

Environmental and Social Data Sheet

Overview

Project Name	YANGTZE RIVER BASIN FOREST PROTECTION
Project Number	2016-0702
Country	China
Project Description	The operation is to finance a program of investments in Jiangxi and Anhui Provinces (China) for the period 2019-2023, focusing on establishing new forests (about 32,000 ha) and improving quality of existing low yielding forests (about 75,000 ha) through sustainable forest management. Both provinces are placing strong emphasis on biodiversity conservation, carbon sink reserves, timber supply, poverty alleviation, and enhanced forest ecosystem function, particularly as a riverside defense enhancing soil and water conservation in the Yangtze River Basin.
EIA Required	Yes/No ¹
Program Included in Carbon Footprint Exercise	Yes

Environmental and Social Assessment

Environmental Assessment

The investment program supports green development across over 30 counties in Jiangxi and Anhui. The provinces are located in the middle and lower reaches of the Yangtze River, strategic locations for building ecological defenses along the Yangtze River. They are intended to be key areas for soil and water conservation, as well as biodiversity enhancement and carbon sequestration. The program also supports the key role of these two provinces in strengthening the country's timber supply.

Relevant goals and policies: The program advances China's national strategy on climate change and is aligned with the strategic targets of *Decisions on Accelerating Forestry Development* (the State Council), *Planning for National Ecological Environment Construction*, the *13th Five-year Plan for Economic and Social Development* and the *13th Five-year and Medium and Long-term Plan for Forestry Development*. The operation is in line with the EIB's Climate Action and Environment Facility (CAEF)—committed to biodiversity conservation and addressing climate change. The program supports international commitments on biodiversity protection and is in line with the EU Strategy on China (2016) which calls for increased cooperation on climate change, and with the EU-China 2020 Strategic Agenda for Cooperation which supports sustainable development, biodiversity conservation, and sustainable forest management.

Climate: Both Jiangxi and Anhui have subtropical monsoon climates and are experiencing increases in average annual temperatures. This could lead to increased pest and disease incidence, and therefore resilient species to these risks are to be selected for implementation.

¹ The investment programs are under approval in both Jiangxi and Anhui provinces. The decisions whether full EIA is required or if the investment programs will be screened-out are expected in due course from the relevant environmental authorities of each province. The promoters are required to submit the EIA Study Reports and environmental permits or screening out decisions of the relevant authorities, including the Stakeholder Engagement Plan, as condition for disbursement.

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Forest fires have overall increased in frequency, though they vary within the provinces and are generally manageable given the forest fire prevention and mitigation measures in place. While drought has been an issue affecting crop yields in both provinces, rain is regarded as being sufficient for forestry activities in both Anhui and Jiangxi. Annual rainfall in Anhui in particular has experienced increases over the past decade, with risks of heavy flooding (as seen in 2016). Heavy snows recently damaged forest quality in some participating counties. Although climate change may increase extreme weather conditions (i.e. irregular rains, flooding, and drought), this is not anticipated to be a major risk during the 25-year project life.

Primary program activities: The program focuses on afforestation/reforestation and enhancing the growth of precious broadleaf species, with different models and tree species which are adapted to local site and climatic conditions. Both provinces have high forest cover, and therefore the bulk of the planned activities are focused on enhancing existing degraded forests, which have suboptimal biodiversity and productivity. This aims to improve ecological function and sustainability of different types of forest stands.

Site selection and treatment of agricultural land: For afforestation/reforestation, barren hills and abandoned lands, non-productive farmland being returned to forests, degraded forestland, and sparse forestland with exotic grass species shall be prioritized when selecting the project sites. EIB does not support land use changes that might negatively impact food security. Productive and fertile arable agricultural lands shall not be included in the program. Therefore, the Promoters shall focus on the selection of bare and ecologically sensitive areas to be included in the project e.g. areas subject to landslides or erosion, areas affected by wind-throws. This can include degraded and abandoned, nonproductive agricultural lands that cannot support crop production in particular rural areas. Such abandoned land are typically located in the mountains, remote from villages and with poor access and little opportunity to support food security in the future.

Biodiversity: Each province has a list of candidate tree species to match the local site and climatic conditions. They are all native, with varying cultivation histories. In Jiangxi, the default preference by implementing entities for enhancing existing degraded forests is to plant one new precious broadleaf species (typically Chinese cedar) in addition to the usual tree species (e.g. Chinese fir). In some cases, for more efficient production, the new species are planted in a mosaic structure rather than mixed. In Anhui the diversity of tree species is observed to be greater; the implementing entities often plant two or more precious broadleaf species. Availability of such seedlings, as well as training on cultivation of mixed forests and management for continuous growth, needs to be mainstreamed across the counties to ensure multi-layered, climate-resilient habitats with higher biodiversity.

EIB requires at least one additional broadleaf species to be planted in existing low quality stands, and strongly recommends two or more tree species in each planting/management model in order to better align with CAEF's biodiversity objectives.

Site preparations: Clear-cutting and prescribed burning is prohibited, and conservative soil preparation methods are used on planting sites. Forest road construction and selective harvesting increase the risk for soil erosion if planned mitigation measures are not taken. Both promoters include precautionary measures in their planning in order to avoid unnecessary clearance of forest cover. Roads are constructed and maintained with care to protect surface vegetation and mitigate water and soil loss. Steep slopes are especially prone to erosion and increase risks for work-related accidents. The Promoters shall apply low-impact site preparation methods. To this end, heavy soil preparation, including terracing and slash and burn practices are not acceptable for the investment program.

Chemical usage: Improper fertilizer and pesticide application could result in soil degradation and nutrient runoff, and negative impacts on biodiversity. The Promoters plan to use organic fertilizers to the greatest extent possible. Interviews with implementing entities suggest this is

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already a widespread practice. For pest control, both Jiangxi and Anhui provinces favor the use of biological control methods instead of pesticides.

Only chemicals approved for use by both the relevant EU and Chinese laws and regulations may be used in the project. The Promoters shall define operational guidelines that specify precautionary measures needed for chemical storage and end use in order to avoid any personal hazard as well as any uncontrolled leaching to waters, air or soil. They shall broadly disseminate lists recognized and approved for forest use in China and in the EU. Reference to such guidelines must be included in the Project implementation Handbook.

Environmental and social documentation: Since the domestic approval process is in progress, the promoters have submitted only drafts of Environmental and Social Management Plans (ESMP), which are not fully acceptable to the Bank. EIB requires that an ESMP is in place prior to the project implementation. Given the large area to be covered by the investment program, it will be key for both provinces to check any key ecological functional zones or areas of sensitive and fragile ecological environments that might overlap with proposed sites.

Jiangxi has prepared a certification roadmap demonstrating how it will become certifiable to the PEFC-endorsed China Forest Certification Scheme (CFCS). Anhui has not yet done so, but it is required to develop such roadmap before starting program implementation.

Both provinces have yet to receive confirmation from their Provincial Development and Reform Commission on whether they will require EIAs or they will be screened-out. Submission of the EIA report and environmental permit or of the screening-out decision of the relevant authorities, including the Stakeholder Engagement Plan (SEP) are condition for disbursement.

EIB Carbon Footprint Exercise

In Jiangxi, the estimated average annual carbon sequestration is 648 kt CO₂eq per year (gross). Estimated emissions include about 17 kt CO₂eq per year from chemical fertilizer use, and 216 kt CO₂eq per year from transportation. The estimated net carbon sequestration is 123 kt CO₂eq per year, compared to the baseline carbon sequestration levels (i.e. 525 kt CO₂eq per year). In Anhui, the estimated average annual carbon sequestration is 657 kt CO₂eq per year (gross). Estimated emissions include 208 kt CO₂eq per year from transportation and none from fertilizers, as the province plans to only use organic manure. The estimated net carbon sequestration is 201 kt CO₂eq per year, compared to baseline carbon sequestration levels (i.e. 456 kt CO₂eq per year). Therefore, it is estimated that the total net carbon sequestration through program implementation in Jiangxi and Anhui is about 324 kt CO₂eq per year.

The calculations do not consider potential reversals due to drought, forest fires, or pest outbreaks. For the annual accounting purposes of the EIB Carbon Footprint, the project emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of the project cost.

Social Assessment

Project sites are located in remote areas, where implementing entities are 80% state-owned forest farms and 20% individual farmers (typically large afforestation households rather than smallholders). Much of the land to be included in the project is contracted to forest farms or large afforestation households from individual farmers and village collectives. Based on this breakdown, key windows for the project's social impact is through work on forest farms and large afforestation households, and through forestland tenure transfer contracts.

There are many ethnic minority groups scattered across both provinces. In Anhui, the ethnic minorities with the largest populations are the Hui and She. In Jiangxi, Han people account for

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99% of the province's total population, with major minority ethnic groups including the Hui, She, Zhuang, Manchu, Miao, Yao, Mongolian, Dong, Korean, Tujia, and Bouyei, and others. Counties that are planning to participate in this operation and include more concentrated minority communities include Zixi County (Jiangxi) which is home to significant She and Yi populations. In the counties visited during the appraisal mission, there were reportedly very small minority populations who were considered already well integrated into the broader Han majority and receiving benefits from other preferential policies.

Aside from forestry, farmer households also draw significant income from agriculture and labor activities. Rural depopulation is a major issue. Employment-based migration to cities is common and households are often led by women or elderly people.

Employment and development opportunities: The program is expected to provide increased job opportunities, income, skills-building, and economic development for people in rural areas. The program implementation will require about 48,200 person-years during the 5-year implementation phase, or about 9,640 full time equivalent (FTE) jobs. During operation phase the program is expected to require about 1,100 FTE jobs. Most of the works are seasonal, allowing a large share of the rural people living in the project counties to benefit from work opportunities.

In Jiangxi, the promoter plans to formulate and implement incentivizing policies for vulnerable groups to ensure employment and training opportunities for women, minorities, and low-income people. This can be reflected not only in targeting these groups within counties, but also in the targeting of counties where there are larger underserved populations (e.g. where minorities are more concentrated). People with these backgrounds should also have the opportunity to participate in decision-making in program design and implementation.

Land tenure: According to EIB standards, the Promoters shall ensure that long-term land lease contracts and land compensation are based on fair terms for all parties. In particular, they must ensure that land lease contracts with individual farmers explicitly include a price revision mechanism, fair exit clause, and details of the applicable grievance redress mechanism. In case a land lease agreement foresees benefit sharing, the terms of this should be clarified explicitly in the contract itself.

Both promoters have committed to ensuring that fair and just contracts are signed with program beneficiaries and implementing entities. They also have complementary laws and regulations that establish rules on rural land contract dispute resolution and rules on forest resource transfers. The land used for the project is forestland with clear land rights, without land requisition, involuntary resettlement, and no social conflict and unstable mass disturbance. More information shall be reflected in the ESMP to ensure there is enforcement capacity to screen and monitor the above and ensure fair terms for implementing entities and other stakeholders.

The Bank has provided guidance on and requires application of the UN FAO Voluntary Guidelines on the Responsible Governance of Tenure (VGGT) of land, fisheries and forests. Training and information must be provided by the county forest bureaus and local stations to farmers, with clear communication regarding rights and options for fair contracts.

Updating the leasing contracts in order to comply with the EIB requirements (i.e., fair/transparent exit clauses, price indexing, benefit sharing mechanisms, etc.) are binding contractual obligations for the promoters.

Occupational health and safety: The use of safety gear and equipment, safety training and accidents insurance are common practice in both provinces. However, actual safety standards may vary within the provinces. In some project sites manual work has been envisaged on steep slopes, in conditions which present a risk to the personal safety of workers. The Bank requires that for slopes greater than 25° (and below 35°), the Promoters

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shall implement specific safety measures to protect workers. Sites located on extremely steep slopes (higher than 35°) shall not be included in the investment program, due to high erosion and labor safety risks. The Promoters are required to ensure that all Implementing Entities apply the specific standards on health and safety at work as established in the CFCS.

Public Consultation and Stakeholder Engagement

Consultations have been held with county/municipal forestry bureaus, and some town governments and forestry work stations across each province, complemented by public announcements in each province describing the program. Limited consultations have been held with potential implementing entities, primarily forest farms and large afforestation households, with public announcements made in summer 2018. However, awareness of the investment program among village committees, individual farmers and farm workers remains rather low. More widespread consultations, trainings, and circulation of materials are planned to take place during the approval process of the investment program.

The domestic approval process of the investment program is in progress and no consultations associated with an E/SIA have been conducted at appraisal date. If EIA is required (pending decision of relevant authorities in each province) then public consultations will be conducted as part of the standard environmental permitting process. In any case, the Bank recommends that third-party E/SIAs be conducted even if not required by law in order to help identify additional risks and mitigants beyond this higher-level due diligence assignment. In addition, the Promoters are requested by the Bank to submit the Stakeholder Engagement Plans, as condition for disbursement.

Other Environmental and Social Aspects

The promoters and county forestry bureaus have access to GIS mapping systems that can inform site selection, project planning/implementation and monitoring. Sites close to natural forests should be prioritized for those models in the program that are focused on natural regeneration, to enhance connectivity.

The promoters are committed to implement environmentally and socially sustainable forest management in line with the internationally accredited forest certification standards e.g. China Forest Certification Scheme endorsed by the Programme for Endorsement of Forest Certification (PEFC).

Conclusions and Recommendations

The program will increase forest cover and quality of forest stands, contributing to climate change mitigation by increasing carbon sequestration and storage. Mixed stands will improve the resilience of forest ecosystems to adapt to adverse weather conditions, and will enhance biodiversity. Continuous vegetation cover will increase the water retention capacity and mitigate risk of soil erosion.

The project provides employment opportunities to local rural population and introduces sustainable and certifiable forest management regimes. Sites with high value tea, medicinal and other cash crop plants may introduce new sources of income during the lengthy rotation cycle of the forest stands.

The promoters shall comply with the EIB's environmental and social standards². The promoters shall comply with the following disbursement conditions and undertakings.

Disbursement Conditions

² Available online: http://www.eib.org/attachments/strategies/environmental_and_social_practices_handbook_en.pdf

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Prior to the first disbursement, the Promoters shall ensure the following:

- The promoter undertakes not to allocate EIB funds for activities requiring an E(S)IA until the E(S)IA and/or the necessary social, biodiversity assessments as well as stakeholder engagement plans have been finalised and approved or endorsed by the relevant competent authorities; E&S documents must be shared with EIB for publication, in line with EIB E&S Standards.
- Submission of a summary of stakeholder consultations.
- Submission of revised Environmental and Social Management Plans (ESMPs).
- Submission of Certification Road Map. A road map towards forest certification must be prepared and should be integrated into all further stages of project preparation and implementation.

Project Undertakings

Throughout the implementation period of the programme and during the operational phase the Promoters shall ensure the following:

- The project shall be aligned with the international forest certification standards, such as China Forest Certification Scheme (CFCS) endorsed by PEFC. The roadmap to certification shall be regularly followed and updated during the implementation period.
- Only chemicals approved under both EU and Chinese regulations may be used in the project. Guidelines specifying precautions for chemical use and storage in order to avoid any personal hazard as well as any uncontrolled leaching to waters, air or soil, as well as lists with chemicals recognized and approved for forest use in China and in the EU must be included in the Project Handbook.
- Land lease contracts and land compensations are based on fair terms for all parties, and include fair price revision mechanisms, exit clause, complaint mechanism and other potential benefit sharing arrangements, that shall be clarified explicitly in the contract. Any existing contracts shall be amended to include the abovementioned requirements. The promoter shall follow the FAO Voluntary Guidelines on the Responsible Governance of Tenure (VGGT) of land, fisheries and forests, and shall include references to the VGGT in the Project Handbook.
- Shall have in place the appropriate measures to protect surface vegetation and mitigate water and soil loss, as well as to mitigate soil erosion during forest road construction/upgrading and forestry operations. To this extent, the Promoters shall apply low-impact site preparation methods as well as maintaining existing vegetation to protect topsoil. Heavy soil preparation, including terracing, and slash and burn practices are not acceptable means to be used for site preparation.
- Sites located on extremely steep slopes (higher than 35°) shall not be included in the investment program, due to high erosion and labor safety risks.
- To this end, heavy soil preparation, including terracing and slash and burn practices are not acceptable for the investment program.
- Productive and fertile arable agricultural lands shall not be included in the program, since the Bank does not support land use changes that might negatively impact food security.
- Ensure that appropriate health and safety measures are reflected in the Project Handbook and applied during project implementation and operation by all parties to prevent work-related health and accident risks
- Conduct third-party E/SIAs even if not required by law, in order to help identify additional risks and mitigants beyond this higher-level due diligence assignment.

Taking into account the conditions on this operation, the capacity of the Promoters and the systems in place to manage environmental and social impacts and issues, the project is acceptable to the Bank.