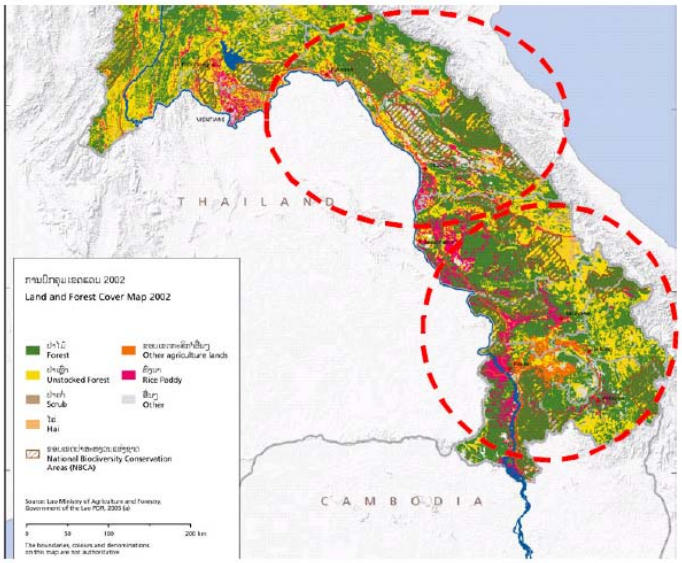
FY2010 Global Warming Mitigation Technology Promotion Project: Feasibility Study on Building a REDD+ Scheme in Laos

Source(s):

- *FY2010 Global Warming Mitigation Technology Promotion Project (Round Two) Commission Agreement: Feasibility Study on Building a REDD+ Scheme in Laos (Report)* *(Japanese)*
- *New Mechanisms Information Platform website* *(English) (*2)*

Project location



Project areas (p. 28)

Possible candidates for this project include the following provinces: Khammouane, Bolikhamxay, Savannakhet, Salavan, Champasak, Xekong, and Attapeu (p. 29).

Forest area and types

The forests in the target areas of Khammouane and Bolikhamxay provinces are primarily mixed deciduous forests containing species such as *Tectona grandis*, *Pahudiacochinchinensis* and *Terminalia nigrovenulosa,* with some dry dipterocarp forests containing *Shoreasiamensis*, *Dipterocarpus intricatus*, *D. tuberculatus* and the like. Degraded forest lands are covered in shrubs such as *Cratoxylon prunifolium*. They are potential forest lands (i.e., bamboo groves, degraded forest lands, and grasslands) that were degraded by slash-and-burn agriculture. The remainder is vegetationless land, such as farmland and residential land. The project regions in southern Laos, namely the provinces of Savannakhet, Salavan, Attapeu, Xekong and Champasak, are dominated by dry dipterocarp forests, and most of the degraded forest land is covered primarily by bamboo grass and shrubs (p. 30).

Forest management and use context

This feasibility study was conducted in project regions in central and southern Laos by LPFL and SLPFL (Oji Paper's local subsidiaries) (p. 47) LPFL holds 50-year concessions in Khammouane and Bolikhamxay provinces in central Laos. The project area now covers the entirety of these two provinces, having expanded from the initial project area of 150,000 ha in 2007. The goal of reforesting 50,000 ha was not predetermined; rather, an agreement on the land use was reached in a meeting of government committees, candidate villages and LPFL, after which a survey was conducted. In addition, SLPFL holds 25,000 ha of 40-year concessions in five prefectures in southern Laos (Savannakhet, Salavan, Champasak, Xekong and Attapeu) (p. 27).

When operating a foreign-funded afforestation project in Laos, you are not allowed to own the land; therefore, you must rent the land from the government and obtain permission for usage rights. This afforestation project has already been approved, and we have secured usage rights to the plantation sites with leases (p. 32).

Securing a lease for a plantation site requires signing a lease agreement with the Government of Laos. This entails obtaining a consensus from local residents—having taken into consideration their need to acquire wood by-products and fuel wood—on suitable afforestation sites surveyed from among the different land types, such as farmland, degraded forest land, grassland etc., based on land use zones stipulated in each village in accordance with agreements between the government and the local residents. In addition, afforestation sites are set based on environmental impact considerations, including soil and biodiversity conservation, before actual afforestation begins (p.32).

There are many villages within LPFL's concession area, each of which maintains traditional boundaries. The villagers make a living by securing permits for farms as well as by hunting, harvesting non-timber forest products (NTFP) and cultivating rice, tobacco and other crops. Most villagers within the project area sustain themselves on hunting, harvesting NTFP and growing rice, and some sell small goods made from rattan and bamboo, wood, bamboo construction materials, NTFP and tobacco; in general, the standard of living is low. (p.50).

Regarding public health, sanitation conditions for drinking water and cooking methods are bad, and there are not enough medical facilities to combat infectious diseases, such as malaria. As for regional infrastructure, villages situated 10 or more kilometers from national and provincial highways or other main roads are inconvenient for afforestation work and living. In addition, economic issues stemming from the standard of living and poor road access, means many children cannot attend school. Infrastructure to enable them to learn closer to home is not in place (p. 51).

Rates and drivers of deforestation and degradation

Drivers of deforestation and degradation in the project areas of central and southern Laos include unsustainable harvesting from production forests and unsustainable management of village forests. Farmers within the area are aware of deforestation and degradation as well as its impact on the climate and daily life. In particular, unplanned logging is seen as a primary factor in deforestation and degradation, and possible improvements include the formulation of rules and zoning (p.52). Since local residents don't own machinery or have agricultural skills and know-how, they have been unable to shed conventional slash-and-burn agriculture and illegal logging practices (p. 50).

Project proponents

Oji Paper

Implementation timeframe **2010. autumn - 2011.3 (*2)**

Project goals

The aim of this project is to curb deforestation and degradation in the forested areas within the concessions (held by LPFL and SLPFL in central and southern Laos) and surrounding regions. It consists of industrial afforestation as well as local resident-led tree planting (afforestation by local farmers) and community-based social contribution activities (p. 27).

This project is implemented based on an agreement between the governments of Japan and Laos under the bilateral credit system, an original scheme that aims to grant credits for contributions to emissions reductions overseas through the use of low-carbon technologies. By implementing this project under this scheme, we expect to help reduce greenhouse gas emissions and obtain carbon credits by curbing deforestation and degradation. Also, we will actively transfer Japan's forestry technologies to Laos, thereby enabling us to not only control deforestation and degradation, but also contribute to sustainable forest management (p.25).

The effects and benefits that Laos can expect from this feasibility study are outlined below (p. 25).

- Directly shoring up the amount of fixed carbon and conserving the environment by reforesting degraded areas
- Reduction of pressure to log (=reduction of emissions) by replanting native trees in degraded areas near natural forests
- Transfer of forest management technologies, including measures to prevent insect damage and forest fires
- Job creation and improvement of infrastructure in local communities
- Conservation of biodiversity (maintenance of forest continuity and preservation of forest ecosystems)

Also, by operating this project under the REDD+ scheme, we can expect the following ripple effects for Japanese afforestation projects in Laos.

- Expansion of the wood processing business
- Acquisition of land for afforestation projects; strengthening of cooperative ties with local residents

Implementation activities

With this feasibility study, Oji Paper will examine REDD + projects that can serve as the basis for afforestation projects with the aim of securing raw materials for wood chips. Due to international negotiations by UNFCCC, the handling of afforestation projects conducted under the REDD+ banner is clearly defined. Planting trees is one effective method of controlling deforestation and degradation in Laos, and this project may qualify for REDD+ if appropriate forest management and forestry practices are implemented. On the other hand, COP16 resolution does not allow for artificial afforestation of logged natural forests under the REDD+ scheme, a point that was agreed upon as a safeguard. As such, we must work to ensure that the afforestation projects under this program qualify as REDD+ projects in Laos, and we must give due consideration to building a consensus with local communities and other stakeholders (p. 24-25).

To prevent deforestation and degradation in Laos, we must work to prevent forest loss by expanding the afforestation project areas, conserving the surrounding natural forest, and improving the local economy and agricultural technology. For this reason, we will combine corporate tree-planting efforts led by LPFL and SLPFL with local resident-led tree planting and community-based social contribution activities (p. 34).

(1) Afforestation by Oji Paper (p. 34)

Projects include afforestation projects conducted by LPFL and SLPFL with the aim of obtaining raw materials for deciduous wood chips. LPFL holds 50-year concessions in Khammouane and Bolikhamxay provinces in central Laos and plans to plant 50,000 ha of trees. It began planting

eucalyptus and acacia trees in 2005, and has since planted approximately 27,000 ha in total. In addition, the Government of Laos owns a 15% stake of LPFL (investment in kind with land). SLPFL has been planting trees in five prefectures in southern Laos (Savannakhet, Salavan, Champasak, Xekong and Attapeu) since 2010 with the goal of planting 30,000 ha. It planted 700 ha in its initial year.

In both cases, afforestation is taking place on land degraded by slash-and-burn agriculture (land with little potential for future use). The harvest time for trees on these corporate plantations is 7 years.

The Government of Laos, at the time the REDD Task Force was established, was of the opinion that industrial afforestation projects in which trees were harvested in short spans of less than 10 years would not qualify for REDD+; however, it must be noted, for reasons of economic potential and business continuity, that Oji Paper would have difficulty in operating projects with a harvest period of 10 years or longer (p.36).

(2) Afforestation by local farmers (p.36)

LPFL is promoting "afforestation by local farmers", a system in which the company provides local residents with saplings to grow and buys back the grown trees. At present, about 5,000 ha have been planted under the "afforestation by local farmers" scheme in Khammouane and Bolikhamxay provinces. Under this system LPFL sells eucalyptus saplings to villagers, or gives them acacia free of charge, provides them with a sapling growers manual, and provides guidance on tree maintenance and management. Villagers can borrow money ("tender's allowance") to buy saplings from LPFL and have their loans repaid at the time of logging. The villagers use parts of their own land to plant the trees.

Under this project, Oji aims to actively expand the "afforestation by local farmers" scheme while encouraging locals to grow their own fuel wood and diversifying uses for the trees grown, i.e., for use as wood products, and in turn, to transition farmer-led planting into full-fledged forestry and reduce the pressure to log natural forests. Afforestation by local farmers also contributes greatly to creating jobs and additional income in the local communities. As such, local farmers will be able to engage in sustainable land use and forest management without having to rely on slash-and-burn agriculture and natural forest logging.

The "afforestation by local farmers" scheme has been well received by the Government of Laos, and the basic concept for a REDD+ project based on this scheme has been proposed. However, the Government of Laos REDD Task Force wants to establish a similar program in which trees are planted on degraded forest land or wasteland with low carbon accumulation and have harvest periods of 10 years or longer. For the sake of economic benefit for the farmers, the current tree planting scheme employs a harvest period of 5 years. It must be noted, for reasons of economic potential and business continuity, that Oji Paper would have difficulty in operating these projects with the same 10 year harvest period demanded for corporate afforestation projects. By the end of 2009, we had engaged in about 270 social contribution projects in the regions near the plantations. These projects yielded a cumulative contribution of more than 100 million yen (p. 37).

While it seems that slash-and-burn agriculture in the region is on a downward trend, those farmers who continue to engage in slash-and-burn agriculture are increasing the frequency with which they rotate their burnings. As such, we can conclude that LPFL's "afforestation by local farmers" scheme has directly helped reduce or limit slash-and-burn agriculture while also helping to mitigate soil degradation (p.52).

(3) Social contribution activities (p.38)

LPFL and SLPFL both engage in social contribution activities in the communities near the project areas, including building schools, stringing feeder wires for electricity and digging wells.

Under REDD+, we will strengthen these social contribution activities by linking them to corporate afforestation and "afforestation by local farmers". The actual content of social contribution activities are

decided based on the needs of the communities, local governments and other stakeholders. In addition to the infrastructure projects implemented to date, we must contribute both directly and indirectly to prevent deforestation and degradation by transferring technologies for sustainable forest management, implementing environmental education programs for forest conservation, and cultivating forest technicians and rangers (p.38).

Based on a Joint Venture Agreement) with the Government of Laos, we contribute a certain amount of funding per area of trees planted to local social contribution activities. How these social contribution funds are used is decided in consultation with the regional government and local villages in question (p. 72).

With this project, we are contributing to the prevention of deforestation and degradation in the project region by providing or transferring the following technologies (p.45).

	Corporate afforestation	Afforestation by local farmers	Social contribution activities
Optimization of land management	Concession-based recovery and improvement of wasteland	Control and prevention of slash-and-burn agriculture	
Creation of additional employment and income	Assurance of employment and income through forestry practices	Assurance of employment and income through forestry practices	Assurance of employment and income by establishing woodworking plants and providing technical guidance
Reduction and prevention of slash-and-burn agriculture	Prevention of forest fires by establishing fire lines	Transition from slash-and-burn agriculture to forestry	Promotion of the transition from slash-and-burn agriculture with environmental education; guidance on sustainable agricultural management
Stable provision of fuel wood		Use of wood grown by farmers for fuel wood	Limitation of collection of fuel wood from natural forests with environmental education
Transfer of technologies for sustainable forest management	Technical guidance through afforestation project operation	Technical guidance through afforestation project operation	Technical guidance on and transfer of technologies for sustainable forest management

Actors' roles and responsibilities

Oji Paper	
Lao Government	
Oji Lao Plantation Forest Co., Ltd.	In coordination with the Government of Laos, LPFL concludes agreements or memoranda with the province (in some cases the region or village) where projects are to be implemented, after which project boundaries and project details are finalized. We also hold sessions to explain project details to stakeholders in the local community and develop a consensus about activities and land usage pertaining to the project (p. 47).
Oji South Lao Plantation Forest Co., Ltd.(SLPFL)	

Community participation

By 2010, LPFL had overseen corporate afforestation projects in 140 villages and afforestation by about 5,000 local farmers. For example, if 5,000 ha of trees are planted annually, then jobs can be created to the tune of an annual average of 1,000 people per day, including seasonal farm workers employed temporarily. In this case, afforestation can generate 100 million yen in income for the local

villages. At their peak, afforestation projects will employ more than 2,000 people per day (p. 37). In afforestation projects to date, we estimate to have generated nearly 500 million yen in jobs for local communities. This estimate includes the employment of about 1,300 people per year for a chip production and export business with an annual capacity of 400,000 GMT (p. 37).

By implementing projects under REDD+, we can create employment opportunities which can, in turn, improve the current poor level of nutrition; however, if tree plantation sites are used by local residents to gather NTFP or to hunt, there is a chance this could affect their incomes and acquisition of food. As such, projects must respect the current lifestyle of the local residents who live in close proximity to and reap the benefits of the forests and natural surroundings to make a living. We must create employment opportunities and other economic benefits and make efforts to ensure that residents can still benefit from the forests and nature near plantation sites (pp.50-51).

In REDD+ project areas, especially in areas with no industry, the creation of employment opportunities through projects is expected to contribute significantly to the economies of the local communities and wider regions. Projects will span several processes, from clearing ground and raising saplings to planting, logging and transport. Across the entire 80,000 ha project are, we expect to create many jobs, including sapling tenders, planters, tree cutters and forest managers, especially during the peak planting season. Furthermore, we will train skilled laborers to handle the operation of trucks and heavy equipment, information technology, such as GIS, and plantation management.

We are mandated by Laotian law to fund social contribution projects. In addition, using social contribution to help control deforestation and degradation is one of the aims REDD+, so we will confirm the people's needs as we make social and infrastructural improvements, such as building medical facilities, schools, and roads, that will benefit the local communities over the long term (p. 51).

Project financing

No information

Benefit sharing

See community participation above
Methods for issuing and distributing credits and methods for sharing benefits with local communities and farmers will be decided in consultation with the central and regional governments (p.47).

Emissions and removals with and without project

Methodology

One aim of this project is to propose policies and methodologies for industrial afforestation under REDD+. More specifically, it is important to uniformly evaluate a) the increase of accumulated carbon through industrial afforestation and b) the conservation effects of proper forest management in surrounding regions by way of industrial afforestation.

In considering methods for the quantitative evaluation of these effects, it will be effective to make the most our knowledge of existing methodologies (p. 66), i.e.

- New afforestation / reforestation (A/R - CDM) / Clean Development Mechanism (CDM)
- Increasing the amount of CO_2 absorption with afforestation / Offset and Credit Scheme (J-VER)
- REDD Methodology Module / voluntary carbon standard (VCS)

The emission reductions and the and the amount of carbon absorbed due to the main activities of this project will be the summation of increased carbon accumulation via corporate afforestation and

afforestation by local farmers and the overall effect on controlling deforestation stemming from the knock-on effect of afforestation by local farmers. For the former, we will refer to methodologies in the A/R CDM and J-VER schemes for quantifying increases in the amount of carbon absorption through afforestation; for the later, we will refer to the REDD Methodology Module for VCS as we explore methods for quantifying emissions reductions (p. 70).

Additionality

Oji Paper, LPFL and SLPFL will contribute to sustainable forest management by actively transferring forest management skills and knowledge to the Government of Laos and local communities in the country. From a technical standpoint, we anticipate the following technologies will constitute additionality (p. 39-45).

(1) Formulation of forest plans

(2) Selection of appropriate tree species suitable based on regional and land conditions

(3) Sapling planting and cultivation

(4) Fire safety measures (fire lines etc.)

(5) Organization of farmers

(6) Development of monitoring techniques by conducting Environmental Impact Assessments (EIA)

(7) Introduction of technology into timber production

(8) Forest management using forest certification systems

(9) Utilization of biomass (in stoves etc.)

(10) Utilization of satellite data and geographic information systems (GIS)

Calculation of carbon absorption and absorption reductions

To calculate carbon absorption and emissions reductions for this project, we separately estimated the increase in carbon absorption due to afforestation and emissions reductions stemming from the mitigation of deforestation (p. 74).

1) Increase in carbon absorption due to afforestation (pp. 74-76)

・We calculated absorption based on the plan for LPFL to plant 50,000 ha of trees by 2018 (afforestation by local farmers) and for SLPFL to plant 30,000 ha (corporate afforestation) (Total: 80,000 ha). We assumed logging periods of seven years for corporate afforestation and five years for afforestation by local farmers.

The cumulative amount of carbon accumulation by 2018 for both projects combined (LPFL and SLPFL) [kt CO_2-e] is estimated to reach about 5.2 million t-CO_2 (or 370,000t-CO_2/year).

There is not enough data to estimate the amount of carbon in existing biomass, such as shrubs and grassland, in areas subject to afforestation. Due to the poor soil in the project areas, most of the land is expected to remain grassland or shrub land if it is not afforested. Although it is a rough estimate, we assumed a 1:2 ratio of grassland to shrubs and subtracted emissions originating from this existing biomass from the increase in the amount of carbon absorption, using existing data a guide. In fact, the amount of biomass in the project areas is expected to continue declining due to slash-and-burn agriculture, but the amount of the baseline change is estimated at zero. According to past sampling data ("CDM Project Activities in Laos: Eucalyptus Plantations and Use of Biomass Energy" (March 2006); research organization: Oji Paper Co., Ltd.), the dry weight of biomass per ha per land use type,

when a 1:2 ratio of grasslands to shrubs is assumed, is estimated at an average of 21.1 BDT/ha. Using the carbon conversion coefficient of 0.47 (2010 - Country FRA Report), the amount of carbon accumulation per ha (converted to CO2) is 36.3 t-CO_2/ha.

By 2018 the amount of carbon accumulation through afforestation will total 5.2 million t-CO_2 (370,000 t-CO_2/year), while emissions from existing biomass will total about 2.90 million t-CO_2 (21 million t-CO_2/year). Not accounting for leakage, the net increase in carbon accumulation (converted to CO_2) can be estimated at 2.3 million t-CO_2 (160,000 t-CO_2/year) by taking the difference of these two numbers.

Leakage is not included in the calculations since there is not enough data to estimate leakage if slash-and-burn agriculture and livestock raising within the project boundaries moves outside of the project boundaries or villages in question.

2) Emissions reductions stemming from the mitigation of deforestation (p.77)

This section discussion methods for the calculation of emissions reductions stemming from the mitigation of deforestation, referring to VCS methodologies. The VCS baseline methodology calls for the setting of a reference region followed by the collection and analysis of data pertaining to the region to deduce the deforestation rate and to estimate baseline emissions. However, calculation methods based on the reference region are difficult to apply as is since data collection requires additional cost. For this reason, we feel it is appropriate to relax the restrictions on the application of methods, specifically, to calculate the primary parameters for the deforestation rate by citing reference values provided by the national or provincial government. This is highly beneficial in that it facilitates the simplification of procedures and ensures compliance with REDD + at either the national or provincial level.

Analysis of past deforestation rates

The deforestation rate is fixed based on forest rates for the region. More specifically, the forest rates for Bolikhamxay and Khammouane Provinces for the most recent 10 years (1992-2002) are used to find the average annual deforestation rates for each Province. Then, a weighted average based on the land area of both Provinces is applied to estimate the deforestation rates for each. Based on this, we assumed a deforestation rate of -0.50% for the project region.

Land area, forest coverage rates and deforestation rates in Bolikhamxay and Khammouane Provinces

District	Area(ha)	Forest coverage rate(%)			Deforestation rate(%/yr)	
		1982	1992	2002	1982-2002	1992-2002
Bolikhamxay Province	1,629,000	68.4	65.9	61.4	0.35	0.45
Khammouane Province	1,740,000	62.1	59.5	54	0.405	0.55
Average					0.378	0.502

Annual area of baseline deforestation (p.78)

By multiplying the aforementioned deforestation rate by the forest area in question, we can calculate the area of forest lost. Using the example of Hinboun District, which lies within the project area, we made the following estimates. According to data from 2009 and 2010, the total area of Hinboun District is about 300,000 ha (3,000 km^2), of which an estimated 80% (240,000 ha) is forest in protected areas degraded forest land. If we assume the deforestation rate is the aforementioned -0.5%, then we can estimate that 1,210 ha of forest area are lost annually.

Analysis of deforestation constraints (p.78)

We analyze the biophysical and infrastructural constraints (soil, climate, slope, etc.) that limit the geographical area where deforestation agents could expand and assess whether forests were transferred to other land uses. If any deforestation constraints are currently in progress, we will need to revise our base line.

By subtracting project emissions and leakage from the baseline emissions calculated with the equation above, we can calculate net emission reductions.

CREDD,t =ΔCBSL - ΔCP - ΔCLK

CREDD,t: Net emission reductions [tCO2-e]

ΔCBSL: Baseline emissions[tCO2-e]

ΔCP: Project emissions[tCO2-e]

ΔCLK: Emissions from leakage[tCO_2-e]

Given that we have estimated an annual deforestation rate of -0.5% and annual forest area loss as 1,210 ha for the project area, we calculate that our project slowed forest degradation by about 10% (Note: this is a conservative estimate; in other words, the project helped cut the baseline annual deforestation rate from -0.5% to -0.45%). This means we can prevent deforestation to the tune of 121 ha per year.

According to the FAO's "Global Forest Resources Assessment 2010", Laos's forest area, volume and volume per hectare for each forest class are as follows. As the table shows, the volume per ha for all forest classes—Natural High Forests (NHF), Dry Dipterocarp Forests (DDF) and Potential Forests (PF)—is 59m^3/ha.

Laos: Forest area, Volume and Volume per Hectare for Each Forest Class

National Classes of Forests	Area (000 ha)	Volume (000 m^3)	Volume per ha
Natural High Forests (NHF)	10125.24	891811.18	88.08
Dry Dipterocarp Forests (DDF)	1603.96	81154.75	50.60
Potential Forests (PF)	8836.84	60743.82	6.87
Total Forest (NHF+DDF+0.6*PF)	17031	1009412	59.27
Total OWL (0.4*PF)	3535	24298	6.87

Source: FAO (2010) FRA 2010 – Country Report, Lao People's Democratic Republic

Using this data and assuming a wood density of 0.5, a biomass expansion factor of 2.4 and a carbon conversion factor of 0.47, we can then calculation the amount of carbon per ha with the following formula: 59m^3/ha×0.5×2.4×0.47＝33.276t-C/ha≒33.3t-C/ha

Where:

0.5 is the wood density (from the IPCC guidelines),

2.4 is the biomass expansion factor (estimated based on the IPCC guidelines), and

0.47 is the carbon conversion factor (from FAO (2010) FRA 2010–Country Report).

Using the following formula we convert this to a carbon dioxide equivalent:

33.276t-C/ha×44/12＝122.012t-CO_2/ha≒122t-CO_2/ha

Therefore, since we are limiting deforestation in Hinboun District by 121 ha/year, we can calculate the

effect of this with the following formula.

122.012t-CO_2/ha ×121ha/year＝14,763.452t-CO_2/year≒14,763t-CO_2/year

Roughly, the annual deforestation prevention effect in Hinboun District is about 14,760 t-CO_2.

The next step in the VCS methodology is to buffer the project according to its size and reduce the number of credits issued (For an initial REDD project using VCS, 20% is removed and placed in a buffer account). However, buffering can end up undermining incentives to project participants. As such, while we recognize the need for an assessment of the risk of non-permanence, we propose omitting this buffer.

Monitoring

Environmental measures

Impact factors originating from the project may include the dispersal of fertilizers and pesticides used in plantations and the usage of mineral oils at the time of logging. LPFL's environmental guidelines and forestry practices manual stipulate the proper application of fertilizer and pesticides, but since the scattered mosaic of plantations lay adjacent to local residents' farmlands and villages as well as the banks of the Mekong River and nearby marshes, we must be careful to consider our impact on factors such as the withdrawal of water for agriculture and daily life, the pollution of rivers and groundwater systems and the habitats of aquatic plants and animals. We must conduct monitoring to periodically measure the level of water pollution by chemicals and NPK within the project area, upstream and downstream (p. 49).

Reporting

No information

Verification

No information

Risks and risk management

Issues in the evaluation of project feasibility

In our hearings with the Government of Laos, officials mentioned that they recognize industrial afforestation as a driver of deforestation and degradation They also indicated that they would like to see concessions-based industrial afforestation defined as a measure to mitigate deforestation and degradation. This is why they expressed the view that industrial afforestation should not be included within the REDD+ scheme, and this leaves open the possibility that credits for carbon accumulation achieved through industrial afforestation may not even be approved. It is difficult to consider the viability of this project, if we cannot expect to receive credits for increasing carbon accumulation through afforestation. At present, while the Government of Laos seeks to implement a demonstration project under REDD+, major risks for us still remain. First, the governments of Japan and Laos must build a consensus that the scope of REDD+ shall include "sustainable forest management", after which continuing discussions are needed. Based on the current land use definitions, we discovered that forest degradation refers to the degradation of natural forests and that various stocking densities can exists given their decreased state. According to the degree of forest degradation, land is classified as degraded forest, degraded forest land, or degraded land, but the detailed definitions of these terms are not clear. This project focuses on either degraded forests or degraded land, but upon actual implementation sufficient consideration will need to be given to these land use classifications and the

actual situation of forests (p. 80).

Due to international negotiations by UNFCCC, the handling of afforestation projects conducted under the REDD+ banner is clearly defined. As such, we must work to ensure that the afforestation projects under this program qualify as REDD+ projects in Laos, and we must give due consideration to building a consensus with local communities and other stakeholders (p. 84).

Our in-country interviews have revealed, in particular, that the Government of Laos does not have a clear, concrete policy or procedures relating to the project details and scale for certification as "Plus" under the REDD+ scheme. We must clarify the definition of REDD + in advance, so we will continue to coordinate and deliberate with the Government of Laos.

Issues with concluding bilateral agreements (p.81)

The early conclusion of a bilateral agreement is expected to facilitate the establishment of an implementation framework, provided both countries agree to certify the project for REDD+.

Consideration of credit pre-payment as an incentive for participation

As opposed to general energy efficiency projects, REDD+ projects have to deal with the impermanence of credits. As such, we must design a system that takes uncertainty into account, but creating a credit pre-payment system would be highly beneficial in terms of giving people an incentive to participate in the project.

Progress and plans

No information

Links:

Project-related documents

- *Oji Paper website (Japanese)*

Others

- *New Mechanisms Information Platform (English)*
- *WRM Bulletin 160 (Nov.2010): A REDD case study: Forest destroyer Oji Paper to carry out REDD feasibility study in Laos*