established an integrated petition system to ensure that citizens have unimpeded channels to express their concerns and

grievance. *The petition Ordinance* (came into force on May 1, 2005) stipulated that citizens, legal representative or other organizations could use letters, emails, faxes, telephones, visits and other forms to make recommendations or raise complaints to the people's Governments at all levels, their views shall be dealt with by the relevant in charge departments according to the law (article 2). The relevant in charge departments of the Chinese governments at all levels shall accelerate the petition process and provide necessary assistant for the petitioners. No organization or individual shall retaliate against the complainant (article 3).

115. Petition Department. *The Petition Regulation* stimulates that governments at or above the county level shall establish petition departments; government departments at or above the county level and township/ town governments shall determine the institutions or personnel to be responsible for petition work. The roles and responsibilities of petition work of governments at or above the county level include: (i) receiving, handing over or forwarding complaints submitted by complainants to relevant in charge departments; (ii) undertaking the complaint cases assigned by the government at a higher level; (iii) coordinating and dealing with important complaint cases; (iv) supervising the handling of complaint cases; (v) studying and analyzing the situation of petition, carrying out investigation and research, and provide suggestions on improving policies and petition work to the government; (vi) guiding the petition work of other government departments at the same level and the petition departments at lower levels.

116. Forestry petition in Sichuan province. *Regulations on Petition work of the Forestry Department in Sichuan Province* requires a reception system of complaint cases by provincial forestry department leaders. The Forestry department leaders shall directly receipt the complainant and coordinate the complaint case. The following cases shall be handled by Sichuan Forestry Department: (i) the complainants raise the issues on the duties and actions of forestry departments and their staff; (ii) the complainants are dissatisfied with the handling of petitions by the forestry departments at the prefecture level and propose a review; and (iii) the complaint case under the jurisdiction of prefectural and county forestry departments can be directly accepted by provincial forestry department if necessary. After receiving the petition, the petition department shall inform the complainants in writing whether petition is accepted immediately. If the responses cannot be made immediately, the petition department shall notify the complainant in writing within 15 days after receiving the case. The complaint case shall be closed within 60 days from the date of acceptance.

117. **Assessment.** The state and Sichuan province have promulgated *The Petition Ordinance, Provisions on petition work in Forestry Department* and other regulations on grievance mechanism. The regulations require the establishment of petition agencies should be established at all levels from the township level to the provincial level, to receive the request, opinions and concerns from the complainant to ensure forest owners and operators' legal rights and entitlement.

5.2 Implementation of Social Management System

5.2.1 Implementation of ethnic minority development

118. The Program will contribute to the environment and income generation. It has no negative impacts on ethnic minority's livelihood and cultural/religious practices. The legal/institutional framework review is to ensure the free, prior, and informed consultations are undertaken and the communities will participate in the Program activities with equal opportunity and on a voluntary basis.

119. There are no potential social conflicts with other ethnic minorities identified in the program. Based on the initial consultation the program has been consulted and supported by the ethnic minorities. Field visits in Ebian Yi ethnic minority county found that Yi villages especially welcome the project and are willing to participate in the Program. They said that around 80% of local farmers have gone out for job and their income mainly comes from working outside; the government also provide preferential tariff for the use of electricity of 0.28yuan/kwh, therefore they are no-longer collecting firewood in the mountains because the easy access to low price for cooking. In addition, the local government provides them a subsidy of RMB 30,000 to each household to renovate the house if needed and carry out ecotourism activities. The program will help them develop ecotourism and increase their income.

120. Equal to the Han nationality, ethnic minority groups will voluntarily participate in this program. As the forest land management is owned by ethnic minority communities or individuals, they will make their decision based on informed program design on a voluntary basis. However, there is no standardized manual specifically on the consultation process of ethnic minority's participation, though the consultation practice is undertaking for the current government forestry programs. In accordance with the national requirements for the development of minority nationalities, Sichuan province has compiled the "13th FYP" to promote ethnic minority development planning in ethnic minority areas. The development of ethnic minorities was combined to targeted poverty alleviation, and the protection and development of special villages, so as to promote the development of ethnic minorities.

121. Implementation of ethnic minority policies in Sichuan province. (a) *The 13th FYP of Poverty Alleviation in Sichuan Province* is implemented in the poor areas including ethnic minority regions. It supports the public welfare projects related to the production and living conditions improvement of farmers and herdsman, which focus on financing the agro-pastoral programs with local characteristics; promote the adjustment and upgrading of rural industrial structure in ethnic areas, broaden the ways in increasing income and herdsman, improve the transfer payment approaches to ethnic areas, continue to strengthen the development of poverty alleviation, the needed training and other projects; (b) *Protection and development of the villages or townships with minority characteristics in Sichuan Province* program is contributing to integrating the protection and development of special villages or townships into the overall planning of local economic and social development. Giving the local government plays a leading role in the program implementation, all relevant resources have been used to support the protection and development of the villages or townships with minority characteristics.

122. Assistance on Ethnic Minority Poverty Alleviation. Since the spring semester of 2016, Sichuan Province launched "15-years free education", completely abolish the tuition and textbook fee for three-years kindergartens and three-years public high schools in 51 counties (cities) of ethnic autonomous areas. During 2016 to 2019, Sichuan Province also invested a total of RMB

1.255 billion for free kindergarten and public high schools, benefiting more than 900,000 children and more than 300,000 high school students.

123. Skills training in ethnic minority areas. The skill training for ethnic minorities are undertaking in all ethnic minority areas. For instance, the Bureau of Human Resources and Social Security of Liangshan Yi Autonomous Prefecture have implemented skill training for poor families to create more job opportunities. In 2017, Liangshan Yi Autonomous Prefecture provided training for total 60,250 people, including 41,585 poor people, accounting for 69.2% of the total participants. The labor training cost total RMB1.56 million yuan. The income per capita for the poor households that participated in employment training increased to 4,270 yuan from 2,380 yuan. Training program for minority poor households included: folk culture; ethnic minority products; ethnic minority handicrafts such as clothing, silverware and silk; language training and introduction courses for poor laborers who do not speak Mandarin and lack of employment experience.

124. **Survey findings and assessment.** Sichuan province has attached great importance to the development of ethnic minorities and have formulated 13th FYP for ethnic minority development. These plans were combined closely with China's current targeted poverty alleviation or characteristic small-town planning. The ethnic minority development plan was mainly formulated by the provincial Ethnic and Religious Bureau and implemented by municipal and county Ethnic and Religious Bureau. In the process of planning implementation, municipal and county Ethnic and Religious Bureau have solicited the views from the ethnic minorities to respect their manners and customs. Equal to the Han nationality, ethnic minority groups will voluntarily participate in this program. As the forest land management is owned by ethnic minority communities or individuals, they will make their decision based on informed program design on a voluntary basis. However, there is no standardized manual specifically on the ethnic minority participation in a voluntary basis. The "Community Consultation Handbook" is proposed to be prepared to guide the consultation process including consulting with ethnic minority groups to ensure the community participation in a cultural appropriate way.

5.2.2 Implementation of Participation, consultation and information disclosure

125. Public participation, information disclosure and education. The information about the forestry programs is mainly disclosed by the FGBs' Network information platform, the forest Webchat public account, the mobile phone text message or the training course, etc. Counties have set up community forestry workstations which are responsible for forestry policy disclosure, new technology promotion and technical services. Farmers can learn forestry program information through on-site consultation, network articles, WeChat or training, and decide whether to participate in the programs or not.

126. The forestry authorities at all levels of Sichuan province set up an open government platform as public participation channel. Mainstream news media and government affairs micro-blog disclose and explain policies and regulations timely by providing materials, inviting interviews, participating in discussions, etc. The forestry portal is the first platform for open government affairs, and it publishes important meeting, key activities and important policies of

forestry in the first time. Through the leadership mailboxes, online interviews, public opinion collection, online investigation, complaints monitoring and other channels, the forestry departments have collected broadly public opinions and suggestions, and proactively accepted social supervision.

127. Procedures for voluntary participation by farmers. In implementing afforestation and forest quality improvement projects, county FGBs have procedures for community participation. There are no uniform provisions on the specific content of the procedures in each county, but the basic practices are described as follows:

- County FGB organizes townships or towns to carry out policy disclosure;
- Village conducts farmers' willingness survey;
- Townships or towns verifies the survey results and report to the county FGB;
- The county FGB issues a plan based on the survey;
- Farmers fill in the application form for voluntary project participation;
- Design institute prepares project implementation plan;
- County FGB signs a contract on afforestation and forest management with farmers and other entities;
- Carry out afforestation activities;
- The county FGB organizes professional and technical team carry out inspection and quality acceptance verification;
- After passing the acceptance inspection, the implementation performance and the expected subsidy payment arrangements will be publicized;
- The summarized verification report will be submitted to the county finance bureau for check, then the county FGB shall cash in the subsidy funds to farmers and afforestation unit in the form of "Social Security Card".

128. The survey in Ebian county and Qianwei county proven that the community consultations have been conducted and the local farmers participated in the government forestry programs voluntarily. It was found that the local communities/farmers are willing to participate in the government program. The main reasons are : (i) the outputs of afforestation and tending tree belong to individuals and communities and there are also subsidies provided from government; (ii) the program can help them improve the environment for ecotourism and their living conditions; (iii) the rehabilitated forests will also provide good conditions for them to develop understory activities; which will benefit to the income generation, which is in particular suitable for elder people and women, who are main residents living in rural areas; and (iv) the program can improve forest quality which will provide long-term benefits to households and communities.

129. Women's participation. Forestry development provides a broader development platform and space for women to engage in forestry production and management. Sichuan Provincial and county level FGBs carry out the trainings to local forestry staff and farmers on various forestry practical techniques such as seedling cultivation, planting, forest tending and thinning, fruit crop cultivation, soil testing and fertilization every year. Women are encouraged to take part in those trainings to improve their forest management skills. The field visits proven that the women are actively participating in the trainings and forest management activities. The Women Federation in

Ebian county said that women account for 60 percent labors involved in planting and forest management activities in the county-wide.

130. Participation of poor groups. *The 13th FYP of Poverty Alleviation* in Sichuan province have proposed clearly that the participation mechanism of poor groups, project information disclosure mechanism, democratic decision-making procedure, interest and need expression mechanism to be established and improved. The plan also pointed out that respect the opinions of people and respond to their needs is a part of poverty alleviation work. As part of poverty alleviation plan, information disclosure and participation of poor groups have been implemented in the practice of forestry programs.

131. World Bank loan forestry project experience. The previous World Bank financed forestry projects have good experience in community participation. The “Community Participation Handbook” was developed during project preparation and implemented in project period, which ensured the voluntary participation of all stakeholders and avoided the project social risks including the potential conflicts caused by the project intervention.

132. The “Community Participation Manual” includes community mobilization and inviting for participation, consultation with farmers and communities to understand their willingness of participating in the project and the preference such as tree species selections and technical model selections, as well as their concerns, and reached agreements on the proposed afforestation and forest management prescriptions and arrangements. Through consultation with farmers, technical plan has been designed, including selection of suitable tree species, afforestation model and model design, contractual arrangement of afforestation and forest management, etc. The community consultation process provided an opportunity for low-income farmers, poor households, minority households, women and other groups to participate in the project fairly, as well as enhanced the farmers’ ownership and awareness of forestland resources protection.

133. Social stability risks assessment. The review of previous projects and state and Sichuan Province laws, regulations and policies on the social stability risk assessment finds that social stability risks are assessed for the key projects following relevant policy requirements and emergency preparedness plans are also developed to address emergencies. Policies on social stability risk assessment are formulated based on the public consultation and participation approach. In conclusion, legal procedures on social stability risk assessment can be enforced in compliance with relevant requirements of public participation.

134. Survey findings and assessment. Sichuan province has established procedures for farmers' participation in afforestation and forest management activities, but there is no standardized requirement for the specific content of participation. Practices vary from place to place, with varying degrees of participation of farmers. Sichuan province has implemented World Bank-financed forestry projects since 1998, the "Community Participation Manual" has been developed during the project preparation phase and implemented during project period to ensure farmers' voluntary participation in afforestation activities. Given the good practice of community participation in World Bank loan projects in Sichuan province, it is proposed that the "Community Participation Manual" shall be developed under this program to regulate community participation activities under the program, especially to provide special consideration and a cultural appropriate

way for ethnic minorities, women and disadvantaged groups, to ensure the farmers' voluntary participation and the sustainability of project.

5.2.3 Implementation of Grievance Redress Mechanism

135. Provincial-municipal-county-township level petition mechanism and the mediation mechanism of forestry disputes have been established in Sichuan province. Forestry Petition Department under FGBs, Center for Comprehensive Management of Petition and Stability and other relevant departments are responsible for forestry petition work in coordination. The Petition Department of the Sichuan Provincial FGB is responsible for supervising and reporting complaints, registering, investigating, supervising, replying and filing. Complaints can be made by letter, visiting, telephone, fax or orally. The telephone number of the office is 028-83364031.

136. The Sichuan provincial Petition Department opens the letter within one working day of receipt, and handing within 3-4 days to relevant authorities.. The administrative authorities that has the right to deal with the petition cases shall resolve the matter within 60 days and issue the reply submission to the complainant according to the request. If the case is identified complicated, the time limit may be extended appropriately with the approval of the head of this administrative authorities, but the extension period shall not exceed 30 days.

137. County forestry dispute mediation. Counties issued regulations to protect the legal rights and interests of forest owners and operators, so that forest disputes can be resolved in the community level in accordance with the relevant laws and regulations and forest reform policies. Forest ownership disputes in the jurisdiction of township/ town are mediated by the township/ town government according to the law and the whole process of mediation are documented. Township/ town Government, County Hill Rectification Office, County Legal Office, County FGB, County Petition Bureau and other relevant departments are cooperated to handle petition cases.

138. Township forestry dispute mediation. Township Center of Comprehensive Management of Stability and Petition is responsible for reception and handling of community complaints. Full-time staff of Center of Comprehensive Management of Stability and Petition came from Comprehensive Management of Stability and Petition Office in town, Petition office and Office of Justice. The rest staff of the center belong to the Family Planning Office, the Financial branch, the Police Station, the Civil Affairs Institute, the agricultural station, the forestry station, the safety station, the water conservation station, schools and so on, they worked in turn and were arranged by the center. The reception personnel of the center decided whether to accept cases according to case, then reported to the center director after registration. The director wrote instructions or comments on undertakers, the latter completed the cases in accordance with the time stipulated in the action list and reported handling process to center.

139. **Survey findings and assessment.** Provincial-municipal-county-township level petition mechanism and the mediation mechanism of forestry disputes have been established in Sichuan province. The farmers can raise complains to local government and workstation such as the Village Committee, township Center of Comprehensive Management of Stability and Petition and County Petition Bureau. The issues that are able to be mediated should be solved at the community level; and the issues that cannot be solved at the community level can be escalated to the county

compliant bureau and FGB, the escalation process works properly. It is concluded that GRM system is effective and working properly in Sichuan/project areas.

5.3 Performance of Social Safeguards Management Agencies and Capacity

5.3.1 Management Agencies and Capacity of Forestry Department

140. Forestry departments. The forestry departments at all levels are responsible for forest project implementation and management, including Provincial, City and County FGBs; and Township forestry work station. The main responsibility and capacity assessment of the forestry departments are described in 2.3.

141. Farmers' participation is encouraged or implemented by county FGB, township forestry station and relevant village committee. They are familiar with the afforestation process and have rich experience in mobilizing villagers. County FGB organizes villages and townships to carry out policy disclosure, compile project implementation plans (planning and design), sign project contracts with afforestation farmers/units, and organize professional and technical team to carry out inspection and acceptance. Township organization and village committee cooperate with the county FGB to explore, mobilize and train farmers. Farmers voluntarily carry out afforestation activities on their own land and receive subsidies after passing the acceptance inspection for the work completed.

142. Forestry petition departments. The Office under the Provincial FGB is the Petition Office, its main responsibilities are: supervising the handling of major petition cases, coordinating the handling of emergency case and group conflict, handling the letters and visits of the people, guiding the province's forestry system petition work and so on. Provincial Forest Public Security Bureau is also the Stability Maintenance Office, the main leaders of the two departments (the petition office of Provincial FGB and Provincial Forest Public Security Bureau) formed the provincial comprehensive management and stability leadership team to jointly supervise petition cases in forestry sector.

143. **Survey findings and assessment.** Provincial, Municipal and County FGBs and township Forestry Work Stations are equipped with dedicated staff, facilities and workplaces. The petition office of Provincial FGB and Provincial Forest Public Security Bureau formed the provincial comprehensive management and stability leadership team to jointly supervise petition cases. Professional knowledge and skills training are regularly conducted. The source of the overhead expenses come from the fiscal budget and the funds are adequate.

5.3.2 Ethnic minority Management Agencies and Capacity

144. In order to promote the social and economic development, safeguard the rights and equity of ethnic minorities and respect their cultural characteristics, the provincial Ethnic and Religious Offices, as well as the municipal Ethnic and Religious Bureau, are equipped with experienced staff. Their responsibilities include: formulating the economic and social development plan of the ethnic areas and propose the relevant policy suggestions; analyzing the status of economic and social development of ethnic minorities; managing the funding and poverty alleviation work for minority areas.

145. The county's Ethnic and Religious Bureau is responsible for coordinating ethnic affair throughout the county, promoting equality, solidarity, mutual assistance and cooperation among ethnic groups, and protecting the legitimate rights and interests of ethnic minorities in accordance with the law; dealing with matters relating to ethnic relations; establishing and improving the comprehensive evaluation and monitoring system for the development of ethnic minorities; promoting the implementation of the national affairs service system and the informalization of ethnic affairs management. The county's Ethnic and Religious Bureau is also responsible for coordinating with the relevant departments to study and formulate special policies and measures for the development of ethnic minorities and ethnic minority communities in the county; cooperating with the relevant departments to do a good job in poverty alleviation for ethnic minorities; participating in the distribution of special loans and special funds for ethnic minorities, coordinating the relevant departments to promote the development of social, educational, scientific, cultural, public health and sports for ethnic minorities.

146. The Ethnic and Religious Bureau is mainly responsible for the relevant fund management and poverty alleviation in minority areas. Forestry projects implemented in minority areas are also responsible by the forestry sector. The implementation of forestry projects in minority areas have effective cooperation mechanisms in place between the forestry sector and the Ethnic and Religious Bureau.

147. **Survey findings and assessment.** The provincial-municipal-county-level Ethnic and Religious Bureau of Sichuan province is performed well and equipped with dedicated staff, facilities and workplaces. Professional knowledge and skills training are regularly conducted. The source of the overhead expenses is the fiscal budget and the funds are adequate.

5.3.3 Women's Federation Management Agencies and Capacity

148. China's constitution and national laws grant Chinese women equal rights with men in all aspects of people' life including political, economic, social, cultural and family life. The State Council established the National Working Committee on Children and Women (NWCCW) in 1990, which has been commissioned to organize, coordinate, guide, supervise and urge governmental departments in promoting gender equality and women's development. While the state supports the women's federation organizations in representing and safeguarding women's rights and promoting gender equality. As the organizational system of women's federations is established well from the top national level to the ground level of community, it has been playing an increasingly prominent role in conducting theoretical studies and carrying out publicity, education and training programs in relation to gender equality and women development.

149. The provincial Women's Federation. Provincial Women's Federation's main responsibilities are: guiding the province women's federations at various levels in accordance with the Constitution of the All-China Women's Federation and the decision and resolution of the women's congress. Working for women and children; contacting group members and giving professional guidance; organizing and mobilizing women to participate in various skills training; developing labor resources; promoting women's equal employment in urban and rural areas; safeguarding the legal rights and equity of women and children. In the meanwhile, investigate and study the issues of women and children and provide the basis for the decision-making of provincial governments. Strengthen the construction of women's organizations in urban and rural areas,

expand the network of organizations and expand areas of work. The provincial women's federation consists of offices, organization department, publicity department, ministry of women's development, ministry of welfare, children's work department, international liaison department, party committee and other departments.

150. The provincial FGB and the provincial Women's Federation jointly organize the annual rural women's forestry practical technical training at the community level, and organize forestry experts and technical team providing technical services on needed afforestation and forest restoration technologies to the countryside, to continuously improve the rural women's capacity on improving forest management as well as other needed skills for exploring more opportunities for their living.

151. By 2018, 230 associations have been established in Sichuan province, including women's hand-knitting association, green planting and ecological breeding association. 81 national poverty alleviation demonstration bases for women, 35 provincial-level demonstration bases for flexible employment for women, and 582 city-level and county-level bases have been established. Around 1,700 various sessions' practical technical trainings were carried out to local people, around 148,000 poor women found new jobs after training; around 16,500 poor women have received 420 million RMB of small-sum loans for poverty alleviation, and the business model of "cooperatives + Women's Federations + women" has been effectively promoted.

152. The main responsibilities of county-level Women's Federation are: establishing township/town-level Women's Federations, completing with village (Neighborhood committee) Women's Committee Director; setting up the work plan of Women's Committee in the county; organizing and mobilizing women throughout the county to devote themselves to reform; opening up and socialist modernization; and providing services to women and children on behalf of women in democratic management and supervision.

153. **Survey findings and assessment.** As the organizational system of Women's Federations is established from the top national level to community level. The Sichuan provincial FGB and the provincial Women's Federation jointly organized the annual rural women's forestry practical technical trainings at the community level and organized forestry experts and technical personnel to provide technical services to local people the countryside, to build up their capacity in better forest management as well as to improve other skill for explore more job opportunities for livelihoods.

5.4 Assessment of Local Systems and Capacity against Core Principles of Program

154. In general, the legal framework and implementation performance on afforestation and forest management, and ethnic minority development national-wide and in Sichuan are adequate. The legal framework of laws, regulations, policies and standards and implementation mechanism provided are consistent with the Bank Program for Results Policy and respective Bank Program for Results Directive.

Program for Results Policy (d): manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement, and assist the affected people in improving, or at the minimum restoring, their livelihoods and living standards; and

PforR directive(i): avoid or minimize land acquisition and related adverse impacts; identify and address economic and social impacts caused by land acquisition or loss of access to natural resources, including those affecting people lacking full legal rights to resources they use or occupy; provide compensation sufficient to purchase replacement assets of equivalent value and to meet any necessary transitional expenses, paid before taking land or restricting access; provide supplemental livelihood improvement or restoration measures if taking of land causes loss of income-generating opportunity (e.g., loss of crop production or employment); and restore or replace public infrastructure and community services that may be adversely affected by the Program for Results;

The assessment on social risks of the activities to be supported by the Program concluded that there would be no any land acquisition or significant social conflicts. As such management of land acquisition and resettlement is not available for the program. Returning farmlands to forests, forestland use right transfer and mountain closure activities were excluded from the Program. As such, on farmers livelihoods will be impacts by the Program.

Under the Program the afforestation /reforestation will be implemented in barren mountains and land unsuitable for agriculture and rehabilitation of degraded forests and promotion of natural regeneration will be undertaken in the existing degraded forest land to improve the quality of the forests, where state-owned land is around 30%, and collective owned, including the land use right contracted with farmers is 70% respectively. The land use right owners are managing their land and benefit from those lands. The government encourages farmers to participate in afforestation activities on a voluntary basis and provides subsidies (RMB 1,500-7,500 per hectare).Sichuan province has established procedures for farmers' participation in afforestation and forest management activities in the implementation process, but there is no systematic and normative requirement for the specific content of participation.

Program for Results Policy (e); give due consideration to the cultural appropriateness of, and equitable access to, Program for Results benefits, giving special attention to the rights and interests of the Indigenous Peoples and to the needs or concerns of vulnerable groups; and

Program for Results Directive(j): undertake free, prior, and informed consultations if the Indigenous Peoples are potentially affected (positively or negatively), to determine whether there is broad community support for the Program for Results activities; ensure that the Indigenous Peoples can participate in devising opportunities to benefit from exploitation of customary resources or indigenous knowledge, the latter (indigenous knowledge) to include the consent of the Indigenous Peoples;

Program for Results Directive(k): give attention to groups vulnerable to hardship or disadvantage, including as relevant the poor, the disabled, women and children, the elderly, or marginalized ethnic groups; and, if necessary, take special measures to promote equitable access to the Program for Results benefits.

Sichuan province is a multi-ethnic colony with 55 ethnic minorities. there are numbers of ethnic minorities living in the region, of which 14 ethnic minorities have a population of more than 5000 people. There are total 125 counties in 18 prefectures/Cities involved in the LSGS Program, and 35 counties in 9 prefectures/Cities expressed their willingness to implement the improved technical intervention that will be introduced by Program operation. Among the 35 counties (cities and districts), there are 326,800 ethnic minorities people (1.8%), mainly the Yi, hui and Miao ethnic groups. Of 35 counties, there are two Yi minority autonomous counties, 22 ethnic autonomous townships/towns, including 10 Yi, 8 Miao and 4 Hui autonomous townships respectively.

The program will contribute to the environment improvement and income generation. The Program has no impacts on ethnic minority's livelihood and cultural/religious practices. Ethnic minorities, equal to the Han nationality, will voluntarily participate in this program. The proposed "Community Consultation Handbook" will be used to guide the consultation process in an inclusive and cultural appropriate way.

The state and Sichuan province have formulated a series of policies on ethnic minority development, including respecting for minority views, safeguarding the political equality of ethnic minorities, respecting the manners and customs of ethnic minorities, supporting the development of ethnic minorities, and planning the economic and social development of ethnic communities.

Ethnic and religious affair management institutions have been established in provincial, municipal and county level in Sichuan province, with dedicated staff, work place and good equipment. The staff has a college degree or above and receives policy training every year, they have strong ability to carry out ethnic minority development program.

Program for Results Directive (L) give attention to groups vulnerable to hardship or disadvantage, including as relevant the poor, the disabled, women and children, the elderly, or marginalized ethnic groups; and, if necessary, take special measures to promote equitable access to the Program for Results benefits; and

As the organizational system of women's federations is established well from the top national level to the community level. The provincial FGB and the provincial Women's Federation jointly organized the annual rural women's forestry practical technical training at the community level, organize forestry experts and technical team providing technical services on afforestation and forest restoration technologies to women in the countryside, to build their capacity on forest management as well as to improve their various skills for exploring more job opportunities for their living.

The 13th FYP of Poverty Alleviation in Sichuan province has proposed clearly that carrying out poverty reduction should respect the opinions of people and respond to their needs, and the information disclosure and participation mechanism of poor groups needs to be well established. Implementation of poverty alleviation plan, information disclosure and participation of poor groups have been conducted in the practice of forestry programs. Furthermore, forestry poverty alleviation activities have been provided to poor people in

priority, such as recruiting poor farmers as forest rangers and developing eco-tourism in poor areas for their sustainable livelihoods.

Consider conflict risks, including distributional equity and cultural sensitivities. (NA)

CHAPTER VI: SUMMARY OF ASSESSMENT OF ENVIRONMENTAL AND SOCIAL SYSTEMES

155. This section of ESSA assesses the degree to which the Program systems are relevant to the Bank's Program for Results policy and directive, i.e.:

- (a) Promote environmental and social sustainability in the Program; avoid, minimize, or mitigate adverse impacts, and promote informed decision-making relating to the Program's environmental and social impacts;
- (b) Avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources resulting from the Program;
- (c) Protect public and worker safety against the potential risks associated with: (i) construction and/or operations of facilities or other operational practices under the Program; (ii) exposure to toxic chemicals, hazardous wastes, and other dangerous materials under the Program; and (iii) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards;
- (d) Manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement, and assist the affected people in improving, or at the minimum restoring, their livelihoods and living standards;
- (e) Give due consideration to the cultural appropriateness of, and equitable access to, Program benefits, giving special attention to the rights and interests of the Indigenous Peoples and to the needs or concerns of vulnerable groups; and
- (f) Avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes.

156. The ESSA concluded that the rules and regulations of environmental and social management system applicable to the Program are consistent with the Bank Program for Results Policy and the Bank Program for Results Directive. The summary of the assessments relevant for the activities to be supported under the Program is presented in Table 4. A few recommendations are proposed for further strengthening the implementation of the Program system which would be considered in the Program Action Plan (PAP).

Table 4. Assessment of Environmental and Social System based on the Bank Policy for Program

Policy (a). Promote environmental and social sustainability in the program design; avoid, minimize, or mitigate against adverse impacts; and promote informed decision-making relating to a program’s environmental and social effects.		
Key Elements	National and Provincial Systems	Key Findings
Operate within an adequate legal framework and regulatory authority to guide environmental and social impact assessments <i>at the programmatic level</i>	<p>China has developed an adequate legal framework for environmental and social impact assessment, backed by a set of comprehensive laws, regulations, technical guidelines and standards, which apply nationwide. The assessment of the legal framework in section 4.1-4.3 and 5.1-5.3 demonstrates that there are well-established environmental and social management framework and institutional systems with satisfactory implementation performance to address the potential environmental and social issues related to the Program activities.</p> <p>Due to the environmental protection and ecological enhancement nature of the activities, the Program will have little adverse environmental and social impact.</p> <p>Environmental protection is inherent in the Program activities and will be incorporated into the project design; thus, no additional, separate environmental impact assessment document is required.</p>	Consistent.
Incorporate recognized elements of environmental and social assessment good practice, including: (a) early screening of potential effects; (b) consideration of strategic, technical, and site alternatives (including the “no action” alternative); (c) explicit assessment of potential induced, cumulative, and trans-boundary impacts; (d) identification of measures to mitigate adverse	<p>As mentioned above, this Program itself is an environmental protection and ecological enhancement action which is expected to have little or no adverse environmental and social impacts. According to the screening principle of the country EIA system, the activities under the Program do not need additional EIA document. The ES due diligence and management arrangements for the Program activities will be contained in detailed afforestation/tendering/natural regeneration promotion design documents and mainstreamed into implementation through technical specifications and acceptance verification process.</p> <p>In addition, the Program activities are selected based on a bottom-up participatory approach, i.e. voluntary participation by forest owners/farmers through consultation and consensus.</p>	Consistent.

<p>environmental or social impacts that cannot be otherwise avoided or minimized; (e) clear articulation of institutional responsibilities and resources to support implementation of plans; and (f) Responsiveness and accountability through stakeholder consultation, timely dissemination of Program information, and responsive grievance redress measures.</p>	<p>The environmental and social impact/risks mitigation practice, policies systems assessed in Chapter 4 and Chapter 5 indicates that relevant elements of these requirements are integrated in the Program activity implementation process which can adequately address the environmental and social risks and impacts of the program.</p>	
<p>Policy (b). Avoid, minimize, and mitigate against adverse impacts on natural habitats and physical cultural resources resulting from the Program .</p>		
<p>Key Elements</p>	<p>National and Provincial Systems</p>	<p>Key Findings</p>
<p>Includes appropriate measures for early identification and screening of potentially important biodiversity and cultural resource areas.</p>	<p>The afforestation, forest tending, and natural regeneration promotion activities are implemented with objectives of ecological environment improvement and biodiversity protection. Relevant guidelines include explicit provisions for biodiversity protection measures during the tree plantation and forest tending operations. As currently designed, the important biodiversity (e.g. nature reserves or protected areas) and cultural resource areas will not be involved in this program.</p>	<p>Consistent.</p>
<p>Supports and promotes the conservation, maintenance, and rehabilitation of natural habitats; avoids the significant conversion or degradation of critical natural habitats, and if avoiding the significant conversion of natural habitats is not technically feasible, includes measures to mitigate or offset impacts of the Program activities.</p>	<p>The Program itself is action to promote the conservation, maintenance, and rehabilitation of natural habitats. However, the Program areas are excluded the critical natural habitats and there is no conversion or degradation of natural habitats involved in the Program activities.</p>	<p>Consistent.</p>
<p>Takes into account potential</p>	<p>The <i>Cultural Property Protection Law</i> provides adequate legal framework</p>	<p>Consistent.</p>

adverse impacts on physical cultural property and, as warranted, provides adequate measures to avoid, minimize, or mitigate such effects	and procedures for protecting cultural resources. The Program will not affect any known cultural resources, and for the potential chance-find during the implementation, the <i>Cultural Property Protection Law</i> provides explicit procedures to be followed to ensure that physical cultural resources found are properly handled.	
Policy (c). Protect public and worker safety against the potential risks associated with (a) construction and/or operations of facilities or other operational practices developed or promoted under the Program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.		
Key Elements	National and Provincial Systems	Key Findings
Promotes community, individual, and worker safety through the safe design, construction, operation, and maintenance of physical infrastructure, or in carrying out activities that may be dependent on such infrastructure with safety measures, inspections, or remedial works as appropriate.	The Program does not include design, construction or operation of physical infrastructures.	N/A.
Promotes the use of recognized good practice in the production, management, storage, transport, and disposal of hazardous materials generated through the Program construction or operations; promotes the use of integrated pest management practices to manage or reduce pests or disease vectors; and provides training for workers involved in the production, procurement, storage, transport, use, and disposal of hazardous chemicals in accordance with international guidelines and	The forest pest control practices under the Program use integrated pest management method, with successful implementation practice minimizing the use of chemical pesticide. In case of chemical pesticide is used, the non-toxic and low toxic pesticides are used following national guidelines. There is comprehensive management system for pesticide production, transportation, storage, sale and use in place in China. The forest pest control persons are professionals with qualification certificates through training.	Consistent.

conventions.		
Includes measures to avoid, minimize, or mitigate community, individual, and worker risks when the Program activities are located within areas prone to natural hazards such as floods, hurricanes, earthquakes, or other severe weather or climate events.	China has well established weather forecast and geological hazard forecast (e.g. earthquake, flood, mud and stone flow etc.) systems at both national and local level. Afforestation and forest tending operations depend upon proper weather conditions and will not be implemented when potential weather or geological hazard is expected.	Consistent.
Policy (d). Manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement, and assist the affected people in improving, or at the minimum restoring, their livelihoods and living standards;		
Key Elements	National and Provincial Systems	Key Findings
Avoids or minimizes land acquisition and related adverse impacts; identifies and addresses economic and social impacts caused by land acquisition or loss of access to natural resources, including those affecting people who may lack full legal rights to assets or resources they use or occupy.	<p>The program would not be any land acquisition or significant social conflicts. As such management of land acquisition and resettlement is not available for the program.</p> <p>In terms of the items of afforestation /reafforestation, rehabilitation of degraded forests and promotion of natural regeneration under the Program, these three types activities will be implemented in either barren mountains and land unsuitable for agriculture or existing degraded forest land, where include state owned land for around 30%, and collective owned land including the land contracted its use right to individual for around 70%. Returning farmlands to forests and forestland use right transfer was excluded from the Program.</p> <p>The natural regeneration promotion activities will be implemented in state-owned forestlands and the Program supports technical intervention to promote nature regeneration.</p> <p>The government encourages farmers to participate in afforestation activities with providing subsidies to the afforestation and forest management activities, and land use right owner will participant the Program on a voluntary basis.</p> <p>As such, no farmers livelihoods impacts by the Program.</p>	<p>Consistent.</p> <p>However,</p> <p>There is no standardized program of voluntary participation of farmers/ communities</p> <p>Standard procedure for consultation and participation need to be improved, in particular, for women, ethnic minority groups and poor participation</p> <p>The WB loan forest projects have good experience in community participation.</p>

Provides compensation sufficient to purchase replacement assets of equivalent value and to meet any necessary transitional expenses, paid prior to taking of land or restricting access.	Not applicable	
Provides supplemental livelihood improvement or restoration measures if taking of land causes loss of income-generating opportunity (e.g., loss of crop production or employment). Restore or replace public infrastructure and community services that may be adversely affected by the Program.	Not applicable	
Policy (e). Give due consideration to the cultural appropriateness of, and equitable access to, Program benefits, giving special attention to the rights and interests of the Indigenous Peoples and to the needs or concerns of vulnerable groups		
Key Elements	National and Provincial Systems	Key Findings
Undertakes free, prior, and informed consultations if Indigenous Peoples are potentially affected (positively or negatively) to determine whether there is broad community support for the Program.	<p>The program will contribute to the environment and income generation. The Program has no impacts on ethnic minority's livelihood activities and cultural/religious practices. The legal/institutional framework review is to ensure the free, prior, and informed consultations are undertaken and broad community support for the activities.</p> <p>There are no potential social conflicts with other ethnic minorities identified in the program. Based on the initial consultation the program has been consulted and supported by the ethnic minorities.</p> <p>In Sichuan, ethnic minorities, equal to the Han nationality, will voluntarily participate in this project. As the forest land management is owned by ethnic minority communities or individuals, they will make their decision based on informed of program design and on a voluntary basis. The proposed</p>	<p>Consistent.</p> <p>The participation in activities to be supported under the Program is voluntary for ethnic minorities, i.e. they have the option to remain disengaged, in which case there would be zero changes to their livelihoods or their physical environment.</p> <p>Public consultation and participation activities need to</p>

	<p>"Community Consultation Handbook" would be developed to guide the consultation process in an inclusive and cultural appropriate way.</p> <p>The state and Sichuan province have formulated a series of policies on ethnic minority development, including respecting for minority views, safeguarding the political equality of ethnic minorities, respecting the customs of ethnic minorities, supporting the development of ethnic minorities, and planning the economic and social development of ethnic communities.</p> <p>The current legal framework supports the legal rights and interests of the minority nationalities and upholds and develops a relationship of equality, unity and mutual assistance among all of China's nationalities,</p>	<p>be further considered in proposed "Community Consultation Handbook".</p>
<p>Ensures that Indigenous Peoples can participate in devising opportunities to benefit from exploitation of customary resources or indigenous knowledge, the latter (indigenous knowledge) to include the consent of the Indigenous Peoples.</p>	<p>Ethnic minority development and project management are responsibilities of Provincial Department of Ethnic and Religious Affairs and bureaus of ethnic and religious affairs of all counties in Sichuan province.</p> <p>During daily work, an organizational structure has taken shape, which comprises ethnic and religious affairs, finance, environmental protection and other relevant authorities, whose roles and responsibilities are clearly defined and who collaborate with each other, hold joint meetings every year, supervise and inspect implementation of relevant activities and address relevant issues.</p>	<p>Consistent.</p>
<p>Gives attention to groups vulnerable to hardship or disadvantage, including as relevant the poor, the disabled, women and children, the elderly, or marginalized ethnic groups. If necessary, special measures are taken to promote equitable access to the Program benefits.</p>	<p>The 13th FYP of Poverty Alleviation in Sichuan province has proposed clearly that carrying out poverty reduction should respect the opinions of people and respond to their needs, and the information disclosure and participation mechanism of poor groups needs to be well established. Implementation of poverty alleviation plan, information disclosure and participation of poor groups have been conducted in the practice of forestry programs.</p> <p>Sichuan Provincial Ethnic Affairs Commission established <i>the Work program on poverty alleviation in minority villages in 2017</i> and set principle of "five precise" in poverty alleviation work. The leaders of the Ethic and</p>	<p>Consistent.</p> <p>the petition system from province to township level is one of the effective ways to express the interests of citizens.</p>

	<p>Religious Bureau have been arranged to serve as the first secretary to help minority villages off poverty.</p> <p>The opinion was issued by Sichuan provincial Women Federation to guide poor women to be resolute in poverty alleviation through information disclosure, organizing employment skills training, promoting small loans and playing the role of commonweal organizations to help poor women. Women's federations at all levels worked closely with the poverty alleviation Office to push poor women out of poverty.</p> <p>As the organizational system of Women's Federations is established from the top national level to the ground level of community. The Sichuan provincial forestry department and the provincial Women's Federation jointly organized the annual rural women's forestry practical technical training at the community level, or organization forestry experts and technical team providing technical services on afforestation and forest restoration technologies to women in the countryside, to build their capacity on forest management as well as to improve their various skills for exploring more job opportunities for income generation.</p>	
Policy (f). Avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes		
Key Elements	National and Provincial Systems	Key Findings
Considers conflict risks, including distributional equity and cultural sensitivities.	Not applicable	

CHAPTER VII: STALKHOLDERS CONSULTATION

157. A series of consultations with relevant government departments have been conducted during the preparation missions of the Program (July, November of 2017, and November of 2018 respectively), including the consultations with project officials from NFGA, representatives from Sichuan provincial FGB, provincial forest PCS, provincial Finance Bureau, provincial EPB, Sichuan Forestry Academy, Sichuan Forestry Planning Institute, Leshan Municipal FGB, Qianwei County FGB, Qianwei County EPB, Qianwei County Forest PCS, Qianwei County Agriculture Bureau, and social related departments, including representatives from provincial and county level Poverty Reduction Offices, Office of Ethnic and Religious Affairs Women's Federations, Petition Bureau and etc.

158. Field visits were also conducted in Gujing village and Didigu village of Heizhugou town in Ebian county, and Heping village of Qingxi town and Dengta village of Tongxing town in Qianwei county, during the field visits consultations with local farmers were conducted. The main findings are summarized in annex 4.



Field visit in Ebian Yi ethnic minority county and Qianwei county

159. On the environmental and social management, the consultation mainly focuses on the identification of Program potential environmental and social risks /impacts and the alternative mitigation measures, forest pest control and forest fire risk prevention and response systems and

their implementation, as well as effectiveness of community or farmers participation and consultation process, grievance redress mechanism, in particular for ethnic minority and vulnerable groups participation. While collecting information from stakeholders participated in the consultation, Bank's Program principles and requirements were also introduced to the stakeholders, based on which discussions on the consistency and performance compliance were carried out.

160. Based on these discussions, it is concluded that the national/local legal framework are materially consistent with the Bank's policy principles. There is adequate institutional arrangement in place to address the potential environmental and risks and impacts related to the Program activities, and implementation of the environmental and social management system is effective based on the observations from the field visits as well as from experiences of previous World Bank forestry projects in China for the decades.

161. A formal consultation workshop on the draft ESSA report was conducted on June 26, 2019 in Chengdu. The draft ESSA report has been translated into Chinese for locally disclosure in the website of Sichuan Provincial FGB and circulated among relevant stakeholders prior to the consultation workshop. There are total 34 participants from the key stakeholders, including provincial FGB, Finance Bureau, ERAB, Poverty Alleviation Office, PB, PCS, Forestry Academy, Sichuan Forestry Planning Institute, as well as representatives from county level FGBs, PCSs, EPBs, PBs, WFs, ERABs etc. During the workshop, the key findings and recommendations are broadly accepted by the participants. A number of comments were raised by the participants for further clarification and improvement of the report. The main feedbacks from the workshop were collected and responded in the meeting and have been incorporated in the finalization of this ESSA. The main comments from the workshop and the responses are summarized in the **Annex 3**.



ESSA Consultation Workshop in Chengdu (2019.6.26)

CHAPTER VIII: RECOMMENDATIONS

162. Based on the assessment of the environmental and social management system applicable to the proposed Program, it is concluded that the comprehensive sets of environmental and social management systems are in place to address the environment, health and safety, as well as ethnic minority's concerns related to the proposed activities under the Program. Such systems are principally well-aligned with the core principles and key elements as defined in the World Bank Program Policy and Directive. As the Program is designed, afforestation, forest tendering and restoration are environmental enhancement activities and would have little or no adverse environmental and social impacts, the overall risk from environmental and social safeguards perspective is rated as low.

163. With general consistency of the environmental and social system with the Bank's policy, there are rooms of improvement for certain aspects in implementation enforcement and capacity building identified though this ESSA, based on which the following recommendations are proposed to the Program Action Plan.

Recommendation 1: Formulating a Community Participation Manual

164. The participation of communities and farmers in the program planning and implementation process is an effective tool to create ownership and to ensure that long-term forest management is sustained. Given the good practice of community participation in the previous World Bank loan projects in the Sichuan province, it is proposed that the "Community Participation Manual" to be developed to support the communities' and farmers' engagement procedure. The objectives and purposes of the Manual are: (i) to formulate a procedure to ensure that the participation of communities and farmers is voluntary and that there is the option not to engage in the project without experiencing disadvantage or repercussions (aside from forgone project benefits); (ii) ensure equal access to participate in, and benefit from the projects in an inclusive and cultural appropriate way, especially for ethnic minority groups, women, poor and disadvantaged groups; (iii) to understand communities' and farmers' willingness of participating in the program and their preference regarding the project's technical design, including choice of appropriate tree species, forestation models, and subsequent management, etc.; (iv) to enhance stakeholders' ecological protection awareness by training and education program; and (v) to agree with on actions to avoid or mitigate the risks and conflicts with relevant stakeholders affected by the program.

165. The main contents of the Manual include : i) purpose of the manual; ii) scope of application; iii) establishment and training of the consultation team; iv) procedures to encourage voluntary participation of farmers, mainly including community mobilization and voluntary application of farmers; consultation among relevant stakeholders; sign the project contract; and v) monitoring the performance of community participation. In addition, the manual will encourage the ethnic minority groups, women, and poor to participate the program.

166. The preparation of the community participation manual is one of the Program Action Plan. Before the program implementation, the manual was drafted by April 30, 2019, and is being piloted in some first batch afforestation counties as well. After consultation with 35 counties, Sichuan PMO issued the manual by October 31, 2019. In addition, after several training workshops being

conducted to publicize and promote the manual, and the manual will be put into implementation by December 31, 2019.

Recommendation 2: Capacity training on environmental and social safeguards

167. The assessment concluded that there are sound institutional arrangements and capacity in place to address the potential environmental and social risks and impacts related to the Program. While, as the Program is designed to include general capacity building activities, it is recommended that environmental and social risks and impacts management is also built into the general training program in order to further enhance the systematic knowledge and skills of the staff of FGBs at provincial/municipal and county levels, as well as the FWS at township level and forest patrol rangers and villagers participating in the Program, to handle environmental and social issues in line with international good practice, and include appropriate, clear and actionable provisions into the project's design documents. The key areas of training should focus on methods and procedures of community participation in Program activities; participation of ethnic minorities, women and poor peoples; continuous and systematic training on technical specifications of afforestation/reforestation and forest management; safety measures of forest pest control practice; forest fire monitoring and emergency responses; and awareness of forest protection for landscape restoration.

Annex 1: Initial Environmental and Social Screening

Government Program Activity	Activity Description	Environmental Impact	Social Impact/risks	Suitability for Program
1. Afforestation and reforestation	a. Afforestation/reforestation in waste land planned for forest; b. Mountain closure for natural regeneration and rehabilitation of existing forest;	Environment benefits; Temporary surface disturbance and potential soil-erosion; safety of pest management practice	Subsidy payments (100-500yuan per mu) No land acquisition and resettlement No livelihood impacts Community/farmer participation Grievance Redress Mechanism	YES for afforestation/reforestation, and natural regeneration promotion in state owned land. Small scale forest land use right transfer (around 2%) and mountain closure are excluded.
2. Planting along the upper reaches of Yangtze River and wetland protection	a. Afforestation and reforestation in the watersheds of Yangtze River basin and its tributaries, namely, Jinsha River, Yalong River and other tributaries; b. Protecting of 1.67 million hectares of wetlands and 60 wetland parks.	Potential disturbance of sensitive ecological fragile areas; Temporary surface disturbance and potential soil-erosion;	Wetlands protection may have livelihood impacts caused by the constraint on natural resources access.	Not for wetland management. Only afforestation and reforestation activities in the watershed areas are included in the Program.
3. Forest quality improvement	a. Enrichment of broadleaf trees to fill the canopy gaps and diversity tree species to the existing monoculture forest; b. Improvement of superior trees and more diverse species through tendering;	Environment benefits; Temporary surface disturbance and potential soil-erosion; safety of pest management practice	Subsidy payments (RMB 100-500 yuan per mu) Job creations (more than 50% to women) Income generation No land acquisition and resettlement	YES Small scale forest land use right transfer (around 2 %) is excluded

Government Program Activity	Activity Description	Environmental Impact	Social Impact/risks	Suitability for Program
			Activities in existing forestlands No livelihood impacts.	
4. Management of ecological fragile areas	a. Afforestation and grass plantation in karst area; b. Afforestation in arid/semi-arid areas; c. Afforestation in natural disaster area, abandoned industrial and mining areas, damaged areas by hydro and road construction projects.	Disturbance of sensitive ecological fragile areas; risk of industrial contaminated sites	Afforestation in abandoned industry and mining areas may have land acquisition issues	NO
5. Roadside greening	Afforestation along major transport infrastructure, such as express ways, railway and national roads etc.	Involves transport infrastructure construction projects with significant impacts	New construction roads to be induced significant land acquisition and resettlement impacts	NO
6. Restoration of grassland	Restoration of degraded grasslands through reseeded and natural regeneration.	Environmental enhancement. Temporary surface disturbance and erosion.	Subsidy payments (100-300yuan per mu) Existing forest lands Community /farmer participation Grievance Redress Mechanism	Yes
7. Rural homeland greening	Afforestation and greening along rural roads and rivers and canals, around houses, on lands unsuitable for farming.	Environmental enhancement.	Community participation manual Grievance Redress Mechanism	YES.

Government Program Activity	Activity Description	Environmental Impact	Social Impact/risks	Suitability for Program
		Temporary surface disturbance and erosion.		
8. Urban tree planting	a. Construction of wetland parks, mountain parks and green corridors in the established areas of cities; b. Plantation of city green belt	Environmental enhancement. Potential involvement of critical natural habitats.	May have significant land acquisition and resettlement	NO
9. Maintaining forestry achievement	Institutional capacity building activities, including strengthening protection of national and collective ecological forests; enforcement of ecological redline protection regulations; enforcement of forest land use regulations.	Capacity building activity, no adverse environmental impact is expected.	Community participation manual Grievance Redress Mechanism	YES

Notice: According to environmental and social risks and impacts screening, five out of the nine sub-programs are considered to have little environmental and social risks, thus suitable for Program lending. With further consideration of thematic activities for the Program results areas, three sub-programs are determined to be covered by the Program, i.e. (1) Afforestation and reforestation sub-program, including afforestation and reforestation, and natural regeneration in state-owned forest land; (2) Planting along the upper reaches of Yangtze River Basin and water system protection; and (3) Forest quality improvement through enrichment planting and tendering.

Annex 2: Proposed Counties Socio-Economic Status

No.	Counties	Households (10,000)	Popu. (10,000)	Rural Popu. (10,000)	Rural labors (10,000)	Migran t labors (%)	female (10,000)	Ethnic minority (10,000)	Ethnic Minority county	Ethnic minority townshi ps.)	Type of ethnic minority	Poor county (no.)	Poor village (no,)	Poor Popu. (no.)
1	Jiayang County	52.22	148.71	119.72	52.12	78.3	59.35	0.33	No				89	46338
2	Youxian District	16.45	56.83	43.38	24.09	67.45	27.61	0.20	No			No	22	520
3	Anzhou District	19.23	44.92	32.22	28.53	30.00	22.15	0.29	No			No	24	5,230
4	Jiangyou City (county-level city)	30.51	87.86	54.28	37.99	50.00	43.17	1.00	No			No	40	5,797
5	Yanting County	24.34	55.33	45.39	35.44	25.00	24.83	0.12	No	1	Hui	No	84	27,539
6	Zitong County	14.69	38.67	31.83	18.06	18.80	19.50	0.15	No			No	29	19,647
7	Chaotian District	6.90	20.47	19.00	9.72	10.50	9.86	0.06	No			Yes	64	22,766
8	Jiange County	22.10	66.38	57.49	14.50	48.70	31.70	0.03	No			Yes	163	97,303
9	Wangcang County	17.80	45.00	34.20	21.80	60.00	21.80	0.06	No			Yes	97	52,977
10	Qingchuan County	10.03	23.25	19.03	9.89	64.70	11.15	0.39	No	2	Hui	Yes	79	28,709
11	Pengxi County	25.71	69.27	35.03	22.75	71.00	32.71	0.05	No			No	83	11,153

No.	Counties	Households (10,000)	Popu. (10,000)	Rural Popu. (10,000)	Rural labors (10,000)	Migrant labors (%)	female (10,000)	Ethnic minority (10,000)	Ethnic Minority county	Ethnic minority townships.)	Type of ethnic minority	Poor county (no.)	Poor village (no,)	Poor Popu. (no.)
12	Qianwei County	20.05	56.67	41.89	26.99	54.76	27.32	0.04	No			No	54	17,000
13	Shawan District	6.90	18.28	10.51	3.29	31.00	8.73	0.12	No			No	30	6,809
14	Muchuan County	8.39	25.50	20.80	13.40	68.00	12.14	0.41	No			Yes	43	2,205
15	Longquanyu District	26.31	68.52	25.62	18.12	26.1	34.71	0.68	No			No	-	-
16	Jingyan County	15.43	40.17	29.43	18.82	70.59	19.45	0.09	No			No	53	18,053
17	Shizhong District	23.18	63.07	24.93	15.22	41.00	32.10	0.12	No			No	25	12,767
18	Wutongqiao District	12.14	30.84	18.39	11.35	55.00	15.39	0.03	No			No	29	6,695
19	Jinkouhe District	1.94	4.98	3.04	2.16	77.00	2.39	0.74	No	2	Yi	Yes	5	1,683
20	Jiajiang County	12.46	34.89	23.28	14.38	63.00	17.31	0.04	No			No	72	14,101
21	Ebian Yi Autonomous County	4.76	14.75	11.72	8.00	55.00	7.13	4.30	Yes	8	Yi	Yes	40	12,000
22	Mabian Yi Autonomous County	6.83	22.04	17.29	12.21	76.00	10.89	10.85	Yes			Yes	95	29,218

N o.	Counties	Households (10,000)	Popu. (10,000)	Rural Popu. (10,000)	Rural labors (10,000)	Migrant labors (%)	female (10,000)	Ethnic minority (10,000)	Ethnic Minority county	Ethnic minority townships.)	Type of ethnic minority	Poor county (no.)	Poor village (no,)	Poor Popu. (no.)
23	Jintang County	34.13	90.32	65.78	43.98	41.1	43.83	0.04	No			No	-	-
24	Pingchang County	29.43	108.61	71.31	52.87	53.91	47.83	0.02	No			Yes	146	126,801
25	Yingshan County	28.68	91.24	73.61	42.53	65.00	43.18	0.06	No			Yes	150	81,494
26	Xingwen County	13.18	48.86	24.16	12.03	22.80	23.23	5.25	No	5	Miao	Yes	57	50,721
27	Junlian County	12.14	44.88	32.77	25.46	68.12	21.37	2.69	No	3	Miao	Yes	61	42,017
28	Nanxi District	14.27	43.27	16.10	11.27	55.80	20.99	0.07	No			No	23	21,293
29	Xuzhou District	33.39	102.77	88.79	48.69	61.00	49.02	0.10	No			No	66	50,938
30	Cuiping District	23.70	84.64	40.73	29.04	50.81	42.13	0.25	No			No	5	25,783
31	Tongjiang County	26.14	80.20	68.90	35.96	14.40	38.42	0.07	No			Yes	157	70,717
32	Yucheng District	5.46	34.08	16.59	9.67	56.72	16.79	0.48	No			No	38	11,210
33	Mingshan District	9.37	28.06	16.14	10.12	56.00	13.72	0.04	No			No	42	15,256
34	Tianquan County	5.62	15.62	12.61	7.79	26.20	7.31	0.04	No			No	36	11,125
35	Nanjiang County	20.21	60.86	38.57	31.02	51.2	31.19	0.02	No			No	156	88,348

No.	Counties	Households (10,000)	Popu. (10,000)	Rural Popu. (10,000)	Rural labors (10,000)	Migrant labors (%)	female (10,000)	Ethnic minority (10,000)	Ethnic Minority county	Ethnic minority townships ()	Type of ethnic minority	Poor county (no.)	Poor village (no,)	Poor Popu. (no.)
	Total	634.09	1,869.81	1,284.95	779.26	52.7	890.4	29.23	--	21	--	--	2157	1,033,820

Annex 3: Minutes of Public Consultation Meetings

A formal consultation workshop on the draft ESSA report was conducted on June 26, 2019 in Chengdu. There are total 34 participants from the key stakeholders of provincial and county level government departments. The draft ESSA report has been translated into Chinese and circulated among relevant stakeholders prior to the consultation workshop.

Overall, the key findings and recommendations are broadly accepted by the participants. Meanwhile, a number of comments were raised by the participants for further clarification and improvement of the report. These comments were responded during the workshop and have been incorporated in the finalization of the ESSA.

The main comments from the workshop and the responses are summarized as follows:

Stakeholders	Comments	Responses
Provincial PCS	Pest control measures hierarchy shall include forest management measures prior to physical measures.	Forest management measure is added into the pest control measures hierarchy in section 4.2.2.
Provincial Forestry Academy	The definition of forest tendering should refer to the standard terms as defined in the relevant national technical specifications.	Formal definitions for these terms are used referring to the national technical specifications in section 4.2.1.
Provincial ERAB	Please revise special villages” in the section 5.2.1 as “special villages or townships”	Revised
Provincial Women’s Federation	Please revise the Women's Development Program /outline (2011-2020) in 5.1.2 as following: in Sichuan Province advocates to ensure that women entitle equal rights with men in land contracting and management rights, forest land use right, etc. In the meanwhile, encourage women to actively participate in ecological environment protection, and develop ecological agriculture and green industries.	Revised
Provincial Petition Bureau	The provincial Petition Bureau usually opens and reads letters within one working day of receipt, please add in implementation.	Revised in section 5.2.3.
	Miscellaneous comments on inaccurate location names, data, document reference numbers, translation mistakes and typos etc.	Corrections are made accordingly in the final ESSA.

The list of participants is as follows:

No.	Participants	Stakeholders/Departments
1	FAN Hunian	Provincial Financial Bureau
2	TENG Mingbing	Provincial ERAB
3	DAI Qi	Provincial Poverty Alleviation Office
4	HUANG Jing	Provincial PB
5	SUN Guozhong	Provincial PCS
6	YAN Wuxian	Provincial Forest Academy
7	LAN Lida	Provincial Forest Planning Institute
8	CHEN Xiaozhong	Provincial FWS
9	LI Xiaorong	Provincial FWS
10	ZENG Fanming	Provincial FWS
11	WEI Peng	Provincial FWS
12	LI Yunfu	Jiange County FGB
13	CHEN Yao	Jiange County FGB
14	GAO Yongsheng	Jiange County FGB
15	ZHANG Li	Jiange County FGB
16	YANG Dai	Jiange County FGB
17	LI Xiaoming	Jiange County Financial Bureau
18	YANG Lili	Qianwei County Natural Resources Bureau
19	ZHANG Xiaohu	Qianwei County Natural Resources Bureau
20	HU Xiang	Qianwei County PB
21	YU Wenwen	Qianwei County Ecology and Environmental Bureau
22	WANG Yao	Qianwei County WF
23	LIAO Dengjun	Ebian County FGB
24	SHA Rong	Ebian Financial Bureau
25	YANG Ruixue	Ebian WF
26	QUBIEGG	Ebian ERAB
27	LI Jibu	Ebian Poverty Alleviation and Resettlement Bureau
28	WU Fei	Ebian County FGB
29	XIE Shuming	Tongjiang County Poverty Alleviation Bureau
30	ZHU Yifu	Tongjiang County PB
31	CHEN Yufan	Tongjiang County Financial Bureau
32	DU Jiaming	Tongjiang County FGB
33	YANG Tongping	Tongjiang County FGB
34	LUO Shangwen	Leshan Forest and Garden Bureau

Annex4: Field Visiting Group Discussion Findings

Date	Village / township / county	Method	Survey findings
Nov. 21, 2018	Gujing Village, Heizhugou Town, Ebian Yi Autonomous County, Leshan City	Group Discussions	<ol style="list-style-type: none"> 1. Gujing Village is a Yi village, with 570 persons in 151 households, all being Yi people. This village has 6,594 mu of ecological forests, 364 mu of farmland and 1,500 mu of artificial forests. It was a poor village before 2016. 2. The Yi people have their own spoken and written language, but villagers understand Chinese. Formal documents of the government are usually bilingual. 70-80% of county and township officials are Yi people, who are bilingual. 3. Income sources: 1) Outside employment: About 80% of villagers work outside, usually for 6-8 months a year, earning 100 yuan per day on average; 2) Stockbreeding: Villager raise cattle, sheep, etc., with annual income of 3,000-4,000 yuan. 4. Ecotourism is developed, and a tourism cooperative established in this village, enabling villagers to increase their income without being bound by land. Currently, 151 households deal with ecotourism. 5. The ownership of the woodland was identified in 2010, and villagers have the right to use the woodland. Villagers usually grow seedlings from November to February (in order not conflict with outside employment). Villagers will not fell trees for firewood in the woodland and use electricity in daily life mainly (for cooking, etc., preferential electricity rate: 0.28 yuan/kWh). 6. Villagers participate in forestation voluntarily. The county Forest and Grassland Bureau notifies the policy, subsidy rate, and villagers' rights and obligations to township officials through training for communication to village committee, who will then conduct publicity and consultation in villages. 7. The grievance redress mechanism is sound. Villagers may call the hotline (123456) or file an appeal by letter or visit. An appeal is usually solved within 2-60 days after receipt. 8. Villagers support the project, because they think it is good to them, such as improving environmental quality and increasing income.

Nov. 21, 2018	Digu Village, Heizhugou Town, Ebian Yi Autonomous County	Group Discussions	<ol style="list-style-type: none"> 1. Digu Village is a Yi village, with 4 village groups, 211 households with 769 persons, and 1,780 mu of public welfare forests. Villagers' per capita monthly income is 4,100 yuan. 2. All villagers aged above 40 years understand Chinese (mandarin), and schools practice bilingual instruction. Villagers receive 12-year compulsory education. There are 12 college students and 6 high school students in the village. 3. In 2018, 141 villagers worked outside, and a tourism cooperative was established, involving all households and with 211 members. 12 households deal with ecotourism, and 22 work at hotels with monthly income of 2,200-3,000 yuan. 4. There is a stockbreeding cooperative in the village, with 106 sheep and 9 cows. Each household raises one pig or two. There are 10 major stockbreeding households in the village, and livestock is usually raised in stables. 5. Due to the preferential electricity rate (0.28 yuan/kWh), villagers use electricity in daily life mainly, and do not cut trees for firewood. 6. Villagers are enthusiastic about the project, because they think that it is all positive for the Yi people. They think the prevailing forestation policy favorable, where seedlings are bought in a unified manner, and villagers own all forest products, and receive free training (covering forestation and pest control) and forestation subsidies. 7. There is no clear division of labor between men and women in forestation, but women deal more with routine forest maintenance and management. 8. Villagers participate in forestation voluntarily, and a ranger meeting is held weekly, with key points disclosed to each household for the forest protection. All villagers have been trained on forest management, protection, etc. 9. All the 17 rangers in the village are from poor households and are paid 5,000 yuan per annum.
Nov. 22, 2018	Heping Village, Qingxi Town	Group Discussions	<ol style="list-style-type: none"> 1. Heping Village has 3 village groups, 254 households with 854 persons, and over 3,500 mu of land. Villagers' main income sources are outside employment (70%) and ecotourism (Internet+ Leshan smart rural tourism development). Villagers can receive small portion of income from community activities. 2. There are 5 biogas tanks in the village. A family spends about RMB 50 yuan on biogas use per month for cooking. Villagers will not cut trees for firewood in the woodland.

			3. Villagers participate in forestation voluntarily, because it would promote ecosystem and increase income.
Nov. 22, 2018	Dengta Village, Tongxin Xiang	Group Discussions	<p>1. Villagers participate in forestation voluntarily. Usually, the township government mobilizes villagers through village committee, and conducts a willingness survey; the county forestry bureau assigns technicians to conduct a professional survey, planning and design, and offer training and guidance during implementation; the country forest bureau offers direct rewards after acceptance.</p> <p>2. Villagers will participate in the project voluntarily, because they believe that it will improve environmental quality and promote ecotourism development, thereby increasing their income.</p>