

The project of improving local community's livelihoods and engagement in sustainable forest and land management in Thailand through Forest Landscape Restoration in Pa Laew Luang sub-district, Santisuk district, Nan province

Monitoring Report with AFoCo

13 September 2024

1. Principles and Reasons

The project of improving local community's livelihoods and engagement in sustainable forest and land management in Thailand through Forest Landscape Restoration at Pa Laew Luang sub-district, Santisuk district, Nan province is an integrated project between Land Development Department, the Royal Forest Department, the International Organization for Conservation of Nature and CESRA under budget support from the Asian Forest Cooperation Organization (AFoCO). The project aims to operate in the area of Pa Laew Luang sub-district, Santisuk district, Nan province. The objective is to develop a prototype area for sustainable land and forest management at the local level to respond to the national land resource management balance target (National Land Degradation Neutrality: LDN) and reduce greenhouse gas emissions from the agricultural and forestry sectors.

In order for the implementation of the project under the AFoCO cooperation framework with relevant member agencies, participating farmers, a meeting, discussion, expression of opinions, and distilling lessons learned were organized with officials from Korea (AFoCO), working groups, project committees, and participating farmers to learn from participating in the project, sustainable land, water, and forest management, and to coordinate cooperation between various sectors in implementing the project to improve the quality of life of local communities by restoring forests and managing land sustainably in Pa Laew Luang sub-district, Santisuk district, Nan province, so that the project under the AFoCO cooperation framework can be effectively implemented, resulting in integration with local agencies to develop agricultural areas and forest areas in the community to be fertile and a source of occupation and incomes for the community. This focuses on development alongside conservation, maintaining balance between agricultural area development along with restoring degraded forest areas, and creating sustainable plantation forests.

2. Objectives

1) To discuss, express opinions and learn from lessons with officials from Korea (AFoCO), working groups, the project committee and participating farmers

2) To integrate sustainable land, water and forest management and coordinate cooperation among network partners

3. Expected benefits

1) Farmers have an understanding of sustainable land and forest management at the local level

2) Farmers have approaches to restoring land and ecosystems affected by land degradation and the impacts of climate changes

3) The integrated network agencies in the area have been informed of the sustainable land and forest management model in Pa Laew Luang Subdistrict. The joint plan integration is to further develop the area for sustainable land and forest management.

4) There is a prototype area for sustainable land and forest management that is appropriate for the context of the area of Pa Laew Luang sub-district, Santisuk district, Nan province, to serve as a learning point and guidelines for sustainable expansion in the area.

5) Community enterprises have product development guidelines, marketing channels, and generate incomes for farmers. They can improve the quality of life of local communities, along with forest restoration and sustainable land management.

6) Reducing agricultural land degradation and reducing greenhouse gas emissions from the agriculture and forestry sectors.

4. Performance Results

4.1 Regarding opening the workshop to provide a forum for discussion, expressing opinions and learning lessons with officials from Korea (AFoCO), working groups, project committees and farmers participating in the project "Project to improve the quality of life of local communities through forest landscape restoration and sustainable land management, Pa Laew Luang sub-district, Santisuk district, Nan province", the meeting was chaired by Dr. Bunjirtluk Jintaridth, project consultant from the Land Development Department, who spoke about the importance and origin of the project.

4.2 Presentation of a summary of the results of the project to improve the quality of life of local communities through forest restoration and sustainable land management, Pa Laew Luang sub-district, Santisuk district, Nan province, and presentation of a prototype

area model for sustainable land and forest management in Pa Laew Luang sub-district, Santisuk district, Nan province, by **Mrs. Chatnapha Phromlaongwan**, Director of Nan Land Development Station

On “Project to improve the quality of life of local communities by restoring forests and managing land sustainably, with the implementation area at Pa Laew Luang sub-district, Santisuk district, Nan province”. The project will be implemented for 2 years, starting from 2023-2024, and the project will end by November 2024. At present, 75% of the implementation has been completed. Pa Laew Luang sub-district has a total area of 62,000 rai, located in the overlapping area between Phu Kha National Park and Tham Sakoen National Park. It is at risk of forest degradation due to the expansion of communities within the forest boundary. 85% of the area is high mountains, alternating with each other, and there is agriculture on the slopes, mostly planting rubber trees and corn, so it is an area prone to erosion with a relatively fast runoff rate. In the past, there has been rain for many days, causing flash floods to overflow into agricultural areas and communities.

Objectives of this project

1. To increase forest coverage in target areas by restoring and rehabilitating degraded forests or degraded lands by applying restoration opportunity assessment methods and forest landscape restoration.

Land Development Department has integrated with many agencies. IUCN supports the assessment of landscape improvement patterns that are appropriate for communities by using the Drone program and forwards data information to the Land Development Department

2. To promote sustainable land management in the agricultural sector and develop sustainable land use patterns to halt land degradation of beneficiaries in target areas.

Land Development Department surveyed and found a total of 32 farmers. They held a meeting with all 32 farmers and concluded 5 models: **Model 1:** 3-type forest planting, 4-type benefits; **Model 2:** natural forest planting; **Model 3:** reforestation; **Model 4:** terraced forest planting; and **Model 5:** agroforestry. Finally, when it came to agriculture, the villagers chose agroforestry in order to expand into 4 more models: planting perennial fruit trees, planting forest trees as shade trees, planting forest trees alternately with field crops, and planting fruit trees mixed with forest trees. When they came to this conclusion, each plot had different resources, so they designed the area for each plot. Each plot had a different plan depending on the resources and current conditions of each plot. In addition to looking at the soil and forest, we also looked at water, which is important if agriculture is to be done because water is an important factor so

that farmers can use it efficiently and have a variety of options in their activities, which can meet the needs of farmers. Today we will go to see 3 plots belonging to Mrs. Yim Boon-in, Mrs. Jenjira Khamnan, and Mr. Kaew Jinata. They will have forest trees that have been used to propagate mushroom spawn for villagers to grow. They will also install a solar energy pipe system and solar panels. They will also dig small ponds to store water on the ground surface. They will also improve and maintain the soil, plant vetiver grass, and do soil and water conservation activities. Some areas already have water tanks from the Royal Irrigation Department that are not being used, so we will develop them to extract water to use in the plots so that we can do more activities. Each plot will have similar activities that are included. There will be forest trees, fruit trees, *Dipterocarpus alatus* Roxb., and golden oranges mixed together.

3. To enhance the capacity and participation of local people, local authorities and relevant stakeholders involved in sustainable agriculture, sustainable land management and sustainable forest management

Increasing potentials of farmers, of the community. What we get from this is the capability of local officials that have the potential to push for sustainable agriculture in the area.

4.3 Discussion, discussion and lessons learned with officials from Korea (AFoCO), working groups, project committees, network member agencies and participating farmers.

1) Discussion and comments by **Mr. Seong Han Lee from Asian Forest Cooperation Organization:** AFoCO: Hello and I am honored to be here today and would like to thank the Royal Forest Department and the Land Development Department for participating in this operation. The results of the operation were presented in Bangkok and the results were good. We will continue with the model. I would like to thank you for the results of the operation and hope that we will continue to talk about various matters and thank you for the meeting this time.

2) Discussion, comments by **Mr. Sapol Boonsermsuk from the Royal Forest Department.** Thank you for the joint project. Regarding the joint operation of the Land Development Department and the Royal Forest Department, the issue of soil and forest must be related. It is an important step to develop soil, water and forest. There will be a certification of wood. Next, we will plant and cut it to sell the wood ourselves. The importance of soil, water and forest are balanced. Hopefully in the future, there will be phase 2, phase 3 further. Judging from the project, it is going well. I want it to continue. If you look closely, planting a forest will create a forest. But if you look closely, planting bamboo, we can use it as raw materials to be used to produce machinery to generate incomes. This is a channel in the future. Regarding making biochar (Biochar) and the benefits of biochar, in the future, we will stop using chemical fertilizers.

3) Discussion, comments by **Mr. Prateep Meekatikam from the International Organization or IUCN** – Thailand which is an international organization of which Thailand is a member. The selection of the area, Pa Laew Luang forest, is actually a target area under the government's policy. We have 12 million rai of land as a national forest reserve, with over 200,000 rai in the national park that will be allocated to farmers. When the government talks about land reform, the big question is that we are not just allocating land to the people. The main point is, once we have the land, how will we improve our quality of life? How will we jointly take care of the forest? Why did we choose the Pa Laew Luang forest area? There is a fairly extensive background in the work. Every agency places importance on this issue. The importance of the AFoCO project is not that when the project is over, the project will end. Because according to the conditions of the National Land Policy Board's permission at the end of the green book, we will jointly restore our agricultural areas to have more trees and green areas. It is an attached condition that must be continued. If we do not do it, it will lead to the revocation of the permission in the future. Therefore, the importance of the project is that this project supports us to start in accordance with the National Land Policy Board 's conditions. Currently, we are facing many problems. We are in a period of future climate changes. Even though we started with only 3,000 rai, which there are almost 12 million rai of National Land Policy Board land nationwide. There may be some obstacles that need to be solved in the future. The project has already started.

4) Discussion and comments by **Mrs. Kriyaporn Thephasadin Na Ayutthaya, Director of the Center of Excellence in Soil Research from the Land Development Department**, on behalf of the Center of Excellence in Soil Research in Asia, a newly established organization called CESRA, whereby Thailand is the host in establishing it to be the center of soil management. Whichever country that has soil management shows it. We have a lot of management that we want to show. The management at Pa Laew Luang should be another success to show. The distilled lessons learned from what we have done and succeeded are very important because the importance of the project is not that we did it here and succeeded here. It would be better if we take the success of the project and extract what was successful and what failed in order to fix it. If those lessons are extracted, they will lead to success and be disseminated to other communities and other countries. When they see our success and follow it, it is the pride of everyone here. I would like to leave this with you. We should have a lesson learned from everything we do so that we can be a model of success in sustainable soil and forest management with community participation, and everyone here is very important in taking the success of the project and disseminating it to others.

5) Discussion, comment by **Mr. Wasan Charusang, Director of the Provincial Office of Natural Resources and Environment in Nan, on behalf of the provincial government agencies of Nan.** There has been coordination with the Royal Forest Department, the Land Development Department on forests, environment. The National Land Policy Board area, Nan Province has 11,000 hotspots. For this year, they have decreased by half. Regarding water, we have groundwater and various soil surface water. We are happy to build various water retardant dams today. Regarding land, water, forests, together with planting 3 types of forests, 4 benefits, the Royal Forest Department has coordinated with the provincial group to operate in the National Land Policy Board area. In addition, there is a national park area. In the future, it will be carried out similarly to the National Land Policy Board area. Today, I am happy that AFoCO has come to provide knowledge and understanding and come to do this project. I am happy to be delighted. The Land Development Department has a role in soil management, vetiver grass. The next issue is concern about rubber. I think it should be planted together with bamboo and coffee planting. If the three items are taken care of it, this will be very good. Regarding biochar, it is about land ,which I see it as a good sign that we are working together. Another thing I would like to recommend is bamboo if we use it to make various products.

6) Discussion and opinions by **Mr. Noppadol Uppatham, Santisuk District Agricultural Officer from the Department of Agricultural Extension,** which is responsible for Santisuk district. It is considered a network member agency in terms of area management. At the moment, no hotspots have been found in the area. This is considered a good initial operation. Villagers have started to change to growing more animal feed corn and avocados in the National Land Policy Board area. They have started to get good results, which is a good target, reducing the problem of deforestation even more.

7) Discussion and comments by **Mr. Chai Pongkantha from Nan Irrigation Project,** a network partner of the elevated project in Pa Laew Luang sub-district, which supports water sources for agriculture in the area of the National Land Policy Board. In the past 3-4 years, there have been 2 projects supported: Huai Heua Weir and Huai Pong Weir, which supply water to this project. Currently, there are 8 water tanks of Huai Pong Weir for supplying water to Pa Laew Luang sub-district, Santisuk district in 3 areas: Ban Pa Laew, Ban Sop Yang, and Ban Don Chai. Each water tank has a capacity of 100,000 liters. The Nan Irrigation Project has also requested an additional budget for the Huai Pong Weir Phase 2 , which is expected to be completed in 2026. Therefore, the operation of the irrigation may have some impact on the construction, but it is a project that will supply water to farmers for future agriculture. As for the AFoCO project, it is a good project and seriously supports farmers. The operation is carried out

step by step according to the plan that the agency has implemented. It also improves the quality of life of farmers in Pa Laew Luang sub-district to have a better life

8) Discussion and comments by **Ms. Apaporn Thongseangiam from our Tree Community Enterprise Group, Rak Santisuk, Santisuk District**, Nan Province. Our tree project (Trees for All, RECOFTC (Recoftc Thailand)), which involves planning the plots beforehand, where 100 trees will be placed in the plots, and what to do after planting them, under the conditions received. Therefore, farmers must understand their plots before planting trees, and must have a tracking system for each installment to track that the trees have actually been planted and have not disappeared. It can also be tracked throughout the 3-year period, resulting in continuous donations, up to now totaling 1.8 million. There are currently 180 farmers in the Santisuk area who receive compensation and have trees under their care, entering the 3rd year and continuing to do so. There will be a community enterprise joining together to form a working group to monitor and follow up on the plots. Farmers are members of plots in other government projects, but they can choose what they want to do, what incomes they have, and what knowledge they have. Everyone here is also a member of the project plots in all 3 sub-districts of Santisuk district.

9) Discussion and comments by **Mr. Petch Chaiyapong, President of the Forest Learning and Restoration Center**, Pa Laew Luang sub-district, Santisuk district, Nan province. He talked about forest restoration since 2015, which inherited from Lieutenant General Thiraphong, who came to restore the forest here in Santisuk district, inviting villagers in the district to join in forest restoration. It is a corn plantation area with conditions for operation of 1,800 Baht per rai. A survey in 2014 on corn plantation throughout the year yielded approximately 720 Baht per rai. So we give incentives to farmers to stop growing corn and turn to planting forests in their own areas. Farmers can plant whatever they want and request seeds from the center. The center will request them until they get trees to plant and restore the forest to some extent. The first year, they got 100 rai, the second year, 185 rai, the third year, 500 rai, totaling 785 rai. Planting once takes 5 years. The easiest plant to restore is bamboo. A sustainable plant is *Dipterocarpus alatus* Roxb. trees because these can hold a lot of water and can restore the forest in 3 years. This is the product that we already have. There are makhwaen (*Zanthoxylum myriachanthum*) and bamboo. Now we are developing bamboo. We will make bamboo packaging boxes. As for makhwaen, we have developed it into sauce because we encourage farmers to plant it in their plots. Nan Province is the city of makhwaen, so we have to promote it because it has a lot of nutritional values. In this group, there will be makhwaen in every plot. As for AFoCO, in the near future, it will be nationwide for makhwaen sauce. We launched in

Chiang Rai last month and this month we will launch in Lampang. If we encourage farmers to plant it but they have no place to sell it, we have to develop it further. We are the ones who think and want to do this so that farmers have more incomes. As for bamboo and makhwaen, we want AFoCO to support the budget for processing. We have done research and found that Sang Mun bamboo (*Dendrocalamus sericeus*. Munro) is the best. It has beautiful colors and no chemical contamination. This is another product that we will present. There are coffee cups and plates. Nan Province will be a world heritage city, so we will reduce waste and be environmentally friendly. Nan Province also promotes bamboo planting a lot. Santisuk district, Pa Laew Luang sub-district, has a total of 1,632 rai. The land that was planted has now been cut down a lot. It is a pity, so we want to restore it. If we have products that meet the needs, we will be able to restore it for farmers. It can be rehabilitated. The reason for cutting is because rubber trees are popular, like cassava. This year, if they are planted next year, the soil must be plowed.

Question: What will the village headman do if para rubber becomes popular in your opinion?

Answer: If we have a product, they will earn incomes. If we have bamboo water, one bamboo clump is 3 meters long, we will get 5 liters of bamboo water. We meet at 3 a.m. and collect at 7 a.m.

In the near future, we will see success in another approach, which is forest restoration. We want to restore the entire area. Right now, we still have some corn, some cassava, and some rubber. We want to restore it successfully because we have already restored 785 rai. We want to restore everything. I ask the agencies to work together to make it happen.

4.4 Entering the area to follow up on the project results of farmers who participated in the project in the area of **Mrs. Jenjira Kamnan, Mrs. Yim Bun-in and Mr. Kaew Jinata**, which is a prototype area for sustainable land, water and forest management and integration with network member agencies in the national forest reserve area, which is the area of the National Land Policy Board, Nan River Forest, Southern Eastern Bank, Pa Laew Luang sub-district, Santisuk district, Nan province.

4.5 Brainstorming and discussing the integration approach to further develop sustainable land and forest management in Pa Laew Luang sub-district, Santisuk district, Nan province. Summarizing together with discussing the results and closing the meeting.

5. Pictures of the work monitoring activities in the area of Pa Laew Luang sub-district, Santisuk district, Nan province



