


Project List

1	Reclamation, Rehabilitation and Restoration of Degraded Forest Ecosystems (RRR-DFE) in Mekong Basin Countries	2013-2015	Cambodia, Lao PDR, Myanmar, Thailand & Viet Nam
2	Capacity Building on Improving Forest Resources Assessment and Enhancing the Involvement of the Local Communities to Address the Impact of Climate Change	2013-2016	Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Myanmar, Philippines, Thailand & Viet Nam
3	Promotion of Forest Rehabilitation in Cambodia & Viet Nam through Demonstration Models and Improvement of Seed Supply System	2015-2019	Cambodia & Viet Nam
4	Facilitating the Participatory Planning of Community-based Forest Management Using GIS and RS Technologies in Forest Resources Management in the Philippines, Indonesia and Thailand	2014-2020	Philippines, Indonesia & Thailand
5	Establishment of Forest Genetics Research Center for Restoration of Major Timber Species in Cambodia	2016-2025	Cambodia
6	Rehabilitation and Development of Mangrove Forest Ecosystem in Thai Binh Province, Viet Nam	2016-2023	Viet Nam
7	Establishment of Regional Education and Training Center in Myanmar	2014-2023	Myanmar
8	Village-based Forest Rehabilitation in Lao PDR	2016-2025	Lao PDR
9	Developing High Valuable Species in Viet Nam and Thailand as a Mechanism for Sustainable Forest Management and Livelihood Improvement for Local Communities	2016-2018	Thailand & Viet Nam
10	Domestication of Endangered, Endemic and Threatened Plant Species in Disturbed Terrestrial Ecosystems in Malaysia and Thailand	2016-2022	Malaysia & Thailand
11	Capacity Building for Landscape Approach to Support the Sustainable Natural Resources Management in Brunei, Indonesia, Philippines, and Singapore	2016-2019	Brunei Darussalam, Indonesia, Philippines & Singapore
12	The Registration of Small-scale Private Forest Plantations in Cambodia	2020-2022	Cambodia
13	Improving <i>Pinus caribaea</i> Morelet for Plantation on Degraded Land in Viet Nam's Northern Mountainous Region	2020-2023	Viet Nam
14	Integrated Pest and Disease Management in Teak Plantations in Bago Region, Myanmar	2020-2025	Myanmar
15	Model Forest for Livelihood Improvement of Forest Dependent Communities through Development of Community-based Enterprise and Forest Conservation	2020-2023	Myanmar
16	Promotion of Vertical Integration in Wood Processing through People's Organizations in Community Based Forest Management Areas in the Philippines	2021-2026	Philippines


Project List

17	Sustainable Community-based Enterprise Development for Improved Rural Livelihood in Bhutan	2020-2025	Bhutan
18	Development of Agroforestry Models for Promotion of Reforestation in the Different Zones in Timor-Leste	2021-2024	Timor-Leste
19	Assessment of Adelgid Diversity and Distribution in Conifer Forest of Bhutan to Mitigate Future Outbreaks	2020-2022	Bhutan
20	Investigation of the Resistance of Black Saxaul (<i>Haloxylon aphyllum</i>) Forms to Gall-forming Insects in Kazakhstan	2020-2022	Kazakhstan
21	Performance of Cluster Method in Rehabilitating Degraded Lands in Cambodia	2021-2023	Cambodia
22	Research on Forest Enrichment using High Valuable Native Species in Hoa Binh Province, Viet Nam	2021-2023	Viet Nam
23	Innovative Solutions for Climate Change and Biodiversity Landscape Strategy to Support SDGs in Indonesia	2021-2024	Indonesia
24	Conservation and Development of Forest Ecosystems Biodiversity Resources at Cat Tien National Park	2021-2026	Viet Nam
25	Integrated Village-driven Forest Rehabilitation and Livelihood Improvement in Viengthong District, Bolikhamxay Province, Lao PDR	2021-2026	Lao PDR
26	Re-greening the Bare Lands in Timor-Leste through Promotion of Locally Customized Restoration Models	2021-2024	Timor-Leste
27	Site Restoration and Sustainable Management of Community Forest Using Multiple-Use Tree Species and Agroforestry	2022-2027	Cambodia
28	Pilot Project on Inventory of Unaccounted Forests in Kostanay and North Kazakhstan regions and Automation of the Collection of Information on Forestry	2022-2025	Kazakhstan
31	Rehabilitation of degraded and potentially deserted forest land in the Northwest region of Viet Nam through application of integrated technical measures	2022-2026	Viet Nam
N	Ensuring Functioning of Cultural Ecosystem Services in an Urban Setting: Assimilating Nature for Forest Healing and Experiential Learning in Ninoy Aquino Parks and Wildlife Center		Philippines
N	Improving Local Community's Livelihoods and Engagement in Sustainable Forest and Land Management in Thailand through Forest Landscape Restoration		Thailand
N	Capacity Building on Enhancing Resilience to Forest Fire and Local Livelihood in CLMV Countries		Cambodia, Lao PDR, Myanmar & Viet Nam
N	Improved Local Community Livelihoods through Increased Income from Non-timber Forests Products (NTFPs): Modeling Scalable Community-based Enterprises in Asia		All Member Countries



RECLAMATION, REHABILITATION & RESTORATION OF DEGRADED FOREST ECOSYSTEMS IN MEKONG BASIN COUNTRIES

2013 - 2015 500,000 USD
 Cambodia, Lao PDR, Myanmar, Thailand (lead) & Viet Nam

The Mekong Basin is an economically and ecologically important region that remains vulnerable to the impacts of climate change and land conversion. Although some of the poorest people in the region rely on this ecosystem to sustain themselves, the loss of forest cover continues to threaten their livelihoods.

The 2-year regional project aims to strengthen transboundary cooperation for biodiversity conservation, forest restoration, watershed management and ecotourism through pilot investigations, the organization of workshops on best practices and technology transfer, as well as other capacity development activities involving local communities.

Objectives

- Investigate the current status of biodiversity utilization and forest management;
- Strengthen transboundary cooperation among the Mekong Basin Countries on the conservation of landscape biodiversity and ecotourism; and
- Exchange knowledge and lessons learned on best practices of sustainable forest management and biodiversity conservation.

Regional activities conducted include the Regional Training on Enhancing Livelihoods through Community Forestry (jointly organized with RECOFTC) and the Regional Workshop on Lessons Learned from Ecotourism Linked with Forest Restoration.



Biodiversity Conservation Linked with Ecotourism in Modulkiri Protected Forest Reserve

- ✓ Developed a detailed map with potential ecotourism sites and information of wildlife and biodiversity in Mondulkiri Protection Forest area (a transboundary forest area between Cambodia & Viet Nam)
- ✓ Conducted a local and national workshop on biodiversity conservation linked with ecotourism
- ✓ Organized a survey and technical training course for biodiversity conservation and utilization



Participatory Forest Management Linked with Forest Certification in Xebangnouane Community Forest

- ✓ Completed boundary demarcation and mapping through the utilization of GPS and onsite inventories
- ✓ Constructed a village nursery at Khamsavang Village
- ✓ Established a planting site for commercially important tree species and rattan seedlings
- ✓ Organized training courses on rattan seedling production, mushroom cultivation and participation in sustainable forest management, including the development of low-impact logging models for 4 villages
- ✓ Organized exchange visits and overseas workshops, as well as a national level workshop



Ecotourism Linked with Watershed Management in Pindaya Protected Watershed

- ✓ Initiated an ecotourism development plan for Pwe Hla Watershed
- ✓ Implemented a series of capacity development activities on watershed management, biodiversity conservation and ecotourism development for the local communities
- ✓ Constructed a hostel for the watershed management training center, and built check dams with the participation of the local people
- ✓ Undertook knowledge-sharing activities through the participation of forestry officials and community leaders in regional workshops



Ecotourism Linked with Forest Restoration in Mae Kok Restored Forest Site, Chiang Rai

- ✓ Conducted a survey to assess the state of implementation of environment-related projects (ecotourism, urban forests, forest carbon, etc.) by other organizations
- ✓ Formulated an ecotourism model for Mae Yao Watershed and disseminated the model to all participating countries and concerned watershed communities
- ✓ Organized a national workshop and training on linking ecotourism with forest restoration



Ecotourism & PES Linked with Biodiversity Conservation in Bidoup Nui Ba National Park, Dalat

- ✓ Conducted a baseline survey on ecotourism impacts, payments for forest environmental services and biodiversity conservation, and utilized the results to develop a model for payment for ecosystem (PES)
- ✓ Implemented awareness-raising activities targeted at local people, visitors and students through the Center for Ecotourism and Environmental Education (CEEE)



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CAPACITY BUILDING ON IMPROVING FOREST RESOURCES ASSESSMENT & ENHANCING THE INVOLVEMENT OF THE LOCAL COMMUNITIES TO ADDRESS THE IMPACT OF CLIMATE CHANGE

2013 - 2016 1,847,528 USD
 Brunei, Cambodia, Indonesia, Lao PDR, Myanmar, Philippines, Thailand & Viet Nam

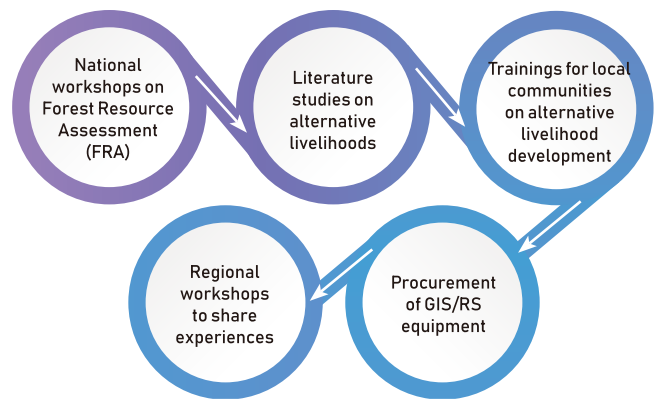
Developing countries struggle with forest management due to a number of constraints. The lack of a robust database makes it difficult to conduct proper forest assessments and consequently results in the formation of inappropriate strategies that may negatively affect the achievement of national targets.

In efforts to narrow the technical gap among countries in the ASEAN region, 8 countries worked together to enhance the capacities of forest stakeholders in forest resource assessment (FRA) to address the adverse impacts of climate change.

Objectives

- Build capacity on forest resources inventory/assessment through supporting satellite imagery and facilities to use GIS/RS technology and developing training modules;
- Enhance the involvement of local communities in forest-related activities to deal with climate change;
- Strengthen community resilience through alternative livelihoods; and
- Exchange expertise and experiences between implementing countries and the Republic of Korea

KEY ACTIVITIES



REGIONAL ACTIVITIES

- ✓ Regional Workshop on the Current State of Utilization of RS/ GIS Technology for FRA
- ✓ Comparative Study on Utilization of Satellite Imagery Technology to Support FRA
- ✓ Regional Training of Trainers on RS Application for FRA
- ✓ Study Tour on Community Participation to Support REDD+ Implementation



ToT on RS Application for FRA in Lao PDR, 2014

PROJECT OUTCOMES



66

Participants

13

GIS/RS
Equipment

- ✓ Conducted a national workshop on FRA
- ✓ Organized a 2 trainings for trainers on the application of GIS/RS for FRA (data acquisition, GIS/RS theories and techniques; and land cover change and biomass estimation)
- ✓ Established a new GIS/RS Laboratory Unit under the Forestry Division and installed key equipment



213

Participants

26

GIS/RS
Equipment

- ✓ Conducted a national workshop on FRA and an accuracy assessment of land use and land cover
- ✓ Organized a training for trainers on the application of GIS/RS for FRA
- ✓ Conducted a case study of Phnom Dek Jombok Hoas Community Forestry in Rumaney Commune
- ✓ Organized a training on community forestry management and REDD+ concepts



225

Participants

3

Training
modules

- ✓ Conducted a national workshop on FRA
- ✓ Organized a training for trainers on the application of GIS/RS for FRA
- ✓ Developed training modules - Introduction to RS and Its Application for FRA; Satellite Imagery Analysis for FRA; and Land Cover Ground Check
- ✓ Carried out a study on alternative livelihoods
- ✓ Implemented trainings on mangrove ecotourism development, mangrove conservation to improve incomes, and honey bee cultivation



185

Participants

15

GIS/RS
Equipment

- ✓ Conducted a national workshop on FRA
- ✓ Organized a training for trainers on the application of GIS/RS for FRA
- ✓ Carried out a study on alternative livelihoods
- ✓ implemented trainings to support local communities in generating alternative incomes from goat and poultry raising, and bamboo handicrafts



113

Participants

63

GIS/RS
Equipment

- ✓ Conducted a national workshop on FRA
- ✓ Organized a training for trainers on the application of GIS/RS for FRA
- ✓ Carried out a study on alternative livelihoods in 47 villages in 14 townships
- ✓ Implemented a training on bamboo plantation and bamboo-based livelihood improvement for rural development for members of Community Forestry User Groups (CFUG) from across the country



195

Participants

44

GIS/RS
Equipment

- ✓ Conducted a national workshop on FRA
- ✓ Organized a training for trainers on the application of GIS/RS for FRA
- ✓ Carried out a study on alternative livelihoods in 6 communities in Luzon, Visayas and Mindano
- ✓ Implemented trainings that introduced climate change concepts and potential livelihood products for 3 communities



65

Participants

21

GIS/RS
Equipment

- ✓ Conducted a national workshop on FRA
- ✓ Organized a training for trainers on the application of GIS/RS for FRA
- ✓ Carried out a study on alternative livelihoods in Mae Ta sub-district in Chiang Mai
- ✓ Developed an agroforestry model to increase alternative livelihoods for local communities



84

Participants

49

GIS/RS
Equipment

- ✓ Conducted a national workshop on FRA
- ✓ Organized a training for trainers on the application of GIS/RS for FRA
- ✓ Carried out a study on alternative livelihood in Xuan Thuy National Park in Nam Dinh Province
- ✓ Implemented technical courses on research models to improve livelihoods, oyster mushroom cultivation, ecotourism and honey beekeeping



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PROMOTION OF FOREST REHABILITATION IN CAMBODIA & VIET NAM THROUGH DEMONSTRATION MODELS & IMPROVEMENT OF SEED SUPPLY SYSTEM

2015 - 2019 1,000,000 USD
 Cambodia (lead) & Viet Nam

The regional project aims to promote reforestation forest rehabilitation in Cambodia and Vietnam by initiating a tree seed supply and distribution system to improve tree seed collection and nursery practices, and make quality seeds readily accessible to seed users and forest restoration practitioners.

Objectives

- Initiate a seed distribution system in Cambodia with identified seed sources and seed distributors;
- Establish support laboratories with equipment and trained staff in Cambodia and Viet Nam;
- Improve seed sources and seedling production in Viet Nam
- Assess the impact of forest rehabilitation on the environment and climate change in Viet Nam; and
- Establish demonstration models of forest rehabilitation in Cambodia and Viet Nam.

Access to quality seeds and planting materials is a major challenge in these countries due to the lack of a proper seed supply and distribution system. With the support of the project, seed sources and the supply chains for economically and ecologically important tree species will be surveyed and established across the implementing countries. The demonstration models established will serve as study sites for future capacity building activities on forest restoration and rehabilitation.

Key support facilities such as a tree seed laboratory (Cambodia) and a tissue culture laboratory (Viet Nam) have been constructed under the project. These facilities are now being used not only for research purposes but also as a venue for external education and training activities.



Display of indigenous seeds and woods in the tree seed laboratory in Cambodia



A consultant guiding the design of the tree seed laboratory in Cambodia



Banteay Srey Area, Siem Reap Province

- ✓ 20 priority tree species were identified following field surveys from 15 seed sources in natural forests, and leaflets on these sources have been distributed locally. A total of 5 seed production areas of 2 fast growing tree species (*A. auriculiformis* and *A. mangium*) as well as 3 high-value indigenous timber species (*A. lebbeck*, *F. fragrans*, and *T. sureni*) were established.



Maintenance and monitoring of seed production area

- ✓ In 2016, a tree seed laboratory was installed with the necessary equipment and tools. A Cambodian official also received training on tree seed technology in the Republic of Korea.
- ✓ Trainings and workshops were organized to impart knowledge on seed collection, handling and storage to suppliers from community forestry and protected areas. Seed collection equipment and tools were also distributed to representatives from local communities across the country to facilitate the establishment of a seed distribution system.
- ✓ A 2-hectare demonstration plot for 26 native species was established. The lessons learned on forest restoration by direct seeding and the list of identified seed sources in natural forests have been compiled in a book titled "Direct Seeding for Forest Restoration" in Khmer.



Hoa Binh Province

- ✓ A survey on nursery systems, seed sources and seedling production and management was conducted, and technical trainings on seed and seedling production and management were organized to improve capacities of local stakeholders.
- ✓ The establishment of a tissue culture laboratory was completed in 2015, and laboratory staff were trained on seedling production and management as well as tissue culture technology.
- ✓ Permanent study plots were established to study the impact of forest rehabilitation on soil, water resources, hydrologic patterns and biodiversity in the watershed forests of Hoa Binh. The project also resulted in the establishment of a 5-hectare agroforestry model, a 3-hectare enrichment model and a community forest model.



Agroforestry model establishment



3D model of the community forest made during a participatory practice session

EXPECTED OUTPUTS

Cambodia

- Seed sources in natural forests identified, seed production areas established, and a tree seeds distribution system put in place
- A tree seed laboratory established and operating with support facilities and trained staff
- Demonstration plots of forest rehabilitation established and regularly monitored

Viet Nam

- Improvement of seed sources, seedling production and management in Hoa Binh Province
- A tissue culture laboratory established and operating with support facilities and trained staff
- Demonstration plots of forest rehabilitation established and regularly monitored



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FACILITATING THE PARTICIPATORY PLANNING OF COMMUNITY-BASED FOREST MANAGEMENT USING GIS & RS TECHNOLOGIES IN FOREST RESOURCES MANAGEMENT IN PHILIPPINES, INDONESIA & THAILAND

📅 2014 - 2020 💰 1,500,000 USD
 🌐 Philippines (lead), Indonesia & Thailand

With an overall goal of contributing to the improvement of forest resources and their management, particularly in areas with community settlements, the regional project aims to achieve the following short and long-term objectives:

Short-Term Objectives (3~5 years)

- Streamline existing planning guidelines and procedures with the aid of GIS and RS technologies in the preparation of Community-level Forest Management (CFM) plans;
- Improve the planning capacities of target beneficiaries;
- Improve the certainty of tenured forests with workable CFM plans;
- Support the CFM plans successfully implemented; and
- Increase the number of forest technicians with the capabilities to provide assistance in the preparation of CFM plans.

Long-Term Objectives (6~10 years)

- Maintain and/or increase in area developed within established tenured forests;
- Improve financial capabilities of target beneficiaries to implement forest development activities;
- Increase the number of target beneficiaries with improved forest management planning capabilities; and
- Apply improved participatory planning guidelines through the aid of GIS and RS in community-based forest management projects.

The project features the application of advanced technologies in the planning and implementation of community forestry activities. 3 pilot sites were selected in each implementing country, and project outputs within the framework of national programs and policies as well as future perspectives were identified accordingly.

- ✓ **Philippines:** Improvement of Community Based Forest Management (CBFM) under the country's National Greening Program, by strengthening grassroots' capacity in the planning and implementation of forest resource management
- ✓ **Indonesia:** Policy improvements on Social Forestry by continuous engagement with local communities and the dissemination of technical documents
- ✓ **Thailand:** Development of an interactive online system, consisting of community forest registration programs, socio-economic information and a forest resources database management mechanism

KEY ACTIVITIES





**Rang-ay Bantay Association, Inc., Pangasinan (R1)
Maonon Upland Planters Association, Inc., Albay (R5)
Babali Farmer's Marketing Cooperative, Davao City (R11)**

160 hectares of agroforestry plantations were established in the pilot sites in the Philippines, along with facilities such as nurseries and bunkhouses. Following a series of readiness and resource assessments, and expert-led enterprise development workshops and trainings, each People's Organization (PO) agreed on a livelihood product and the corresponding materials and equipment. A database management and monitoring system for CBFM was developed and roll-out trainings to train relevant officials and PO members on basic computer operations, database management and geotagging to improve record-keeping and monitoring efficiencies.



Banana mushroom cultivation (Region 1)



Coco Coir Footwear (Region 5)



Training on rattan processing (Paru Village Forest)



Training on candlenut oil processing (Tuar Tana CF)



**Cempaka Forestry Partnership, Lampung Province
Tuar Tana Community Forestry, Sikka, East Nusa Tenggara
Paru Village Forest, Sijunjung Regency, West Sumatra**

A total of 28 hectares of agroforestry plots have been established in the pilot sites in Indonesia, and infrastructure such as farmer's huts and water reservoirs were constructed. Capacity building and technology transfer activities were organized to support each Forest Management Unit's (FMU) development of forest agribusinesses. The development of a CBFM database which will feature forest resource inventories, herbarium data, soil data and a zoning map of local priority species is currently underway.



**Mae Tha Community Forest, Chiang Mai (North) Sahakorn Nihom Community Forest, Kanjanaburi (Central-west)
Khlong Cha-un Community Forest, Suratthani (South)**

Tree buffer zones were established in Mae Tha and Khlong Cha-un while a forest plantation area of 6 hectares was established in the pilot site in Sahakorn Nihom. A national workshop was conducted to identify potential forest-based enterprises for each pilot site and subsequent trainings were organized to build the capacities of the Community Forest (CF) Groups. A community forest management database has been developed to facilitate the monitoring and management of community forests.



Enterprise development training



Database development process

EXPECTED OUTPUTS

Report on assessment and analysis of the status of CFM planning processes among the implementing countries

Enhanced procedures in formulation and development of CFM plans through participatory planning processes facilitated by GIS/RS technologies

Community-level forest management plans in selected tenured forest areas of each country using enhanced procedures

A capacitated planning team on community-level forest management planning



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ESTABLISHMENT OF FOREST GENETICS CENTER FOR RESTORATION OF MAJOR TIMBER SPECIES IN CAMBODIA

📅 2016 - 2025 🏠 1,500,000 USD 📍 248 ha
 🌍 Khun Ream, Siem Reap Province, Cambodia

Overview

Cambodia lost 22% of its forest cover from 73.1% (13.2 million ha) in 1973 to 57% (10.3 million ha) in 2010. The main causes of forest cover loss include more frequent increased forest fires, population increase, shifting cultivation, fuel wood/charcoal, land conversion, encroachment and expansion of infrastructure for economic development. Intensified efforts are required to restore forest cover in Cambodia.



Despite the implementation of a series of restoration projects in Cambodia, the fundamental issue regarding the source of seeds is still being questioned. Most of the time, seeds are collected or purchased from different places across the country as well as neighboring countries, without clear genetic information. Especially for major timber species such as *Dalbergia cochinchinensis*, the quality of seeds in terms of its genetic superiority (e.g. phenotype and productivity) cannot be guaranteed. It is necessary to produce genetically improved seeds within Cambodia through a long-term tree breeding plan in order to ensure the effective and efficient restoration of the major timber species in Cambodia.

For that, the project supports the broadening of experience and knowledge on tree breeding in the forestry sector in Cambodia. Through a technical cooperation with the National Institute of Forest Science of the Republic of Korea (NIFoS), the project will establish a clonal seed orchard (CSO) for three major timber species *Dalbergia cochinchinensis*, *Dipterocarpus macrocarpus* and *Pterocarpus macrocarpus*. This will be the first CSO in the country.

Objectives

- **Implement a long-term tree breeding plan**
 - Plus tree selection of 3 major timber species: *Dalbergia cochinchinensis*, *Dipterocarpus macrocarpus* and *Pterocarpus macrocarpus*
 - Establishment of progeny test plantation (24 ha)
 - Establishment of clonal seed orchard (6 ha)
 - Establishment of demonstration forest (18 ha)
 - Silvicultural management for conservation of forest genetic resources (200 ha)
- **Strengthen the restoration and tree breeding capabilities of Forestry Administration of Cambodia**
 - Training on tree breeding for technical staff
 - Educational programs on restoration techniques and tree breeding
 - Local trainings on forest protection for villagers
 - Publication of textbook on tree breeding in Cambodia in both English and Khmer

“Model forest for SFM based on conservation of tree genetic resources”

Implementation Progress

After the identification of plus trees for target species, the country-wide collection of seeds was carried out between November 2015 and April 2016. At the same time, the vegetative propagation test for the species was conducted as the first step towards the establishment of the clonal seed orchard. The inception workshop was organized by the implementing agency, the Institute of Forest and Wildlife Research and Development

(IRD) under the Forestry Administration of Cambodia, in May 2016 in Siem Reap, Cambodia. From July to September 2016, the first progeny test plantation and seed orchard were established (15 ha). Weeding, pruning, monitoring and establishment of firebreaks for the 200 ha *Dalbergia* plantation site were conducted as part of silvicultural management activities.



Expected Outcomes

The project will contribute to the national goals in Cambodia, and provide environmental and socio-economic benefits. The establishment of a progeny test plantation, a clonal seed orchard and a demonstration forest will improve the genetic quality of seeds in Cambodia, as well as the overall environmental quality of the area.

Furthermore, it will support the Cambodia National Forest Program (2010-2029) to achieve sustainable forest management. Timber market competence will also be improved through the stable provision of high-quality seeds.

At the end of the project, a forest based on genetic resources of timber trees will be established in Cambodia, and it will serve as one of the AFoCO model forests in the region to demonstrate sustainable forest management and promote the implementation of national forest programs.

AFoCO Landmark Program

Launched in 2014, the AFoCO Landmark Program is a regional project with a holistic approach of 'Restoring Degraded Forests in Southeast Asia as a Model for a Greener Asia', as well as long-term activities and goals to contribute to the socio-economic development of local communities in accordance with the strategic framework of the Initiative for ASEAN Integration (IAI) to narrow the developmental gaps among AMS.

The Landmark Program consists of 4 components, and this project is under Component 3 of the program, 'Restoration of Degraded Forest Regions'.



REHABILITATION AND DEVELOPMENT OF MANGROVE FOREST ECOSYSTEM IN THAI BINH PROVINCE, VIET NAM

📅 2016 - 2023 📊 1,500,000 USD 📍 960 ha
 🌐 Thai Binh Province, Viet Nam

Overview

Due to climate change, the number of heavy floods and typhoons moving to Viet Nam are directly affecting local livelihoods, especially those living in the coastal areas of



Mangrove forest in Thai Binh at high tide

Viet Nam. Mangrove ecosystems play an important role in the protection of coastal erosion, which is worsening due to climate change. In 2000, the total mangrove forest area of the province was 6,987 ha and it has since reduced by 19%. Coastal communities are in danger of losing their livelihoods to increasing land erosion resulting from the loss of mangrove forests.

Mangrove survival in northern Viet Nam, where Thai Binh province is located, is constantly challenged by low temperatures at a relatively higher latitude. Under this special ecological condition, Viet Nam requires more crucial scientific knowledge on the management and rehabilitation of mangrove forests as compared to its neighboring countries. The project on the “Rehabilitation and Development of Mangrove Forest Ecosystem in Viet Nam” aims to support the mangrove forest rehabilitation efforts in Thai Binh province by resolving the issues faced in mangrove forest management.

Objectives

- **Afforest, rehabilitate and sustainably manage mangrove forests in Thai Binh province**
 - Planting of a new mangrove forest: 80 ha
 - Supplementary planting of mangrove forests: 80 ha
 - Protect existing mangrove areas: 800 ha (including new and supplementary planting areas)
 - Provide equipment for mangrove forest protection and development
- **Raise awareness and enhance knowledge and capacities of local communities on the rehabilitation, protection and sustainable development of mangrove forests, biodiversity conservation, climate change mitigation and livelihood improvement strategies**
 - Develop suitable reading materials for local communities, and training courses of mangrove forest management for technical staff
 - Develop community regulations on the management and protection of mangrove forests
 - Organize training courses on sustainable mangrove management and ecotourism for livelihood improvement for provincial technical staff and local communities

“Model forest for addressing climate change through coastal forest rehabilitation”

Implementation Progress

The inception workshop was organized by the implementing agency, the Viet Nam Administration of Forestry, together with the Department of Agriculture and Rural Development of Thai Binh Province in March 2016 in Thai Binh, Viet Nam. Two project offices were established to facilitate project coordination. The Research Institute of Forest Ecology and Environment (RIFEE) was assigned as the national consultancy agency for the project to take charge of the monitoring and assessment of the technical

aspects of the project. From April 2016, seedling production and plantation design were conducted for the 40 ha target area. A village patrol group was established for the protection of the existing 800 ha mangrove forest. In line with this, the project developed a set of regulations and organized meetings with local communities to disseminate information on the importance of mangrove ecosystems.



Training course to strengthen capacities and promote effective communication



Village patrol group for forest protection



Mangrove seedlings planted in 2016



Public hearing of the project

Expected Outcomes

The project will contribute to the Viet Nam National Forest Strategy (2006–2020) by achieving sustainable forest rehabilitation, and healthy mangrove forest ecosystems, protecting biodiversity, reducing greenhouse gas emissions, minimizing the impacts of climate change, protecting the coastal dyke system, and enhancing knowledge of mangrove forests, while improving the livelihoods of local communities in the long run.

At the end of the project, the project site will serve as one of the AFoCO model forests of coastal forest rehabilitation against climate change while providing opportunities for research on mangrove forests.

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AFoCO Regional Education and Training Center (RETC)

aims to strengthen the capacity of the forestry sector in member countries through advanced training and education programs.

CORE TRAINING TOPICS

- **Forest Rehabilitation and Reforestation**
Seed harvesting, seed storage and supply, nursery management, tree plantation
- **Forest Fire Management**
Fire safety and behavior, fire prevention, fire inspection, fire information system, fire suppression
- **Community-based Forest Management**
Economical accounting, forest assessment, monitoring, forest resources, forest-related enterprise development



TYPES OF TRAINING & EDUCATION PROGRAMS

Short-term	Long-term	Community development	Customized
Enhance the capacity of government officials in managing forests sustainably; exchange knowledge and experiences; and build networks	Learn and adopt advanced technology and new management systems in forestry, to narrow the development gap	Forest-related activities and programs to improve local people's understanding of forests and their roles	On-demand education and training programs in line with objectives of AFoCO

FACILITIES

The AFoCO RETC is built on a total area of 24,419m² with a total floor area of 5,014m². Equipped with modern training facilities and meeting venues, the RETC caters to the space and equipment needs of various training programs and curricula while ensuring the comfort and safety of trainees and guests. The training facility is divided into three zones:



Education & Training Zone



Meeting rooms



Lecture room



Laboratory



Conference hall



Media room

Accommodation Zone



Dormitory room



Exterior view

Public & Support Zone



Dining hall



Resting lounge





VILLAGE-BASED FOREST REHABILITATION IN LAO PDR

📅 2016 - 2025 📊 1,500,000 USD 📍 3,620 ha
 🌍 Paksong District, Champasak Province,
 & Sangthong District, Vientiane Capital, Lao PDR

Overview

Forest cover in Lao PDR decreased from 17 million to 9.5 million ha between 1992 and 2012, and it is declining at an estimated rate of 1.4% per annum. Deforestation is largely due to agricultural expansion, hydropower, mining, infrastructure and urban expansion. Enforcement of regulations and enhancement of public awareness on environmental issues are required to overcome these problems.

In one of the efforts to rehabilitate degraded forests and restore forest cover, the Lao government has been collaborating with local authorities and international organizations to address the livelihood of people living in rural areas through national forest rehabilitation program.

The restoration project on “Village-based Forest Rehabilitation in Lao PDR” is being implemented in 2 areas - Champasak Province and Vientiane Capital. Drawing on the Republic of Korea’s experience in national forest rehabilitation, the project will establish the first village-driven rehabilitation model in Lao PDR, with a focus on capacity building to boost villagers’ ownership of forests in the project sites to ensure sustainable management in the long run.

Objectives

- **Increase forest cover**
 - Seedling production for ex-situ conservation plantation and enrichment planting:
 - 60 ha of ex-situ conservation plantation establishment
 - 790 ha of enrichment plantation
 - 2,770 ha of forest protection by local villagers
 - Rehabilitation of barren land owned by individual landowners in Sangthong through agroforestry extension services
- **Raise public awareness about the importance of national forest rehabilitation program**
- **Contribute to poverty reduction by providing direct income to local people, especially the poor through sale of seedlings, enrichment planting, maintenance and protection of rehabilitated areas**
- **Strengthen capabilities of stakeholders at all levels**
 - Capacity development of forestry sectors and local authorities to implement national forest rehabilitation policy at both district and village level by encouraging participation of local villagers
 - Capacity development of villagers on seedling production and forest rehabilitation activities
 - Provision of necessary materials and facilities for implementation of village based forest rehabilitation and its nation-wide replication

“Model forest for village-driven forest management in SFM”

Implementation Progress

After the finalization of the work plan for the two project sites, the inception workshop was organized by the implementing agency, the Department of Forestry, on May 2016 in Vientiane, Lao PDR. In August 2016, consultation meetings with villagers were organized to establish two types of village groups - village forest development groups (VFDGs) for plantation activities and village

forest protection groups (VFPGs) for protection activities. A series of technical meetings and consultations were held for villagers and project staff. A study tour to the Republic of Korea was conducted to impart knowledge on the ROK's concept of community-driven forest rehabilitation. Field offices in the two project sites were established in December 2016 after improving access roads.



Village Forest Development Groups (VFDGs)



Village Forest Protection Groups (VFPGs)



Expected Outcomes

This project will lead the country towards achieving the goal of sustainable forest management. In addition, since the project intends to engage local villagers to implement forest rehabilitation activities, the outcomes will also include an enhanced capacity of local communities in implementing national forest rehabilitation programs. The local communities will feel a stronger sense of ownership for the forests they manage and this would eventually lead to a change in attitudes towards forest resources.

This project provides additional income for local villagers and improves the livelihoods of the poor while contributing to the national poverty eradication target (FS2020) and zero hunger goal under the UN's Global Goals for Sustainable Development.

At the end of the project, the project site will serve as one of the AFoCO model forests in the region to demonstrate and promote village-driven forest rehabilitation in sustainable forest management.

AFoCO Landmark Program

Launched in 2014, the AFoCO Landmark Program is a regional project with a holistic approach of 'Restoring Degraded Forests in Southeast Asia as a Model for a Greener Asia', as well as long-term activities and goals to contribute to the socio-economic development of local communities in accordance with the strategic framework of the Initiative for ASEAN Integration (IAI) to narrow the developmental gaps among AMS.

The Landmark Program consists of 4 components, and this project is under Component 3 of the program, 'Restoration of Degraded Forest Regions'.



Asian Forest Cooperation Organization

AFoCO is committed to strengthening regional forest cooperation by transforming proven technology and policies into concrete actions in the context of sustainable forest management to address the impact of climate change.





DEVELOPING HIGH VALUE SPECIES IN VIET NAM & THAILAND AS A MECHANISM FOR SUSTAINABLE FOREST MANAGEMENT & LIVELIHOOD IMPROVEMENT FOR LOCAL COMMUNITIES

2016 - 2018 600,000 USD
 Viet Nam (lead) & Thailand

Viet Nam is the lead country for this project and the Vietnamese Academy of Forest Sciences and the Royal Forest Department of Thailand are assigned as the implementing agencies.

The overall goal of the project is to improve sustainable forest management and livelihoods of local people in Viet Nam and Thailand through the development of high value plant species.

Objectives

- Assess and select the most suitable high value species, in the study sites;
- Develop appropriate techniques, marketing and policy recommendation for the development, processing and trade of the study species;
- Improve knowledge, techniques and skills of local people and relevant stakeholders through trainings, exchange visits and disseminations; and
- Develop demonstration models for the development of the study species.

The development of suitable high value species in each of the project sites will be utilized as a mechanism to manage forests sustainably and improve the livelihoods of the local communities. **4 highly valuable species and their study sites have been identified:**

Viet Nam

- Star anise species *Illicium verum* in Cao Bang
- Cinnamon species *Cinnamomum cassia* in Bac Kan

Thailand

- Bamboo species *Cephalostachyum pergracile* in Loei
- Bamboo species *Dendrocalamus sericeus* in Nan



Providing technical advice to villagers

This regional project builds on the successes of an individual project implemented under the ASEAN-Korea Forest Cooperation (AFoCo) between 2011 and 2014, titled "Developing Non-Timber Forest Products (NTFP) in the Northwest of Vietnam as the Mechanism for Sustainable Forest Management and Livelihood Improvement for Local Communities". The latter identified 4 valuable species for 4 provinces in Northwest Viet Nam, and developed technical procedures and demonstration models for knowledge and skills transfer.



**Cao Bang Province
Bac Kan Province**

- ✓ A total of 14 hectares of planting and tending models were established in the project sites. Except for a 2-hectare planting model to be managed by a government agency-turned-company in Bac Kan province, all other models have been planted in the fields of individual farmers. Technical trainings have also been conducted in each province to impart knowledge on harvesting and processing techniques to the local people.



**Nan Province
Loei Province**

- ✓ 16 hectares of planting and tending models were established in the project sites, and models for harvesting as well as processing and utilization were also identified. These demonstration models were set up in the land owned by individual farmers. The project provided seedlings and assistance in planting activities and the construction of water storage and supply facilities.



EXPECTED OUTPUTS

Demonstration models (planting and tending) of the selected species to be established at the respective sites, and utilized for training and research purposes

Relevant training modules developed and training courses organized for local communities and relevant stakeholders

Technical guidelines (seedling production, site preparation, planting, tending, harvesting, processing, preservation and usage) for selected species developed

Policy and marketing recommendations for the development and management of the study species proposed



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DOMESTICATION OF ENDANGERED, ENDEMIC & THREATENED PLANT SPECIES IN DISTURBED TERRESTRIAL ECOSYSTEMS IN MALAYSIA & THAILAND

 2016 - 2022  1,200,000 USD  12 ha
 Malaysia (lead) & Thailand

The 6-year project primarily aims to develop and transfer domestication techniques of endangered, endemic and threatened plant species (EETS) in disturbed terrestrial ecosystems and conserve biological diversity in the implementing countries. Research will be conducted on the domestication models of these species, and the knowledge and experiences gained will be shared with other countries in the region through workshops and publications.

The selected disturbed terrestrial ecosystems in Malaysia and Thailand will be rehabilitated and enriched with some 12 to 30 national and IUCN Red List species, in efforts to address some of the impacts of mining. Biodiversity conservation through the domestication of EETS in disturbed sites will be promoted through collaborative activities between the implementing countries.

Objectives

- Establish domestication plots of national Red List species on degraded sites in both countries; and
- Strengthen cooperation between Malaysia and Thailand on the conservation of biodiversity, domestication techniques and technology transfer; and
- Exchange knowledge and lessons learned on best practices of rehabilitation and biodiversity conservation through workshops at national and regional levels.

In the long run, the project will aim to capacitate both countries in the reclamation rehabilitation and restoration of degraded forest ecosystems through the domestication of EETS, exchange of expertise and capacity development activities.





Tin Tailing Afforestation Centre (TTAC), SPF Bidor, Perak

- ✓ *Aquilaria malaccensis*
- ✓ *Dipterocarpus chartaceus*
- ✓ *Dryobalanops oblongifolia*
- ✓ *Hopea ferruginea*
- ✓ *Hopea helferi*
- ✓ *Lagerstroemia langkawiensis*
- ✓ *Neobalanocarpus heimii*
- ✓ *Palaquium maingayi*
- ✓ *Shorea glauca*
- ✓ *Shorea sumatrana*

A total of 1,510 seedlings of the selected EETS has been purchased and planted on domestication plots near the FRIM research station in Bidor, and tending operations are ongoing. Perimeter fences with orchid netting have also been installed to prevent encroachment by wild animals.

Some knowledge sharing activities include the national workshop on 'Domestication of Climax Rainforest Species in Problematic Sites' in 2016 and the seminar on 'Reclamation, Rehabilitation and Restoration of Disturbed Sites' in 2017.



Technical discussion at Mae Moh mine



Mae Moh Mine, Lampang Takua Pa Site, Phang Nga

- ✓ *Aquilaria crassna*
- ✓ *Cotylelobium lanceolatum*
- ✓ *Dalbergia cochinchinensis*
- ✓ *Dalbergia oliveri*
- ✓ *Neobalanocarpus heimii*
- ✓ *Vatica diospyroides*

Mae Moh lignite mine was selected as the main study site and Takuapa ex-tin mine as an additional site. 6 EETS have been identified and a total of 1,812 EETS seedlings were purchased and planted at the project sites in 2016.

Plastic sheets were installed over the seedlings to provide shade and provide them from the rain. Banana shoots were planted as nursing plants. A fire lines were constructed to manage forest fires, and the plot was also fenced with barbed wire to keep free-ranging cattle out.



Monitoring the growth of EETS plants

EXPECTED OUTPUTS

Domestication models of Endangered, Endemic and Threatened Plant Species (EETS) established

Knowledge sharing and technology transfer related to domestication techniques through regional workshops and site visits

Domestication techniques developed during the project shared, adopted and applied to similar sites in the region



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CAPACITY BUILDING FOR LANDSCAPE APPROACH TO SUPPORT THE SUSTAINABLE NATURAL RESOURCES MANAGEMENT IN BRUNEI, INDONESIA, PHILIPPINES, & SINGAPORE

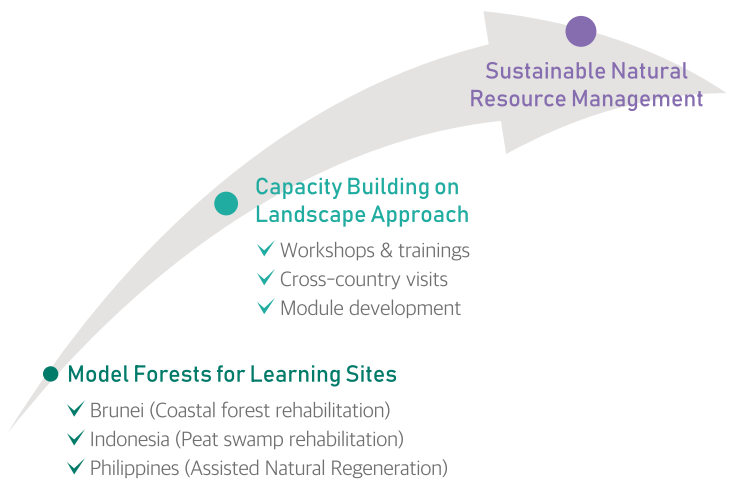
📅 2016 - 2019 💰 539,726 USD 📍 64.5 ha
 🌐 Brunei, Darussalam Indonesia, Philippines (lead) & Singapore

Forest Landscape Restoration (FLR) is a planned process targeted at regaining ecological functions and enhancing human well-being in deforested or degraded forest landscapes. The participation of local communities constitute a key aspect of the FLR approach, from planning through implementation.

A joint effort among the Forest Management Bureau (FMB) of the Philippines, the Forestry Department of Brunei Darussalam, the Forestry and Environmental Research Development and Innovation Agency (FOERDIA) of Indonesia, and the National Parks Board (NPB) of Singapore, the regional project aims to strengthen transboundary forest cooperation through the application of the landscape approach in the management of natural resources.

Objectives

- Recognize and contribute to addressing a wide range of issues and concerns related to natural resources management across different ecosystems;
- Assess the management compatibilities of communities and stakeholders within a specific landscape and its interrelationships (pros and cons) between landscapes in a Ridge to Reef horizon; and
- Capacitate respective forestry sector technicians through formal and experiential learning on Reclamation, Rehabilitation and Restoration of Degraded Forest Ecosystems (RRR-DFE) following the landscape approach.



EXPECTED OUTPUTS

- Model sites in various landscapes established for future replication and adoption
- Knowledge sharing and technology transfer through exchange visits, regional workshops, and local training activities
- Documentation on the lessons and experiences of the project developed to serve as reference for future development and policy actions in the region



Coastal Site in Berakas Forest Reserve Area

The project rehabilitated and reforested a 0.5-hectare degraded coastal area that had been severely eroded and damaged by forest fires with about 250 native tree species such as Ru Laut (*Casuarina equisetifolia*), Penaga Laut (*Calophyllum inophyllum*), Nyatoh Laut (*Pouteria obovata*), Baru-Baru (*Hibiscus tiliaceus*) and Keramunting (*Rhodomyrtus tomentosa*). The site will serve as a model beach forest for forest rehabilitation and also as a recreational area for visitors to Berakas Forest Reserve.



Peat Swamp Forest in Tumbang Nusa Research Forest, Central Kalimantan

The 4-hectare model reforestation site is located in a peat swamp forest area that was devastated by a forest fire in 2015. 4 indigenous tree species - Balangeran (*Shorea balangeran*), Jelutang Rawa (*Dyera polypylla*), Ramin (*Gonistylus bancanus*), Gemor (*Notaphobe coriaceae*) - were planted in 1-hectare plots. The project has also organized training courses on peat swamp optimization using agroforestry models, increasing community capacities for peat swamp optimization, and designing community-based peat swamp forest restoration projects.



Barangays Malabon and Taposo, Candelaria, Zambales, Central Luzon

60 hectares of degraded natural forest within the CBFM area managed by MALATAPI Community Livelihood Center, Inc., in Zambales (Region 3) was converted into a model site for sustainable forest management. Capacity building activities on vegetative assessment and assisted natural regeneration were also conducted with the participation of DENR personnel and People's Organization members.



Regional Workshop

A 3-day regional workshop on 'Urban Forestry and Biodiversity Conservation' was organized in 2017 to develop capabilities in urban forest management and biodiversity conservation through case studies, and understand various perspectives and issues related to urban forest management in the ASEAN region.



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THE REGISTRATION OF SMALL-SCALE PRIVATE FOREST PLANTATIONS IN CAMBODIA

 2020 - 2022

 249,410 USD

 Kampong Cham Province, Cambodia

Cambodia's natural forests, which have experienced significant declines in recent decades, have been under the management of the state and, until recently, there has been limited recognition and encouragement associated with the establishment of private forest plantations. This situation has discouraged the private sector, as well as those small-scale farmers who, except for their concerns about ownership claims and user rights, might otherwise have invested in plantation development. There is increasing recognition now of the constraints associated with excessive reliance on funding from the government for reforestation and forest restoration activities. However, that limits the application of those activities to a relatively small proportion of the country's degraded forestlands

With the goal of enhancing forest cover, increasing sustainable livelihood opportunities, reducing degradation of natural forests, and supporting local development by establishing small-scale, private forest plantations, the project aims to achieve the following objectives:

- Initiate the piloting of small-scale private forest plantations and prepare for a succeeding phase of the project in which the rate of establishment of those plantations is increased; and
- Initialize the means to encourage the establishment of sustainable small-scale private forest plantations.

Main Activities

- Establishing a coordination committee to ensure effective implementation of the project in accordance with project-related requirements and regulations.
- Conducting a Participatory Rural Appraisal (PRA) and organizing extensive consultations with stakeholders to develop appropriate guidelines and incentives to encourage the establishment of small-scale private forest plantations
- Organizing national consultative workshops to review and endorse the guidelines and incentives.
- Evaluating the patterns of growth and potential impacts on the environment of a preliminary selection of indigenous and the introduced fast-growing trees, and the competitive advantages associated with the patterns of growth, impacts on the environment, and the market demands of the preliminarily selected tree species.
- Incorporating measures to ensure that processes and procedures for confirming tenure through the registration of small-scale private forest plantations are consistent with the objectives of the national reforestation and forest restoration programs.
- Organizing and delivering multiple levels of training to prepare private entities and small-scale farmers to participate in the establishment of small-scale private forest plantations
- Procuring and distributing 100,000 seedlings of suitable tree species in consultation with local communities.



Distribution of seedlings to local communities in Han Chey commune, Kampong Siem District



Consultation workshop on Guidelines for Establishing and Registering Private Forests in Cambodia



The project produced a set of *Guidelines on Private Forest Registration* in both English and Khmer.

Expected Outcomes

- Development and endorsement of guidelines and incentives to encourage the establishment of small-scale private forest plantations
- Preparations for comparative assessments of the patterns of growth and market demand to use in the selection of species to provide in the establishment of small-scale private forest plantations
- Provision of capacity building and outreach activities to initiate pilot plantations and prepare plans to support the continued establishment of small-scale private forest plantations



IMPROVING *PINUS CARIBAEA* MORELET FOR PLANTATION ON DEGRADED LAND IN VIET NAM'S NORTHERN MOUNTAINOUS REGION

 2020 - 2023

 486,000 USD

 Northern mountainous region of Viet Nam

Degraded land in combination with traditional cultivation without applying intensive techniques and using selected seedlings have led to low productivity of planted forests in Viet Nam. With the aim of increasing the value of Viet Nam's timber processing industry, the project will develop *Pinus caribaea* Morelet forests on degraded land in the northern mountainous region of Viet Nam by improving high-quality seedling production, developing intensive cultivation techniques and appropriate *P. caribaea* timber processing and preservation technology to meet market demands and to provide raw materials for timber the processing industry. The project will achieve the following objectives:

- Improve high-quality *P. caribaea* seedling production by selecting at least 150 plus trees from seed orchards and other relevant sources; develop 10ha of transformed seed stands and 4ha of seed orchards; completion of sexual and asexual propagation techniques to create high-quality seedlings and transfer them to production;
- Develop a set of guidelines on forest plantations establish 11ha of model forest from the seedlings cultivated; and
- Propose and develop appropriate techniques to use *P. caribaea* timber processing industry to meet market demands.

Main Activities

- Conducting surveys and assessing various aspects such as the origin, growth, phenology, pests and diseases, and growing techniques of planted forest, seed stand, and seed orchard of *P. caribaea* and its markets inside and outside the country
- Monitoring and describing the phenological characteristics, and collecting seeds from the selected plus trees
- Storing, preserving, and assessing periodically the quality of seeds
- Germinating the seeds collected from plus trees for experimental plantation
- Establishing seed orchards and transformed seed stands
- Improving propagation techniques
- Provide training on propagation methods and on the determination of soil/site conditions for planting *P. caribaea*
- Developing criteria and scale of soil conditions for planting *P. caribaea*



Project site in Vinh Phuc Province, Viet Nam



Survey on veneer consumption & processing



Project site in Vinh Phuc Province, Viet Nam

Expected Outcomes

Through the application of a value-chain approach, the project will develop and replicate demonstration models in localities that have the potential for forestry development, especially in poverty-stricken mountainous areas, where the project. The project expects to select 150 plus trees and collect seeds; establish 10ha seed orchards and transformed seed stands (transgenic seedling forest); improve the propagation techniques of *P. caribaea*; determine suitable sites to plant *P. caribaea* in the northern mountainous region; develop model forest plantations on degraded land, plantation of NTFPs and native species under the forest canopy of *P. caribaea*; provide technical training on forest rehabilitation, determination of soil/site conditions for planting *P. caribaea*; survey international and domestic market access for pinewood and *P. caribaea* timber; develop techniques to produce *P. caribaea* finger joint boards; and carry out capacity building and awareness-raising activities on seed production, forest plantation, and preservation and processing of post-harvest *P. caribaea* timber.

INTEGRATED PEST AND DISEASE MANAGEMENT IN TEAK PLANTATIONS IN BAGO REGION, MYANMAR

 2020 - 2025

 955,360 USD

 West Bago Yoma Region, Myanmar

As climate changes over time, outbreaks of new unidentified species of insects and pests might occur in Teak plantations in response to changing climate. In this context, identification of those species and exploring reliable control and prevention measures are urgent needs in Myanmar.

Teak grows naturally throughout Myanmar, and teak plantations have been widely established as part of the Myanmar Reforestation and Rehabilitation Programme. Nonetheless, many records of forest loss due to pests and diseases have been reported in teak plantations. The project will contribute to the health of forests in West Bago Yoma Region by exploring pest and disease lists, developing possible control and prevention measures, and enhancing capacity-building programs for stakeholders of agroforestry-based reforestation models. To contribute to the health and vitality of forests in the West Bago Yoma Region, the 5-year project aims to:

- Sustainably manage teak forests through effective integrated pest and disease management;
- Improve capacities and facilities for pest and disease research and management for teak forests; and
- Create a network for the management of pests and diseases of teak.

Main Activities

- Carry out a preliminary survey and identify pests and diseases
- Develop a teak pest and disease list including damage symptoms, level of severity, and their relationship with environmental factors
- Carry out regular pest surveys to manage outbreaks, detect, and monitor pests and diseases
- Establish demonstration plots
- Prepare and publish technical guidelines for the control and prevention of pests and diseases and develop software for National Information Forest Pest and Disease Management System
- Build capacity for integrated pest and disease management through workshops, training, study tours, and lessons through preparing and developing pest and disease management curriculum for training institutions
- Develop publications on forest pest and disease management in Myanmar
- Facilitate equality of women and men with regard to participation and implementation
- Update Forest Protection Lab, Forest Protection Museum FRI
- Conduct research activity and disseminate findings to Forest Department and private sector
- Form a Working Group for pest and disease management



Capacity building on systematic pest and disease management for relevant stakeholders



Coaching and mentoring of implementors and stakeholders



A villager checking for the presence of pests

Expected Outcomes

The project will investigate the seasonal incidence, level of severity, and relationship between the outbreaks of pests and diseases with environmental factors to develop a teak pest and disease list; develop and conduct possible control measures for individual pests and diseases, and monitoring system in order to publish technical guidelines including forming a teak forest pest and disease management Working Group; establish a demonstration plot; develop software for National Information Forest Pest and Disease Management System; improve capacities on systematic pest and disease management, and; improve facilities such as the diagnostic laboratory and museum in the Forest Research Institute (FRI) to facilitate research activities.



MODEL FOREST FOR LIVELIHOOD IMPROVEMENT OF FOREST-DEPENDENT COMMUNITIES THROUGH DEVELOPMENT OF COMMUNITY-BASED ENTERPRISE & FOREST CONSERVATION

 2020 - 2023

 952,000 USD

 Shan State and Bago Region, Myanmar

The 3-year project aims to balance the forest conservation objectives with the livelihood improvement needs of the country. The project will apply the approach of establishing model forest villages that can contribute to sustainable forest management and support local livelihood improvement through community-based enterprises and forest conservation activities. Specifically, a model forest village participatory management plan will be developed based on baseline assessments of forest conditions, biodiversity, livelihood, and land-use changes. Community-based enterprises and/or community-based tourism will be established in line with the model forest village plan. The community forests of the project will also contribute to the national strategy of community forest development in Myanmar.

With project sites in 3 townships: Ywarngan Township and Pindaya Township (Taunggyi District, Shan State) and Paukhaung Township (Pyay District, Bago Region) and in Myanmar, the project aims to:

- Establish model forest villages to improve rural livelihoods and ensure sustainable landscapes;
- Develop community-based tourism and community-based enterprises; and
- Improve knowledge of updated forestry techniques, as well as related policies and management approaches.

Main Activities

During the project period, local livelihoods will be enhanced through agroforestry-based community forestry (using the ASEAN agroforestry guidelines adopted in 2019) and the building of home gardens in backyards. Additionally, the establishment of community-based enterprises and the broadening of market networks will help strengthen the business operation skills of local communities, eventually contributing to increased household income. Community-based tourism will be formulated as an alternative job option. Livelihood improvement training such as bamboo handicraft-making, as well as technical training and exchange visits will also be conducted to build the capacities of local people in the project sites.

The project will create alternative job opportunities and increase productivity based on existing and enabling conditions. Home gardens and community-based tourism sites will be developed to help generate income. The main activities of the project include:

- Developing income through the improvement of Community Forest (CF), home gardens, sustainable shifting cultivation (SC), and community-based tourism
- Governing the market for the development of community-based enterprise development
- Conducting knowledge and information-sharing activities



Stakeholder consultation for development of value-added products in tourism sites



Stakeholder consultation for project implementation and management



Adoption of new Community Forestry instruction (CFI)



Agricultural practices for livelihood improvement

Expected Outcomes

The pilot establishment of such model forest villages will highlight innovative and sustainable approaches that can achieve sustainable forest management while providing a wide range of benefits for local people.

This project's contribution towards increasing green spaces through the establishment of home gardens will also help enhance carbon sinks and support the livelihoods of local people. Community-based enterprises and community-based tourism development would also increase climate resilience and ensure sustainable livelihoods for participating communities.

Local communities' knowledge of updated forestry techniques, forest management practices, and forest and land-use policies of the Forest Department will be improved, and the outcomes of this project will also address the rural development policy of Myanmar drafted in 2019.

The project will contribute to the livelihood improvement of local residents in mountain villages by developing related enterprises based on the Myanmar community; establishing model forest villages in Shan State and Bago region; improving community forests, home gardens, and shifting cultivation techniques; developing community-based tourism and community-based enterprises; and improving knowledge on updated forestry techniques, management, and related policies of the Forest Department.



PROMOTION OF VERTICAL INTEGRATION IN WOOD PROCESSING THROUGH PEOPLE'S ORGANIZATIONS IN COMMUNITY-BASED FOREST MANAGEMENT AREAS IN THE PHILIPPINES

2021 - 2026

928,822 USD

Visayas and Mindanao Region, Philippines

Since 2011, Community-based Forest Management (CBFM) communities have been the major beneficiaries of the National Greening Program (NGP) of the Philippines. Hence, there are many tree plantations that are ready for harvest, but income remains limited to the selling of round logs as the communities are unable to cut the logs due to technical and financial incapacities. As a result, growing trees for timber production has not been an attractive endeavor as inputs from tree growers seem to outweigh financial returns.

The project aims to support the vertical integration in CBFM areas through the promotion of community-based livelihood opportunities through the utilization of existing plantations. It will address the lack of value-adding and unsustainable timber production in CBFM areas and promote the sustainability of tree plantations managed by People's Organizations (POs) to generate income from timber utilization and wood processing. The project's objectives are as follows:

- Promote the engagement of two participating CBFM POs in value-adding activities in wood production;
- Provide adequate market linkages for the two participating CBFM POs in the operation of their wood-based enterprise; and
- Formulate and recommend enabling policy guidelines for the implementation of vertical integration as a business model for CBFM POs.

Main Activities

Vertical integration will enable CBFM communities to control more than one component of the timber supply chain. In the process, the project will be promoting responsible forest utilization under the principles of Sustainable Forest Management (SFM) from plantation establishment, timber harvesting, processing, value-adding, and marketing. The main activities of the project include:

- Establishing a coordination committee to ensure effective implementation of the project in accordance with project-related requirements and regulations
- Conducting a Participatory Rural Appraisal (PRA) and organizing extensive consultations with stakeholders to develop appropriate guidelines and incentives to encourage the establishment of small-scale private forest plantations
- Organizing national consultative workshops to review and endorse the guidelines and incentives

The project will involve the collaboration with other government agencies such as the DOST-Forest Products Research and Development Institute (FPRDI) and Local Government Units (LGUs)

Expected Outcomes

Farmer groups participating in the project are the Nalundan United Farmers' Association (NUFAI) in Barangays Nalundan, Bindoy, Negros Oriental and Mindanao Timberland Farmers Multipurpose Cooperative (MATILFAMCO) in Barangay Mabuhay, Prosperidad, Agusan del Sur. Currently, NUFAI and MATILFAMCO POs only earn from round timber (lumber of *Acacia mangium* and of *Falcata*) since they do not yet have wood processing plants. Through the project, PO members will benefit from the additional income generation and capacity building in product value-addition, access to plant facilities, and new links with potential wood buyers and traders in the domestic market.

The project expects to enhance the technological skills of participating CBFM POs in value-adding activities in wood production; increase access of CBFM POs to machinery and equipment for value-adding activities; ensure that participating CBFM POs have enough internal funds and are able to access external funding support to invest in value-added wood production; improve access of participating CBFM POs to reliable market information on wood-based products; and promote vertical integration as a business model in CBFM POs through the documentation of best practices and translation into policies.



Virtual MOU Signing between AFOCO and the Department of Environment and Natural Resources (DENR) of the Philippines



Consultation workshop on situational and gap analysis, NUFAI CBFM



Consultation workshop on situational and gap analysis, MATILFAMCO CBFM



SUSTAINABLE COMMUNITY-BASED ENTERPRISE DEVELOPMENT FOR IMPROVED RURAL LIVELIHOOD IN BHUTAN

2020 - 2025

1,000,000 USD

Bumthang, Chukha, Thimphu, Paro, Ha, Gasa, Wangdue, Punakha, Tsirang, Lhuentse, Trashigang, and Pemagatshel Districts of Bhutan

The project supports Community Forest Resource Management Groups (CBFRM) and Non-Wood Forest Product (NWFP) Management Groups in 12 (out of 20) districts in Bhutan. Community Forests and non-wood forest product programs are widely accepted by rural communities. These programs can create livelihood opportunities for rural communities and their participation in sustainable management of forests & biodiversity conservation.

The project will strengthen both the management and governance skills of the Community Forest Management Groups, and contribute to increasing participatory management at the community level, the sustainable management of resources, and improving the livelihoods of group members, including youth and women. The main objectives are outlined as follows:

- Promote CF and NWFP industries by establishing community-based enterprises;
- Develop alternative income sources to enhance the livelihoods of rural communities; and
- Enhance knowledge and technology on climate change adaptation through sustainable forest management.

Main Activities

The project support is geared towards interventions to increase the commercialization of wood and non-wood goods and services. This will enable communities and small/medium scale rural enterprises to realize the economic benefits of sustainable management of the forests and natural resources.

- Establish small-scale community-based rural enterprise for forest products through identifying potential NWFP/CF for enterprise development, and preparation of the business plan
- Increase alternative income-generating activities through identifying CF with potential PES, holding stakeholder consultation meetings, preparing PES management plans, protecting and managing watersheds
- Initiate community-based ecotourism programs and support the construction of trails
- Build the capacities of community members and forestry staff in sustainable management of forest resources through training on silviculture, workshops on good governance, training on resource assessment, exposure visits to successful countries, and international conferences and seminars
- Develop skills of CF members in the production of wood and non-wood forest products through training on wood product development and operation, maintenance of equipment, and developing and facilitating market linkages

With the project support, the Department of Forests and Park Services (DoFPS) will be able to establish sustainable management schemes of CBFM, improve information-sharing and promote value addition. It will also strengthen the marketing of forest produce, networking, and capacity building for stakeholders, which will all be designed to support rural communities to increase their income from CBFM on a sustainable basis.

Regular and continuous capacity building for both the Foresters and Community Forest Management Group members is of paramount importance so as to enhance skills in sustainable management of our forests and natural resources, enhance rural communities' income and enhance skills for good governance, thereby maintaining the existing good group cohesiveness. One of the main capacity-building activities for foresters was the training on *Resource Assessment in Community Forests*, jointly organized with the Ugyen Wangchuck Institute for Environmental Conservation and Research (WUICER) and Forest Resource Management Division (FRMD). The main objective of the training is to train all the foresters who are engaged in Community Forest Management Planning and equip them in using the 2018 Community Forestry Manual. Expectations of each participant were also chalked out so as to make necessary arrangements in fulfilling them.



Training participants from different field offices with the resource persons



CFMG members during a resource assessment training in Wangdi Phodrang district



CFMG members practicing how to select and mark seed trees during a silviculture training


Expected Outcomes

The project will establish community-based enterprises and promote CF and NWFP industries will be promoted, resulting in the development of income alternative sources for the livelihoods of rural communities. 5 community-based ecotourism programs will be initiated, technical skills and capacities of local communities will be developed, and market linkages will be established and facilitated.

DEVELOPMENT OF AGROFORESTRY MODELS FOR PROMOTION OF REFORESTATION IN THE DIFFERENT ZONES IN TIMOR-LESTE

 2021 - 2024

 516,700 USD

 **Bobonaro Municipality (Central Zone), Liquica Municipality (North Zone), Covalima Municipality (South Zone), and Ermera Municipality (Central Zone), Timor-Leste**

The project aims to strengthen the country's efforts for reforestation and sustainable forest management made by the Ministry of Agriculture and Fisheries (MAF) and the Office of Director General of Forestry, Coffee and Industrial Plants (DGFCIP) through the development and dissemination of agroforestry-based reforestation models in collaboration with MAF Development Partners (DPs), NGOs, and local communities.

- Promote reforestation throughout the country by developing and disseminating agroforestry-based reforestation models suitable for introduction in different natural conditions in the typical agro-ecological zones in the country and effective in satisfying the needs of local communities;
- Strengthen the institutional capacity of MAF and DGFCIP and the relevant offices to promote reforestation and sustainable forest management in collaboration with MAF, DPs, NGOs, and local communities; and
- Build and strengthen linkages with relevant stakeholders in the country as well as the region, especially with AFoCO member countries, for knowledge sharing and scaling up of agroforestry-based reforestation models.

In Timor-Leste, about 183,800 ha of forests had disappeared between 2003 and 2012. During the same period, nearly 171,000 ha of dense forests had been degraded and converted into sparse forests or other forms of land use. Deforestation and forest degradation have been caused by shifting cultivation, free-animal grazing, forest fires, and illegal logging, which are mainly done by the marginalized upland communities. Behind such drivers of deforestation/forest degradation are the major underlying factors weak law enforcement, insufficient legislative systems, limited human resources, insufficient agriculture and forestry extension services, and limited knowledge of agroforestry techniques.

One of the technical weaknesses in the promotion of reforestation in the country is a lack of data and knowledge on agroforestry-based reforestation models, which must be suitable in different natural and socio-economic contexts in Timor-Leste. The introduction and promotion of such agroforestry-based models are requisite for the promotion of reforestation, especially under the current circumstances where commercial timber exploitation is prohibited in principle in the country. As there are few agroforestry models proven in the field, it is essential to develop and demonstrate agroforestry-based models suitable for introduction in the different agro-ecological and socio-economic conditions in the country to enable MAF/DGFCIP to promote reforestation in collaboration with local communities in the entire country.

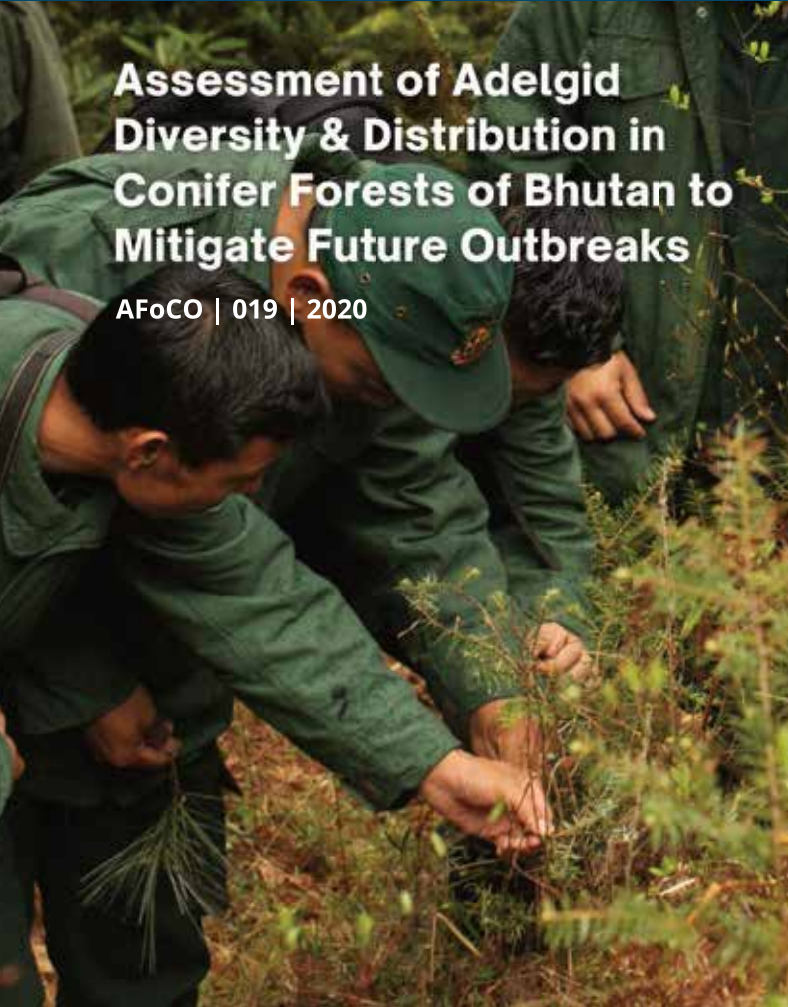
Main Activities

- Conduct a Participatory Land Use Planning (PLUP) in the sucos of 6 municipalities including preparation of Future Land Use Plan and Village Regulations to manage forests and other natural resources
- Establish Community-based Natural Resource Management (CBNRM) mechanisms in the sucos of 6 target municipalities
- Develop a set of technical manuals on the development of the agroforestry-based reforestation models
- Establish demonstration plots on the agroforestry-based models in the target sucos and monitor, evaluate and progress and results of development and management of the agroforestry-based reforestation models
- Formulate an institutional development plan in consultation with different stakeholders
- Organize and conduct study tours, training programs
- Extract and document lessons and good practices through monitoring and evaluation of the project activities
- Share the results including lessons learned and good practices from the project with other MAF DPs and AFoCO member countries
- Strengthen the linkages and networks to share knowledge and provide guidance with MAD DPs and AFoCO member countries on the scaling up of agroforestry-based reforestation models

Expected Outcomes

The project expects to strengthen the institutional capacities of MAF and DGFCIP, promote CBNRM mechanisms and reforestation, especially suitable agroforestry-based reforestation models, throughout the country; and strengthen linkages with relevant stakeholders for knowledge-sharing at the national and regional levels.





Assessment of Adelgid Diversity & Distribution in Conifer Forests of Bhutan to Mitigate Future Outbreaks

AFoCO | 019 | 2020

2020 - 2022 32,862 USD

Major Conifer-growing Districts in Bhutan

Targeting the major conifer-growing districts (Bumthang, Gasa, Paro, Haa, Thimphu, Punakha, Wangdiphodrang, Trashigang, Thimphu, Yungdung, and Trashigang), the project aims to:

- Identify adelgid species found in Bhutan;
- Carry out adelgid survey encompassing spatial extent and diversity;
- Develop management strategies for controlling the spread of adelgids in the conifer forests of Bhutan;
- Train forestry professionals and local communities in the identification, survey, and control of the insect; and
- Monitor the spread of the insect.

The project will confirm the adelgid species present in Bhutan through DNA analysis, carry out surveys on adelgid diversity and distribution in conifer forests, incorporate forest pest disease outbreak reporting and monitoring in the Spatial Monitoring and Reporting Tool System (SMART), publish a scientific paper on adelgid diversity and distribution, and build the capacities of forestry professionals and community forestry members in adelgid management.

2020 - 2022 32,684 USD

Kyzylorda Region, Kazakhstan

The project aims to study the resistance of individual black saxaul plants within a species against the damage of insect gall-forming plants by determining factors that cause damage to individual plants in its subsequent breeding and propagation of saxaul cultivar resistant to gall-formed insects as well as studying the biochemical composition and molecular genetic analysis of plant tissues. The objectives of the project are to:

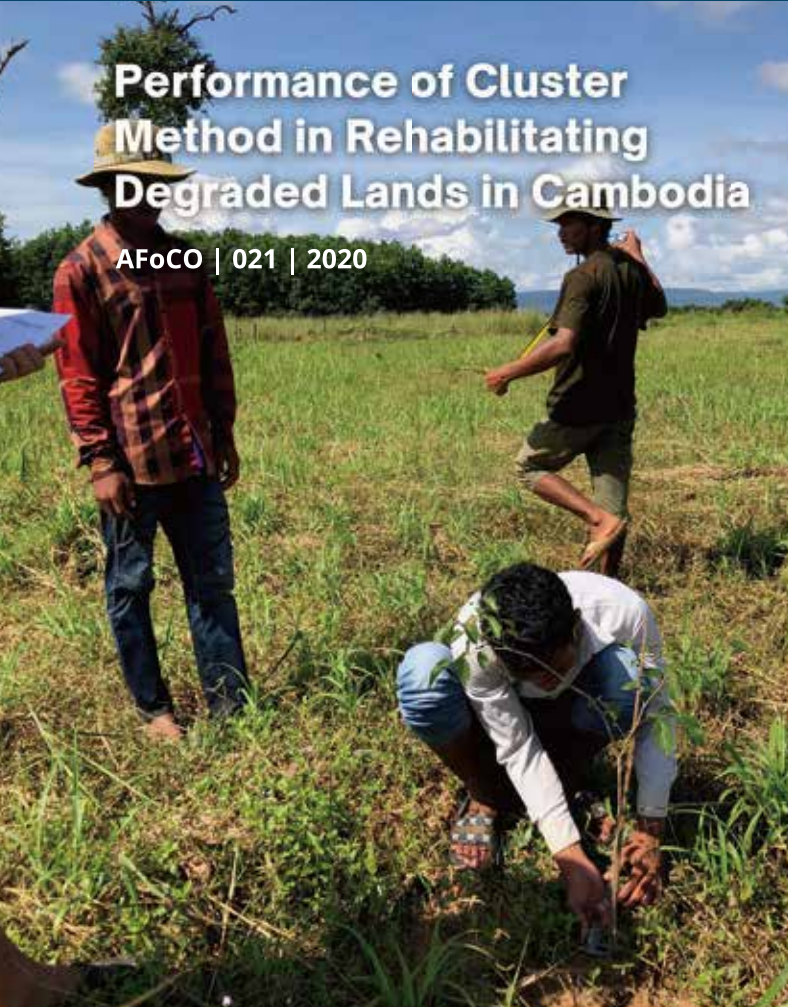
- Analyze the pest foci and clarification of the species composition of gall-forming pests in the foci of saxaul, and the allocation within the population of individual plants of saxaul that were not damaged by pests in the lesion;
- Carry out laboratory tests for biochemical composition in plants and their genetic structure, as well as the study of anatomical and morphological features of plants not damaged by pests; and
- Collect planting materials from resistant plants within the species to study the inheritability of this property.



Investigation of the Resistance of Black Saxaul (*Haloxylon aphyllum*) Forms to Gall-forming Insects

AFoCO | 020 | 2020





Performance of Cluster Method in Rehabilitating Degraded Lands in Cambodia

AFoCO | 021 | 2020

2021 - 2023 34,500 USD

Siem Reap Province, Cambodia

The project aims to test a modified technique of restoring the degraded lands using *Dalbergia cochinchinensis*, which involves a combination of the cluster planting and Miyawaki method, and the use of coconut husks as a water-retaining agent, to find out an effective alternate planting method in rehabilitating degraded lands. The objectives of the project are to:

- Evaluate the cost-effectiveness of cluster planting combined with the Miyawaki method in rehabilitating degraded lands;
- Determine the survival rate of test species (*Dalbergia cochinchinensis*) planted together with other species in a cluster using the Miyawaki method; and
- Demonstrate the beneficial effects of local materials (coconut husks) as a water-retaining agent on the survival of seedlings.

The project will carry out a statistical analysis comparing the growth of the plants for the three different types of treatments, compare the cost-efficiency of the treatments, and provide policy recommendations on the potential of the Miyawaki method.

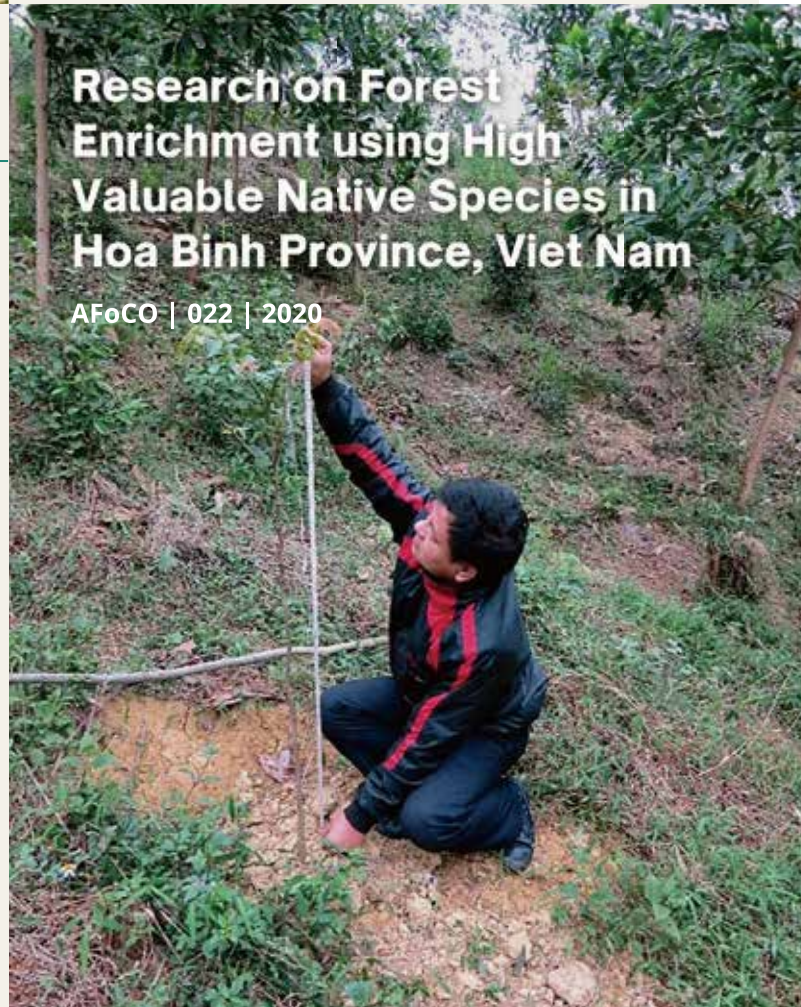
2021 - 2023 39,496 USD

Hoa Binh Province, Viet Nam

The project aims to improve degraded natural forests in Hoa Binh province by applying forest enrichment measures using high valuable native species, contributing to the increment of the environmental value and livelihood of local people. Its objectives are as follows:

- Assess the status of degraded natural forest, forest enrichment models, techniques applied, and related policies in Hoa Binh province;
- Develop appropriate technical guidelines in forest enrichment using high valuable native species in Hoa Binh province based on assessment results;
- Organize and carry out technical training for relevant stakeholders in Hoa Binh province; and
- Establish demonstration plots using the technical guidelines developed.

The project will produce a report on the assessment of degraded natural forests, forest enrichment models, techniques applied, and related policies; a set of technical guidelines to enrich degraded natural forests using high-value native species; deliver training on forest enrichment, and; establish enrichment models using high-value species.



Research on Forest Enrichment using High Valuable Native Species in Hoa Binh Province, Viet Nam

AFoCO | 022 | 2020



INNOVATIVE SOLUTIONS FOR CLIMATE CHANGE & BIODIVERSITY LANDSCAPE STRATEGY TO SUPPORT SDGS IN INDONESIA

2021 - 2024

700,000 USD

Riau Province, West Nusa Tenggara Province, and South Sulawesi Province of Indonesia

The project will introduce innovative solutions to sustainable management practices and enhance the capacities of Forest Management Units (FMUs) and local communities in achieving Indonesia's emissions reduction targets and improving biodiversity landscapes to support the achievement of the SDGs. Targeting sites in the tropical peatland forests of Forest Area with Specific Purpose of Kepau Jaya and FMU Minas Tahura in Siak District, Riau Province; mangrove ecosystem of FMU Ampang Plampang, Sumbawa District, West Nusa Tenggara Province; and karst and lowland ecosystem of FMU Bulusaraung, Maros District, South Sulawesi Province, the project aims to:

- Establish baseline information by mapping the existing biophysical, socio-economic conditions, and potency of natural resources in the study sites;
- Facilitate the preparation of business plans for the FMUs at the study sites;
- Develop demonstration plots of at least 10 ha in each study site for carbon stock enhancement in FMUs or Forest Area with Specific Purpose (KHDTK) areas; and
- Transfer techniques and raise awareness of project model establishment to relevant stakeholders through the synthesis of knowledge and experiences, recommendations on policy practices, and dissemination of project outputs.

Indonesia is striving to strengthen its economy and alleviate poverty while reducing emissions from the forest sector, which constitutes the biggest part of its national commitment. The climate policy of Indonesia includes mitigation and adaptation actions. Sustainable forest management by improving forest governance and increasing forest cover will provide an opportunity for developing eco-tourism in the forest areas in Indonesia. Forest areas in Indonesia have been delineated into Forest Management Units (FMUs), and they play an important role in the implementation of mitigation and adaptation actions to channel the contributions from the forestry sector to achieve the national targets laid out in the NDC. The mitigation and adaptation action planning should be written in the RPHJP and RPHJM of the FMUs; the business models which align with the RPHJP and RPHJM will support the FMUs to achieve the NDC target and improve the resiliency of the communities to climate change.



Mangrove planting at project site in West Tenggara Province

Main Activities

- Collect and analyze data and information on biophysical conditions including carbon stock and emissions data
- Survey and assess data on socio-economic conditions at the beginning and end of the project
- Investigate and conduct value chain and market analyses of potential commodities
- Conduct capacity building on GIS and RS technologies; carbon stock accounting and emissions reduction; ecotourism; and startup and online business for FMU officers and personnel
- Conduct workshops to develop business plans on forest-based ecotourism in each project site and share knowledge through district-level policy dialogues and workshops
- Carry out discussions at the farmer-level to decide on tree species through participatory approaches and establish demonstration plots at each project site
- Organize workshops for project partners and produce materials for dissemination of knowledge and techniques on the project models
- Carry out regular reporting and project management activities (field trips and PSC meetings) for monitoring and evaluation purposes



Participatory Rural Appraisal with Ampang Plampang FMU, West Nusa Tenggara Province



Cultivation of seedlings at Tala Tala Seed Nursery in South Sulawesi Province



Field survey at Kepau Jaya FWSP, Riau Province

Expected Outcomes

The project will empower local communities to respond to the impacts of climate change by supporting research and development on adaptation to climate change in the forest sector, and contribute to the achievement of the SDGs through carbon emissions reductions and improvement of the biodiversity landscape. Finally, the incomes of local communities will be increased through new business models, and their capacities in business plan development will be strengthened.



CONSERVATION & DEVELOPMENT OF FOREST ECOSYSTEMS BIODIVERSITY RESOURCES AT CAT TIEN NATIONAL PARK

2021 - 2026 **1,132,000 USD**
Cat Tien National Park, Viet Nam

Cat Tien National Park (CTNP) spans 82,597 ha and is one of the Special-Use Forests of Vietnam, located in the 3 provinces of Dong Nai, Lam Dong and Binh Phuoc. It is a tropical rainforest that is home to many rare and endemic flora and fauna species. At present, CTNP is managed under the VNFOREST/MARD. Due to human impacts and climate change, the biodiversity resources of CTNP are declining. In the last few years, CTNP and local authorities have collaborated to help local people to improve their livelihoods and strengthen forest patrolling, but illegal logging and trapping of wild animals still occur.

The project aims to improve the conservation and development of forest biodiversity resources at CTNP while ensuring sustainable livelihood improvement for communities in the buffer zone. Its objectives are to:

- Improve knowledge and information-sharing on biodiversity of forest ecosystems of the Park for local managers and policymakers;
- Assess the climate change and social impacts on CTNP biodiversity and integrated management measures, improve management and conservation capacities of project stakeholders, and engage local communities for forest management and protection; and
- Create pilot models for sustainable livelihood improvement of local communities in the buffer zones.

The project completed the assessment of climate change and social impacts on CTNP biodiversity and integrated management measures, improve management and conservation capacities of project stakeholders and engaged local communities in forest management and protection activities through surveys and technical assessments.

Education and training activities for diverse stakeholders, including policymakers, local officials, park management staff, and local communities will be carried out to develop capacities in forest management and protection and climate change adaptation.



Main Activities

- Training, sharing knowledge, experiences, and skills on biodiversity conservation with Province, District, Commune Officers
- Conduct study tours in national parks and protected areas inbound and outbound
- Assess the climate change and social impacts on the biodiversity of CTNP
- Organize training on climate change and social impacts for people and local authorities in the buffer zone
- Implement measures and solutions to minimize the negative impacts of climate change and social impacts at CTNP (i.e. improving the habitat of Ramsar-Crocodile Lake and neighboring wetland)
- Enhance local communities' capacities on climate change adaption and dealing with social impacts (i.e. changing cultivation methods, practices for local people in the buffer zone to adapt to climate change)
- Develop a model of planting Golden Camellia (*Camellia spp.*) and Theaceae, an indigenous, rare, and valuable tree species used to produce timber, high-quality drinks, medicine, and ornaments
- Collect orchids (Orchidaceae) and set up a greenhouse for orchid genus resource conservation at CTNP
- Develop supporting documents, materials, and tools to improve conservation capacity
- Organize training for rangers in forest protection, biodiversity monitoring, patrolling, using equipment, and management of violators in the community
- Develop coordination regulations on forest protection with local authorities and sign commitments on forest protection with households
- Survey and assess the benefits and potential of economic development of the Park and local communities
- Identify economic benefits of biodiversity conservation engaged with improving livelihoods for local people in the buffer zone
- Support the planting, maintenance, and marketing of high-value tree crops to help improve the livelihoods of ethnic minorities in Village 3 and Village 4, Phuoc Cat 2 Commune, Cat Tien District, and Lam Dong Province
- Plan and establish intensive grassland management for ethnic minorities in Village 7, Dac Lua commune, Tan Phu district, Dong Nai province
- Develop and promote a homestay model in Nam Cat Tien commune, Tan Phu district, Dong Nai province in accordance with local customs and practices as a tourism-based alternative livelihood



Interview with local people of Phuoc Cat 2 commune



Interview with local people of Nam Cat Tien commune

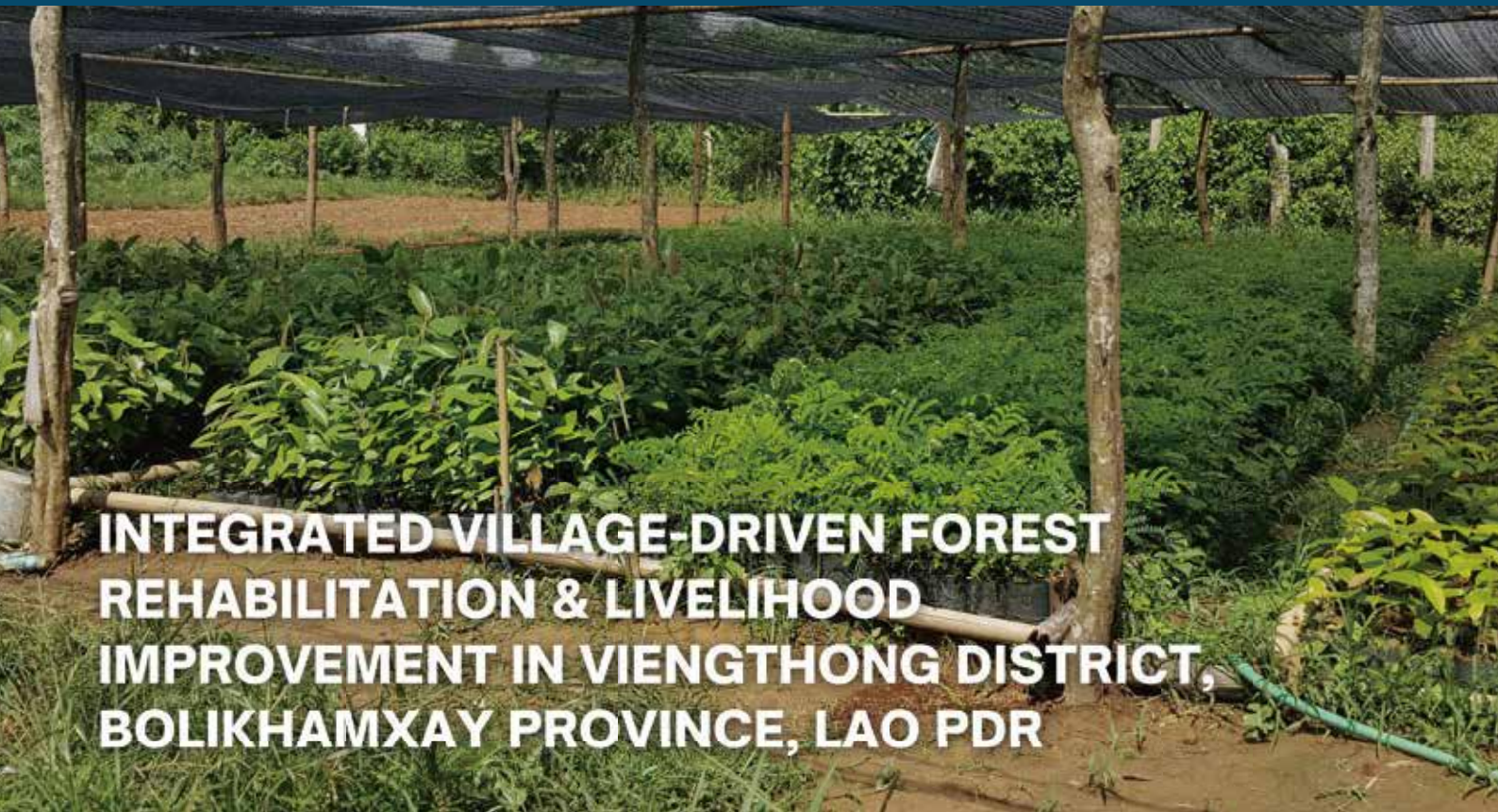
Expected Outcomes

The project will contribute to the conservation and management of forest ecosystems and biodiversity in CTNP based on the Vietnamese government's national policy and help increase income generation through the development of a livelihood improvement model for local communities.



AFoCO is a treaty-based intergovernmental organization that is committed to strengthening forest cooperation and taking concrete actions to promote sustainable forest management and address the impacts of climate change.





INTEGRATED VILLAGE-DRIVEN FOREST REHABILITATION & LIVELIHOOD IMPROVEMENT IN VIENGTHONG DISTRICT, BOLIKHAMXAY PROVINCE, LAO PDR

2021 - 2026

1,087,520 USD

Phou Khaen Protection Forest, Viengthong District, Bolikhamxay Province, Lao PDR

The project will restore degraded forestlands and improve the livelihoods of forest-dependent communities in Phou Khaen Protection Forest areas through the development and application of different restoration measures and income generation activities involving Non-Timber Forest Products (NTFPs). The project will achieve the following objectives:

- Develop, refine and make further replication available for a set of technically appropriate, economically viable, and socially acceptable “Village-Driven Forest Restoration Model (ViDFoRM)” for degraded protection forest areas;
- Restore degraded forestland and protection of Phou Khaen Protection Forest Areas;
- Improve the livelihoods of forest-dependent communities in Phou Khaen Protection Forest Areas through income generation from implementing forest restoration activities and NTFPs; and
- Manage the project in an effective manner in compliance with project implementation guidelines and AFoCO-related guidelines.

Lao PDR has been facing threats of deforestation in recent decades. This has contributed to a rapid decline of forest cover and forest deterioration, including forest biodiversity and ecosystem services. This negative impact has not only resulted in degradation of the environment and contributed to climate change, but has also threatened local livelihoods since forest products are the main source of income and nutrition for local peoples living within and around forests.

The nationally recognized main drivers of deforestation and forest degradation include shifting cultivation, forest fires, the expansion of commercial agriculture, illegal logging, infrastructure development, hydropower projects, and mining. Amongst the drivers, shifting cultivation, commercial agriculture expansion, forest fire, and illegal logging are threatening the sustainable management of the Phou Khaen Protection Forest. The problems caused by these drivers are strongly influenced by local livelihood practices and behavior that, in theory, could be addressed by local involvement and participation in decisions.

In Phou Khaen Protection Forest, shifting cultivation, illegal logging, forest fire, and commercial crop production are the main drivers of deforestation and associated forest degradation, NTFP decline, and loss of biodiversity. This, in turn, leads to a loss of ecosystem services which causes problems related to the environment, climate change and poverty.

Main Activities

- Familiarize local contexts and set up a project baseline information baseline and develop ViDFoRM related guidelines and training materials
- Produce case studies and policy briefs based on lessons learned to present them to senior-level decision-makers for its utilization in formulating forestry policy and regulations
- Support the pilot commercial household and community of NTFPs production, its marketing, and tree plantation
- Promote and facilitate processing and marketing of NTFPs and planted timbers
- Establish Provincial Management Unit (PMU) and District Coordination Unit (DCU), and their offices
- Procure vehicles, equipment, stationery, and consumables
- Develop project management procedures, regulations, and Monitoring, and Evaluation (M&E) framework and use the M&E results for adaptive project management
- Organize necessary workshops and managerial and technical training and study tours
- Conduct project monitoring and evaluation

Expected Outcomes

The project will achieve the outcomes of:

- Restoring approximately 6,000 ha of degraded forest areas in Phou Kaen Protection Forest and contribute towards achieving the national target of increasing forest cover to 70% and fulfillment of the National Determined Contribution as obligated by the Paris Agreement on climate change;
- Development of technically appropriate, economically viable, and socially acceptable ViDFoRM for degraded protection forest areas; and
- Improving the livelihoods of forest-dependent communities in Phou Khaen Protection Forest Areas through income-generating activities from forest restoration and the production of NTFPs.



Income generation for households through NTFPs



Workshop with government officials



Re-greening the bare lands in Timor-Leste through Promotion of Locally Customized Restoration Models

AFoCO | 026 | 2021

2021 - 2024 1,000,000 USD

Municipalities of Liquica, Aileu, Ainaro, Timor-Leste

The project will implement locally appropriate Forest Landscape Restoration (FLR) initiatives that can provide socio-economic and environmental benefits for households, communities, the private sector, and government authorities in Timor-Leste, aiming to:

- Establish a database of the forestland degradation and build the capacities of farmers in the project sites; and
- Develop a business model for the trade-offs of key ecosystem goods and services through a network of community-based enterprises.

Expected outputs from the project include information on degraded landscapes (geospatial datasets) and socioeconomic conditions of populations in the project sites; enhanced capacity of farmers in implementing FLR initiatives; identification of mixed species of high economic value and restoration of 150 ha of the degraded areas in the project sites through FLR initiatives; development of business models for the trade-off of ecosystem goods and services to increase livelihoods, and; dissemination of knowledge and lessons learned on the trade-offs and synergies of key ecosystem goods and services and socioeconomic and environmental impacts on FLR initiatives.

2022 - 2027 663,515 USD

Kampong Seila District, Preah Sihanouk Province, Cambodia

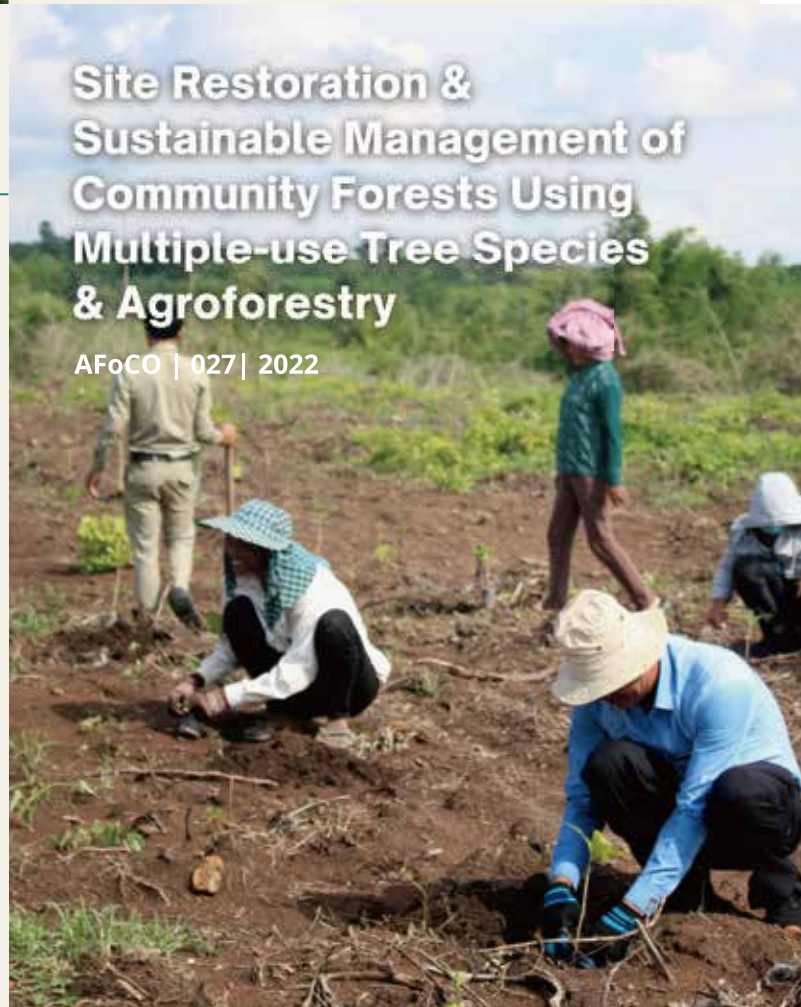
The project aims to restore forest resources and increase the incomes of the community through the sustainable management of community forests. Its objectives are to:

- Ensure that community forests are well-managed by the local communities, who are capacitated to protect the forests, produce seedlings, and implement forest restoration activities;
- Rehabilitate the community forest by using multiple-use species with high economic value and manage them in a sustainable manner to benefit the local communities; and
- Disseminate the experiences and lessons learned from the project to benefit other community forests and to sustain the impacts of the activities after project completion.

Expected outputs of the project include restored community forests maintained by trained local communities; improved forest productivity in terms of timber and NTFPs (such as fruits, rattans, bamboo, fuelwood, and poles); and well-protected and well-managed community forests in the project sites.

Site Restoration & Sustainable Management of Community Forests Using Multiple-use Tree Species & Agroforestry

AFoCO | 027 | 2022





Pilot Project on Inventory of Unaccounted Forests in Kostanay & North Kazakhstan Regions & Automation of Information Collection on Forestry

AFoCO | 028 | 2022

2022 - 2025 953,277 USD

North Kazakhstan and Kostanay regions

The project aims to improve forest management of Kazakhstan in terms of forest accounting and data management contributing to protection and conservation including regulatory procedures five (5) years after the project through the following objectives:

- Conduct identification and mapping pilot inventory of the unaccounted forests in Kostanay and North Kazakhstan regions; and
- Develop a fully functional digital program (software) on forest data management.

The project will result in the accounting of forest funds in Kostanay and North Kazakhstan regions are completed, analyzed, properly documented, and shared as a model/template for nationwide inventory by the end of the Project; and digitalized data management system installed and launched in all forest agencies/institutions.

2022 - 2026 799,680 USD

Hoa Binh, Son La, Lai Chau, and Dien Bien Provinces, Northwest Region of Viet Nam

The project will develop and transfer techniques and raise awareness of forest land degradation and the application of integrated technical measures for the rehabilitation of degraded forest lands through the establishment of 20 ha of demonstration models in 4 provinces in the Northwest region of Viet Nam. The objectives of the project are to:

- Develop integrated technical measures corresponding to different degradation levels of forest land classified in the Northwest;
- Establish and evaluate the effectiveness of four models of degraded forest land rehabilitation in 4 Northwest provinces through the application of integrated technical measures in combination with advanced technologies;
- Compile technical guidelines on degraded forest land rehabilitation and policy briefs on sustainable management and use of degraded and potentially deserted forest land in the Northwest region; and
- Transfer knowledge and techniques and raise awareness of project model establishment to relevant stakeholders.

Rehabilitation of Degraded & Potentially Deserted Forest Land in the Northwest Region of Viet Nam through Application of Integrated Technical Measures

AFoCO | 031 | 2022