



Building Climate Resilient Green Infrastructure: enhancing  
ecosystem services of planted forests in China through forest  
landscape restoration and governance innovation project  
(PRC-GEF State Forest Farms Project)

## **Mid-Term Review Report**

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## **Abbreviation**

GEF- Global Environmental Facility

IUCN- International Union for Conservation of Nature and Nature resources

NFGA - National Forestry and Grassland Administration

FLR- Forest Landscape Restoration

ROAM- Restoration Opportunities Assessment Methodology

FMR Plan-Forest Management and Restoration Plan

TRI- The Restoration Initiative

ES-Ecosystem Service

SFM-Sustainable Forest Management

SFFs- State Forest Farms

## Report abstract

### 1. Project introduction

“Building Climate Resilient Green Infrastructure: enhancing ES of planted forests in China through forest landscape restoration (FLR) and governance innovation project (PRC-GEF state forest farms project)” (GEF ID 9518; IUCN Project ID P01663) is a child project of “The Restoration Initiative (TRI)”, a Global Environment Facility (GEF)-funded programme helping 10 Asian and African countries achieved shared restoration goals. The International Union for Conservation of Nature (IUCN) is serving as implementing agency for this project and the China National Forestry and Grassland Administration (NFGA) is serving as the executing agency. The total grant is \$6.42 million, with matching funding of \$54 million. The project has a four-year planned implementation period (2019-2022).

The overall objective of the project is “to strengthen the policies, practices and evidence base of FLR in China as an approach to reducing land degradation, conserving biodiversity, and adapting to climate change.” Through a series of project activities, the project will promote the mainstreaming and localization of the concepts of FLR, forest sustainable management, and ecological service in China, and comprehensively support the construction of ecological civilization and the comprehensive management of mountains, rivers, forests, farmlands, lakes and grasslands in China.

The outcomes of the project design include:

Outcome 1.1 Forests in selected landscapes provide relevant ES (water, soil, and carbon sequestration), maintain and improve biodiversity, increase climate resilience, reduce land degradation, and generate local benefits;

Outcome 1.2 ES valuation and monitoring methodologies in place and measuring the results; Monitoring of planted and restored forests and SFFs in China is adequate;

Outcome 1.3 Clear and quantified environmental improvements sustained by local institutional, policy and financing mechanisms;

Outcome 2.1 New policies, legal and regulatory frameworks which facilitate and promote, with strong evidence, the implementation and enforcement of FLR and SFM;

Outcome 2.2 The SFFs reform fully considers the roles of SFFs in providing ES and develops appropriate supporting legal, regulatory and financial instruments and policies;

Outcome 2.3 Increased area of landscapes and afforested lands protected by new policies;

Outcome 3.1 Stakeholders in China (national stakeholders and stakeholders of 3 pilot landscapes) have improved knowledge of new financial mechanisms, accounting system and best practices on SFM;

Outcome 3.2 Knowledge-sharing and international cooperation mechanisms further promote the transfer and promotion of project results, especially cooperation with international projects/initiatives.

Outcome 3.3 Information and knowledge gaps identified and addressed to better inform the policy and practical endeavors;

Outcome 3.4 Improved awareness and understanding of key decision-makers and stakeholders in forest ecosystem services and SFM.

Outcome 4.1 A Project M&E framework is designed and implemented throughout the project life.

Outcome 4.2 Project outcomes are communicated in an efficient manner.

## **2. Objectives and methods of the mid-term review**

The objective of the project mid-term review is to evaluate the progress of the project since its inception according to the requirements of the project text and results framework, so as to ensure the expected output. Pay particular attention to relevance, effectiveness, efficiency, sustainability and impact, network/links, experience and lessons learned, etc., to form a mid-term review report of the project.

The project evaluation activities included holding the project mid-term review launch meeting, meeting with the project implementation unit; consulting the project task assignment, project annual report, mid-term progress report and related technical reports, project progress report and exchange meeting; inspection of project sites and other methods and procedures.

### **3. Results of the mid-term review**

By June 30, 2021, focusing on the three core tasks of "preparation and implementation of innovative FMR plans", "preparation of Forest Landscape Restoration Plans " and "policy suggestions for integrating the concept of FLR into China's forestry", the project has made remarkable progress in various outputs designed in the four components (including progress assessed through the 9 core indicators of TRI project). Except for ecological service monitoring and overseas exchanges, the indicators specified in the mid-term of the project have been almost met mid-term targets as planned. In particular, based on the concept of landscape restoration, a guidelines for the preparation of innovative FMR plans have been formulated, and innovative FMR plans (2021-2030) have been prepared and implemented in 7 pilot forest farms; The monitoring outline of key ecosystem services was formulated, and 237 fixed monitoring sample plots were established; using the forest landscape restoration opportunities assessment methodology (ROAM), three FLR plans (forest-oriented mountain-water-forest-farmland-lake-grass plan) were completed. Through bulletins, international conferences, papers, training courses, official WeChat account and other publicity projects activities, the

application of FLR/SFM concept and ecosystem service (ES) concept in China has been promoted and has produced positive impact on supporting the construction of ecological civilization and comprehensive management of forest-oriented mountain-water-forest-farmland-lake-grass in China. Affected by the global Covid19 pandemic, the monitoring report of key ecosystem services and overseas exchanges are relatively lagging behind.

**Relevance:** The innovative FMR plans developed by the project are recognized as an effective tool for the high-quality development of China's state forest farms and the improvement of forest quality; the Forest Landscape Restoration Plans developed by the project are considered a good way for China's ecological protection and restoration strategy. The implementation of the project has promoted the process of integrating the concept of FLR and ecosystem services to the state forest farm reform and ecological restoration related forestry policies.

**Effectiveness and efficiency:** institutional setting and project management of the project are strong and functioning well; the implementation has made significant progress, and the mid-term goals have been completed as planned; the use of funds conforms to the project plan and correct procedures. The project can complete the project objectives in accordance with the work plan and funds. However the COVID-19 epidemic has an impact on the project activities, with most of scheduled discussions and seminars postponed due to social-distance regulation, and many site activities delayed since staffs of forest farms were assigned to local communities with epidemic prevention duties. A number of field work activities were canceled because of the restriction on control of transport mobility and crowd gathering. In general, COVID19 has caused delay in some forest management measures of the FMR plan, monitoring of key ecosystem services, overseas visits and exchanges, and demonstration and promotion of project results at home and abroad, thereby affecting the financial implementation rate. Among which, the monitoring of key ecosystem services needs to be further improved.



**Sustainability and impact:** The new concept of FLR will have a long-term positive impact on China's ecological restoration; through communication and capacity building, the concept of FLR is deeply rooted among project associates; the project has achieved participation of multiple stakeholders; the implementation and monitoring of ecosystem services are a long-term process.

**Lessons learned:**

Good organization and management is key to efficient project operations. The project has established an integrated and efficient coordination and supporting mechanism including different level administration offices from the country, province, city to county, and pilot forest farms, experts working groups for technical service and knowledge share, and a number of temporary cross-sectoral coordination mechanisms.

The implementation of the new FLR concept attracted additional national and local policy-related projects such as the National Forest Tending Financial Subsidy Project, the Forest Quality Improvement Project. On the one hand, the project provided technical silvicultural design for these additional project activities through new forest management planning; on the other hand, more funds from these additional projects were input into the project implementation.

After reform of SFFs in 2019, state forest farms converted to public welfare unit, and all forest management expenses are fully covered by national/local public finance. There are no relevant policies and mechanisms to encourage forest farms exploring bankable projects and achieving financial sustainability anymore, therefore, forest farms themselves are not enthusiastic about developing bankable project. Given this background, it is suggested that developing 7 bankable project proposals for pilot farms is a more appropriate target to project, instead of signing contracts of 7 bankable projects.

The purpose of setting up monitoring sample plots is to better understand the impact of different forest management measures on improving key ecosystem services, and to evaluate good practices in forest restoration. Strict scientific experiment design, professional investigation and monitoring are required.

The “formulating sustainable development plan for SFF” promoted by the project is a good inspiration and opportunity for SFFs. It is helpful for SFFs to position themselves in the forestry “Fourteenth Five-Year Plan”(2021-2025), to set up streamlined and efficient governance structure, to fulfill the obligation of forest management and protection, and resource supervision of the SFF after the reform.

**Overall recommendations:**

1) **Implement and promote the innovative FMR plans.** "The project developed “Guidelines for Development of Innovative Forest Management and Restoration Plan (FMR plan) in State Forest Farms”, and it is expected to be published and applied beyond the project area. It is essential to create favorable conditions from the aspects of policy, capital and management, and to ensure that the annual operation and management of SFFs is implemented according to the annual workplan of the FMR plan, which is particularly important for the realization and application of the concept of FLR.

2) **Improve the ecological service monitoring system and continuous monitoring.** There are still problems such as inconsistent sample plot benchmark, lack of replications, unclear description of silvicultural measures and monitoring period. It is recommended that the project check each pilot forest farms and try best to avoid the above problems. In addition, how to apply remote sensing and other technical means are worthy exploring in ecological service monitoring, and in impact assessment, not only of small-scale management unit but also of landscape scale.

3) **Complete the Forest Landscape Restoration Plans.** At present, the 3 pilot landscapes (1 city and 2 counties) have completed the first draft of the FLR. Final script should be accomplished with feedback/ suggestion from local authorities. The participation of multiple stakeholders is very important.

**4) Put forward policy recommendations to promote FLR in China.**

The scope of policy suggestions may include: improving current forest resource inventory system to meet the data requirements of innovative FMR plan, providing solutions and tools for the national strategy of FLR restoration and carbon neutralization, designing of finance, technology, management instrument from national perspective to ensure the implementation of FMR plans for SFFs.

**5) Strengthen domestic/ international-communication and demonstrate a successful China case.**

The PRC-GEF State Forest Farm Project introduces and localizes international concepts (FLR/SFM/ES), presenting Chinese practices and stories. The project is a very good communication platform domestically and internationally. It is an opportunity to demonstrate China's understanding of ecological protection and sustainable development through the successful cases from project implementation. Especially the successful stories about participation of females, ethnic minorities, vulnerable groups and social organizations, which tapping the multiple benefits of SFFs in biodiversity protection, coping with climate change, poverty alleviation and rural revitalization, and promoting the sustainable development goals of the UN.

**6) Project extension.** Considering the impact of all aspects including the COVID-19 epidemic, some project activities were postponed and may not be finished on time, such as ecological service monitoring and international exchange. Only 60% of total budget is expected to be spent by the end of 2021. It is recommended to extend at least 18 months which will better achieve the project objectives and reach following goals:

- replicate the innovative FMR plans to additional SFFs, formulate in-depth case-report and produce diverse knowledge products;
- obtain continuous data of key ecosystem services monitoring, carry out assessment as planned;

- promote FLR localization and mainstreaming in China; further explore the synergy of FLR and ecological civilization, develop creative roadmaps of promoting FLR in China;
- expand the public's recognition and acceptance of FLR and ES concepts;
- allow for full utilization of project funds.

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# 1. Project Introduction

## 1.1 Basic Information

“Building Climate Resilient Green Infrastructure: enhancing ecosystem services of planted forests in China through forest landscape restoration and governance innovation project ” (PRC-GEF state forest farms project, here after “the project”) is a China Child Project of “The Restoration Initiative (TRI)”, which is funded by the Global Environment Facility (GEF), the International Union for Conservation of Nature (IUCN) is implementing agency, the China National Forestry and Grassland Administration (NFGA) is executing agency. The implementation areas are Chengde City in Hebei Province, Ganzhou City in Jiangxi Province and Bijie City in Guizhou Province. The project is mainly based on the selected 7 pilot state forest farms, take advantage of the historical opportunities of state forest farm reform, draw on international advanced concepts such as FLR, formulate innovative FMR plans, explore and formulate a set of effective improvement of the governance capacity of state forest farms, and precisely improve China’s plantation ecosystem service function mechanism system; with the selected 2 counties and 1 city, develop FLR plans (Forest Landscape Restoration Plans) for the 3 landscapes; carry out ecosystem service monitoring and evaluate ecosystem service value of state forest farms; strengthen publicity and communication, capacity building and experience sharing. The project mainly copes with three thematic topics of biodiversity protection, land degradation and SFM, with a total grant of \$6.42 million, and \$54 million matching funding. The project will be implemented over a four-year period from 2019 to 2022.

## 1.2 Project Implementation Area

The implementation areas are Chengde City in Hebei Province, Ganzhou City in Jiangxi Province and Bijie City in Guizhou Province (Figure 1), The seven pilot

state forest farms are selected as the main body (Table 1), which belong to the warm temperate zone, middle subtropical zone, and the northern subtropical zone. The critical ES cover four categories: provisioning, regulating, cultural and supporting, including biodiversity, water conservation, soil conservation, wind prevention and sand fixation, timber reserves, carbon fixation and oxygen release, landscape-based recreation, and forest-based health rehabilitation.



**Figure 1: Project implementation areas.**

**Table 1: List of state forest farms for project implementation.**

Climate zone	Provinces and cities	State forest farm	Operating area (hm <sup>2</sup> )	Main forest/landscape types	Key ecosystem services
Warm temperate zone	Chengde City, Hebei Province	Mulan Weichang	106071.2	Forests of <i>Pinus tabulaeformis</i> , <i>Larix gmelinii</i> , <i>Betula platyphylla</i> , <i>Picea asperata</i> , <i>Quercus mongolica</i> , <i>Populus davidiana</i> and <i>Betula platyphylla</i>	Timber reserve, water conservation and seedling production
		Huangtuliangzi	14268.34	Forests of <i>Robinia pseudoacacia</i> , <i>Pinus tabulaeformis</i> , <i>Larix gmelinii</i> , and broad-leaved mixed forest, broad-leaved mixed forest and shrub forest	Water and soil conservation, seedling production
		Caoyuan	8686.67	Forests of <i>Larix gmelinii</i> , <i>Betula platyphylla</i> , <i>Ulmus pumila</i> sparse	Water and soil conservation, wind

				forest, grassland and sand dune	prevention and sand fixation, landscape-based recreation
Middle subtropical zone	Ganzhou City, Jiangxi Province	Anzidong	11280.47	Forests of <i>Cunninghamia lanceolata</i> , <i>Pinus massoniana</i> , <i>Pinus elliotii</i> , <i>Cinnamomum camphora</i> , <i>Eucalyptus robusta</i> , and broad-leaved mixed forest, broad-leaved mixed forest, bamboo forest and shrub forest	Water conservation, carbon fixation and oxygen release, rehabilitation and recreation
		Jinpenshan	10449.9	Forests of <i>Cunninghamia lanceolata</i> , <i>Pinus massoniana</i> , <i>Pinus elliotii</i> , coniferous mixed forest, coniferous broad-leaved mixed forest, broad-leaved mixed forest, bamboo forest and shrub forest	Biodiversity protection, water conservation, timber reserve
North subtropical zone	Bijie City, Guizhou Province	Gonglongping	3366.65	Forests of <i>Pinus armandii</i> , <i>Pinus yunnanensis</i> , <i>Cunninghamia lanceolata</i> , <i>Cyclobalanopsis glauca</i> , Birch, broad-leaved mixed forest and shrub forest	Water and soil conservation, forest-based rehabilitation
		Guihua	2966.81	Forests of <i>Pinus armandii</i> , <i>Pinus massoniana</i> ,	Water and soil conservation,



				<i>Cunninghamia lanceolata</i> , <i>Cryptomeria fortunei</i> , <i>Pinus yunnanensis</i> , <i>Cupressus funebris</i> , Birch, <i>Sassafras tzumu</i> , Cyclobalanopsis glauca, and evergreen broad-leaved forest	forest-based rehabilitation
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### 1.3 Project Objectives and Core Tasks

#### 1.3.1 Project Objectives

The overall objective of the project is to strengthen the policies, practices and cases of FLR in China to reduce land degradation, protect biodiversity and adapt to climate change. Through a series of project activities, achieving mainstreaming and localization of FLR concepts, SFM concepts, and ecological service concepts in China, and fully support the comprehensive management of mountains-rivers-forests-farmlands-lakes- grasslands, which is the core of constructing of China's ecological civilization. Specific objectives include:

- (1) Implement FLR projects and supplementary actions to enhance the ecosystem service functions of state forest farms;
- (2) Incorporate the concept of ES into the priority agenda of relevant forestry policies, and carry out policy formulation and integration;
- (3) Capacity building and knowledge and experience sharing: system, financing and promotion;
- (4) Monitoring and evaluation, information management and publicity: knowledge, partnerships, project monitoring and evaluation.

### **1.3.2 Core Tasks**

#### **(1) Preparation and implementation of innovative FMR plans**

Apply landscape restoration concepts and methodology in the preparation of FMR plans. Develop and implement FMR plans in 7 pilot forest farms in Hebei Province, Guizhou Province, and Jiangxi Province as the first batch, monitor implementation results and summarize valuable experience; replicate FMR plans to other nine pilot forest farms in the three provinces to further upscaling the impacts of innovative FMR plans.

#### **(2) Develop Forest Landscape Restoration Plans**

Develop Forest Landscape Restoration Plans for Bijie City of Guizhou Province, Fengning Manchu Autonomous County of Hebei Province, and Xinfeng County of Jiangxi Province, apply landscape restoration concepts and methodology for the comprehensive management of mountains, rivers, forests, farmlands, lakes and grasslands of the 3 landscapes, and to integrate FLR into the construction of China's ecological civilization.

#### **(3) Propose policy recommendations for integrating the concept of FLR into China's forestry**

Propose policy recommendations for the green development of state forest farms; cooperate with the new position of "protecting and cultivating forest resources and safeguarding national ecological security" of state forest farms after institutional reform during 2015-2019, and propose innovative institutional suggestions; as an international projects, the project will also present China case study for the global promotion and application of FLR concepts.

### **1.4 Project Governance**

The project established a multi-stakeholder governance structure, with supervision of a national project steering committee (PSC), as shown in Figure 2.

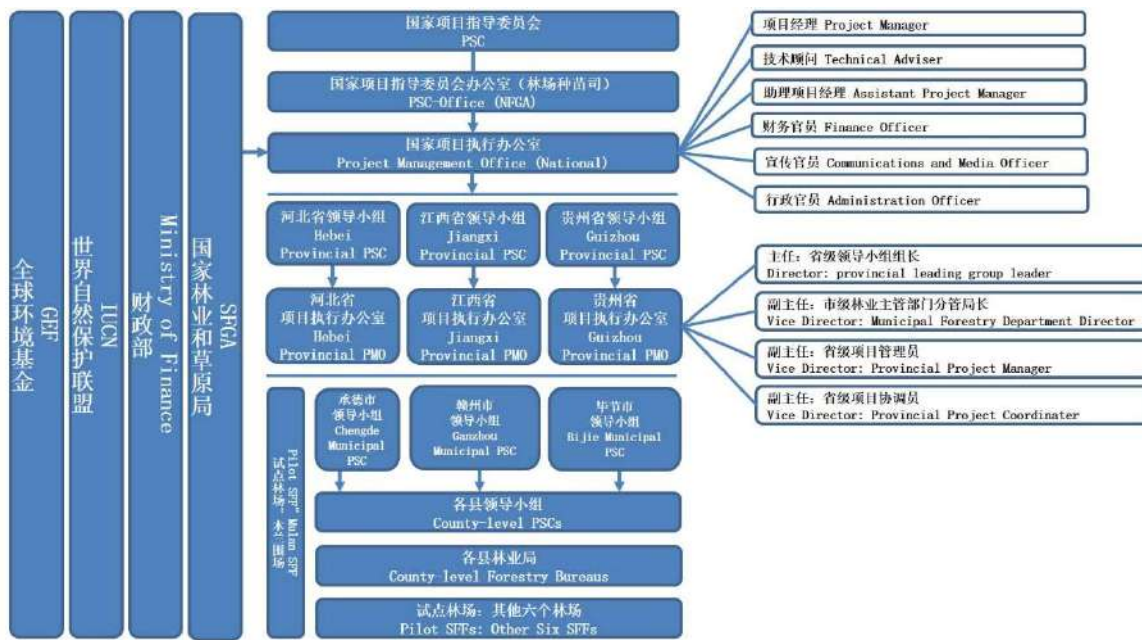


Figure 2: Project operation organization

## 2. Objectives, Tasks and Methods of the mid-term review

### 2.1 Mid-term review Objectives

The mid-term review objective of the project is to evaluate the progress of the project since its inception according to the requirements of the project document and results framework, so as to ensure the expected output. Particular attention were paid to relevance, effectiveness, efficiency, sustainability and impact, network/links, experience and lessons learned, etc., to form a mid-term review report of the project.

### 2.2 Mid-term review Tasks

(1) Review the progress of project implementation in accordance with project modules. Based on the achievements of the annual work plan and budget review, assess the overall progress of the project since its inception and the completion of the recommendations made in the first annual review.

(2) Evaluate the realization of project objectives and impacts, the utilization

of financial funds, and propose relevant opinions and suggestions.

(3) Evaluate the effectiveness of project activities in terms of timeliness, quality, quantity, and cost-effectiveness, including the effectiveness of relevant procurement.

(4) Compliance check.

(5) Evaluate the capacity and efficiency of the executive agency and executive office, record the difficulties and challenges related to organizational resources and human resources, and make relevant recommendations.

(6) Analyze and evaluate the roles and responsibilities of project stakeholders.

(7) Confirm the role of the project monitoring and evaluation system, especially the analysis of information and data combined with the requirements of the project logic framework, and make suggestions on the timeliness, quality and content of the annual and semi-annual reports submitted by the project executive office.

(8) Assess project risks and reach a consensus on necessary risk response and mitigation measures.

(9) Collect the opinions of project stakeholders and partners on the implementation status and implementation results.

(10) Evaluate the status and progress of the project's environmental and social management plan and gender plan.

(11) Evaluate the status and effectiveness of procurement activities so far.

(12) Reach a consensus on the required adjustments, including the logical framework, project activities and outputs, the adjustment of the total budget and budget categories, procurement, etc.

### **2.3 Evaluation Methods**

**(1) Holding mid-term review launch meeting, meeting with the project implementation unit, and establishing contact with key project associates.**

On August 13, 2021, the project evaluation launch meeting was held online.

Liu Jing, manager of the national project management office, introduced the overall progress of the project. Lei Xiangdong and Zhang Cheng, evaluation experts, introduced the evaluation plan, and representatives of IUCN China Director Zhang Yan and Manager Sun Yiyun, introduced the project mid-term review requirements.



**Figure 3: Project mid-term review launch meeting**

**(2) Consulting the project task assignment, project annual report, mid-term progress report and related technical reports**

Before holding meetings with local PMO of the three pilot provinces, experts consulted the relevant project reports in detail, especially the Forest Landscape Restoration Plans and project implementation monitoring report. Partial of materials reviewed are showed here.

- 1.1.A.1.1-Assessment Report on Key Ecosystem Services of Mulan SFF in Hebei Province:木兰围场国有林场森林生态系统服务关键指标分析报告.pdf
- 1.1.A.1.2-Assessment Report on Key Ecosystem Services of Huangtulangzi SFF in Pingquan City of Hebei Province:河北平泉市黄土梁子林场森林生态系统服务关键指标分析报告.pdf
- 1.1.A.1.3-Assessment Report on Key Ecosystem Services of Caoyuan SFF in Fengning County of Hebei Province:河北丰宁围场林场森林生态系统服务关键指标分析报告.pdf
- 1.1.A.1.4-Assessment Report on Key Ecosystem Services of Anzidong SFF in Anyuan County of Jiangxi Province:江西安远县安子寨林场森林生态系统服务关键指标分析报告.pdf
- 1.1.A.1.5-Assessment Report on Key Ecosystem Services of Jinpenshan SFF in Xinfeng County of Jiangxi Province:江西寻丰县金盆山林场森林生态系统服务关键指标分析报告.pdf
- 1.1.A.1.6-Assessment Report on Key Ecosystem Services of Gonglongping SFF in Bijie City of Guizhou Province:贵州毕节市拱坝坪林场森林生态系统服务关键指标分析报告.pdf
- 1.1.A.1.7-Assessment Report on Key Ecosystem Services of Guihua SFF in Zhijin City of Guizhou Province:贵州织金县桂花林场森林生态系统服务关键指标分析报告.pdf
- 1.1.A.1.8-Outline of Innovative Forest Management Plan:新型森林经营方案大纲.pdf
- 1.1.A.1.8-新型森林经营方案大纲.pdf
- 1.1.A.1.9-Innovative Forest Management Plan of Mulan SFF:木兰林场新型森林经营方案.pdf
- 1.1.A.1.9-木兰林场新型森林经营方案.pdf
- 1.1.A.1.10-Innovative Forest Management Plan of Huangtulangzi SFF:黄土梁子林场新型森林经营方案.pdf
- 1.1.A.1.10-黄土梁子林场新型森林经营方案.pdf
- 1.1.A.1.11-Innovative Forest Management Plan of Jinpenshan SFF:金盆山林场新型森林经营方案.pdf
- 1.1.A.1.11-金盆山林场新型森林经营方案.pdf
- 1.1.A.1.12-Innovative Forest Management Plan of Anzidong SFF:安子寨林场新型森林经营方案.pdf
- 1.1.A.1.12-安子寨林场新型森林经营方案.pdf
- 1.1.A.1.13-Innovative Forest Management Plan of Guihua SFF:桂花林场新型森林经营方案.pdf
- 1.1.A.1.13-桂花林场新型森林经营方案.pdf
- 1.1.A.1.14-Innovative Forest Management Plan of Gonglongping SFF:拱坝坪林场新型森林经营方案.pdf
- 1.1.A.1.14-拱坝坪林场新型森林经营方案.pdf
- 1.1.A.1.15-Implementation Report of Innovative Forest Management of Mulan SFF:木兰林场新型森林经营方案实施报告.pdf
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- 1.1.A.1.20-Implementation Report of Innovative Forest Management of Gonglongping SFF:拱坝坪林场新型森林经营方案实施报告.pdf
- 1.1.A.1.20-拱坝坪林场新型森林经营方案实施报告.pdf
- 1.1.A.1.21-Implementation Report of Innovative Forest Management of Guihua SFF:桂花林场新型森林经营方案实施报告.pdf
- 1.1.A.1.21-桂花林场新型森林经营方案实施报告.pdf
- 1.1.A.2.1-Requirements of Development of Innovative Forest Management Plan In New Era (Training Material) 新时代森林经营方案编制要求 (培训教材).pdf
- 1.1.A.2.1-新时代森林经营方案编制要求 (培训教材).pdf
- 1.1.A.2.2-The Application of Simulation In Developing Forest Management Plan 利用模拟手段配合编制森林经营方案.pdf
- 1.1.A.2.2-利用模拟手段配合编制森林经营方案.pdf
- 1.1.A.2.3-Guidelines for Development of Innovative Forest Management Plan in State Forest Farms 国有林场新型森林经营方案编制指南.pdf
- 1.1.A.2.3-国有林场新型森林经营方案编制指南.pdf
- 1.1.A.2.4-Development and Implementation of Innovative Forest Management Plan (Paper published in Forestry Journal) 新型森林经营方案的编制与实践 (学术论文).pdf
- 1.1.A.2.4-新型森林经营方案的编制与实践 (学术论文).pdf
- 1.1.B.1.1-Assessment Report of Pilots for FLR Plan in China:以林为主的山水林田湖草沙规划编制地方(二套一作) 筛选分析报告.pdf
- 1.1.B.1.1-以林为主的山水林田湖草沙规划编制地方(二套一作) 筛选分析报告.pdf
- 1.1.B.1.2-Analysis Report on Forest Landscape Restoration (FLR) and Forest-oriented Mountain-Water-Forest-Farmland-Lake-Grass Plan 森林景观恢复与山水林田湖草生态保护与恢复.pdf
- 1.1.B.1.2-森林景观恢复与山水林田湖草生态保护与恢复.pdf
- 1.1.B.1.3-Outline of FLR Plan:以林为主的山水林田湖草沙规划大纲.pdf
- 1.1.B.1.3-以林为主的山水林田湖草沙规划大纲.pdf
- 1.1.B.1.4-FLR Plan of Fengning County (Draft Version) 丰宁县以林为主的山水林田湖草沙规划初稿.pdf
- 1.1.B.1.4-丰宁县以林为主的山水林田湖草沙规划初稿.pdf
- 1.1.B.1.5-FLR Plan of Xinfeng County (Draft Version) 信丰县以林为主的山水林田湖草沙规划初稿.pdf
- 1.1.B.1.5-信丰县以林为主的山水林田湖草沙规划初稿.pdf
- 1.1.B.1.6-FLR Plan of Bijie City (Draft Version) 毕节市以林为主的山水林田湖草沙规划初稿.pdf
- 1.1.B.1.6-毕节市以林为主的山水林田湖草沙规划初稿.pdf
- 1.1.B.1.7-Training Materials for FLR Plan 以林为主的山水林田湖草沙规划培训教材.pdf
- 1.1.B.1.7-以林为主的山水林田湖草沙规划培训教材.pdf

**Figure 4: Partial of materials reviewed**

**(3) Project progress report and exchange meeting**

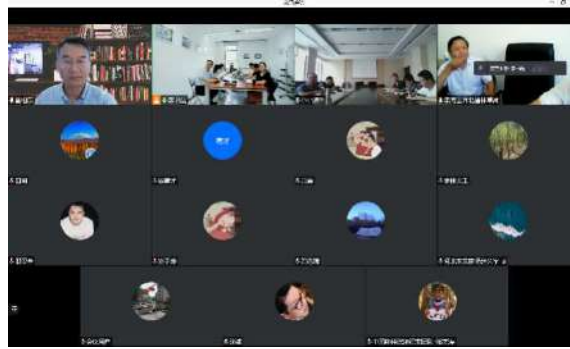
Affected by the epidemic, the project progress exchange meeting with 3 local PMO was held online. After listening to reports from the three provincial PMOs, the two evaluation experts discussed with the coordinators of provincial project management office and the managers of pilot forest farms about the preparation of FMR plans, Forest Landscape Restoration Plans, monitoring of key ecosystem services, capacity building, financial implementation, and project problems and suggestions.

On August 27, 2021, the exchange meeting on the mid-term progress report of project implementation in Guizhou Province was held. People from National project management office, provincial project management office, Forestry Bureau of Bijie city, two state forestry farms and provincial experts attended the meeting, totally 19 participants.



**Figure 5: Online exchange meeting on project progress of Guizhou Province**

On September 2, 2021, the exchange meeting on the mid-term progress report of project implementation in Hebei Province was held. People from National project management office, provincial project management office, Forestry Farm and Seedling Division of Hebei Provincial Forestry and Grassland Bureau, Forestry Bureau of Fengning County, three state forest farms, and provincial experts attended the meeting. In total 23 participants.



**Figure 6: Online exchange meeting on project progress of Hebei Province**

On September 3, 2021, the exchange meeting on the mid-term progress report of project implementation in Jiangxi Province was held. People from National project management office, provincial project management office, Forestry Farm and Seedling Division of Jiangxi Provincial Forestry and Grassland Bureau, Forestry Bureau of Fengning County, two state forest farms, and provincial experts attended the meeting. In total 20 participants.



**Figure 7: Online exchange meeting on project progress of Jiangxi Province**

**(4) Inspection of project sites**

During September 11-14, 2021, mid-term review experts Dr. Lei Xiangdong, together with the project chief technical adviser Dr. Zhang Songdan, and communications officer Ms. Niu Jiayi from national project management office visited the Mulan State Forest Farm and Caoyuan Forest Farm in Hebei Province, inspected the forest stand and monitoring sampling plots. A seminar on the participation of the “FLR plan of Fengning County” was held, discussions were conducted with local stakeholders.



**Figure 8: Tending and thinning sample plot of larch plantation**



**Figure 9: symposium on the preparation of the “FLR plan of Fengning County”**

### **3. Results**

#### **3.1 Project Activities and Outputs by June 30th 2021**

The project has a comprehensive governance structure, and achieved active participation of project stakeholders. From the inception of the project to June 30, 2021, focusing on the three core tasks of "preparation and implementation of innovative FMR plans", "preparation of FLR plans " and "policy suggestions for integrating the concept of FLR into China's forestry", the project has made remarkable progress in various activities designed in the four modules (including 9 new core indicators of TRI project). Except for ecological service monitoring and overseas exchanges, the indicators specified in the mid-term of the project have been basically met as planned. In particular, based on the concept of landscape restoration, A guidelines for the preparation of innovative FMR plans have been formulated, and the innovative FMR plans (2021-2030) have been prepared and implemented in 7 pilot forest farms; The monitoring outline of key ecosystem



services was formulated, and 237 fixed monitoring sample plots were established; using the forest landscape restoration opportunities assessment methodology (ROAM), three FLR plans (forest-oriented mountain-water-forest-farmland-lake-grass plan) were completed. Through bulletins, international conferences, papers, training courses, official WeChat account and other publicity projects activities, the application of FLR concept, SFM concept and ecosystem service concept in China has been promoted, and produced positive impact on supporting the construction of ecological civilization and comprehensive management of forest-oriented mountain-water-forest-farmland-lake-grass in China. Affected by the epidemic, the monitoring report of key ecosystem services in SFFs and overseas exchanges are relatively lagging behind.

**Table 2 :Mid-term progress of objectives and outcomes of component 1**

Component, outcome, objective, output	Indicator	Sub-objective	Completion	% Complete	
<b>Component 1</b>	<b>Improving ecosystems services in China's State Forests Farms (SFFs): Implementation of Restoration Programs and Complementary Initiatives</b>				
<b>Outcome 1.1</b>	<b>Forests in selected landscapes provide relevant ecosystem services (water, soil and carbon sequestration), maintain and improve biodiversity, increase climate resilience, reduce land degradation, and generate local benefits</b>				
<b>Objective 1.1A</b>	<b>China's state forest farms integrate FLR forest farm management plans, aim to safeguard specific ecosystem service functions (including biodiversity conservation).</b>				
Output 1.1.A.1	Improved capacity of the pilot SFFs that can formulate SFM plans, so as to achieve the objectives of FLR in the short, medium and long term	Number of FMR plans; the plans not only include FLR, but also set corresponding short, medium and long-term objectives.	7 FMR plans, include FLR and the corresponding short, medium and long-term objectives.	7 SFFs have developed the innovative FMR plans (2021-2030), all using landscape restoration concepts, including landscape spatial optimization and multiple ecological service objectives.	100%
Output 1.1.A.2	Improved forest landscapes of pilot SFFs and ecosystem service functions through the implementation of annual FMR plans.	Number of annual FMR plans developed by SFFs.	Seven 3-year FMR plans, carry out activities related to sustainable FMR plans oriented towards FLR	The management plans for the first 5 years of the 7 SFFs will be implemented in sub-compartments.	
Output 1.1.A.3	Promote the FLR principle-based FMR plans to municipal level	Number of FMR plans; the plans not only include FLR, but also set corresponding short, medium and long-term objectives (outside the pilot SFFs)	Nine FMR plans of other SFFs in the project pilot areas	Other nine SFFs in project pilot areas have been selected as pilot forest farms, and a total of six SFFs in Guizhou and Jiangxi have completed the first draft of the innovative FMR plans. The other three forest farms have started to formulate the innovative FMR plans	60%
<b>Objective 1.1.B</b>	<b>FLR plans implemented in the project pilot areas, covering the SFFs and their surrounding landscapes.</b>				

Component, outcome, objective, output		Indicator	Sub-objective	Completion	% Complete
Output 1.1.B.1	Cross-departmental (forestry, environmental protection, water resources, land and resources departments, etc.) collaborative planning, and improved ability to implement FLR	Number of FLR plans at the municipal and county levels	3-4 municipal and/or county-level FLR plans (Bijie, Chengde and Ganzhou or two counties of Ganzhou), including strategies for sharing benefits with local communities	Using ROAM method, completed the three FLR draft plans of Bijie City, Fengning County and Xinfeng County, and the opinions and suggestions of experts, relevant provincial departments and other stakeholders are being solicited.	80%
New indicator 2.1	Area of land undergoing restoration (hectares). 2.1. Area of degraded agricultural lands restored 2.2. Area of forest and forest land restored 2.3. Area of natural grass and shrublands restored 2.4. Area of wetlands (including estuaries and mangroves) restored	Area	208,919 ha	2.1 Area of degraded agricultural lands restored 442 ha; 2.2 Area of forest and forest land restored 151,969 ha; 2.3 Area of natural grass and shrublands restored 2668 ha; 2.4 Area of wetlands (including estuaries and mangroves) restored 244 ha; 2.5 Area of desert and other landuse restored: 1772 ha;	74%
New indicator 2.2	Area of landscapes under improved practices (hectares; excluding protected areas), disaggregated into the 4 categories (indirect impacted area):	Area	208,919.00ha	Complete 213,215 ha, of which 3.1 Area of landscapes under improved management to benefit biodiversity (qualitative assessment, non- certified): 35,080 ha 3.2 Area of landscapes that meet national or international third-party certification and that incorporates biodiversity considerations: 2,772 ha	100%

Component, outcome, objective, output		Indicator	Sub-objective	Completion	% Complete
	<p>3.1 Area of landscapes under improved management to benefit biodiversity (qualitative assessment, non-certified)</p> <p>3.2 Area of landscapes that meet national or international third-party certification and that incorporates biodiversity considerations</p> <p>3.3 Area of landscapes under sustainable land management in production systems</p> <p>3.4 Area of high conservation value forest loss avoided</p>			<p>3.3 Area of landscapes under sustainable land management in production systems: 85,266 ha</p> <p>3.4 Area of high conservation value forest loss avoided: 90,097 ha</p>	
<b>Outcome 1.2</b>	<b>Ecosystem services valuation and monitoring methodologies in place and measuring the results; Monitoring of planted and restored forests and SFFs in China is adequate</b>				
<b>Objective 1.2</b>	<b>Establish methods, indicators, facilities, and data collection and analysis systems for ecosystem services and biodiversity monitoring.</b>				
Output 1.2.1	There are local standard processes for monitoring forest conditions and each ecosystem service (including types, service	Number of monitoring programs for ES and data storage stations that have been established and are in use	Monitoring plan for each priority ecosystem service (and its related data storage)	The monitoring outline of key ES of SFFs has been formed; 237 fixed monitoring sample plots were established, and 7 monitoring schemes were completed according to the specific conditions of 7 pilot forest farms.	100%

Component, outcome, objective, output		Indicator	Sub-objective	Completion	% Complete
	flows and trends) prioritized in the planning of SFFs				
Output 1.2.2	Obtain baseline survey data related to specific objectives of each pilot SFF and landscape, including forest status and various ecosystem services	Number of baseline surveys completed	Complete 7 baseline surveys	Completed 7 baseline surveys (one for each forest farm), consisting of the 2020 ecological service baseline and the 2019 socio-economic baseline.	100%
		Monitoring data and quantity of ES	There are 7 sets of ecosystem service monitoring data sets every year in the three years	Affected by the COVID-19 epidemic, ecological service monitoring will start from the baseline in 2020, and 14 sets of monitoring data sets are expected to be completed in 2021 and 2022.	20%
Output 1.2.3	Collect monitoring data reflecting forest conditions, changes in ES (including biodiversity) and local socio-economic conditions, and guide the implementation of SFMs and FLR plans	Number of comprehensive reports reflecting changes in forest conditions and ES and socio-economic conditions	21 reports reflecting changes in forest conditions, ES, and socio-economic conditions	Due to COV19, the end of 2019 ecological monitoring was interrupted, so only 2020-2022 ES report can be finished. so final output will be 14-21 reports.	20%
		Number and remuneration of male and female members of the community from different backgrounds joining the monitoring team	Two reports per year (8 reports) by the coordinator of the project pilot areas.	Hebei PMO was established in April 2019, five reports were completed by the provincial coordinator up to date. Since the establishment of Jiangxi and Guizhou PMOs in January 2020, the provincial coordinators have been completed three reports respectively. Monitoring teams have been established in the seven pilot forest farms, with a total of 310 monitoring personnel, including 101 women.	50%

Component, outcome, objective, output	Indicator	Sub-objective	Completion	% Complete	
New indicator 4	Reduced greenhouse gas emissions: carbon sinks or emissions reductions achieved in agriculture, forestry, and other types of land use.	Emission reduction	11,260,000 (tCO <sub>2</sub> eq) carbon sink or carbon emission reduction, including 3,640,000 (tCO <sub>2</sub> eq) direct emission reduction and 7,620,000 (tCO <sub>2</sub> eq) indirect emission reduction	8,346,924 (tCO <sub>2</sub> eq) carbon sink or carbon emission reduction, including 7,482,798 (tCO <sub>2</sub> eq) direct emission reduction and 864,126 (tCO <sub>2</sub> eq) indirect emission reduction.	74%
<b>Outcome 1.3</b>	<b>Clear and quantified environmental improvements sustained by local institutional, policy and financing mechanisms</b>				
<b>Objective 1.3</b>	<b>Using the data obtained through monitoring to improve the method of evaluating the value of ecosystem services, in order to establish an ecological compensation system (from the central to the local level)</b>				
Output 1.3.1	Accounting for the value of ES and biodiversity, used to grasp and report national processes, and to establish an ecological compensation system (subsidies and paid use of ecosystem services)	The monitoring data of seven SFFs are loaded into the system to integrate the monitoring data with evaluation methods and paid use of ecosystem services.	A system that combines monitoring data with value assessment methods and paid use plans for ecosystem services	Completed one copy of the "Accounting Method for Forest Ecological Service Value of State Forest Farms Based on GEP Theory".	70%
		Number of reports on the value of ES	2 reports on the value of ES	One resource liability sheet of the pilot forest farm is expected to be completed by the end of 2021, and the ecosystem service value report will be completed in the future based on the value evaluation method.	20%
		The average incremental value of the target ES, and the related compensation flowing to representative households near the pilot SFFs	Baseline survey and annual PANEL report of 20 randomly sampled households in 7 pilot SFFs (144 households) classified by gender	The relevant data has been included in the 2019 socio-economic baseline survey report, and the relevant report will be completed by project experts by the end of 2021.	30%

**Table 3: Mid-term progress of objectives and outcomes of component 2**

Component, outcome, objective, output	Indicator	Sub-objective	Completion	% Complete	
<b>Component 2</b>	<b>Mainstreaming ecosystem services in China's forest policies: Policy Development and Integration</b>				
<b>Outcome 2.1</b>	<b>New policies, legal and regulatory frameworks which facilitate and promote FLR and SFM</b>				
<b>Objective 2.1</b>					
<b>Outcome 2.1.1</b> (new indicator 1)	National and regional forestry policy makers obtain relevant information and suggestions, formulate new policies, and use SFFs as the cornerstone of local FLR	Number of revised FLR policies/regulations/plans, and progress towards final adoption (level 1-4)	The principles of FLR are included in the national forestry policy, including the reform of SFFs, the national forestry survey and the 14th Five-Year Forestry Development Plan, etc.	The project cooperated with the Department of State Forest Farm and Seeds and Seedlings Management of the SFGA to complete the "Guidelines for Development of Innovative Forest Management Plan in State Forest Farms" and passed expert certification. It will be printed and distributed to SFMs across the country after soliciting opinions. Other policy-related work is being launched. The policy analysis report has been completed, and the policy window has been initially sorted out to establish a foundation for the follow-up work on FLR promotion in China.	30%
<b>Outcome 2.2</b>	<b>The SFFs reform fully considers the roles of SFFs in providing ecosystem services and develops appropriate supporting legal, regulatory and financial instruments and policies</b>				
<b>Objective 2.2</b>	<b>Planning tools and governance structure for FLR adopted by the general station of state forest farm and forest seedling, SFGA</b>				
Output 2.2.1	The management structure of	Seven SFFs change	Seven SFFs have made changes in	The seven SFFs have all completed	50%

	the SFM supports the goal of the SFM reform: FLR and public welfare transformation of the SFFs	management/institutional structure	management/institutional structure, supporting the principles and practices of FLR	institutional changes during the reform and become public welfare units; suggestions on the innovative governance structure of SFFs to support FLR will be put forward in the policy recommendations	
Output 2.2.2	The SFFs has a series of technical tools to improve the FMR plans of the SFFs and implement FLR	Planning tools such as the FMR plan and the sustainable development plan of the SFFs have been incorporated into the policies of the SFFs.	SFFs incorporate planning tools such as FMR plan and sustainable development plan into their policies.	"Guidelines for Development of Innovative Forest Management Plan in State Forest Farms" are being improved, and will be issued by the Department of State Forest Farm and Seeds and Seedlings Management of SFGA, and will be included in the policy.	50%
		Performance of state-owned forest farms in forest ecosystem service flow	Nine SFFs other than the seven pilot SFFs formulate FMR plans	Same as 1.1.A.3, six drafts of innovative FMR plans have been completed, and the remaining three are under preparation and approval, and will be completed by the end of the year.	60%
<b>Outcome 2.3</b>	<b>Increased area of landscapes and afforested lands protected by new policies</b>				
<b>Objective 2.3</b>	<b>The central policy shall be revised within the relevant scope to promote FLR and the implementation of SFM.</b>				
Output 2.3.1	At the central level, policy makers have information about the potential contribution of SFMs to relevant national goals; these goals include FLR, biodiversity conservation, and	Central government policies (such as the 14th Five-Year Forestry Development Plan) reflect the new role of SFFs in realizing FLR related benefits	At least one information briefing explaining the way and extent of the SFFS in line with the national environmental goals	The Outline of "Fourteenth Five-Year" Forestry and Grassland Conservation and Development Planning clearly proposes to improve the management mechanism of SFFs, stimulate development vitality, and promote	50%



	ecosystem service provision.			green transformation.	
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**Table 4: Mid-term progress of objectives and outcomes of component 3**

Component, outcome, objective, output	Indicator	Sub-objective	Completion	% Complete	
<b>Component 3</b>	<b>Capacity building and knowledge dissemination: Institutions, Finance and Upscaling</b>				
<b>Outcome 3.1</b>	<b>Stakeholders in China (national stakeholders and stakeholders of 3 pilot landscapes) have improved knowledge of new financial mechanisms, accounting system and best practices on SFM</b>				
<b>Objective 3.1</b>	<b>SFFs implement sustainable development (SD) plans incorporating 1-3 strategic targets to support FLR</b>				
Output 3.1.1	Improved capacity and resources of SFFs to adapt to the new role of public welfare units, and continue to support FLR	Number of formulated SDPs	Prepare 7 development plans for the SFFs in the project pilot areas	Completed seven sustainable development plans (draft) of 7 SFFs, and the opinions of the forest farms and relevant authorities are being consulted.	80%
Output 3.1.2	SFFs use better market and business knowledge to improve the sustainability of public benefits generated through management (from FLR)	Number of SFFs using the sustainable development plans among SFFs.	Seven SFF sustainable development plans that can be used in the pilot areas	Same as above, will be put into use.	80%
<b>New indicator 6</b>	Cross-sectoral government-led coordination mechanisms and/or frameworks incorporating and supporting restoration established/strengthened at national and sub-national levels.	Number of cross-sectoral collaboration mechanisms or framework actions	3 个 Three	Three cross-sectoral collaboration mechanisms based on this project have been established to support the implementation of FLR across the country and regions: 1. Established 7 government-led cross-sectoral collaboration mechanisms at different levels including the country, province, city, and county.	100%

Component, outcome, objective, output		Indicator	Sub-objective	Completion	% Complete
				<p>2. Established 4 temporary cross-sectoral collaboration mechanisms initiated by the project, which greatly helped the stakeholder consultation and data collection work required in the FLR planning.</p> <p>3. The technical coordination mechanism initiated by the project, such as expert group, can efficiently carry out training, knowledge sharing, and technical exchanges.</p>	
<b>New indicator 7</b>	Integrate resources to support restoration work in TRI countries (including government, enterprise and other resources)	Resources invested to support the pilot forest farms/landscapes	\$ 13.5 million	Close to \$ 42 million (excluding matching funds)	100%
<b>Outcome 3.2</b>	<b>Knowledge-sharing and international cooperation mechanisms further promote transfer and scaling up of project results, especially the collaboration with international initiatives such as Bonn Challenge/GPFRLR, CBD, UNCCD, and the South-South cooperation between China, Brazil and African countries</b>				
<b>Objective 3.2</b>	<b>Policy engagement from China in global processes related to FLR and the role of forests and trees in mitigating/adapting to global environmental challenges is increased</b>				
Output 3.2.1	Improved capabilities of SFF managers can contribute to the development and promotion of international policies for FLR	Number of activities that the Chinese representatives contribute to the global process related to FLR	2-4 project briefings and presentations per year	In 2019, participated in 2 international exchanges, held 1 international training, and organized 1 international training course to introduce China's FLR and forest management related experience to representatives of Myanmar and Pakistan. Failed to participate in international conferences after the COVID-19 outbreak. Provided IUCN China 6 copies Project Newsletter (annual in 2019 Annual, 4 copies of Newsletter Quarterly in 2020, and Newsletter Quarterly-Spring 2021), submitted the WCC conference project report to the Ministry of Natural Resources of China.	50%

Component, outcome, objective, output		Indicator	Sub-objective	Completion	% Complete
				Published two project briefings in TRI Annual and IUCN website; at the TRI Annual Conference, held a discussion with FAO-OFFICE of South-South and Tripartite Cooperation to present the project progress and jointly completed a project proposal to promote FLR work in South-South countries.	
<b>Objective 3.3</b>	<b>Information and knowledge gaps identified and addressed to better inform the policy and practical endeavors</b>				
<b>Objective 3.3</b>	<b>Public and/or private financing mechanisms support FLR initiatives</b>				
Output 3.3.1 (New indicator 8)	SFF and County Forestry Bureaus in 3 pilot areas have marketable investment products to increase sustainability of operations supporting FLR	Number of bankable initiatives financed	7-14 Specific packages of "Bankable" initiatives	4 forest farms have formed financing project proposals, 2 of which two have already received financial support.	50%
<b>Objective 3.4</b>	<b>Improved awareness and understanding among key decision- makers and stakeholders of forest services and SFM</b>				
<b>Objective 3.4A</b>	<b>SFM, FLR and supporting planning processes are up-scaled to provincial/national levels</b>				
Output 3.4.A.1	General station of state forest farm and forest seedling, SFGA has the latest technology to share information and knowledge	An online platform featuring planning tools and monitoring and evaluation tools suitable for China put into operation	1 online platform put into operation	Established a WeChat public platform to support the dissemination of project output, and will continue to be promoted and applied during the project period in the future.	100%
Output 3.4.A.2	Improved internal and external communication capabilities of SFF managers	Number of SFF social network members	500 SFF managers and 500 staff from the central to provincial, municipal and county-level forestry departments join the	The WeChat network platform has got 524 follows with more than 11,400 person-times readings; more than 500 people have been covered by the social groups established by the project around various project tasks.	100%

Component, outcome, objective, output		Indicator	Sub-objective	Completion	% Complete
			SFF social network		
Output 3.4.A3	Generally increased awareness of General station of state forest farm and forest seedling, SFGA, especially with regard to the tools that have been developed to promote the conversion and operation of public welfare units	Compile and issue guidance documents	Guiding documents are distributed to heads of SFFs	The project guidance documents and related outcome documents (including various introductions, guides, and progress reports) were distributed to SFF managers across the country through training and other forms, with a total of more than 500 managers.  A project address book has been established, including a total of 155 contacts at all levels of the country, province, city, county or district, and forest farm.	50%
<b>Objective 3.4B</b>	<b>The practice of FLR &amp; FMR planning is adopted and implemented beyond the pilot areas of the project</b>				
Output 3.4.B.1	Provincial forestry departments have relevant tools to improve the ability of all regional forestry departments to organize and participate in cross-sectoral planning for FLR	ROAMs/FLR manuals in use	Adapted ROAMs/ FLR manuals to be applicable to China	Compiled "FLR Theory and Practice Training Textbook" and "FLR Basic Course", completed a research paper "Exploration of Basic Features and Application Principles of Forest Landscape Restoration", and used it in capacity building activities. The translated "A Guide to the Restoration Opportunities Assessment Methodology (ROAM)" have been shared with project personnel and will be officially published in September 2021. The basics of forest landscape restoration (FLR), the theory and practice of FLR have been mastered through trainings.	80%
<b>Objective 3.4C</b>	<b>Policy and decision makers from local to national levels are equipped with knowledge of how to facilitate SFM, FLR, and ecosystem service delivery</b>				
Output 3.4.C.1	The best practices and lessons learned in related fields are	Number of project presentations made at national conferences	Four project presentations at	Project information has been shared in various national training courses and partner meetings more than 4 times	50%

Component, outcome, objective, output		Indicator	Sub-objective	Completion	% Complete
	learned by project communities through the implementation of the project.		relevant national conferences a year	a year (5 national training courses were held in 2019, and 7 national training courses were held in 2020 (including 5 online training courses), 3 national training courses have been held in the first half of 2021.	
		Evaluate the benefits of best management practices for FLR through the accounting and value evaluation of ES	One evaluation	Work has already begun and is scheduled to be completed in 2022.	10%
		The project webpage is put into use and updated regularly	The project webpage is put into use	The project has established a project column on the official website of the SFGA and a WeChat public platform. In total 76 articles have been published by June 30, 2021, which 18 were published on the NFGA website and 15 were reprinted by IUCN.	100%
		Number of male and female representatives participating in relevant national, regional and international capacity building activities	400 project personnel participated in 8 national and regional learning exchanges; 120 project personnel participated in international learning exchanges	More than 1,500 people have participated in various trainings of the project, of which women accounted for about 30%; 54 people have participated in international learning exchanges organized by the project; since the epidemic, have participated more than ten online international capacity building activities have been organized by TRI.	50%
<b>New indicator 5</b>	The number of people directly benefited by the impact of the GEF project, counted by gender	Number of people	The number of people affected by the project is 35000 (direct and indirect), including 17500 men and 17500	The number of direct beneficiaries of the project is 3,064, including 2,303 males and 761 females; the number of indirect impacts is 269,419.	90%

Component, outcome, objective, output	Indicator	Sub-objective	Completion	% Complete
		women.		

**Table 5: Mid-term progress of objectives and outcomes of component 4**

Component, outcome, objective, output	Indicator	Sub-objective	Completion	% Complete	
<b>Component 4</b>	<b>M&amp;E and information management and communication: Knowledge, Partnerships, Project Monitoring and Assessment</b>				
<b>Outcome 4.1</b>	<b>A Project M&amp;E framework is designed and implemented throughout the project life</b>				
<b>Objective 4.1</b>	<b>TRI China project monitoring system provides relevant, accurate and timely information for project implementation and the global TRI project.</b>				
Output 4.1.1	Project team, international TRI monitoring and evaluation team, project evaluators and GEF can obtain effective information about project implementation in time	Effective monitoring system put into use	An effective monitoring system established, including mid-term and final project evaluation	One project monitoring and evaluation report completed in 2020. A total of three sets of semi-annual reports have been completed. According to the project agreement, the financial reports have also been submitted on time. The mid-term review of the project is in progress.	30%
Output 4.1.2	The impact of the FLR plan in China can be shared in domestic and international conferences and events	Impact data from monitoring of forest conditions and ES integrated into annual reports	Three annual reports on the impact of the project on forest conditions, ES, and local benefit sharing	According to the ecological and social baseline survey report, an annual report (2019-2020) was completed.	30%
		Evaluate the impact of the project on policy, planning, knowledge sharing and expansion activities	3 annual reports on the impact of the project on policy, planning, knowledge sharing and	One annual report (2019-2020) of project knowledge sharing has been completed.	30%

Component, outcome, objective, output	Indicator	Sub-objective	Completion	% Complete	
		expansion activities			
<b>Outcome 4.2</b>	<b>Project outcomes are communicated in an efficient manner</b>				
<b>Objective 4.2A</b>	<b>Awareness of the relationship between restored forests and ecosystem service benefits is increased among stakeholders of the 3 pilot landscapes</b>				
Output 4.2.A.1	Information and knowledge generated by the project received by stakeholders from the village to the municipal level	Project materials can be seen everywhere in all village, county and municipal government offices	350 villages and multi-departmental government offices in 7 counties and 3 cities received project materials	At present, the project has produced 1 brochure, 6 project newsletter quarterlies, and 1 set of publicity videos, which have been distributed and broadcasted to agriculture, forestry, environmental protection departments and pilot forest farms in 3 cities and 7 counties, and invited them to distribute to surrounding villages. In addition, the project also supported 7 pilot forest farms to make 7 brochures and publicity panels for display to the surrounding communities and other stakeholders.	50%
<b>Objective 4.2.B</b>					
Output 4.2.B.1	The forest and landscape restoration-related institutions and practitioners from Bonn Challenge participating countries gain insights and ideas that help improve project implementation through knowledge sharing	Number of international project presentations per year	2-4 international project presentations per year	2019: one PES international training course, 2 TRI conferences (Kenya and Italy) 2020: one online TRI Advisory Committee meeting, two TRI project monthly journals to update the project progress, and one article on the IUCN official website. 2021: none for now	50%





## **3.2 Relevance**

### **3.2.1 The innovative FMR plans developed by the project are recognized as an effective tool for the high-quality development of China's SFFs and the improvement of forest quality**

The preparation and implementation of forest management plans have been incorporated into the "Forest Law of China", article 53 clearly stipulates that "State forestry enterprises and institutions shall formulate forest management plans, clarify management measures for forest cultivation, management and protection, and submit to the forestry authorities of the governments at or above the county level for approval before implementation". The project integrated the new concept of FLR and developed the "Guidelines for Development of Innovative Forest Management Plan in State Forest Farms", which are compiled and implemented in seven SFFs. Compared with the traditional forest management plans, the innovative FMR plan is guided by the concept of FLR, follows the basic principles and requirements of FLR, and aims at improving ES, striking a balance between "restoring the ecological function of forest landscape" and "enhancing human well-being". Therefore, forest landscape and ecological service analysis, landscape pattern and structure optimization are all taken into consideration. The new FMR plan will consider forest management from landscape scale and multiple ecosystem services. The guidelines of FMR plan developed by the project has a potential of being issued nationwide by the Department of State Forest Farm and Seeds and Seedlings Management of NFGA, which will be a huge success of the project, and also of great significance in promoting the compilation and standardization of FLR-based FMR plans for SFFs in China, and in facilitating the systematic development of forest management in China, and in promoting forest quality and ecosystem services of SFFs in China.

### **3.2.2 The FLR plans designed and developed by the project are considered as a good way for China's ecological protection and restoration strategy**

The Chinese Top Leader Xi Jinping proposed that "the country's mountains, rivers, forests, farmlands and lakes is one life community", and "integrating multiple-ecosystem governance" and "integrating ecological protection and restoration of mountain-water-forest-farmland-lake-grass" have become a core in national strategy "ecological civilization". In accordance with this national strategy, the project applied IUCN's advanced Restoration Opportunity Assessment Method (ROAM) to the FLR ecological restoration planning in the three pilot cities. These tools can help governments and operators assess forest restoration strategies, analyse costs-benefits to identify the high-priority, most important landscapes for restoration, while meet the needs of different stakeholders. Developing FLR plan for the 3 landscapes not only plays an important role in enhancing local ecosystem stability, promoting the overall improvement of natural ecosystem quality and services; moreover, it provides a new paths of landscape-level ecological restoration management and technical mechanisim, which could be developed into a innovative systematic approch of multi-participatory ecological protection and restoration management

### **3.2.3 The implementation of the project promote the process of incorporating the concept of FLR and ES into the SFF reform and ecological restoration related forestry policies**

"Forest landscape restoration" as an effective ecological restoration method is developing rapidly around the world. Although there are relevant studies in China, it is the first time in China to widly promote the localization and mainstreaming of the FLR concept.

The innovative FMR plans and the pilot FLR plans have accelerated the procedure of formulating policies conducive to FLR, ES and the application of the

concept of SFM in NFGA and in provincial forest and grass departments. FLR concept now has a tendency of rising up to be a tool of SFFs green development and comprehensive ecosystem management. even contributing to global forest restoration by establishing a Chinese roadmap .

### **3.3 Effectiveness and Efficiency**

#### **3.3.1 The project institutional settings and management are strong and functioning well**

The project successfully established a multi-level project management organization from the national-level/ provincial level to the pilot forest farms, ensuring the smooth and efficient operation of the project. At the national level, the SFF GEF Project Steering Committee (PSC), Steering Committee Office and national PMO have been established. The Project Steering Committee is responsible for the research and decision-making, guidance, supervision and inspection of major issues of the project, with Mr. Liu Dongsheng, Deputy Director of the National Forestry and Grassland Administration (NFGA) as PSC director; the director of the Department of State Forest Farm and Seeds and Seedlings Management, Mr. Cheng Hong is the director PSC office; the National PMO is responsible for the daily implementation of the project, Ms. Liu Jing served as the project manager, and Dr. Zhang Songdan served as the chief technical adviser. At the local level, Hebei, Jiangxi and Guizhou have established provincial PMO, and project leading groups of municipal-level and county-level. Through public recruitment, a high-level expert team covering professional fields such as FLR planning, forest management, ecosystem service monitoring and value evaluation, project socio-economic impact monitoring, environmental and social management and knowledge management has been formed at the national and provincial levels, which provides an effective scientific guarantee for the output of the project.

### **3.3.2 Remarkable progress has been made in the implementation of the project, and the medium-term objectives have been basically completed as planned**

Significant progress has been made in the four components, and all the indicators specified in the mid-term of the project have been completed as planned; under the guidance of the concept of FLR, the project has developed the guidelines for the preparation of innovative FMR plans (2021-2030), which has been implemented in the seven pilot SFFs, and promoted in additional six forest farms so far. A monitoring program for key ecosystem services has been developed, and 237 fixed monitoring plots have been established. Using the Forest Landscape Restoration Opportunities Assessment Method (ROAM), three FLR plan for Bijie city, Fengning County and Xinsheng County have been drafted.

However, due to unavoidable conditions, such as COVID-19, some of project work were postponed. For instance ES monitoring in 7 pilots farms can only start after full implementation of the innovative FMR plan in the year 2021, so baseline year of ES monitoring can only be the year of 2020, resulting in the lag of ES monitoring in outputs 1.2.2 and 1.2.3, and the resulting lag of work related to output 1.3.1, 3.4.C.1 and 4.1. In addition, international exchanges were greatly delayed in past years, and policy suggestions have also been affected accordingly. PMO has taken active measures. The relevant output, such as 2.1.1, is slightly lagging behind, but due to the natural lag of policy impacts, the progress is acceptable.



**Figure 10: Replanting *Acer truncatum* in the *Pinus armandii* forest of Gonglongping SFF in Guizhou Province**



**Figure 11: Degraded Forest restoration of Caoyuan SFF in Hebei Province**



**Figure 12: Tending operation designing of Mulan SFF in Hebei Province**



**Figure 13: Monitoring runoff field of water and soil conservation in Gonglongping SFF in Guizhou**



**Figure 14: Monitoring runoff field of Caoyuan SFF in Hebei**

### **3.3.3 Use of funds**

In general, the use of funds is in line with the project plan and correct procedures. Affected by factors such as the COVID-19 epidemic, international exchanges, domestic training and travels that have been directly affected cannot be carried out or reduced (for example, international travel expenditure is 0), and the implementation rate of project fund is low. As of June 30, 2021, the total expenditure of the project is US \$2,348,516.63, with an implementation rate of 36.57%.

It could be seen from the table of the financial progress that provincial PMOs had quite different performances in terms of implementation rate in different years.

A very important reason for that is, in the process of fund use, since the application and payment of funds were done in at least four levels and three times through IUCN - National PMO - Provincial PMO - SFF, the process is long. According to IUCN's requirement, the national PMO could only apply for a new stipend when meeting the criteria of a certain implementation rate of the last payment from IUCN. Thus when an SFF ask for payment from a provincial PMO, or even a provincial PMO asks for payment from the national PMO, if the upper-level PMO is just in the situation of basically using up the last payment and waiting for the next payment from IUCN, the provincial PMO or the SFF have to wait for a considerable long time. Given that fact, if a provincial PMO takes a long time to summarize the expenditure of its SFFs and slightly delays in requesting payment from the national PMO, and then encounters the waiting period of the national PMO, it will directly amplify the delays and affect the project implementation at all levels, especially the implementation of some fieldwork at the SFF level which can hardly be made up once the time window is missed.

After a period of implementation, the process of fund allocation, expenditure, and application between the national PMO and the IA, between the national PMO and provincial PMO and pilot forest farms has become more and more smooth, and the process can be further straightened out to improve efficiency and avoid the delay of fieldwork caused by the process. There were significant differences in the fund implementation rate of each province, however, the efficiency of fund implementation can be improved by strengthening communication, coordination, and running in, and accelerating the reimbursement speed thus avoiding delays caused by payment.

In the current situation, the use of project funds should be able to ensure the completion of the original project objectives; the project is also being implemented at a faster pace and financial execution rates are being improved. However, if the execution of funds to complete as scheduled, it is necessary to require the adjustment of the corresponding budget costs, such as the expenditure of travel expenses has appeared a lot of lagging, and it is difficult to catch up with the

implementation rate. If the project plan can be extended appropriately, the overall project funding situation should be able to cope, and the budget category adjustment will be better able to support the project to achieve greater results and impact.

资金执行情况汇总表 (费用类别 - 模块表) Fund execution (Category-Component Table) (截止2021年6月30日 As of June 30, 2021)																		
单位: 美元 Unit: USD																		
费用类别 Category	模块一 Component 1			模块二 Component 2			模块三 Component 3			模块四 Component 4			模块五 Component 5			合计 Total		
	预算 Budget	实际支出 Actual Expenditure	执行率 Execution Rate	预算 Budget	实际支出 Actual Expenditure	执行率 Execution Rate	预算 Budget	实际支出 Actual Expenditure	执行率 Execution Rate	预算 Budget	实际支出 Actual Expenditure	执行率 Execution Rate	预算 Budget	实际支出 Actual Expenditure	执行率 Execution Rate	预算 Budget	实际支出 Actual Expenditure	
1 顾问费/分包合同 Consultants & Sub-Contracts	1,200,000.00	622,247.48	42.46%	30,000.00	3,000.00	10.00%	142,000.00	-	0.00%	194,652.00	14,654.00	7.52%	-	-	-	1,597,652.00	629,891.48	33.79%
2 采购 Procurement	476,147.00	278,251.04	58.43%	29,665.00	11,508.69	38.81%	213,988.00	115,789.55	53.69%	255,291.00	153,117.19	59.15%	150,000.00	56,598.83	37.73%	1,362,741.00	568,286.21	40.87%
2.1 设备 Equipment	251,000.00	145,908.72	58.13%	8,660.00	8,660.00	100.00%	51,900.00	43,772.28	84.34%	25,950.00	21,951.49	84.76%	-	-	-	337,500.00	220,222.49	65.28%
2.2 办公室运营 Office Operation	21,900.00	15,900.00	72.17%	2,190.00	1,100.00	50.23%	73,140.00	64,870.00	78.00%	146,670.00	61,136.70	41.69%	150,000.00	56,598.83	37.73%	392,800.00	210,596.63	53.40%
2.3 租车 Car Rental	15,000.00	4,130.51	27.54%	2,750.00	-	0.00%	29,000.00	11,773.81	40.61%	8,250.00	-	0.00%	-	-	-	55,000.00	17,904.32	32.60%
2.4 差旅费 Travel Costs	60,100.00	22,821.23	38.00%	6,000.00	-	0.00%	39,000.00	-	0.00%	13,000.00	-	0.00%	-	-	-	122,000.00	22,821.23	18.69%
2.5 宣传材料 Promotion Materials	128,247.00	96,899.62	75.63%	20,075.00	4,758.69	23.71%	69,948.00	5,439.46	7.78%	99,224.00	-	0.00%	-	-	-	256,494.00	127,051.77	47.98%
3 员工工资 Staff Salaries	450,717.00	259,241.04	57.54%	273,806.00	123,118.11	44.64%	262,811.00	137,143.32	51.84%	240,796.00	133,531.50	55.46%	58,000.00	31,747.30	54.73%	1,312,260.00	653,882.31	49.83%
4 差旅费 Travel Costs	70,000.00	39,696.12	56.71%	12,000.00	-	0.00%	283,200.00	61,780.53	21.78%	393,889.00	-	0.00%	60,180.00	-	0.00%	827,269.00	101,876.65	12.31%
4.1 国内差旅 Domestic Travel	70,000.00	39,696.12	56.71%	12,000.00	-	0.00%	283,200.00	61,780.53	21.78%	32,088.00	-	0.00%	-	-	-	390,188.00	101,876.65	26.11%
4.2 国际差旅 International Travel	-	-	-	-	-	-	-	-	-	370,400.00	0.00%	60,180.00	0.00%	432,580.00	-	0.00%	-	-
5 项目活动 Program Activities	695,681.00	153,779.35	22.10%	30,000.00	-	0.00%	-	-	-	20,000.00	-	0.00%	-	-	-	715,681.00	153,779.35	21.48%
6 培训研讨会 Trainings, Workshops & Meetings	307,300.00	186,398.01	60.68%	77,000.00	41,389.29	53.75%	196,000.00	60,489.56	30.86%	75,000.00	11,000.00	14.67%	37,500.00	0.00%	0.00%	762,900.00	299,281.52	39.23%
总计 Total	3,329,948.00	1,418,812.12	42.72%	451,471.00	202,040.73	44.75%	1,144,120.00	278,242.96	24.28%	1,202,820.00	261,282.60	21.76%	805,880.00	88,237.13	10.94%	6,422,018.00	2,348,626.93	36.57%

国有林场GEF项目资金执行进度汇总表 Summary of PRC-GEF State Forest Farm Project Fund Execution (截止到2021年6月30日 As of 30 June, 2021)						
单位: 美元 Unit: USD						
		总预算 Total Budget	2019	2020	2021 (截止到2021年6月30日) (As of 30 June, 2021)	2021 (截止到2021年6月30日) (As of 30 June, 2021)
					总支出 (截止到2021年6月30日) (As of 30 June, 2021)	执行率 Execution Rate
国家层面 National Level	预算 Budget	3,458,094.00	744,684.00	987,285.00	1,174,969.00	
	实际支出 Actual Expenditure		293,267.53	504,810.31	439,082.37	1,237,160.21
	执行率 Execution Rate		39%	51%	37%	36%
河北省 Hebei Province	预算 Budget	1,140,304.00	371,030.00	683,261.00	732,796.00	
	实际支出 Actual Expenditure		26,297.69	162,054.07	233,866.66	421,218.42
	执行率 Execution Rate		7%	24%	32%	37%
江西省 Jiangxi Province	预算 Budget	889,510.00	277,069.00	435,606.00	447,300.00	
	实际支出 Actual Expenditure		0.00	97,943.68	147,403.16	245,347.04
	执行率 Execution Rate		0%	20%	33%	26%
贵州省 Guizhou Province	预算 Budget	934,110.00	281,669.00	478,169.00	624,835.00	
	实际支出 Actual Expenditure		8,595.37	90,971.63	345,223.76	444,790.96
	执行率 Execution Rate		3%	19%	55%	48%
合计 Total	预算 Budget	6,422,018.00	1,674,462.00	2,634,281.00	2,980,000.00	
	实际支出 Actual Expenditure		327,160.59	855,780.09	1,165,576.05	2,348,616.63
	执行率 Execution Rate		20%	32%	39%	37%

### 3.3.4 The impact of COVID-19 epidemic



The COVID-19 epidemic has had an impact on project activities, including the implementation of some measures of the FMR plan, monitoring of key ecosystem services, overseas visits and exchanges, and demonstration and promotion of project results at home and abroad, thereby affecting project progress and budget implementation. Most of scheduled discussions and seminars were postponed due to social-distance regulation, and many site activities were delayed since forest farms were assigned to local communities with epidemic prevention duties. Field works are also cancelled because of the restriction on control of transport mobility and crowd gathering.

Considering the future activities of the project, it is suggested that: firstly, extend the project implementation period to enable to complete the long-time ecosystem service monitoring, which will help to expand the implementation areas and impact of forest management measures under the guidance of the innovative landscape restoration concept, as well as the continuous monitoring of post implementation effects and the follow-up of policy impact; secondly, adjust the project budget of international travel expense in component 4 and 5 to ecosystem services monitoring, management plans implementation and capacity building; thirdly, actively explore more flexible, convenient and popular online communication methods to attract project personnel to participate in international exchanges, and resume offline international exchanges when condition allowed.

### **3.3.5 The monitoring of key ecosystem services needs further improvement**

Although the monitoring outline of key ecosystem services has been designed, the quality of monitoring sample plots established in each pilot forest farm is uneven, the main problems are as follow: the background of control and treatment sample plots for monitoring forest management effect is inconsistent, such as tree species composition, age group and density of stand; the sample plots are lack of duplication, and there should be at least three replicates; the

description of forest management measures is not clear, which should include time, cutting intensity, replanting tree species and density; the monitoring cycle is not clear; the sample plot marking is not standardized, etc. It should be adjusted and improved in the later project implementation.

### **3.4 Sustainability and Impact**

#### **3.4.1 The innovative FLR concept will have a long-term positive impact on China's ecological restoration**

As mentioned above, as a new concept, FLR emphasizes the combination of ecosystem restoration and ecosystem services, so as to cultivate a healthy and stable forest ecosystem and satisfy the requirement of human well-being. Facing the new opportunities of China's SFF reform, national strategy of ecological civilization, carbon peak and neutrality goals in 2030/2050, "Guidelines for Development of Innovative Forest Management Plan in State Forest Farms " and " FLR plan" developed in the project, and experiences of implementation in 7 pilot forest farms and 3 landscapes provide good cases and tools for the implementation of the FLR concept in China. The forest restoration area under the guidance of the innovative FMR management plan reaches 157,095 hectares. For example, the basic viewpoints of FLR also have been absorbed in the "Forest Management Plan of Saihanba Mechanical Forest Farm of Hebei Province (2021-2030)". There are good chance that these guidelines and tools will be upscalled to the whole country through NFGA, in order to guide the restoration and sustainable management of state forest farms nationwide, and will have a long-term positive impact on the improvement of forest quality, ecological management and systematic restoration in China.

#### **3.4.2 The concept of FLR is deeply rooted in people's minds through diverse communication and capacity building**

The project attaches great importance to the communication of internal and

external stakeholders in the forestry system. The project has produced 1 brochure, 6 project newsletter quarterlies, and 1 set of introduction videos, which have been distributed and broadcast to agriculture, forestry, environmental protection departments and pilot forest farms in 3 cities and 7 counties, and distributed to surrounding villages; 7 pilot forest farms were supported to finish 7 brochures and several billboards showing project information to the surrounding communities and other stakeholders. The concept of FLR is deeply rooted in the hearts of the people.

In terms of capacity building, a total of 12 national training courses and online training were organized, and about 800 people were trained (including about 260 women); about 20 webinars and on-site seminars were held; held 10 provincial level training courses with about 670 trainees (including 150 women approximately). The training content covers project management, theories and methods of FLR, principles and methods of baseline surveys, monitoring of ecosystem services and socio-economic impacts, preparation of FMR plans, and ecological compensation. Through training, project associates at all levels have strengthened their understanding of the concept of FLR and comprehensive ecological management.

### **3.4.3 Achievement of participation of multiple stakeholders**

Within the framework of FLR, stakeholders including international organizations, NFGA, pilot provincial forestry and grassland bureaus, provincial (municipal, county-level) government departments, pilot SFFs, surrounding communities, SFF visitors, consultants, and civil society organizations, enterprises, etc., these stakeholders were involved and benefited differently in project.

More than 3,000 people directly benefited from the project. For example, in the formulation of the FLR plans, various departments from finance, development and reform, natural resources, forestry, environmental protection, agriculture,

water affairs, transportation, meteorology and other departments jointly participated in not only providing basic data, but also jointly discuss plan contents. There are a total of 175 locals in the forest farm community monitoring team, including 78 women, accounting for 44% of the community monitoring team. The number of people indirectly affected by the project has reached nearly 270,000, which has produced effective public influence.

#### **3.4.4 The implementation of planning and monitoring of ecosystem services is a long-term process**

The implementation period of the FMR plan formulated by the project is 10 years. After the project is completed, all management activities of the forest farm will still be implemented in accordance with the FMR plan. The FLR will also be elevated to government actions, which will have an impact for a long time. In addition, due to the long cycle of forest growth, changes in forest landscape patterns and ecosystem services also take a certain amount of time, the monitoring of forest ecosystem services will also be a long-term process.

### **3.5 Network/Linkage**

The project focuses on the needs of the implementation process and the long-term goal of promoting SFM and FLR methods. Through the development of project activities, capacity building, knowledge and experience sharing, etc., the project implementation personnel, SFFs, and more extensive networks have been established, connecting various stakeholders, and striving to expand the circle of friends of the project.

The cross-sectoral coordination mechanism and framework action have been established by the project at the national or local level to coordinate and support the implementation of the project. 7 government-led cross-sectoral coordination organizations and 4 project-led coordination organizations have been established at different levels. Extensive cooperation with government

departments, scientific research institutes, universities, social organizations and enterprises have been established by the project.

The project has established a project webpage on the official website of the SFGA and published 18 articles; the WeChat public platform “PRC-GEF State Forest Farm Project” has got 524 follows, 76 articles have been published with more than 11,400 person-times readings, and 15 out of them were reprinted by IUCN. To promote SFM/ FLR and to support planning processes to provincial and national levels, an online "Forest Farm Data Platform" featuring the distribution and nature resources of China state forest farm has been launched and will be completed by the end of 2021.

The project has established a number of WeChat-based social networks. Staff, experts, and SFF managers from the national to provincial, municipal and county forestry departments have participated extensively. 500 SFF managers and 500 forestry staff have joined the project information groups, work groups, and coordination groups. The networks have enhanced communication, facilitated information transmission and mutual learning. The above statistics do not include project-related social networks at various local levels.

Actively expand the impact of the project, the number of beneficiaries is 3064 (of which 761 females and 2303 males), and the number of indirect beneficiaries is 269,419. The direct beneficiaries included 1,310 employees (946 males and 364 females) from various forest farms; a total of 175 local residents from different backgrounds from the forest farm community monitoring teams (97 males and 78 females); and 1579 participants (1260 males and 319 females) from managers of forestry departments, forestry farms and other institutions at the national, provincial and municipal levels participated in several training courses held by the project at the national and provincial levels.

It is worth pointing out that the project adheres to the principle of gender equality and attaches great importance to the participation of women. For example, the proportion of female staff in the National PMO has reached 50%; 75 women have joined the community monitoring teams, representing 44% of the

team members.

### **3.6 Lessons Learned**

#### **3.6.1 Good institutional set-up and management is the key to efficient project operation**

The project has established a complete management coordination mechanism at different levels from the country, province, city to county, and pilot forest farms, which is an important guarantee for the smooth and efficient operation of the project. A total of 7 government-led cross-sectoral coordination organizations and 4 project-led technical cross-sectoral coordination mechanisms have been established.

At the national level, led by NFGA, "PRC-GEF State Forest Farm Project Steering Committee" was established in May 17, 2019, to hold annual project meeting each year, summary and review the project progress and results, and make decisions on major issues. Its members come from the National Development and Reform Commission, the Ministry of Finance, the State Forestry and Grassland Administration, IUCN, the Chinese Academy of Sciences, the Chinese Academy of Forestry, the forestry and grassland bureaus of each pilot province, and the state project management office; the project steering committee office is hosted by the Department of State Forest Farm and Seeds and Seedlings Management of SFGA to guide the work of the National PMO.

In the pilot province level, the provincial project leading group were also set: the project leading group of Guizhou Province was established on August 12, 2016; the project leading group of Hebei Province was established on August 15, 2016; the project leading group of Jiangxi Province was established on September 1, 2016; each leading group adjust its personnel according to the actual situation. Guizhou Province has also established a project expert committee to provide technical support to the project leading group. Its members include scientific research institutions, universities and industry authorities. In

addition, People's Government of Qixingguan District, Bijie City also set up a leading group on July 3, 2019. FLR planning working groups have also been established in Bijie City in Guizhou Province and Fengning Manchu Autonomous County in Hebei Province, with members from more than ten departments including forestry, grassland, ecological environment, and transportation.

The project has also established a number of experts working groups and other technical coordination mechanisms, including national and provincial experts, such as expert groups of FMR plan, planning, and monitoring, to facilitate expert exchanges and provide training for relevant personnel of the project and knowledge sharing.

The project also initiated a number of temporary cross-sectoral coordination mechanisms, with the main purpose of promoting project implementation. The project initiated more than 10 temporary cross-sectoral coordination meetings with representatives of experts, forestry personnel, etc., from various departments of the city and county governments. These coordination mechanisms have greatly helped stakeholder consultation and data collection work required in FLR planning.

The above organization and management coordination mechanisms are all established for the smooth and efficient operation of the project, and they are constantly adjusted in practice, playing a core role in the implementation of the project.

### **3.6.2 Combination of project implementation and other policy-related projects**

The implementation of the project attracted additional national financial projects owing to the new FLR concept, such as the National Forest Tending Financial Subsidy Project, the National Reserve Forest Project, the Forest Quality Improvement Project, the Beijing Winter Olympics Bashang Area Afforestation Project, and the Yangtze River Shelterbelt Phase III Project. The activities of additional projects were implemented with the framework of the FMR plans;

moreover, these projects increased project implementation funds, and ensures the scientific implementation of the FMR plans and FLR.

### **3.6.3 Policy and budget risk**

Due to SFFs reform in 2015-2019, SFFs became non-for profit organization after the reform, all their forest management expenses are cover by national/local finance. There is no relevant policies and mechanisms to support the forest farms to develop bankable project, and the forest farm itself is not enthusiastic about developing bankable projects, too. It is suggested to change "signing 7 contracts for bankable project" to finish 7 bankable project proposals instead. Then it is up to SFFs to decide how and when turn the proposal into actual project according to the policy situation.

In addition, overseas exchanges and some domestic exchanges have been restricted due to the global Covid epidemic, and activities in this area have been greatly affected. The project has approximately \$900,000 reserved in international and domestic travel and training, which is difficult to implement due to the impact of the epidemic (for example, international travel expenses have been 0 so far).

### **3.6.4 Scientific monitoring design**

The purpose of setting up monitoring sample plots is to obtain the impact of different forest management measures on key ecosystem services and to evaluate good practices in forest restoration. Strict scientific experiment design and professional investigation and monitoring are recommended.

### **3.6.5 Sustainable development plans of SFFs**

According to the project requirements, 7 pilot forest farms have formulated the first draft of the sustainable development plans for the next 10 years, and the forest farm and relevant authorities are being consulted. "Sustainable development plan" is a new thing for most SFFs. It takes the forest farm as a



market entity rather than a geographical area to formulate development plans, focusing on the sustainability of people, finances, and materials. It is obviously different from the innovative FMR plans of the forest farms. This is very much in line with the further requirements of the reform goal, such as expanding the effectiveness of ecological protection and supporting people's livelihood. It is helpful for the SFFs to set up clear functional positioning, to build streamlined and efficient personnel, to provide forest management/protection and resource supervision service.

The reform of SFFs further clarified the role of SFFs in protecting and cultivating forest resources and maintaining national ecological security. There is a lack of sufficient motivation and ability to develop special industries such as forest tourism, forestry carbon sinks, and under-forest economy to increase employment and improve overall ecological and social service levels. The "formulating sustainable development plan" proposed by this project is a good inspiration and attempt for SFFs. We believe that through the first batch of pilot projects, the development of sustainable development plans suitable for different forest farms can be a demonstration for SFFs.

## **4. Overall Recommendations**

### **4.1 Implement and Promote innovative FMR plans**

The project has absorbed the advanced concept of FLR, formulated the " Guidelines for Development of Innovative Forest Management Plan in State Forest Farms", which has been compiled in 7 pilot forest farms and will be radiated to additional 9 pilot forest farms. In the implementation of future projects, it will be important to further improve the " Guidelines for Development of Innovative Forest Management Plan in State Forest Farms", pay attention to the convergence with traditional FMR plans, especially how to carry out landscape restoration and ecological service-oriented forest management type design; the second is to

promote the guide nation-wide, and develop some tools such as a software for landscape analysis and planning, to facilitate the application of the guide; the third is to complete the preparation of the innovative FMR plans for different pilot forest farms; forth, pay attention to the implementation of the plan, create conditions from the policy, capital and management respects, and ensure that the annual operation in production practice is implemented according to the annual workplan of the management plan, which is particularly important for the realization and application of the concept of FLR.

#### **4.2 Improve Ecological Service Monitoring System and Continuous Monitor**

The innovative FMR plans designed by the project covers the supply, regulation, supporting and culture service of the forest ecosystem. Although the "Outline of Key Ecological Service Function Monitoring" has been formulated, in the setting of monitoring sample plots aimed at monitoring the effect of forest restoration measures, there are still somethings that need to be improved, such as inconsistent sample plot benchmark, lack of replications, unclear description of silvicultural measures, and so on. It is recommended that the project sort out each experimental forest farm to avoid the above problems. In addition, how to use remote sensing and other technical means in ecological service monitoring and evaluation, not only on the individule management unit but also on the landscape scale

#### **4.3 Complete the Forest Landscape Restoration Plans**

At present, three pilot units have completed the first draft of the FLR. Since the planning involves multiple departments and stakeholders, the participation of multiple departments is very important. besides, it should consider the needs of other multisectoral programs, relevant restoration programs, and stakeholders. In addition to providing reference for government bureau of ecological restoration,

the project could further promote and publicize the content and significance of the plan in the three landscapes.

#### **4.4 Provide Policy Suggestions to Promote FLR**

It mainly includes: first, how to improve the current forest resources inventory, including factors of forest landscape and ecosystem services into inventory, and to meet the data demand of innovative FMR plan compilation; the second is to provide solutions and tools for the national FLR system restoration and carbon neutralization strategy by formulating the planning and implementation of FLR; third, from the perspective of ensuring the implementation of FMR plans, how to design policies in finance, technology, management and other aspects from the top, promote the innovation FMR plan of SFFs, ensure that forest landscape restoration is really implemented on site.

#### **4.5 Strengthen international and domestic communication, and demonstrate a successful China case**

The project should strengthen international and domestic communication, be a platform that high-level experts and make their voices could be heard through major international conferences and forums and foreign media. The project should extensively summarize vivid and moving examples to show the successful cases of FLR in China, which is also a contribution to the world.

The Project introduces international concepts, combines Chinese practices, and produces Chinese stories. There is great potential that the project could incorporate China's ecological protection and sustainable development concepts and practices in the story of SFF projects, showing a localized and successful story to the world.

Communication is based on people, and various vivid and moving examples can come from everyone. Therefore, it is very necessary to do a good job in public publicity and participation and connect the project with the public. While the

project has attached great importance to the publicity and training of relevant professionals, it can increase some activities that the public can participate in, including public publicity and public awareness raising, so that the SFFs and their great functions, the concept of FLR and forest sustainable management can be spread in China. In the process of public participation and publicity, special attention should be paid to the participation of females, ethnic minorities, vulnerable groups and social organizations, so as to tap the multiple benefits of SFFs in biodiversity protection, coping with climate change, poverty alleviation and rural revitalization, and promoting the sustainable development goals of the UN. And make vivid Chinese stories of FLR in SFFs.

#### **4.6 To Better Achieve Project Objectives and Expand Project Impact Through Project Extension**

Although PMO overcame lots of difficulties, and have achieved significant progress in the four components, it is clear that the COVID-19 epidemic had an passive impact on the project, particularly in the field implementation of FLR measures, monitoring of key ecosystem services, overseas exchanges. In view of the normalization and uncertainty of the epidemic, based on the analysis of the current situation, **it is recommended that the project be postponed for at least 18 months, so as to better achieve the project goals, including the following key workstreams:**

**(1) Promote the innovative FMR plans, deepen the practice summary of that, and form specific knowledge results.** On the basis of the current 16 forest farms in 3 provinces, it can be promoted in other 1-3 forest farms in other provinces to increase the forest restoration area under the influence of the innovative FLR concept; at the same time, it helps to support summarizing experience of the practice of innovative FMR plans and form specific knowledge products. There are chances that during project extension, the "Guidelines for Development of Innovative Forest Management Plan in State Forest Farms"

should be officially adopted by government authorities, so that the concepts of FLR, ecosystem services, and SFM that promoted by the innovative FMR plans can be further applied in 4,297 SFFs in China.

(2) **Obtain continuous data for monitoring key ecosystem services.** At present, only background data has been obtained. By the end of the project, only two yearly-data set on the change was obtained. It is difficult to reflect the effect and impact of FLR. Through the extension, at least three data sets on the change can be obtained as requested by project document, which can be more objectively reflect the effects of landscape restoration measures.

(3) **Further develop the FLR concept, in-depth promote FLR localization and mainstreaming.** Especially analyze FLR consistency and synergy with China's concept of ecological civilization. For example, summarize and sort out the application case set of FLR in China. Through the extension of the project, the proposed policy recommendations may be approved and adopted, further discovering the effect and impact of the project.

(4) **Expand the public's acceptance and recognition of FLR and ES concepts.** Extend the current publicity and exchange activities to the public level, so that the public can broadly understand the role of forestry and forest farms in providing high-quality ecosystem services.

(5) **Allow for full utilization of project funds.** The current project fund expenditure rate is only 37%. After the project is postponed, through budget adjustments, the project budget can be better implemented, the project funds can be fully utilized, and the maximum benefit of the funds can be achieved.