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別冊 “(Draft) ACTION PLAN ON “REDUCING EMISSIONS FROM DEFORESTATION AND FOREST DEGRADATION, SUSTAINABLE FOREST MANAGEMENT, CONSERVATION AND ENHANCEMENT OF FOREST CARBON STOCK” IN DIEN BIEN PROVINCE IN PERIOD 2013 – 2020”

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THE PROVINCIAL PEOPLE’S COMMITTEE OF DIEN BIEN

(Draft)
ACTION PLAN
ON “REDUCING EMISSIONS FROM DEFORESTATION AND FOREST
DEGRADATION, SUSTAINABLE FOREST MANAGEMENT, CONSERVATION
AND ENHANCEMENT OF FOREST CARBON STOCK”
IN DIEN BIEN PROVINCE IN PERIOD 2013 – 2020

February, 2014
PLANNING AGENCY

Dien Bien, February, 2014

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PREAMBLE

Dien Bien province lies in northwestern Vietnam, bordering the People's Republic of China and Lao People's Democratic Republic. Total territorial area is 956,290 ha. Total forested area is 384,691 ha, accounting for 40.2%. Within the area under the forest, the natural forest area accounts for 98% (377,120.4 ha) and man-made forest area accounts for 2.0%. In natural forest, there is 301,229 ha (79.9%) of regrowth forest, 19,055 ha (5.1%) of medium forest, 22,922 ha (6.1%) of bamboo-timber mixed forest and 4.8% of poor forest. Remaining 4.1% is either rich forest, purely bamboo forest or rocky mountain forest.

The Resolution of 12th Congress of Dien Bien Provincial Party Committee of Tenure 2010 – 2015 points out the specific tasks for Dien Bien forestry as follows: To focus efforts on developing forest in a sustainable, effective manner; to review and place markers to clearly demarcate the boundary of forest of 3 types in the field; to allocate land and forest in combination with providing support to forest regeneration, forest protection and afforestation; to protect protection forests and special use forests; and to encourage diversified investment of different types in afforesting production forest area in combination with processing and marketing in order to step by step make forestry a great contributor to socio-economic development, poverty reduction and environmental and ecological protection.

In line with implementation of the comprehensive solutions on forest protection and development, the Dien Bien PPC developed this Provincial REDD+ Action Plan for the province in order to carry out the tasks set in the National REDD+ Action Program for the period of 2011 – 2020 and additionally, to continue with the effective implementation of FPDP of the period of 2009 – 2020.

Planning and implementing the Dien Bien Province REDD+ Action Plan for Period 2013 - 2020 are absolutely consistent with policies and orientations of the Communist Party and the State, as well as conditions of the province, aiming to concretize and to implement the National REDD+ Action Program and the Forest Protection and Development Master-Plan up to 2020, contributing to mitigating deforestation and forest degradation, sustainable forest management, conservation and enhancement of forest carbon stock as well as improving the living conditions of people living off forestry in the area of province.

However, Dien Bien is one of the poor provinces in the country with very limited resources, so in addition to the integration of the existing policies, programs and projects in the province, Dien Bien needs strong supports on technical and financial aspects from international community and central government in order to carry out this PRAP successfully from preparation to payment for result of reduction of emission of green-house gas by implementation of REDD+.

In order to implement the REDD+ in the province level, the PRAP takes a phased approach. In the first phase (from 2013 to 2015), an implementation model will be developed in the pilot areas; in the second phase (from 2016 to 2020) the implementation will be scaled up to the province level, applying the model developed in the first phase to other areas. Moreover, the PRAP explains process to achieve its overall goal based on a logical structure that consists of specific objectives (thematic goals contributing to the overall goal), key tasks (what to do to achieve the specific objectives) and solutions (measures to be taken to execute the key tasks).

The PRAP consists of 5 parts:

Part 1. Legal basis and documents used to make the Plan

Part 2: Assessment of results of the implementation of forest protection and development in period 2006 - 2012

Part 3. REDD+ Action Plan for Period 2013-2020

Part 4. Funding for implementation

Part 5. Arrangements for implementation

PART 1 Legal Basis and Documents

- Decision 230/QD-TTg of 13th October 2006 by the Prime Minister on the approval of Socio-Economic Development Master Plan of Dien Bien Province for Period 2006-2020;
- Decision 18/2007/QD-TTg of 5th February 2007 by the Prime Minister on the approval of Vietnam Forestry Development Strategy in Period 2006 – 2020;
- Decision 799/QD-TTg of 27th June 2012 by the Prime Minister to approve the National Action Program on “Reducing Emissions from Deforestation and Forest Degradation, Sustainable Forest Management, Conservation and Enhancement of Forest Carbon” in Period 2011 – 2020;
- Decision 57/2012/QD-TTg of 09th January 2012 by the Prime Minister to approve the Forest Protection and Development Plan in Period 2011 – 2020;
- Decree 99/2010/ND-CP of 24th September 2010 by the Government on the Policy on Payment for Forest Environmental Services;
- Circular 05/2008/TT-BNN of 14th January 2008 by the Ministry of Agriculture and Rural Development on guidance on how to make master plans and plans on forest protection and development;
- Decision 1764/QD-BNN-HTQT of 26th July 2012 by the Ministry of Agriculture and Rural Development to approve the Technical Cooperation Project to Pilot REDD+ in Dien Bien.
- Record of Discussion between the Japanese International Cooperation Agency (JICA) and representatives of relevant Vietnamese agencies signed on 1st February 2012 regarding the Japanese Government-sponsored REDD+ Pilot Technical Cooperation Project;
- Resolution of 12th Congress of Dien Bien Provincial Party Committee of Tenure 2010-2015;
- The Master Plan for Forest Protection and Development for Period 2009 - 2020 approved in Decision 2117/QD-UBND of 2nd December 2009 by the Dien Bien Provincial People’s Committee.
- Plan 388/KH-UBND of 20th March 2013 by the Dien Bien Provincial People’s Committee on review and improvement of land and forest allocation and grant of forestland use certificates for Period 2013 – 2015 in the area of Dien Bien province.

PART 2 Assessment of Results of the Implementation of Forest Protection and Development for Period 2006 – 2012

1. Background conditions on forests and forestland

1.1. Area of forest of all types

Based on the report on review of planning of forest of 3 types which were approved by the Provincial People's Committee (in Decision 76/QD-UBND of 14th January 2008) and adjusted with Decision No. 262/QD-UBND and Decision No. 714/QD-UBND:

Total forestland area of Dien Bien province is 761,783.3 ha, of which, area planned for special use forest is 118,514.6 ha (with 76,887.8 ha forested and 41,626.8 ha nonforested); planned for protection forest is 358,209.5 ha (with 154,144.9 ha forested and 204,064.6 ha nonforested) and planned for production forest is 285,059.2 ha (with 112,787.3 ha forested and 172,271.9 ha nonforested). .

1.2. Forest volume

Volume of forest of all types is estimated at 18,521,616 m³ of timber, including 18,346,028 m³ of natural forest timber and 175,588 m³ of man-made forest timber, and 161,362,000 bamboo trees. Forest volume mainly comes from natural forest while man-made forest volume is low. Harvestable natural forests are mostly in planned production and special-use forests in critical areas, and areas of high elevation and severe slope, without road access.

1.3. Forest fauna and flora

Initial statistical survey results show that in terms of higher/vascular plants in the Province, there are 740 species of 500 genera of 156 families in 5 phyla, of which 29 are listed by Vietnam Red Book. The number with their names listed by both Vietnam and world red books is 4, and the number with their name listed in World RED Book but not listed in Vietnam Red Book is 6.

In terms of fauna, there are 59 mammals, 185 birds, 36 reptiles and 11 amphibians. The precious, rare species include sun bears (*Helarctos malayanus*), Asian black bears (*Ursus thibetanus*), white-cheeked gibbons (*Nomascus leucogenys*), Phayre's leaf monkeys (*Trachypithecus phayrei*), tigers, leopards, monkeys, otters, peacocks, rufous-necked hornbills (*Aceros nepalensis*), reticulated panthons (*Python reticulatus*), etc.

However, these resources are decreasing with several species on the brink and threat of distinction. Therefore, there need effective measures to protect and develop these precious natural resources.

1.4. Non-timber forest products

Dien Bien's climate is suitable for the growth of several types of non-timber forest products: bamboo shoots, rattan and medicinal plants such as Cardamom (*Amomum vilosum* and *A. tsao-ko*), Homalomena (*Homalomena occulta*), Acanthopanax bark, Dang shen (*Codonopsis pilosula*), Chinese knotweed (*Fallopia multiflora*), Chinese yam (*Dioscorea persimilis*), Indian mulberry (*Morinda officinalis*), *Scirpus articulatus*, Notoginseng, etc. There are forest vegetables, forest spices and forest leaves for spa, therapeutic massage and therapeutic bath traditionally used by ethnic minority people in Vietnam.

Harvesting and processing non-timber forest products (NTFPs) is a significant contributor to improving people's living conditions in the direction of using the short-term to support the long-term in forestry production.

2. Achievements of the implementation of forest protection and development

In Period 2006-2012, great achievements were made in the implementation of FPDP with awareness being raised; the legal framework on forest protection and development being improved; and policies on forestry, especially those on the diversification of economic sectors involved in forestry, forest and land allocation, forest contracting and forest benefiting being issued and put into practice. The role and sense of responsibility of State administrative agencies at all levels and social organizations is increasingly enhanced. The State has increased investment in forest protection and development through different programs and projects, leading to big change for the better in this regard, specifically in the following areas:

2.1. Forest management

In implementing Directive 38/TTg by the Prime Minister, Dien Bien province has completed its review and replanning of forest of 3 types to be as the basis for planning of FPDP with annually and phases. In the meantime, the province has been continuing to conduct the following key tasks:

- Maintaining the annual forest monitoring, both on forest area and forest status. Forest area and forestland has been divided into compartments, sub-compartments and status plots for management.
- Conducting the land and forest allocation to organizations, communities, households and individuals under the Decree No 163/ND-CP for 85% of forestland. With allocated forest and forestland, the owners have been managing, protecting and getting benefits and contributing to protection of allocated area. However, the allocated areas have been unsuitable due to various reasons, which the major is that not all steps in the allocation progress were followed, so the review and recompletion are required.
- The methodology on sustainable forest management has initially been initiated and piloted in some areas (villages or communes) as the basis for the multiplication of sustainable forest management on national scale.

2.2. Forest protection

- Due to the pressure from increasing population, so the needs of timbers, fuel-woods and land for cultivations are increasing which lead to increasing of violations of the Law on forest protection and development, such as deforestation, illegal cuttings for timbers and fuel-woods and illegal conversion of forest and forestland. Dien Bien province has taken a variety of measures to prevent illegal cutting and forestland use conversion, and emerged stricter in handling violations in forest protection and development law. The violations of law on forest protection and development and deforestation have been reduced and damage therefrom has been mitigated. Several effective models of forest protection and development have cropped up in different areas, contributing to forest area recovery, socio-economic development and environmental-ecological protection.
- The forest ranger service has been renovated in the line that forest rangers shall stay close to forest, villagers and local authorities and work harder to mobilize villagers and members of society to protect forest.

2.3. Forest development

- Due to successful implementation of afforestation, regeneration and forest protection, so on provincial scale, the forest area increased from 266,000 ha in 1998 to 384,691 ha in 2012 (increasing 8,500 ha/year on average). The zoning and protection of natural forest for recovery has helped increase the forest's capacity in protecting and conserving biodiversity.
- In the 14 years from 1998 to 2012, forest cover increased from 28.7% to 40.2%, averaging 0.9%/year.
- The forestry sector has been active in generating employment and income for villagers, contributing to poverty reduction for local people, especially people of ethnic minority groups.

From the above, it is concluded that the forest protection and development has over the past years made significant achievements through its employment of measures across-the-board.

- + Clarification of forest of 3 types, setting up of protection/special-use forest management boards and mechanism of management as a public service provider.
- + Implementation of forestland allocation to the organizations, communities, households and individuals and promotion of development of household economic based on doing forest business and agroforestry models.
- + Implementation of the Decree 99/2010/ND-CP on the policy on Payment for Forest Environmental Services to facilitate the implementation of forest production and development by society.
- + Supporting and facilitating the private companies to make afforestation plans, building the wood processing factories in order to formulate the wood-material market in the province.
- + Implementation of scattered timber plantation in order to faster increase the forest cover.
- + Besides of the implementation of forest protection and development with state budget, the province is actively mobilizing and drawing the foreign and private investments.

3. Remaining issues and limitations on forest protection and development

- Natural forests planned as production forest are now mainly poor and regrowth forest. Of the total natural production forest area of 130,800 ha, 282 ha is rich forest, 1,219 ha is medium and 1,815 ha is poor forest, 109,709 ha is regrowth forest and the remainder of 17,785 ha is other forests (mixed and bamboo forests). Although area of production forest is increasing in recent years, the quality of forest keeps decreasing with the continuous reduction in percentage of valued timber trees. Forests are scattered, making it difficult to form concentrated production zones.
- Forest area has not been inventory and statistic and planning for production at each specific plot.
- Forestland use planning is not close to reality. The demarcation of protection and special use forests is not clear.
- The area of non-forested land planned for forestry is fragmented and scattered, making it difficult to develop concentrated man-made forests at large scale; several areas of forest are usurped or used for other purposes by local people, making it impossible to reclaim for afforestation.
- The allocation of land and forest has been deficient with only land being allocated, not forest; or the papers on land allocation are different from those on forest allocation with their loose, non-unified management; or the allocated forestland has been used for other purposes but no proper handling measure has ever been taken. Meanwhile, most households living in the countryside are poor and do not have proper conditions for forest-related production and business on their allocated forest and forestland. -

Deforestation and illegal use of forestland goes unabated in several areas, especially in the districts with larger natural forest area.

- The legal handling of violations of forest and land law is difficult and most often than not, delayed due to the fact that violators are mostly poor people living in remote areas; penalties against forest destroyers are not heavy enough.
- The effects of forest protection contracting with households and individuals are insignificant in some areas. Forest protection has not been implemented consistently. Local authorities have not taken drastic measures to protect forest.
- The forestry sector's growth is small and not sustainable with low income, poor competitive edge and the potentiality of forest resources not being put to full and reasonable use, especially for NTFPs and environmental services. The productivity and quality of forest is low, failing to meet the requirements of socio-economic development, especially the demand for timber for consumption inside and outside the province.
- Credit for investment in man-made forests in production forest area is not yet performing as enterprises cannot have access to or simply cannot borrow.
- A series of protection forest management boards, which were rearranged from State-owned forest plantations, have not been being allocated with land and forests for forest management, protection and development, so the effectiveness of forest protection and development by this force is not maximized..
- Scientific research in the field of forestry is a far cry from meeting the needs of production with many research theses after successful defending ending up on paper and not yet put into practice.

4. Conditions causing the issues on forest protection and development

1.1. Objective causes

- Forest is scattered on a large area while population is very fast growing, pressure on forestland and forest products is on the rise, especially in areas short of farmland; forestry activities are carried out mainly in remote areas with poor infrastructure, which hinders the implementation, checking and monitoring activities.
- A cycle of production for forest crops is long with expectedly low profits and comes in abundant risks. The project areas are distributed chiefly in mountainous areas with poor socio-economic conditions. Forest crops are also less competitive than other agricultural crops.
- The need for timber and forest products grows too fast while man-made forest timber is short of demand, putting ever larger pressure on natural forest and attracting the illicit acts of deforestation, cutting and transport of forest products.
- The market economy has driven the prices of some farm produce up, so has it as to the search for farmland for such produce, driving the urge of villagers to clear forest for farming highly valued crops or illegal practice of trading or transfer of farmland among themselves.
- Unexpected weather conditions with prolonged drought and frequent floods have taken its toll on forest resources. The area of regenerated and man-made forest has increased but the chance of forest fire and forest pest attacks has also risen.

4.2. Subjective causes

- Awareness of roles and functions of forest among local authorities at all levels and villagers is still below expectation; villagers, especially the ones living in remote areas, have not been fully aware on the necessity

of the forest protection and development as well as value of the forests, consequently, deforestation still happening. In several areas, they even supporting to the deforesters

- Policies and mechanisms on forest management, protection and development are inconsistent and do not meet the requirements of forest protection and development. Some policies have not implemented properly, such as those on land and forest allocation, forest extension service, technological transfer, etc.; the work on promotion, dissemination and education of law and policies on forestry has not yielded good results.
- Investment in forestry is low, spread thin and ineffective. Investment is not well structured while investment in forestry infrastructure facility building has not paid due attention.
- Policies on how to use forest for households, individuals and communities are still missing while the use of fuelwood is indispensable, so when their need is not met, they tend to harvest forest illegally for fuelwood.
- The protection forest and special use forest management boards in the capacity of forest owner have not received investment for the forest area they are allocated for management and protection. Technically, the forest area without any forest owner goes into the hands of the Commune People's Committee (CPC) but there is no mechanism for CPC to manage and protect such forest effectively.
- The forest ranger force is small in number with unclear legal status, and missing and outdated equipment. Education level of some of forest rangers is low. Benefits for forest rangers do not match the tasks given. Consequently, it is impossible to deal with problems properly in the hot spots of deforestation where there is the sole service of forest rangers.

PART 3 Provincial REDD+ Action Plan

I. Structure of the PRAP

Structure to implement REDD+ under the overall goal to contribute to achieving the goal of FPDP is illustrated in Figure 3.1. As shown in the figure, the on-going and planned policies, programs and projects on various sectors including forest, agriculture, livelihood development, etc. are the foundation of REDD+. These items support forest protection and development either directly or indirectly. These items are implemented regardless of the REDD+. In order to make them REDD+, requirement of the UNFCCC such as monitoring of forest, setting up the reference levels has to be met. On the other hand, institutional framework to implement the relevant policies, programs and projects and other required activities has to be arranged. Furthermore, shortage of the budget to implement the plan has to be analyzed and the external fund sources has to be identified to make the implementation system work. The REDD+ implementation includes all of the necessary works for acquiring the carbon credit with approval of the UNFCCC. All these activities will contribute to the forest sector master plan and emission reduction.

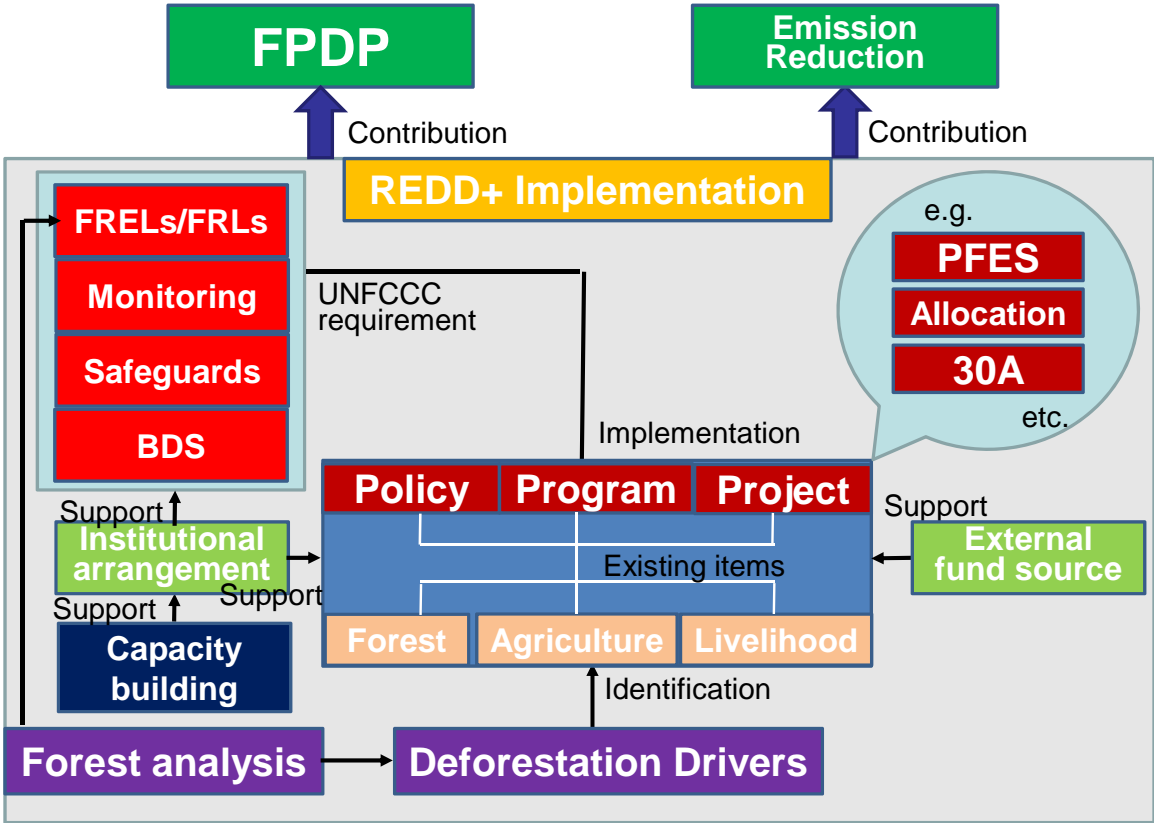


Figure 3.1 Overview of REDD+ implementation

Process to achieve the overall goal is broken down into three steps that are represented by “specific objectives”, “key tasks” and “solutions”. Figure 3.2 shows how each step is logically linked with each other. The specific objectives are divided in five categories (implementation framework, tool for forest protection and development, forest information, finance and human resources) as identified necessary to be settled in order to achieve the overall goal. The key tasks are what are to be done to achieve the specific objectives. The solutions are measures to be taken to execute the key tasks.

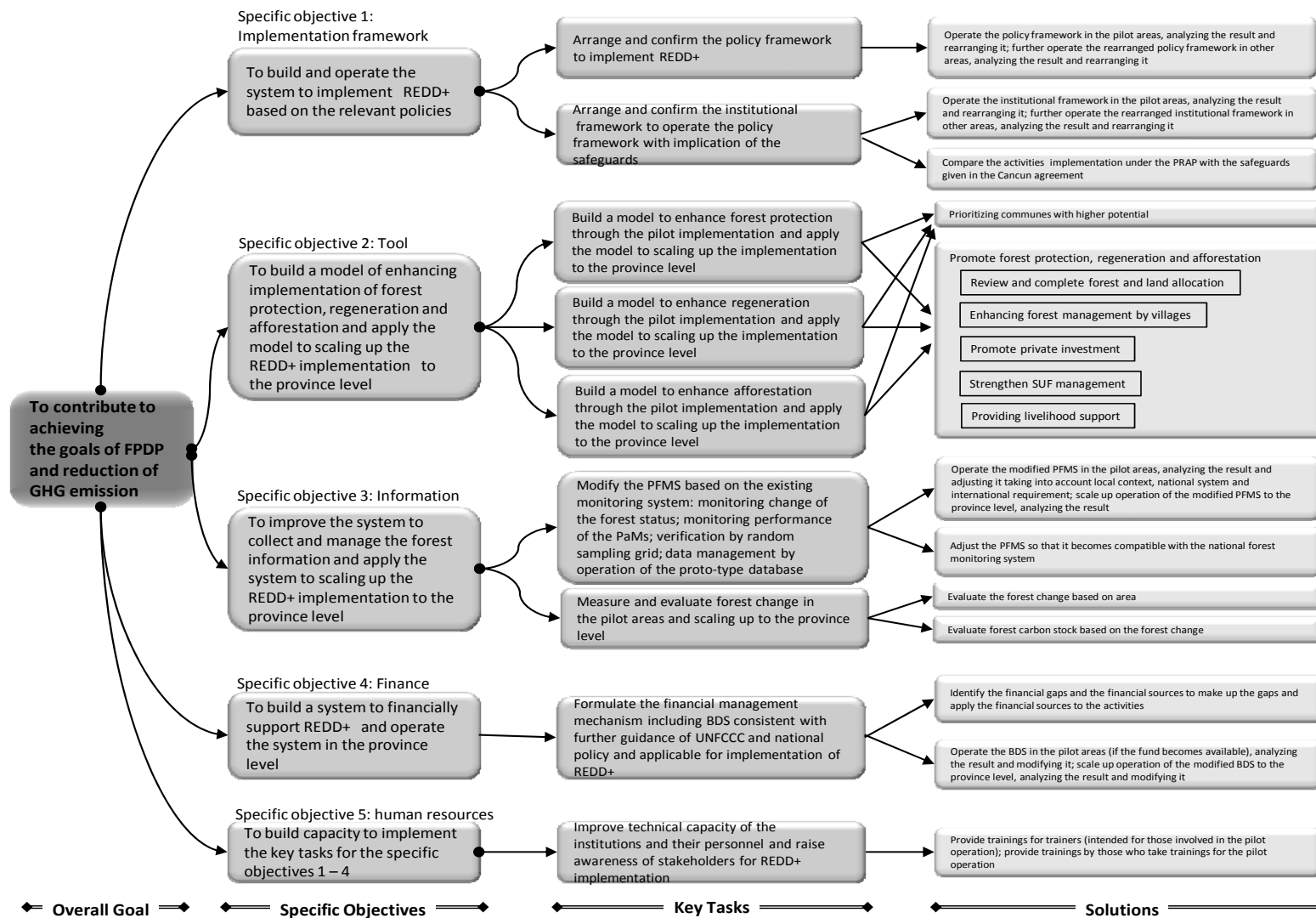


Figure 3.2 Logical structure of the PRAP

Figure 3.3 illustrates the process of developing REDD+ implementation. The first phase (from 2013 to 2015) is to build an implementation model through implementation in the pilot areas. The model developed in the first phase is then applied to other areas during the second phase (from 2016 to 2020) in order to bring the implementation to the province level.

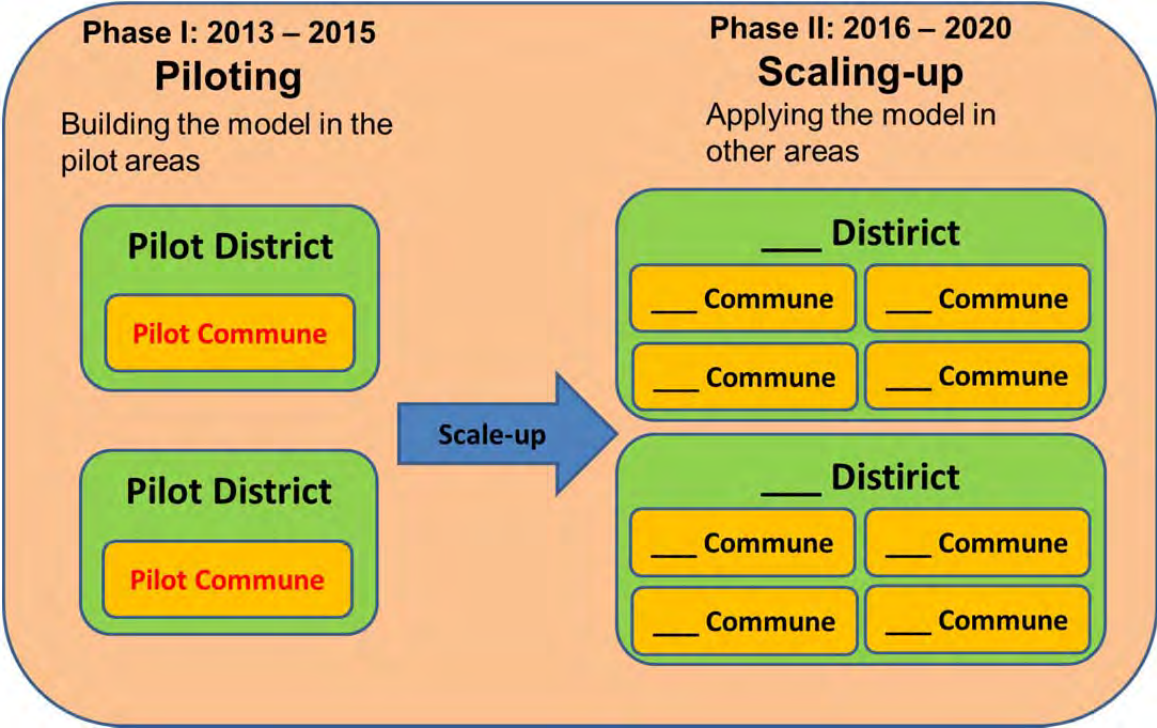


Figure 3.3 Development of REDD+ implementation by phases

II. Overall Goal

- (1) Contributing to reducing emission of the greenhouse gas;
- (2) Contributing to achievement of the goal of the forest protection and development master plan for period 2009 – 2020 (FPDP) in which, forest protection is 526,770 ha; regeneration is 148,543 ha; afforestation is 92,363 ha; increasing the forest cover, conserving biodiversity and improving livelihood of the local people who living off forestry, aiming to sustainable forest management.

On the basis of the goal of FPDP on area to be protected, regenerated or afforested, with consideration of the time of implementation, the goal in terms of the carbon stock is net increase of 376,650 CO₂ ton per year¹.

Along with efforts to contribute to achieving the goal of FPDP, tasks of gaining socio-economic and environmental benefits are also addressed as they are elements of the FPDP. Such benefits include increasing the value of forest products, improving the living conditions of the local people, particularly ethnic minorities and poor households, improving the protective functions of forest such as watershed protection, mitigation of natural disaster risks, protection from erosions, conservation of water sources, protection of the living conditions, etc.

III. Specific Objectives

1. The period 2013 – 2015

There is no potential of net increase of carbon sequestration contributing to the overall goal because result of the regeneration and afforestation activities is yet to appear during this period.

- To build and operate the administrative and technical system to implement REDD+ based on the relevant policies through implementation in the pilot areas;
- To build a model of enhancing implementation of forest protection, regeneration and afforestation through implementation in the pilot areas;
- To improve the system to collect and manage the forest information;
- To build a system to financially support REDD+;
- To build capacity to implement the key tasks.

2. The period 2016 – 2020

There is potential of net increase of 364,818 CO₂ ton per year contributing to the overall goal.

- To apply the system built in the period 2013 - 2015 to scale up the REDD+ implementation to the province level;
- To apply the model built in the period 2013 – 2015 to scale up REDD+ implementation to the province level;
- To apply the system improved in the period 2013 – 2015 to scale up the REDD+ implementation to the province level;
- To operate the system built in the period 2013 – 2015 to scale up the REDD+ implementation to the province level;
- To build capacity to scale up the REDD+ implementation to the province level.

IV. Key Tasks

1. The Period 2013 – 2015

1.1 Arrangement of the policy and institutional frameworks and the safeguards

<Arrange and confirm the policy framework to implement REDD+ (Key task 1)>

The policy framework to implement REDD+ will be arranged on the basis of ongoing and planned policies, programs and projects on various sectors such as forest protection and development, agriculture, livelihood development, poverty reduction, finance, etc. In order to enhance their implementation, the following points have to be cleared.

- Identification of appropriate policies, programs and projects that address deforestation causes
- Arrangement of a comprehensive framework to implement the identified policies, programs and projects as

a package so that gaps of one item are complemented by another

The arranged policy framework will be operated in the pilot areas. Result of the operation will be reviewed and the policy framework will be rearranged with feedback of the result of the pilot operation.

<Arrange and confirm the institutional framework to operate the policy framework (Key task 2)>

The institutional framework to support implementation of the policies, programs and projects identified in the key task 1 will be arranged with clarification of the following items.

- System to coordinate different sectors in each administrative level (province, district and commune)
- Leading agency in each administrative level
- Role of the coordinating body in each administrative level
- System to coordinate different administrative levels

The arranged institutional framework will be monitored in the pilot implementation. The institutional framework will be rearranged according to the result of monitoring.

<Clarify the activities implemented under the PRAP address the safeguards (Key task 3)>

Safeguard is one of the requirements to implement REDD+ according to the decision made by UNFCCC. In order to implement REDD+, there is a need to meet 7 safeguard items on the Cancun agreement (Decision 1/CP.16). Establishment of systems for providing information on how safeguards are addressed and respected is required in agreement of UNFCCC.

On the other hand, although building this safeguard information system is currently considered at the national level in Vietnam, the system is not yet built. Therefore, after the system at the National level is established, the provincial safeguard information system will have to follow.

1.2 Building a model of enhancing implementation of forest protection, regeneration and afforestation

<Build a model to enhance forest protection (Key task 4)>

Protection of the existing forests is to be implemented under the FPDP. The problems that occurred in forest protection under the previous programs and projects will be addressed. In order to enhance the effectiveness of the forest protection, a model of enhancing the forest protection will be developed. The model will be developed through supportive measures to give incentives the villagers to protect the forests.

<Build a model to enhance regeneration (Key task 5)>

Regeneration of the bare land with scattered timbers (categorized as “Ic”² and “Ib”³) is to be implemented under the FPDP. The problems that occurred in regeneration under the previous programs and projects will be addressed. In order to improve effectiveness of this activity, a model to enhance regeneration will be developed through the pilot implementation.

<Build a model to enhance afforestation (Key task 6)>

Afforestation is to be implemented under the FPDP on the bare lands and degraded upland fields (categorized as “Ia” and “Ib”⁴). The problems that occurred in afforestation under previous programs and projects will be addressed. In order to improve effectiveness of this activity, a model of afforestation will be developed through the pilot implementation.

1.3 Establishment of the provincial forest monitoring system (PFMS) and measurement of the forest change

<Improving the PFMS (Key task 7)>

According to Specific objectives 3, it is instructed that accuracy of forest information need to be improved in order to achieve REDD+ implementation. For this key task, existing PFMS is to be modified on the following three outputs.

- Monitoring forest change;
- Monitoring performance of policy and measures taken under PRAP;
- Verification of forest information.

In addition, institutional arrangement and identification of responsibilities of the relevant authorities and forest owners are key elements of modification. After initial PFMS is designed and modified in accordance with the Project’s proposal, pilot implementation shall be conducted up to 2015. At the end of 2015, PFMS should be reviewed in terms of accuracy, effectiveness, feasibility and operational cost.

To improve management of forest and forestland information, proto-type database is to be developed and operated.

<Measure and evaluate forest change in the pilot areas (Key task 8)>

Once information on forest status is collected through PFMS in the pilot areas, measurement and evaluation of the forest change shall be conducted for contribution to feedback process. In this process, evaluation unit and steps needs to be clarified.

The solution (Solution 12) for this key task describes how the forest change will be evaluated.

² ID to indicate a land cover category: bare land with scattered trees

³ ID to indicate a land cover category: bare land with shrub

⁴ ID to indicate a land cover category: bare land with grass

1.4 Formulation of the financial management mechanism applicable for implementation of the REDD+

(Key task 9)

Budget sources that will contribute to REDD+ includes: Budget for FPDP and PFES (Payment for Environmental Services) fund. There are other applicable sources such as Program 30A. In Vietnam, before REDD+ initiative came out, the Government has promulgated many policies, programs and projects on forest protection and development, and significant results have been achieved and Vietnam is not responsible to be forced to reduce emission.

On the other hands, implementation of REDD+ in Vietnam is consistent with the national policies, showing the goodwill of Vietnam in taking a part with international community on protection of the earth's climate system.

However, as a developing country with limited domestic resources, Vietnam is expecting technical and financial supports from international community to prepare for REDD+ implementation, as well as to pay for result of emission reduction from REDD+ implementation in accordance with decisions of UNFCCC.

Therefore, it is indispensable to explore budget sources by International fund and cooperation.

Besides the state budgets and program funds, the Provincial REDD+ Fund will be established under the Provincial Forest Protection and Development Fund (FPDF). The REDD+ Fund will regulates the expenditure of the fund used for the implementation of PRAP and disbursement of the carbon benefit to be received by the financial contributors and other parties entitled to the benefit.

Budgets for FPDP, PFES and other policies, programs and projects as well as the provincial REDD+ fund (after it is established) will be used effectively for REDD+ implementation. Therefore, the financial management mechanism based on these budget sources will be established through the REDD+ pilot implementation.

1.5 Capacity building

(Key task 10)

Main targets for the capacity building are the staff at provincial, district and commune levels who are to be involved in the REDD+ implementation and the villagers who are involved in the pilot implementation.

Capacity building is conducted in the following fields.

- Enhancement of governance
- Strengthening facilitation skill
- Promotion of forests management activities
- Developing capacity for forest monitoring
- Promotion of livelihood development activities
- Awareness raising on conserving forest

During the period of 2013 to 2015, there will be the training of trainers (TOT), which is an important activity designed to strengthen the capacity for activity implementation in two pilot communes. The objective of the TOT is to create a critical mass of trainers who have the basic knowledge, skills, and experiences to implement REDD+ in the pilot communes.

2. The Period 2016 – 2020

<Arrange and confirm the policy framework to implement REDD+ (Key task 1)>

The policy framework rearranged taking into account the result of the pilot implementation during the period 2013 – 2015 will be applied in other areas in order to scale up the REDD+ implementation to the province level. During the period 2016 – 2020, the policy framework will continue to be monitored and rearranged if necessary.

<Arrange and confirm the institutional framework to operate the policy framework (Key task 2)>

The institutional framework rearranged taking into account the result of the pilot implementation during the period 2013 – 2015 will be applied in other areas in order to scale up the REDD+ implementation to the province level. During the period 2016 – 2020, the institutional framework will continue to be monitored and rearranged if necessary.

<Clarify the activities implemented under the PRAP address the safeguards (Key task 3)>

The key task on safeguards during the period 2016 – 2020 is same as the key task for the period 2013 – 2015.

<Build a model to enhance forest protection (Key task 4)>

The model of enhancing the forest protection built through the pilot implementation in the period 2013 – 2015 will be applied in the other areas in order to scale up the REDD+ implementation to the province level.

<Build a model to enhance regeneration (Key task 5)>

The model of enhancing the regeneration built through the pilot implementation in the period 2013 – 2015 will be applied in the other areas in order to scale up the REDD+ implementation to the province level.

<Build a model to enhance afforestation (Key task 6)>

The model of enhancing afforestation built through the pilot implementation in the period 2013 – 2015 will be applied in the other areas in order to scale up the REDD+ implementation to the province level.

<Implementation of PFMS in the entire province (Key task 7)>

After revising PFMS through pilot implementation, PFMS shall be introduced in the entire province. In the REDD+ mechanism, monitoring of deforestation and forest degradation is indispensable. Therefore, scale up to the entire province is key issues for PFMS.

<Measure and evaluate forest change (Key task 8)>

Once information on forest status is collected through PFMS in the entire province, measurement and evaluation of the forest change shall be conducted for contribution to feedback process. In this process, evaluation unit and steps needs to be clarified.

<Formulate the financial management mechanism for the REDD+ implementation (Key task 9)>

The financial management mechanisms developed during the period between 2013 and 2015 will be revised taking into account the outcome of the pilot implementation as well as the updates on REDD+ financial management mechanisms in the future

<Improve technical capacity of the institutions and their personnel (Key task 10)>

Raising awareness and upgrading capacity of staff will continue particularly in the districts and communes where pilot implementation does not take place during the period 2013 – 2015. The building of capacity of the staff and the villagers will be planned through the lessons learned from the pilot implementation.

During the period of 2016 to 2020, there will be a need for a training, which is an important activity designed to strengthen the capacity for activity implementation. The staff, the villager, and organizations that are involved in the capacity building through TOT in the period 2013 -2015 will transfer the skills they learned to the staff of the communes and districts and the villager that is not trained in the pilot period.

V. Solutions

1. Application of the policy and institutional frameworks and the safeguards

1.1 Pilot-operation of the policy framework, its analysis and rearrangement (Solution 1)

This solution is a measure to execute the key task 1. In order to arrange the policy framework on REDD+ implementation, an interim policy framework will be designed and tested in the pilot areas. The contents to be implemented consist of component of “forest protection and development” and component of “livelihood support for the local people”. These two components are supported by the policies, programs and projects presently implemented or planned in terms of financial, material, technical and managerial aspects under the framework.

The interim policy framework will be reviewed along with the pilot implementation during the period 2013 – 2015 through analyzing its gaps. In this association, progress on the forest protection, regeneration and afforestation will be monitored. If the implementation of these activities is failing, it may be due to technical reasons (whether the appropriate technique is applied), financial reasons (whether enough financial or material support is provided) or managerial reasons (whether planning is appropriate). Likewise, progress on the livelihood development will be monitored as well on the same aspects. The result of monitoring will be analyzed on whether modification or addition of the policy items is necessary to make up the gaps. Furthermore, trend of

the national policy will be monitored and necessary adjustment will be made to the interim policy framework in accordance with modification and creation of the national policy.

The rearranged policy framework will continue to be monitored during the period 2016 – 2020 and adjustment will be made whenever the necessity arises.

The designed interim policy framework does not clarify how each policy item share responsibility, complement gaps or coordinate on the support to be given or budget expenditure. More detailed structure that clarifies the role of each policy item will be developed during the period 2016 – 2020, taking into account the result of the pilot implementation. The designed policy framework is described below.

Forest management model should consist of “forest protection and Development” component and “livelihood support” component as illustrated in Figure 3.4. Forest protection, regeneration and afforestation will be implemented according to the FPDP for the period from 2012 to 2020 prepared for each district. On the other hand, livelihood support is necessary to enhance the activities on forest protection and development because major deforestation cause in the province is conversion of the forest into the cultivation land. This trend is exacerbated by the population growth. Lack of the cultivation lands increase demand for more land for shifting cultivation. However, implementation of forest protection, regeneration and afforestation prevent the local people from increasing the land for cultivation. In order to cope with the lack of the cultivation land, these activities have to be accompanied by livelihood support activities. In order to support this model, the policies, programs and projects relevant with forest protection and development and livelihood development will be implemented in combination, complementing the gaps with each other.

Policies, programs and projects to be involved in REDD+ implementation are:

- Forest Protection and Development Plan;
- Payment for Forest and Environmental Services (PFES);
- Resolution 30a/2008/NQ-CP;
- Projects supported by foreign donors (SUSFORM-NOW, NMRRP2, etc.);
- Production Forest Development Policy 2007 – 2015 (Decision 147/2007/QD-TTg)

In order to implement these policies, capacity building of the administrative staff on various skills such as forest monitoring will have to be accompanied.

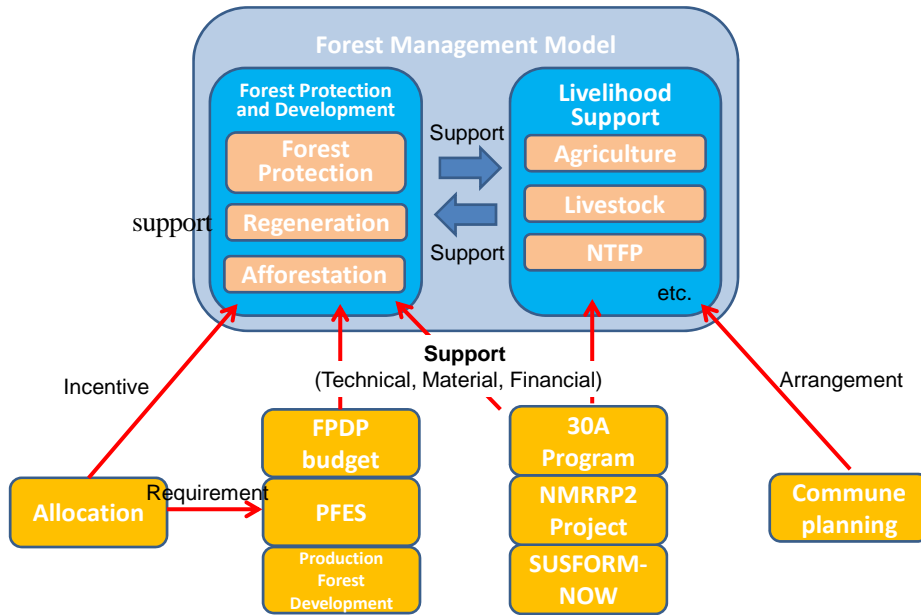


Figure 3.4 Design of the policy framework

1.2 Pilot-operation of the institutional framework, its analysis and rearrangement (Solution 2)

This solution is a measure to execute the key task 2. REDD+ will be implemented according to the following institutional framework.

(1) Provincial Steering Committee

In the province level, the Provincial People’s Committee (PPC) is the leading agency for management and implementation of REDD+. In order to operate the policy framework that involves various sectors, coordination among the different administrative agencies should be secured by the PPC. The Provincial Steering Committee for FPDP (PSC) will facilitate coordination among the agencies of different sectors.

The roles and responsibility to be added to PST should include:

- Regular meeting to acknowledge the progress of the implementation and work out countermeasures to cope with the issues arising in the implementation;
- Management of the PRAP implementation;
- Reviewing and evaluation of the implementation of annually REDD+ plans; Reporting to the National REDD+ Steering Committee on the progress of implementation of the PRAP;
- Developing the system of benefit distribution;
- Assisting to the PPC on revision, modification and supplement of the PRAP to be consistent with current conditions of the province and progress of international negotiations, and so on.

(2) District Steering Committee

In the district level, the District People’s committee (DPC) will be the leading agency of supervising the

implementation of REDD+ in each commune within the district. The District Steering Committee for FPDP (DSC) which is established in each district shall take a role of coordinating different sectors in the district level in order to enhance management of the REDD+ implementation.

The roles and responsibility of the DSC should include:

- Regular meeting to acknowledge the progress of the implementation and work out countermeasures to cope with the issues arising in the implementation of REDD+ activities in the district's area;
- Supervising the REDD+ implementation in each commune within the district;
- Directing and providing guidance for each commune to handle the issues arising in the implementation in the commune/village level;
- Providing support for development of the REDD+ action plan in the commune level;
- Reporting to the PSC on the progress of implementation of the REDD+ action plan in the commune/village level;

(3) Communal Steering Committee

In the commune level, CPC will be a leading agency to implement REDD+ implementation in the commune level. The Communal Steering Committee for FPDP (CSC) will coordinate the different sectors in the commune level in order to enhance management of the REDD+ implementation. CSC is led by a leader of CPC in charge of agro-forestry and rural development. Vice leader is a forest ranger in commune level. Other members are CPC staff (Planning and statistics, land administration, agricultural extension), PFMB/SUFMB, village leaders and other organizations (including police, army, women's union, farmers' union, youth union, senior citizens' society or demobilized soldiers' society).

In implementation of the PRAP, a commune REDD+ action plan (C-RAP) will be developed in each commune. Forest management plan and livelihood development plan will be developed in each village to implement REDD+.

The roles and responsibility of CSC should include:

- Regular meeting to acknowledge the progress of the implementation and work out countermeasures to cope with the issues arising in the implementation;
- Management of the REDD+ implementation in each village within the commune;
- Handling the issues arising in the village level;
- Development of the REDD+ action plan in the commune level;
- Reporting to the DSC on the progress of implementation of the REDD+ action plan in the commune level;

(4) Villages

In the village level, a village management board for forest management and livelihood development (VMB) is formed on the foundation of the Village Team for Forest Fire Prevention which is a subordinate organization to CST takes a leading role for implementation of the forest management plan and livelihood development plan in the village level. Members of the VDM are selected based on the discussion in the village, including village leader, representatives of mass organizations such as women's union, farmer association, veterans association, elderly association and youth union.

The roles and responsibility of the VMB should include:

- To coordinate forest management and livelihood development activities
- To ensure all village forest management regulations and plans are strictly followed by the villagers
- To coordinate interest groups formulated for key livelihood activities such as animal raising, fish grazing, fruity tree planting, etc...
- To ensure all village livelihood activities are implemented according to the existing regulations and plans as well as technical requirements
- To ensure revolving and credit systems are working properly
- To operate and manage of the Village Fund
- To handle violations of forest management or livelihood development related rules and regulations in coordination with the CPC
- To coordinate with CPC and forest rangers

The system to link the province, districts and communes will be developed. CSC manages the implementation of the REDD+ action plan in the commune level. DSC supervises the REDD+ implementation in the commune level within the district, providing support and instruction on the implementation. PSC will manage the REDD+ implementation in the districts within the province; in accordance with the report provided by DSC, the PRAP will be revised and the instruction will be given to the DSC that will give the instruction to CSC. Diagram of the institutional framework is illustrated in Figure 3.5.

The institutional framework will be monitored in the implementation in the pilot areas during the period 2013 – 2015. Member organizations involved in the coordination system and roles of each coordination body will be analyzed and adjustment will be made in accordance with their performance. The institutional framework will be rearranged taking into account monitoring results of the pilot implementation. The rearranged institutional framework will be applied to the implementation to scale up to the province level during the period 2016 – 2020. The rearranged institutional framework will continue to be monitored during the period 2016 – 2020 and adjustment will be made whenever the necessity arises.

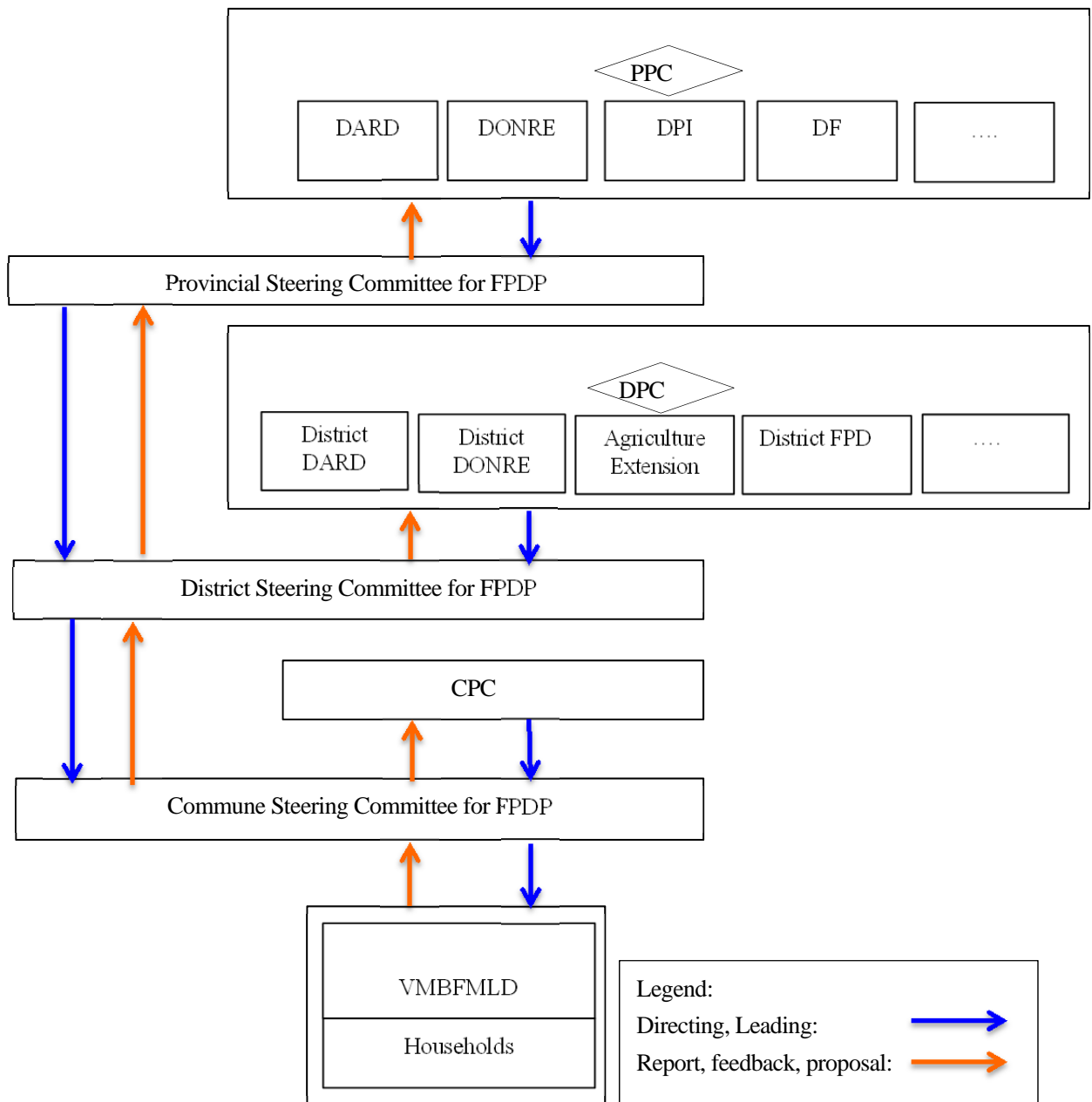


Figure 3.5 Diagram of the institutional framework for the REDD+ implementation

1.3 Assessment of the activities implemented under the PRAP on the safeguards (Solution 3)

Given mentioned in the Key Task 3, solutions based on Safeguard Information system will be elaborated in accordance with further guidance of the UNFCCC. Provincial safeguard information system will be developed at the time of safeguard information system at the National level being developed.

How safeguards given in Cancun Agreement are addressed at the REDD+ preparation stage in Dien Bien are described below.

Safeguard (a) That actions complement or are consistent with the objectives of national forest programmes and relevant international conventions and agreements.

PRAP is prepared in consistent with NRAP and FPD which is the National policy. NRAP is also prepared in consistent with the framework of UNFCCC. According to this process, it is considered that PRAP is possible to abide by the Safeguard (a).

Safeguard (b): Transparent and effective national forest governance structures, taking into account national legislation and sovereignty

PRAP plans to comprehend forest status through the verification processes of PFMS. It is considered that this PFMS is possible to contribute to a highly transparent system for forests governance.

Safeguard (c): Respect for the knowledge and rights of indigenous peoples and members of local communities, by taking into account relevant international obligations, national circumstances and laws, and noting that the United Nations General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples

Safeguard (d): The full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities

Various opinions from the villagers are gathered in the Peoples` Council and other relevant departments and organizations at the provincial level. Then it is considered that those opinions are possible to be summarized by the PSC as the role of REDD+ Committee for the addressing the safeguards (c) and (d).

In addition, Free, Prior, and Informed Consent, so-called "FPIC" is needed in order to secure the safeguard (c) and (d) as a tool. The content of REDD+, the roles, responsibility, potential merits, demerits, and risks for REDD+ will be known to the villagers in the process of FPIC.

Safeguard (e): That actions are consistent with the conservation of natural forests and biological diversity, ensuring that the actions referred to in paragraph 70 of this decision are not used for the conversion of natural forests, but are instead used to incentivize the protection and conservation of natural forests and their ecosystem services, and to enhance other social and environmental benefits

Forest protection and natural regeneration in the implementation of FPDP are basically biodiversity-conserving activities. Also, afforestation in the FPDP is intended for bare land such as “Ia” and “Ib” of forest and land use category stipulated in Vietnam. It doesn’t mean that logging natural forests and then afforesting there. Consequently, it is considered that the activities are impossible to violate the biodiversity.

Safeguard (f) :Actions to address the risks of reversals

Safeguard (g) :Actions to reduce displacement of emissions

Livelihood development activities to support forest protection and development in implementing REDD+ are planned in the PRAP. It is considered that the activities are possible to contribute to reduce risks of reversal and displacement of emissions. In addition, forest changes in the whole province are comprehended through PFMS. It is considered that monitoring of these risks through PFMS is also possible to contribute to the activities to reduce displacement of emissions.

2. Facilitation of scaling up the implementation of forest protection, regeneration and afforestation to the province level

Solutions 4 through 10 described below are measures to execute the key task 4 through 6.

2.1 Selection of the Prioritized Communes (Solution 4)

In order to implement the REDD+ in the province level, an implementation model is to be developed through pilot implementation first and the model developed will then be applied in other areas to scale up the implementation. In order to take this approach, areas where potential for REDD+ is higher should be prioritized for the pilot implementation and subsequent implementation to start scaling up. For this reason, communes to be prioritized for the REDD+ implementation will be identified. The communes to implement the pilot during the period 2013 – 2015 will be selected among the prioritized communes. Likewise, scaling up the REDD+ implementation to the province level during the period 2016 – 2020 will start from the prioritized communes.

The prioritized communes will be selected on the basis of the following 6 criteria in terms of potential of REDD+ implementation. Every commune selected on one criterion is regarded as the prioritized commune.

- Large forested area remaining (10,000 ha or larger) in 2010;
- Large forested area remaining (5,000 ha or larger) in 2010 and net decrease of the forested area between 2000 and 2010;
- Large forested area remaining (5,000 ha or larger) in 2010 in the area where PFES is implemented;
- Large area planned (1,000 ha or larger) for regeneration under the FPDP (2012 – 2020);
- Large area planned (500 ha or larger) for afforestation under the FPDP (2012 – 2020)
- Potential for external funding source for REDD+ implementation

As a result of analysis on the criteria, the following communes are selected as the prioritized communes.

Dien Bien District: Muong Loi; Muong Nha; Muong Phang; Muong Pon

Dien Bien Dong District: Chien So; Keo Lom; Luan Gion; Muong Luan; Phi Nhu; Pu Nhi

Muong Ang District: Bung Lao; Muong Dang

Muong Cha District: Hua Ngai; Muong Muon; Muong Tung

Muong Nhe District: Chung Chai; Leng Su Sin; Muong Nhe; Muong Toong; Nam Ke; Pa My; Sen Thuong; Sin Thau

Nam Po: District: Cha Cang; Nam Khan; Pa Tan

Tua Chua District: Xa Nhe

Tuan Giao District: Muong Mun; Toa Tinh;

Detail of the analysis to select the prioritized communes based on these criteria is summarized in Annex 3.

2.2 Promoting Implementation of Forest Protection, Regeneration and Afforestation (Solution 5)

Implementation of the forest protection, regeneration and afforestation can be improved by taking the following measures.

(1) Promotion of the forest protection

In the areas that lie in the watershed covered by PFES, PFES will be used as a tool for the forest protection. Process of implementing PFES involves the following actions for its preparation.

- Identification of forest status through satellite image analysis or forest inventory to identify the forests.
- Identification of forest owners (allocation of the forests): review of the forestland allocation and reallocation of the forests will be implemented in accordance with the Plan 388/KH-UBND (this procedure is described in the subsequent “2.3 Review and completing forest and land allocation (Solution 6)”.
- Establishment of forest monitoring system to identify the forested area annually
- Establishment of payment mechanism:
 - For the forested areas covered by PFES, payment will be made from the FPDF
 - For the forested areas in protection and special use forests which are not covered by PFES or where the payment from PFES is lower than VND 200,000/ha/year, payment will be made from state budget in order to secure the amount of payment of VND 200,000/ha/year.

Majority of forests will be reallocated to the communities and the minority will be reallocated to the households under the Plan 388/KH-UBND, and therefore, forest protection by villages will be promoted. Method of forest protection by villages is described in “2.4 Enhancing management of forest protection and development by villagers (Solution 7)”.

In the areas that not lie in the watershed covered by PFES, forest protection will be implemented on the

basis of the payment by protection contract to be made with the forest owner, using the state budget of the FPDP, 30A program, etc. However, there are cases where the forest owners who receive the payment by the protection contract do not actually protect the forest. Therefore, the contract will be made properly keeping in mind actual field conditions and the establishment of relationship of trust with local people. In order to convince the villagers to protect the forest and not to convert the forests for other land-use purposes, livelihood improvement support and awareness raising activities should be provided.

(2) Promotion of the regeneration

The regeneration is, like forest protection, implemented on the basis of the protection contract to be made with the forestland owner. This activity will be implemented in accordance with the following points.

- Targets to be promoted: bare land (Ic) which is planned for special use forest and protection forest
- Financial source of the implementation: state budget such as FPDP

Additionally, the livelihood support should also accompany the activity in order to cover the loss of their cultivation lands. Awareness raising will be incorporated into this activity so that the forestland owners can understand the benefit of the forests.

(3) Promotion of the afforestation

This activity will be implemented in accordance with the following points.

- Targets to be promoted: bare land which is planned for afforestation and consistent with technical regulations on forest plantation
- Financial source of the implementation: state budget such as FPDP, 30a Program, etc.

In order to address the problems that occurred in Program 661, the following measures should be taken.

- Providing technical support: tending technique for afforestation will be transferred to the villagers who participate in the afforestation activity.
- Providing livelihood support: alternative livelihood support should be provided in order to reduce the risk of converting the plantation into the cultivation land.
- Awareness raising: the benefit the villagers can gain from the plantation will be understood by them in order to raise their incentive to develop the forest.

2.3 Forestland allocation (Solution 6)

Forest allocation is the process that is required for implementing PFES. Furthermore, giving the villagers the forestland use right will give them incentives to protect and develop the forests because the villagers can get benefit from the forests they protect and/or develop.

The allocation of forestland to organizations, households, individuals and local communities will be conducted by DONRE and DARD in accordance with the Plan 388/KH-UBND. Plan on the forestland allocation is as follows.

Completion in the forested area in the Da River watershed: by the end of 2013

Completion in the forested area in the province: by the end of 2014

Completion in the non-forested area in the province: by the end of 2015

Area of the forestland in each district is given in the table below.

District	Forested (ha)	Non-forested (ha)	Total (ha)
Dien Bien	57,379.81	64,161.82	121,541.63
Dien Bien Dong	30,736.09	59,252.08	89,988.17
Dien Bien Phu city	2,068.80	957.43	3,026.23
Muong Lay town	5,178.90	3,583.95	8,762.85
Tua Chua	23,126.01	25,961.07	49,087.08
Tuan Giao	40,219.20	44,932.90	85,152.10
Muong Ang	9,117.00	20,052.80	29,169.80
Muong Nhe	85,916.00	56,641.33	142,557.33
Muong Cha	40,223.35	67,057.45	107,280.80
Nam Po	49,854.81	75,362.46	125,217.27
Total (ha)	343,819.97	417,963.29	761,783.26

Source: Decision 714/QD-UBND

2.4 Enhancing management of forest protection and development by villagers (Solution 7)

At each commune, the REDD+ action plan will be prepared; within the commune, the village forest management plan (VFMP) and livelihood development plan (VLDP) will be prepared in each village participating in the REDD+ implementation. For the implementation of VFMP and VLDP, establishing and strengthening the institutional framework in village level is needed. The following actions will be taken for the enhancing management of forest protection and development by villagers considering strengthening the institutional framework.

(1) Establishment of village management board for forest management and livelihood development

A village management board for forest management and livelihood development (VMB) will be established at each village to implement the REDD+. The tasks and members of VMB will be defined by villagers. In case a village already has an organization that manages forests, the organization can substitute the VMB by revising the tasks and members.

Under the VMB, forest patrolling teams will also be established for watching forests for forest protection and regeneration activities through patrolling and bearing some parts of implementation of forest change monitoring. In addition, sub-groups will also be formulated based on each activity of livelihood development such as raising chickens, raising pigs, raising fishes,...

(2) Formulation of Village Forest Management Rule (VFMR)

After setting up the VMB, its tasks and members, the VFMR shall be developed in the village participation along with designing the VFMP. The VFMR may include followings.

- Amount and ways of collecting of fuel woods
- Types, amount and ways of collecting non-timber forest products
- Amount of timber harvesting for house construction
- Duty to protect forests: patrolling
- Penalty to be imposed on violating the rule

(3) Preparation of VFMP

VFMP will be prepared through village consultations. REDD+ activities to be implemented such as forest protection, regeneration and afforestation will be planned in the VFMP. The activities will be decided based on the FPDP planning map (2012 – 2020) with adjustment taking into account the actual field conditions that will be identified by the satellite imagery and the villagers' information. If the plan on the map does not match the present land cover conditions, it will be replaced by more suitable activities for the VFMP. In case where the area in which forest protection is planned under the FPDP is actually identified as the bare lands, for example, regeneration or afforestation shall replace forest protection for the area. The activities shall be described on the VFMP plan map.

The map developed through this process will be the base map for implementing the VFMP. The base map will be used for: identifying the location of the activities to be implemented according to the VFMP; checking the progress of the activities; monitoring the change of forest and forestland; evaluating the VFMP activities at commune and village levels.

2.5 Providing Livelihood Support (Solution 8)

Since major deforestation cause is shifting cultivation that is caused by poverty and population growth, livelihood support for the local people is necessary to mitigate deforestation. FPDP has a livelihood support component providing rice for those whose cultivation land is replaced by afforestation. In order to secure sustainable livelihood development, however, stable livelihood conditions will have to be attained. This requires technical support as well as material support.

Existing livelihood support programs and projects will also be utilized. The following programs/projects will be combined with REDD+ to secure the livelihood support.

Resolution 30A/2008/NQ-CP on the program to support fast and sustainable poverty reduction for 61 poor districts: Dien Bien Dong, Muong Ang, Muong Nhe, Nam Po and Tua Chua Districts are covered in this program. There are technical and financial supports for production activities (agriculture, livestock, fisheries, forestry)

SUSFORM-NOW: parts of Dien Dien, Dien Bien Dong and Muong Cha District and Dien Bien Phu (including pilot communes for REDD+) are covered in this project: material and technical supports on agricultural, animal husbandry and forestry activities are provided.

NMRRP2: Dien Bien Dong, Muong Ang, Muong Cha and Tua Chua Districts are covered in this project. Material and technical supports on crop and livestock production are provided.

Village livelihood development plan (VLDP) will be formulated for supplementary activities to villages which need the support in order to be effectively engaged in forest management. Basic principle for the support on livelihood development based on the VLDP should be decided. The principal is suggested as follows;

- Only the villagers committed to forest protection and/or development of new forest as stipulated in the VFMP should be provided with support for livelihoods development.
- The villagers should play a central role in planning to implementation, monitoring and evaluation.
- Livelihood development should not only investment support but also capacity building and awareness raising of the villagers and other relevant stakeholders
- Livelihoods development activities should not adversely affect the surrounding environment and natural resources.
- Livelihood development activities based on natural & socio-economic conditions in the commune should be selected.
- Support to livelihood development should promote good utilization of local available resources as much as possible.
- In case of cash crops, production plan should be prepared considering marketability.
- Not only income increase and increase in food production but also activities with reduction of resources utilizations and expense should be considered.
- Cost & benefit, investments needed and risks should be fully considered beforehand.
- Support should be provided in an open and transparent manner with taking social equality fully into account.

The following livelihood activities are considered to have potential to be applied.

Agricultural activities

- Increasing productivity of crop land: soil improvement; compost
- Agroforestry, fruit production
- Plantation: rubber; coffee, tea, etc.

Energy efficient lifestyle

- Production of bio-gas generator and improved cooking stoves that can reduce fuel wood consumption

Livestock production

- Production of chicken, pigs, etc. and aquaculture

Forestry activities

- Developing tree plantation including one for non-timber forest products (NTFP)

2.6 Strengthening Management of Special Use Forest (Solution 9)

Areas of Special Use Forest are provided by districts in the table below.

District	Forested (ha)	Non-forested (ha)	Total (ha)
Dien Bien	6,697.11	5,163.04	11,860.15
Dien Bien Phu city	138.90	6.90	145.80
Tuan Giao	16,777.84	7,616.47	24,394.31
Muong Ang	1,976.00	4,145.90	6,121.90
Muong Nhe	32,843.21	14,107.99	46,951.20
Muong Cha	9,139.21	5,193.93	14,333.14
Nam Po	9,315.54	5,392.57	14,708.11
Total (ha)	76,887.81	41,626.80	118,514.61

Source: Decision 714/QD-UBND

SUFs are protected areas based on the regulations and the laws. However, human-induced deforestation has taken place in the MNNR between 2000 and 2010⁵. This means that humans enter the inside of the restricted areas and have practiced the livelihood activities. Also, villagers are presently living on cultivating in the Muong Phang Historic-Scenic-Environmental Forest. For the mitigation of deforestation in the SUF, strengthening management of SUF is needed. The following actions will be taken for the strengthening.

(1) Clarification of the boundary of SUF and its buffer zone

Clarification of the boundary will be needed to recognize the demarcation between SUF areas and human living areas for better management of the special use forest. By showing the instruction of the boundary, the area of SUF will be clear to be able to understand.

(2) Controlling migration and stabilization of the population

Measures should be taken to check the migration of people and illegal practice of shifting cultivation in the SUF area. However, in terms of ethnic groups with varied customs and practices, enough explanation and consultation before implementing policies enforcement and project activities will be needed to avoid senseless conflicts.

(3) Improving organizational structure

Following functions and responsibilities of forest owner.

- Special use forest management, protection and development
- Conservation and development of the special values of forest in terms of nature, standard specimens of

⁵ The Study on Potential Forests and Land Related to “Climate Change and Forests” implemented by JICA between September 2009 and March 2012

ecological system, biodiversity, biological gene source, historical, cultural relics and landscapes

- Scientific research
- Provision of forest environmental services.

SUFMB should; develop a code of practice involving forest management activities for the SUF as a public service providing agency

- Take initiatives to get involved in the provision of services to assist local residents in developing agriculture and forestry;
- Train villagers involving ethnic minority in protecting SUF and develop an adequately able workforce to work at commune and village levels.
- Work with other related local authorities to protect forests.
- Be given professional training to improve management and technical skills.

(4) Raising awareness on protecting forests

Human activities are reportedly seen in special use forest. SUFMB should consider how to cope with this situation, particularly with the doers of these activities as it is against forest conservation. Therefore, education on awareness raising is needed on a regular basis for villagers residing nearby SUF.

Based on the legal documents, SUFMB will issue regulations, manuals and brochures to promote to all locals to improve their awareness of their rights and obligations to get involved in forest protection and legal penalties if they violate law or regulations on forest protection and use.

(5) Improving the SUF Buffer zone management

Buffer zone is planned to use resource, land in compliance with the objectives of preventing and reducing the encroachment upon special use forest through management and conservation measures, and improving local community livelihood sustainably.

Buffer zone should be delineated at the same time of establishing special use forest. Also, reinforcing the buffer zones must be linked to lead to strengthened implementation of SUF management. From the aspect of the livelihood, local people in the communes in buffer zone and the adjacent areas should integrate the promotion of forest protection with the promotion of the knowledge of agriculture and forestry. Local people's life and income should be associated with forest protection and development. Furthermore, SUFMB is body to receive the payment of PFES scheme. Therefore, this fund is expected to strengthen the assistance of the village development in the buffer zone.

(6) Promotion on the participatory forest management in SUF based on the Benefit Sharing Mechanism

According to No: 126/QĐ-TTg named the decision on pilot policy on Benefit Sharing Mechanism (BSM) in management, protection and development of special-use forests, BSM is communities-based on co-management principles to manage, protect and sustainably develop SUFs contributing to income

generation and improvement of livelihoods for people living inside and in the buffer zone of the SUFs. This may provide an appropriate opportunity to gain sharable benefits which include agricultural, forestry and aquatic products without causing negative impacts in SUFs even though this is still limited due to pilot policy. In order to promote BSM, the increase of the Benefit Sharing Agreement will be needed. Participants involved in BSM from communes and villages are highly significant from the perspective of both the sustainable conservation of SUFs and livelihood improvement.

2.7 Promoting the private investment (Solution 10)

(1) Facilitating private companies to reserve the land for afforestation

In implementing the Decision No. 147/2007/QĐ-TTg, so far 12 companies are given the license for afforestation in the production forest. However, most of the afforestation does not make progress due to the difficulty in making land lease agreement with local people. Consequently, land policies need to be reviewed to facilitate private companies to reserve the land for afforestation, providing the private companies with the loans with low interest will encourage them to invest on afforestation.

For assigning lands for afforestation, the long-term economic benefits of local people need to be guaranteed. In order to expand the afforestation areas, 1) economic benefits for local people from the afforestation during the tree growth and at the harvest, 2) the compensations for lands to local people, and 3) the treatment of lands after tree harvest need to be well negotiated and agreed with local people. PRAP promotes village forest management through promoting forestland allocation to villages, organizing VFMPs with VMBs. Private companies which have a license in the commune can participate in commune/village consultation process and finance a part of VFMP with agreement of VMBs.

(2) Promote afforestation by private sectors for carbon offset

Foreign private companies are interested in investing forest development for carbon credit. The interest of private companies for afforestation stems from the Corporate Social Responsibility (CSR) to offset carbon emission by their business. It is important to develop a simple REDD+ afforestation model to clearly show the relation between amount of investment, work to be done on afforestation and carbon stock increased (carbon credit issued).

3. Procedure to operate PFMS

To achieve specific objectives to collect reliable forest information, a key task was modifying existing Provincial Forest Monitoring System (PFMS). As a solution, two procedures regarding PFMS operation for achieving the key task are described here. Firstly, based on PFMS directed by this Provincial REDD Action Plan (PRAP), an attempt shall be made to produce three outputs and revise them if necessary, and at the same time, a revision shall be conducted to adjust PFMS in order to contribute to the national forest monitoring system. Secondly, data of forest changes shall be assessed through PFMS.

3.1 Modification of PFMS with its adjustment in accordance with the national forest monitoring

system

(Solution 11)

(1) Modification of the PFMS in the pilot area and revising it; further operate the modified PFMS in the other areas, analyzing the result.

- Objectives and expected outputs of PFMS

The objectives are to enhance the system to collect reliable forest information. As mentioned in Key tasks, three outputs gained through PFMS operation are shown below (Details are in Annex 4).

- Monitoring the change of current forest status
- Monitoring of Policy and Measures (PaMs)
- Verification by field check

To achieve these outputs, it is required to review institutional arrangement and mutual cooperation between different levels (Details are in Annex 5).

- Output 1 ; Annual statistical data

At the moment, information on the current forest status is firstly reported by villagers, checked by forest rangers, and sent to the central government via database software of forest statistics survey (DBR). To enhance this information collection, the accumulation of field evidence data, the measurement of the changed forest area with GPS, and the utilization of village management board for forest management and livelihood development (VMB) in collecting the information at the village level shall be conducted. The outline of output 1 is shown in the following table.

Output 1 “Annual statistical data (via DBR)”	
Purpose	To monitor the forest changed area (increase and decrease) based on the report from the village in order to reflect the output of the result into the DBR software which is used for the reporting of annual statistical survey of the province to the central government
Items to be monitored	Forest changed area (increase and decrease) ----- ✓ Area (ha) of forest change ✓ forest classification, 3 types of forest, forest owner, driver of change
Necessary information	Digital data: Maps of 3 types of forest; forest owner; forest classification; FPDP plan, FPDP land use land cover; cadastral. At field survey: forest change information from village, 3 types of forest , forest owner information (name of forest owner, type of forest management), forest classification, driver of forest change, area of forest change, year of planting and harvesting, picture
Output	5 types of tables of DBR software ① SHEET 1a –DESCRIPTION OF NON-UPLAND FIELD PLOT ② TABLE 1A/TKR – STATISTICAL AREAS OF FOREST AND FORESTLAND BY 3 TYPES OF FOREST ③ TABLE 2A/TKR. STATISICAL FOREST AREA BY FOREST OWNER ④ TABLE 3/TKR. STATISTICAL CHANGE OF AREA OF FOREST AND FORESTLAND BY DRIVER ⑤ TABLE 4/TKR. AGGREGATION OF FOREST COVERS BY ADMINISTRATIVE UNIT
Flow of the information	Villager → (VMB) → forest ranger → district FPD → Sub-FPD

Major activities for output 1 are measuring and reporting of forest change as follows.

- Check and assess the report of the forest changed area (increase and decrease) from village level as representative of forest owners (individual, households, village community) by communal forest ranger;
- Measure the forest changed area (increase and decrease) with GPS camera, GPS, and satellite imagery and store them as evidence of the survey by communal forest ranger in addition to the record of present forest management sheets (regulated by Circular 25/2009/TT-BNN by MARD);
- Report the survey result to the technical unit of the district FPD from communal forest ranger
- Polygonize the forest changed area by DBR software, transfer the polygonized data into the prototype database and store evidences in the prototype database system by technical unit of the district FPD
- Report and get approval of the data of forest changed area (increase and decrease) with evidences synthesized with forest management dossiers from CPC, DPC, district FPD, district DARD, sub-FPD and DARD.

• Output 2; Monitoring of PaMs

This PRAP has organized Policy and Measures (PaMs) against deforestation and degradation as the implementation of REDD+. PaMs has three concrete contents: the promotion of forest protection through the implementation of PFES, afforestation through the implementation of Forest Protection and Development Plan (FPDP), and regeneration through the implementation of FPDP. The aim of Output 2 is to monitor this policy implementation status and recognize implementation issues. The outline of output 2 is shown as follows.

Output 2 “Management of PaMs”					
Purpose	<ul style="list-style-type: none"> ✓ To manage the location and the area of three types of area respectively as follows; ① Potential PFES area (considered as nearly equivalent to the area planned for forest protection under FPDP) ② Area planned for afforestation under FPDP ③ Area planned for regeneration under FPDP ✓ To calculate the success rate of implementation of each area by clarifying the actual implementation in the planned area respectively. 				
Items to be monitored	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">Potential PFES area</td> <td style="width: 50%; padding: 5px;">Afforestation and regeneration under FPDP</td> </tr> <tr> <td style="padding: 5px;"> <ul style="list-style-type: none"> ✓ Location and the area (ha) of the potential PFES ✓ Area of forest in the potential PFES area ✓ Area of decrease of forest in the allocated PFES area </td> <td style="padding: 5px;"> <ul style="list-style-type: none"> ✓ Location and the area (ha) of the FPDP planned area Increase of the forest area in the FPDP planned area. </td> </tr> </table>	Potential PFES area	Afforestation and regeneration under FPDP	<ul style="list-style-type: none"> ✓ Location and the area (ha) of the potential PFES ✓ Area of forest in the potential PFES area ✓ Area of decrease of forest in the allocated PFES area 	<ul style="list-style-type: none"> ✓ Location and the area (ha) of the FPDP planned area Increase of the forest area in the FPDP planned area.
	Potential PFES area	Afforestation and regeneration under FPDP			
<ul style="list-style-type: none"> ✓ Location and the area (ha) of the potential PFES ✓ Area of forest in the potential PFES area ✓ Area of decrease of forest in the allocated PFES area 	<ul style="list-style-type: none"> ✓ Location and the area (ha) of the FPDP planned area Increase of the forest area in the FPDP planned area. 				
Necessary information	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;"> For the clarification of the allocated forest under PFES: <ul style="list-style-type: none"> ✓ geographic area, forest area under FPDP presell ID, status plot ID, forest classification, 3 forest types, forest owner For clarification of decrease of forest (obtain at the field): <ul style="list-style-type: none"> ✓ Geographic area, forest area, year of survey, cause of forest change, picture. </td> <td style="width: 50%; padding: 5px;"> For FPDP planned area (obtain at the office): <ul style="list-style-type: none"> ✓ geographic area, planned area (afforestation and regeneration) under FPDP, forest types, forest owner. For increase of the forest area (obtain by the field survey): <ul style="list-style-type: none"> ✓ Geographic area, forest area, year of planting, cause of forest change, picture. </td> </tr> </table>	For the clarification of the allocated forest under PFES: <ul style="list-style-type: none"> ✓ geographic area, forest area under FPDP presell ID, status plot ID, forest classification, 3 forest types, forest owner For clarification of decrease of forest (obtain at the field): <ul style="list-style-type: none"> ✓ Geographic area, forest area, year of survey, cause of forest change, picture. 	For FPDP planned area (obtain at the office): <ul style="list-style-type: none"> ✓ geographic area, planned area (afforestation and regeneration) under FPDP, forest types, forest owner. For increase of the forest area (obtain by the field survey): <ul style="list-style-type: none"> ✓ Geographic area, forest area, year of planting, cause of forest change, picture. 		
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Output	Calculate following area and the rate in each district, commune and status plot: <ul style="list-style-type: none"> ① Mapping of potential PFES area = 				
	Calculate following area and the rate in each district, commune and status plot: <ul style="list-style-type: none"> ① Success rate of afforestation under 				

	<p>A</p> <p>② Rate of land and forest allocated area under PFES = B/A</p> <p>③ Success rate of PFES implementation = $\{(B1-B2)-C\}/A$</p> <p>Assuming: A : potential PFES area; B : area of land and forest allocated area; C : forest changed area monitored by the field survey under PFES.</p>	<p>FPDP = D/E</p> <p>② Success rate of regeneration under FPDP = F/G</p> <p>Assuming: D : aggregated forest changed area of afforestation by DBR software as a result of output 1; E : planned area of afforestation under FPDP of the district; F : aggregated forest changed area of regeneration by the DBR software as a result of output 1. G : planned area of regeneration under FPDP of the district</p>
Flow of the information	Village (VMB) → forest ranger → district FPD → Sub-FPD	

● Output 3; Verification

Although the current system used to recognize the changed forest area starts with reports from villagers under the regulation. Governments at all levels shall conduct the verification on the field and assess the accuracy of the reports from villagers, aiming to improve forest governance. For example, a survey at the locations on the field which are randomly sampled from the forest area and a comparison with the villagers' report shall be conducted. In addition, the field survey result could be used to clarify the uncertainty of the current forest status, and also the forest statistics information could be used as evidence.

Output 3 "Verification"	
Purpose	<ul style="list-style-type: none"> ✓ Improvement of forest governance ✓ To assess the accuracy of the forest information by processing internal verification in order to clarify uncertainty of forest information
Items to be monitored	<p>The point of the random sampling grid prepared by the province</p> <p>-----</p> <p>Under the location of random sampling grids, following shall be monitored</p> <ul style="list-style-type: none"> ✓ Clarification of FPDP planned activities on the map ✓ Field survey result of current forest status. ✓ Consistency of the increase and decrease of forest respectively by comparing the plan and the survey result.
Necessary information	3 forest type, FPDP plan map, setting of random sampling grids of each district
Output	<ul style="list-style-type: none"> ① Consistency rate of the increase of forest ② Consistency rate of the decrease of forest ③ Verification report of forest information

Flow of the information	Sub-FPD ⇌ district FPD ⇌ forest ranger
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Major activities of output 3 could describe as follows.

- Set the random sampling grids on the prototype data base system by Sub-DOF and distribute it to the pilot communes for them to conduct the field survey
- To set Evaluate the field survey result of the random sampling grids and the reporting result of the forest type from the villagers and the activities (forest protection, regeneration and afforestation).

● Institutional Arrangement of PFMS and their responsibility

It is important to cooperate with the relevant organizations for the implementation of PFMS. For the promotion of cooperation, clarification of each role is necessary. Moreover, many levels are involved in the implementation of PFMS, which can be classified as central province, district, commune, village, house hold. The cooperation diagram of the levels is shown in Annex 6. On the basis of this diagram, each role of the organizations is described below.

DEPARTMENT/ SECTION/ GROUP	IMPLEMENTATION	OUTPUT of PFMS in II PROCEDURE
Village	Implement and monitor activities and forest change under village FMP and then report it to CPC and forest ranger at the meeting (monthly report)	
Villagers	Check the forest increase/decrease in the area responsible for management according to the village FMP under VFPDB	1
Forest Owners (Individual and community)	Check the forest increase/decrease of his/her/their owned forest area other than implementation area of village FMP(monthly report, occasionally)	1
VMB	Compile the data of forest increase/decrease reported from villagers and forest owners by recording it on the identical reporting sheet (monthly report)	1
Forest Ranger	Measure and identify forest change as well as the point of random sampling grids at the field given from the province. Report it to CPC and District-FPD with evidences (monthly). Awareness rising of villagers in cooperation with PFMB and SUFMB.	1,3
District FPD	Store and approve the result of PFMS under district and report it to DPC, District DARD, and sub-FPD (every 3 month)	

	Technical staff	Measure the change of the large area of forest with forest ranger if necessary. Input the survey results of forest rangers into the prototype forest information database system. Synthesize the report with the present forest management dossiers. Report those reporting results to (vice) director.	1,2,3
	(vice)director	Approve the reporting results from forest rangers, report it to DPC, district DARD and sub-FPD(monthly, every 6 month)	1,2,3
Sub-FPD	Monitor and report the forest status to DARD (every 6 month) and central FPD(annually)		
	Technical Section	Compile and store the reporting results into the database system from District FPDs and report it to the (vice) director	1
	(vice) director	Approve the reporting results (monthly, every 6 month, annually) compiled by the technical section. Report it to DARD and central FPD as statistical survey	1
Sub-DOF	Support technical and planning of activities under PRAP to DPCs and CPCs collaborating with SUFMBs and PFMBs (every 6 month)		
	Technical Section	Set and evaluating random sampling grids of PFMS. Report to DARD.	1,2

- Operation of Proto-type Forest Information database(ProFID)

A provincial forest information database system for PFMS established as a pilot IT system through integrating the technical guidance of Decision 78/2002/QD/BNN-KL and Circular 25/2009/TT-BNN. ProFID is developed and introduced to operate PFMS. One of the functions of database system for PFMS is demonstrated in order to get the framework of PFMS understood by the relevant organizations.

(2) Revision and adjust the PFMS to national forest monitoring system

- Revision of PFMS in terms of improvement

While the current PFMS puts forest rangers at the center of the system, the range of the ranger's service area is large, and the issue of how much sufficient information can be collected remains. Therefore, the verification shall be conducted in the pilot areas using the high-resolution satellite at the end of Phase I. The verification analyzes the shortage and excess of information collected through PFMS, as well as clarifies the improvement from a cost-benefit standpoint.

In addition, monitoring subjects of PFMS are forest increase and decrease at this stage. This means degradation of forest and regeneration of forest does not include as monitoring subjects in PFMS design.

Institutional aspect, current decision about forest monitoring did not instruct monitoring of forest degradation and regeneration. In technically, measurement and evaluation of forest status by villager or ranger require high expertise, because evaluation of forest quality needs plot level survey. On the other hand, judging from provincial circumstances and existing data of forest status, degradation and regeneration of forest are widely spread in entire province recently. Therefore, examination of feasibility about forest quality evaluation utilizing high satellite image that mentioned above needs to conduct at the end of Phase I and examine revision of monitoring subjects.

With this verification and examination, PFMS shall be revised and a scale-up conducted for the whole province in Phase II.

- Revision of PFMS in terms of harmonization to national forest monitoring system

PFMS needs to closely cooperate with the national forest monitoring system, which ensures the consistency of information. The national forest monitoring system is composed of two pillars: satellite analysis and permanent sampling plotting once every five years. PFMS can effectively survey by being provided with these satellite data, analysis results and ground inventory results. On the other hand, the province will be able to contribute to the nation by providing ground survey data that forest rangers have accumulated. This is because the information can have an important role as auxiliary data for central information analysis. Therefore, PFMS shall be modified if necessary with an eye on the future direction of the nation (details are in Annex 7)

- Revision of ProFID

The ProFID shall be operate and revise by phases and time frame of revising database system at national and provincial level is shown in Annex 8.

- Phase I (2013- 2015):

The ProFID is tested and its contents are enriched to improve its accuracy and utility. The ProFID is utilized to store the data collected by monitoring in pilot areas. The problems and needs on the system are identified while it is utilized in the pilot areas and before full-scale implementation of the database system. Database storing server shall be set up and the data shall be demonstrated at Sub-FPD without Web-GIS. Contents of the pilot areas shall be updated to the latest version (e.g. FPDP, satellite imagery, result of PFES information, etc.).

- Phase II (2016- 2020)

Enhanced system is established with Web-GIS for whole province. New database system shall be developed in high possibility as a result of synthesizing the ProFID in Dien Bien province and the regulation of the national database system. The new database system is based on internet and enables pixels and attribute of forest status (area and type of forest) and REDD+ activities to be edited at district Sub-FPD based on the report of forest rangers.

3.2 Evaluation of the forest change

(Solution 12)

The forest change shall be evaluated through PFMS, and the basic information which is necessary to revise master plans, such as FPDP, shall be organized. The evaluation of the amount of change shall be twofold: an evaluation based on area and based on carbon.

(1) Evaluation of forest change based on area

In the whole province as a target area, the current forest status (2013) and the forest change (2015 and 2020) accumulated through PFMS shall be compared at the end of Phase I and Phase II. Moreover, they shall be compared according to the forest type. Then, this result shall be compared with the past forest dynamics and compiled in a report that describes what types of forest area have changed and how much forest change (increase and decrease) have occurred.

(2) Evaluate forest carbon stock based on the forest change

Although in the conventional forest management the change in forest area (increase and decrease) is evaluated, in REDD+ the change must be converted to carbon. To be more specific, it shall be compared with FRELS/FRLs based on the results of change (increase and decrease) in forest carbon and the emission-reduction effect shall be measured through the implementation of PRAP. The work shall be carried out at the end of Phase I and Phase II. The evaluation method is shown below (See the PFMS manual for the detailed procedure).

- 1) Produce a forest distribution map at each point of time and organize the information on the forest change (increase and decrease) from 2013 to 2015 and 2020.
- 2) Compare the forest distribution map of 2010 with the maps at each point of time using GIS and compile the change in area of each forest type as a change matrix.
- 3) Organize the amount of change of the average carbon amount per unit of area in response to the area change on the matrix. Calculate the amount of carbon stock change by multiplying both.

4. Clarification of the budget sources for the REDD+ implementation

(1) Financial sources for implementing the REDD+

Flow of the funds for implementing REDD+ is illustrated in Figure 3.6. Major funding sources for REDD+ implementation are the state budget for the on-going policies, Provincial Forest Protection and Development Fund (Provincial FPD Fund) and donor projects. Financial sources for implementing forest protection, regeneration and afforestation are the state budgets for FPDP, 30A, production forest development policy and Provincial FPD Fund. There are projects implemented by foreign donors, such as NMRRP2 and SUSFORM-NOW. These projects support forest protection and development as well as the livelihood support.

According to the NRAP, the Provincial REDD+ Fund will be established under the Provincial FPD Fund. The Provincial REDD+ Fund contributes to protection and development of forests, improving livelihoods of the villagers. Potential financial contributors for this fund are the National REDD+ Fund, private companies, foreign donors, and so on. The Provincial REDD+ Fund has not been established yet. After the

Provincial REDD+ Fund is established, financial contributors for the fund will be identified so that the provincial REDD+ fund can support REDD+ implementation.

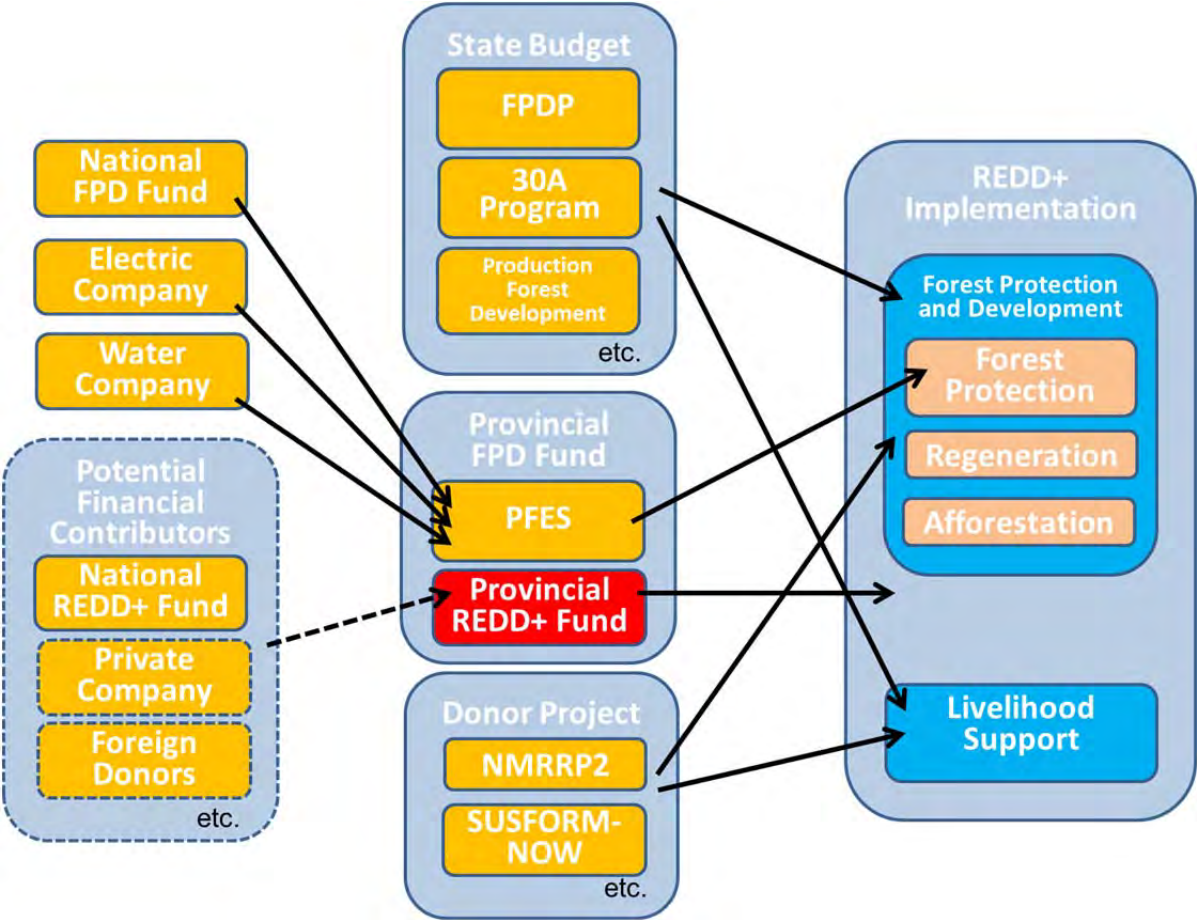


Figure 3.6 Flow of funds for implementing REDD+

(2) Benefit distribution system

The Benefit Distribution System (BDS) for REDD+ will be developed by DARD after national BDS policy is formulated in accordance with the guidance of the UNFCCC and Provincial REDD+ Fund is established. Tentative BDS for Dien Bien Province is described in Annex 9.

5. Providing trainings for trainers

The capacity building in the province needs a phased approach in accordance with NRAP (Decision 799/2012/QD-TTg). It is also needed to take sufficient time to succeed in establishing the capacity to implement REDD+ by 2020. For the sake, “TOT” will be conducted during 2013-2015 to raise the trainers who can implement the trainings needed. The officers involved in the management of agriculture, forestry, land, and other rural development issues at all administrative levels who participated in the TOTs will take lead capacity development in REDD+ implementations in the province in the period from 2016 to 2020.

Targets for the capacity building are considered as follows;

In the province level, Sub-Department of Forestry; (Sub-DoF), Sub-Department of Forest Protection (Sub-FPD), Center for Agriculture and Forestry Planning and Designing (CAFPD), Protection Forest Management Board (PFMB), Special Use Forest Management Board (SUFMB), etc. are the main targets.

In the district and commune levels, DPC, District DARD, District FPD, CPC, etc. are the main targets.

In the village level, key villagers such as village leaders, and villagers participating in forest management and livelihood development activities are the main targets. Workshops and trainings will be provided on the forest monitoring system and facilitation of the local stakeholders to prepare the commune REDD+ action plan, etc.

Items and contents for capacity building are as follows;

(1) Enhancement of governance

Strengthening of the governance is needed through monitoring and reporting system in the implementation of REDD+ and management system on forest protection and development in the village level. REDD+ is actually new scheme and its implementation needs for building governance with effectiveness and transparency. Also, there is a need to be involved in the villagers to implement forest management properly. Considering mentioned above, the following capacity buildings will be conducted.

- Holding workshops for administrative officers and village leaders involved in REDD+ to understand the monitoring and reporting systems in the REDD+ implementations
- Conducting practical on-the-job trainings to gain the ability to play in the monitoring and reporting system by the clarification of the role and responsibility in the REDD+ implementations.
- Conducting trainings for CPC staff and member of the village management board for forest protection and livelihood development on management skills for the management boards and village funds.
- Holding workshops for administrative officers involved in REDD+ to understand the financial procedure for REDD+ implementations after the approval of the decision of the National policy for the related BDS.

(2) Strengthening facilitation skills

There is a need to reflect the villagers' opinions in the REDD+ action plan taking into consideration of feasibility for REDD+ implementations, who are actual implementers for the REDD+ activities in the field. Hence, it is an important issue to promote the techniques to reflect villagers' opinions into the plan and its implementation. In order to support the items mentioned above, the following capacity buildings will be conducted.

- Holding workshops on facilitation skills to strengthen facilitation skills to prepare and implement both VFMP and VLDP
- Conducting on-the-job trainings through the practice of facilitating village meetings at the villages

(3) Promotion of forests management activities

PFES is needed in order to protect forests and to promote villagers to develop forests. However, in fact, boundary of the forests and forestland in the dossiers and on the field are still unclear. In addition, technical knowledge such as the afforestation of local people is also insufficient. Therefore, trainings for improving forest management activities are needed to promote REDD+ implementations. Considering mentioned above, the following capacity buildings will be conducted.

- Holding workshops on forests allocation
- Conducting trainings for improving the technology for afforestation and tending and the methodology for operation for forest patrolling are needed to manage forests sustainably.

(4) Developing capacity for forest monitoring

Before planning capacity building, it is essential to compare current situation and expected goal for gap assessment.

	Current capacity	Expected goal –2015	Expected goal 2015-2020
Equipment	(1) Personal computer; 7 PC in Dien Bien district and 2 PC in Muong Cha district. GIS software (Mapinfo) already installed). Difficult to process high-resolution satellite data due to PC specification. (2) GPS : 2 GPS for each MMc and MPc. One for each district level (3) Satellite image; Covering high-resolution data (Observed Feb,2013) (4) 6 GPS camera	(1) Accumulate forest information through PFMS and store ProFID in pilot area (2) Maintain (3) Prepare latest satellite data for revision of PFMS (4) Maintain	(1) High-specification PC for satellite analysis for each district (2) Prepare GPS for all ranger in province (3) Attention to provide satellite data from NFI. Examine the way to covering entire province (4) Prepare GPS camera for all ranger in province
PC operation and data	3 specialists in Dien Bien district and not any specialist assigned in	At least one PC operator in each district and improve data management	One PC operator in all district

managem ent	Muong Cha district	skill	
Field survey (monito ring forest change)	Preliminary technical training about collecting forest information on the ground combine with remote sensing, GPS and GIS are conducted. (One person each from pilot communes)	Continue on-the-job training in pilot commune and recycle of evaluation Ideally, dispatch 2 persons for each commune.	Capacity development for all ranger of entire province is necessary
Field survey (Verific ation)	Training about general understanding of methodology about verification was conducted.	On-the-job training through implementation of verification survey.	Implement verification survey all commune level. For that, capacity building for all ranger
Forest monitorin g by villagers	Not adequate information are submitted from villagers Reasons are shortage of budget for monitoring.	Establish VMB in pilot communes and updating forest change by villager consistently.	Collecting forest information and their report adequately in entire province.

Considering above mentioned, the following capacity buildings will be conducted.

- Conducting practical on-the-job trainings on field survey skills (GPS and GIS operation, remote sensing analysis, and identification of forest type) and database operating (compiling field data, GIS operation, remote sensing analysis and random sampling grids treatment) to strengthen field survey skills and to enhance the operational skills of forest information system.
- Conducting practical on-the-job trainings to strengthen the skills of villagers for recording and reporting forest change on the field with the support of VMB
- Holding workshops on safeguard monitoring to raise the awareness of the stakeholders on safeguard in the implementation of REDD+.
- Holding a meeting to set Safeguard Information System at the Provincial level after setting this system at the National level officially.

(5) Promotion of livelihood development activities

Appropriate forest management in the village should be conducted with villagers` involvement. In fact, it is the most important for villagers to maintain daily livelihood. Hence, livelihood development and alternative measures for livelihood will be needed to promote forest protection for forest-dependent people. Therefore, activities for livelihood development and alternative measures for livelihood are needed to provide the villagers to protect forests. However, livelihood development measures which give negative impact on forests are not consistent with the objective of forest protection. Therefore, this kind of measure should not be applied. The following capacity buildings will be conducted.

- Holding workshops and on-the-job trainings to enhance knowledge and technique of agricultural activities, to introduce energy efficient lifestyle, to support livestock production increase and forestry activities for sustainable use for NTFPs.
- Holding a meeting to identify available resources and potential products in the market

(6) Awareness raising on conserving forest

There is a need to promote the understanding of REDD+ and the significance of forest conservation continuously. Forests can maintain the stable environment and water yield that is crucial for those who live off the agriculture production. Forests do not only bring the cash payment by PFES but various indirect benefits. The following capacity buildings will be conducted.

- Holding awareness-raising workshops for stakeholders involved in REDD+ implementation to promote an understanding of the importance on conserving forests and basic REDD+ scheme on a continuous basis in the long run.

Training theme, training subjects, training methods, training for relevance with PRAP, trainers, training targets (trainees), and training period in terms of solutions for capacity development in the province are described in the attached Annex 10.

VI. Monitoring and Evaluation of the Activities under the PRAP

The Department of Agriculture and Rural Development is a standing agency which assists the PSC in implementation of the PRAP, of which taking key role in coordinating with line departments and agencies at the province, district and commune levels to monitor and evaluate the process of implementation and the performance of the PRAP.

Contents of monitoring and evaluation are as follows.

- Process of preparing the REDD+ action plan at the commune level to ensure participation of all stakeholders including the villagers and ethnic minorities
- Process of implementing the policies, programs and projects to ensure these are implemented in accordance with their plans, decisions and regulations
- The outcomes of implementing the policies, programs and projects
- The implementation of land-use planning; reviewing, adjusting and completing the process of allocating land and forests, etc.
- Disbursement of funding and financial transactions relating to the implementation of PRAP

The scope of monitoring and evaluation: entire province

Mechanisms applicable for monitoring and evaluation: monitoring and evaluation shall be transparent, open and participatory, with the involvement of all concerned parties, including the administrative agencies in the provincial, district and commune levels, civil organizations, local people, etc.

PART 4. Funding for Implementing the PRAP

Funds for implementing the PRAP will be derived from the state budget available for the implementation of the FPDP, PFES, 30A Program and from other relevant programs and projects as well as the potential supports from bi-lateral and multi-lateral donors, non-governmental organizations and local organizations. The funding proposed for specific projects will be identified on the basis of specific agreements with donors and potential contribution of the state budget subject to the approval of competent authorities.

1. Implementation Costs

Total costs of the REDD+ implementation for the period from 2013 to 2020 are estimated as below.

(1) Forest protection, regeneration and afforestation under the FPDP

Costs for implementing forest protection, regeneration and afforestation under the PFES and FPDP are estimated as shown below.

Unit: million VND

<i>Items</i>	<i>Forest Protection</i>		<i>Regeneration</i>	<i>Afforestation</i>				<i>Management cost (8%)</i>
	PFES area	Non-PFES area		Protection Forest	Production Forest	Special Use Forest	Tending	
Cost	604,952	142,000	50,937	108,782	120,866	2,075	107,065	42,538
Sub-Total	746,952		50,937	338,788				42,538
Total	1,179,215							

Source: Forest Protection and Development Plan for Period 2012 – 2020

(2) Forestland Allocation

Total cost of the forestland allocation is estimated as below.

Unit cost (million VND/ha)	Total area (ha)	Total cost (million VND)
0.2	716,202	143,240

The unit cost⁶ is based on the cost norm provided in Plan 388/KH-UBND.

The total forestland area to be allocated is based on the Decision 714/QD-UBND. Area of MNNR (45,581 ha) is excluded as it was allocated before Plan 388/KH-UBND.

(3) Livelihood Support

Total cost of the livelihood support is estimated as below.

Unit cost (million VND/commune)	# communes	Total cost (million VND)
3,000	130	390,000

⁶ Unit costs for various activities are provided in Annex 11.

(4) Operation of the Forest Monitoring System

Cost of monitoring equipment is estimated as 1,551 million VND.

Cost of field work for monitoring is estimated as below.

Unit cost (million VND/commune/yr.)	# communes	# year	Total cost (million VND)
6.781	130	8	7,052

(5) Total costs

Total of cost items as described above is aggregated as below:

Cost items	Cost (million VND)
(1) Forest protection, regeneration and afforestation	1,179,215
(2) forestland allocation	143,240
(3) Livelihood support	390,000
(4) Forest monitoring	8,603
Total	1,721,058

2. Analysis of Costs and Financial Sources

The budget acquired for 2013 is shown in the table below in comparison with the cost expected according to the plan (FPDP).

Cost		Budget for 2013 (VND million)		Budget - Cost (VND million)
Items	Amount	Sources	Amount	
Forest protection	104,019 (75,619 for PFES)	FPDP	3,400	(19,020)
		PFES	75,619	
		30A	5,980	
		Sub-total	84,999	
Regeneration	3,770	FPDP	2,800	(970)
Afforestation	34,115	FPDP	10,689	(23,426)
Management cost	5,303	FPDP	511	(4,792)
Total	147,207		98,999	(48,208)

For forest protection, the estimated cost will be covered largely by Provincial FPDP, but a minor part of non-PFES forested area will have to be covered by FPDP and 30A program and the shortage of budget for this cost is VND 19,020 million. In addition, budget for regeneration and afforestation cannot cover all of the costs. Shortage of the budget for these costs is 970 million and 23,426 VND respectively. On the afforestation, especially, only about 31% of the cost can be covered by the budget identified. Since Provincial FPDP is only applicable to the forested areas, payment from this cannot be used for regeneration or afforestation, although total budget is far exceeding the total cost.. It is necessary to identify the external

funding sources for regeneration and afforestation activities.

The table given below shows the comparison between the cost and budget for the entire period on this plan (up to 2020). A result of the analysis is described below.

- Cost for forest protection is likely to be covered by the available state budget and FPDP combined.
- Cost for regeneration and afforestation cannot be covered by the budget presently identified and therefore, extra sources need to be identified.
- Cost for forestland allocation cannot be covered by the budget presently identified and therefore, extra sources need to be identified.
- Budget sources for livelihood support identified include 30A Program, NMRRP2, and NRDP. It is known that, not all of these sources cover the entire province, while 30A Program and NMRRP2 only cover Dien Bien Dong, Muong Ang, Muong Cha, Muong Nhe, Nam Po and Tua Chua District and NRDP will cover all communes. Needs for livelihood development are very large, so other budget sources for livelihood support need to be identified.
- Budget sources for monitoring need to be identified.

Comparison between the cost and budget (unit: million VND)

Cost		Budget				Balance
Items	Amount	Sources	Total Amount	2013	2014 - 2020	
Forest protection	746,952 (604,952 for PFES)	FPDP	27,200	3,400	23,800	(84,900)
		PFES	604,952	75,619	529,333	
		30A	29,900	5,980	23,920	
		Sub-total	662,052	84,999	577,053	
Regeneration	50,937	FPDP	22,400	2,800	19,600	(28,537)
Afforestation	338,788	FPDP	85,512	10,689	74,823	(253,276)
Management cost	42,538	FPDP	4,088	511	3,577	(38,450)
Forestland allocation	143,240	2541/UB ND	50,000	50,000	0	(93,240)
Livelihood support	390,000	30A	190,945	38,189	152,756	78,858
		NMRRP2	219,393	117,008	102,385	
		NRDP	58,520	7,315	51,205	
		Sub -total	468,858	162,512	306,346	
Monitoring	8,603		0	0		(8,603)
Total	1,721,058		1,292,910			(428,148)

PART 5. Arrangement for Implementing the PRAP

1. Strengthen the organization system

New functions and duties on REDD+ to be added to the Provincial Steering Committee on FPDP (DSC) for implementation of REDD+ activities at provincial level. The PSC is functioned as an agency to coordinate the implementation of PRAP, assisting to PPC in leading provincial departments and sectors to carry out their REDD+ duties; To promulgate the PRAP-related policies and guidance. Members are leader of PPC, leaders of relevant provincial departments, such as DARD, DONRE, Department of Planning and Investment, Department of Finance and Department of Science and Technology.

The Department of Agriculture and Rural Development is a focal point and assistant to the PSC on the activities which relate to forest protection and development in general and for implementation of PRAP.

Establishment of working group: Experts from each provincial department and district in the province take part in the working group will be official recognized to participate in the implementation of REDD+ activities at provincial and district levels.

Staffs to be in charge of REDD+ will be assigned in the DARD.

Completion of the regulations on tasks and duties, decentralization of management, coordination mechanism, monitoring and evaluation of the implementation of REDD+, including the activities: planning and reporting, information managing, monitoring and evaluating, financial managing, ...

2. Responsibilities of the relevant organizations

2.1. Department of Agriculture and Rural Development (DARD)

The Department of Agriculture and Rural Development is a standing agency and the focal point for implementation of PRAP. The main duties are:

- To lead arranging policies for management and administration mechanisms, and formulate guidelines for implementation of the PRAP; submit draft of the policies and guidelines to the PPC for approval of the promulgation, or promulgate the policies and guidelines based on its authorities and duties;
- To develop annual implementation plans and implement the PRAP according to them;
- To lead and collaborate with DONRE to review and modify FRELs/FRLs if necessary;
- To lead developing and operating the provincial forest monitoring system (PFMS);
- To assist the PPC to establish provincial REDD+ Fund as a trust fund under the Forest Protection and Development Fund (FPDF); issue organizational and operational regulations of the REDD+ Fund in compliance with Vietnam's laws;
- Annually, to collaborate with relevant departments to review and aggregate budget needs in order to integrate them with implementation of the PRAP;
- To annually review implementation of the PRAP and report its progress to the PPC; propose the solutions for issues which are beyond its authority.

The following Sub-departments under DARD will be the assistants to support DARD to carry out its duties: Sub-DoF, Sub-FPD and Forest Protection and Development Fund (FPDF)

2.1.1 Sub Department of Forest Protection (Sub-FPD)

Annually monitor the change of forest status (area and type) through district FPD and report to DARD.

2.2.2 Sub Department of Forestry (Sub-DOF)

To collaborate with Sub-FPD, SUFMBs and PFMBs The responsibilities of the Sub-DOF for technical and planning support of REDD+ activities (forest protection, afforestation and regeneration).

2.2.3 Provincial Forest Protection Development Fund

FPDF Office manages provincial REDD+ fund established as a trust fund of FPDF.

2.2 Department of Natural Resources and Environment

- To cooperate with DARD to review implementation of the PRAP and report its progress to the PPC;
- To lead land-use planning and management including forestland and integrate REDD+ into land-use planning;
- To lead and collaborate with DARD to review and complete the forestland allocation;
- To collaborate with DARD to review and modify FRELs/FRLs if necessary.

2.3 Department of Planning and Investment

To balance reciprocal fund for policies, programs and projects associated with the PRAP and to collaborate with DARD and Department of Finance to develop mechanism and policies on management and implementation of the PRAP.

2.4 Department of Finance

To collaborate with DARD in developing mechanisms and policies related to financial management of the PRAP, to lead and collaborate with DARD in developing guidelines for management and use of financial resources of Provincial REDD+ Fund at all levels, and to monitor the relevant parties to ensure that they comply with the guidelines for financial management of the REDD+ Fund.

2.5 Department of Science and Technology

To coordinate the programs and plans on scientific researches, which related to the implementation of REDD+.

2.6 Department of Information and Communications

To guide and direct media agencies to disseminate the work on forest protection and development and implementation of the PRAP and to raise awareness and sense of responsibility of agencies, organizations and people for the implementation.

2.7 Provincial Committee of Ethnic Minority Affairs

To conduct dissemination, propagation, awareness and capability raising, mobilizing the ethnic minority people to participate actively in REDD+ activities.

2.8 The People's Committee of the districts, towns and cities

- To develop and to implement the REDD+ action plans within its territory;
- To implement relevant activities which were approved in the PRAP;
- To secure that the budget disbursed in the PRAP was utilized effectively on the right purposes;
- Actively mobilizing additional resources and integrating related activities of the other existing policies, programs and projects in order to achieve to goals of the PRAP;
- To secure that the principles on monitoring and evaluation specified in the PRAP are followed;
- Regularly report on progress of the implementation of the objectives and tasks of the PRAP on the assigned area in accordance with current regulation.

2.9 Political-social-professional organizations, non-governmental organizations and enterprises

Depending on their functions and duties, to actively participate in activities related to the PRAP, especially in the field of information, education and communication; support and mobilize the participation of the communities and disseminate experiences on REDD+ implementation; perform inspection and monitoring the implementation of the PRAP.

Annex 1. Interim Forest Reference Levels (FRLs) and Forest Reference Emission Levels (FRELs) for Dien Bien Province

1. Objectives of FRELs/FRLs development

Objectives of FRELs/FRLs development is to set a goal of GHG emission and reduction of the province for PRAP as well as to evaluate results of REDD+ activities by constructing base line of GHG emission and reduction :

2. Definition of FRELs and FRLs under NRAP

Under NRAP, definition of FRELs and FRLs are described as follows.

FRELs: gross emissions at a reference time period that can be set as a benchmark, based on which emission reduction by only the REDD activities will be measured.

RLs: net emissions (or net increase of sequestration) at a reference time period that can be set as a benchmark, based on which net emission reduction (or net increase of sequestration) by the REDD and plus activities (carbon sequestration or enhancement) will be measured.

3. Method of setting interim forest reference levels (FRLs)

FRLs are set on the basis of the forest distribution maps of 5 points in time (1990, 1995, 2000, 2005 and 2010) and the data of the national forest inventory (NFI) for 4 cycles (cycle 1: 1990 – 1995, cycle 2: 1995 – 2000, cycle 3: 2000 – 2005, cycle 4: 2005 – 2010). The forest distribution maps are used to calculate the

activity data (area of each land cover type) and the data of the NFI are used to calculate the emission factors (carbon stock per hectare for each land cover type). The effect of Program 661 is subtracted from the actual land cover conditions as the early actions.

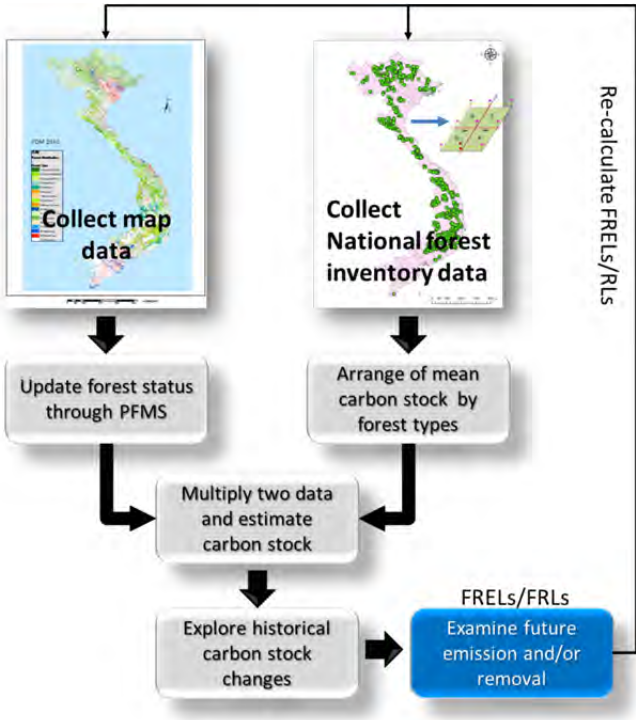


Figure Process flow of FRELs/FRLs construction

4. FRELs in Dien Bien

FRELs is dealing with gross emission. For example, Dien Bien province has increased its gross emission from 1990 to 2005, but drastically decreased next 5 years from 2005 to 2009. The average data from 1990 to 2009 was used to project the amount of emission of the province in the future. The result of the calculation was 1.35million CO₂t/year

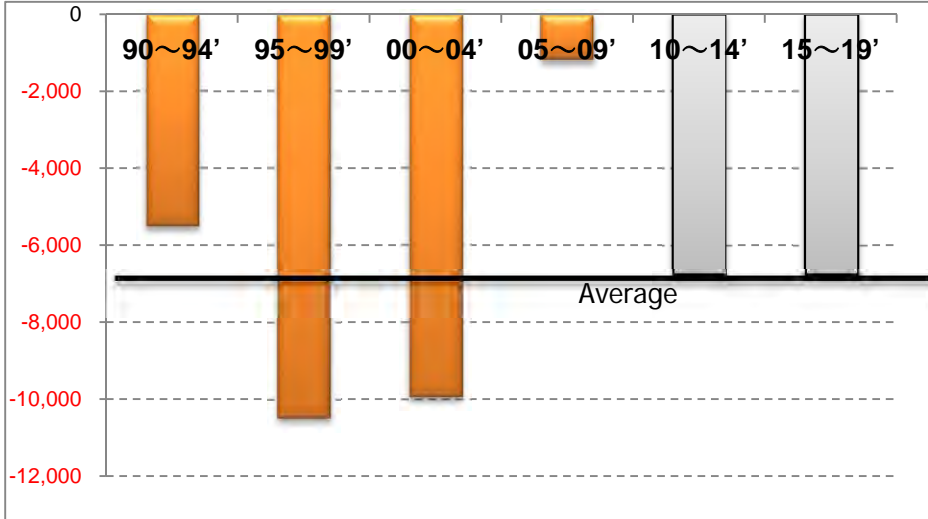


Figure FRELs based on historical trends and extrapolate by average model

5. FRLs in Dien Bien

FRLs illustrate net emission (or net increase by sequestration). There was large net emission in Dien Bien Province between 1995 and 1999, but it has turned into net sequestration since 2000.

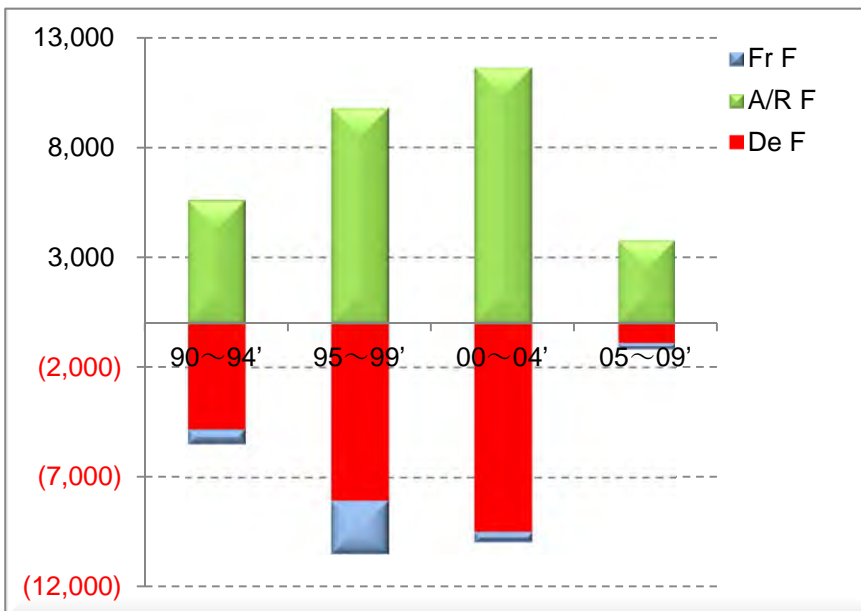


Figure Historical trends of emission and sequestration

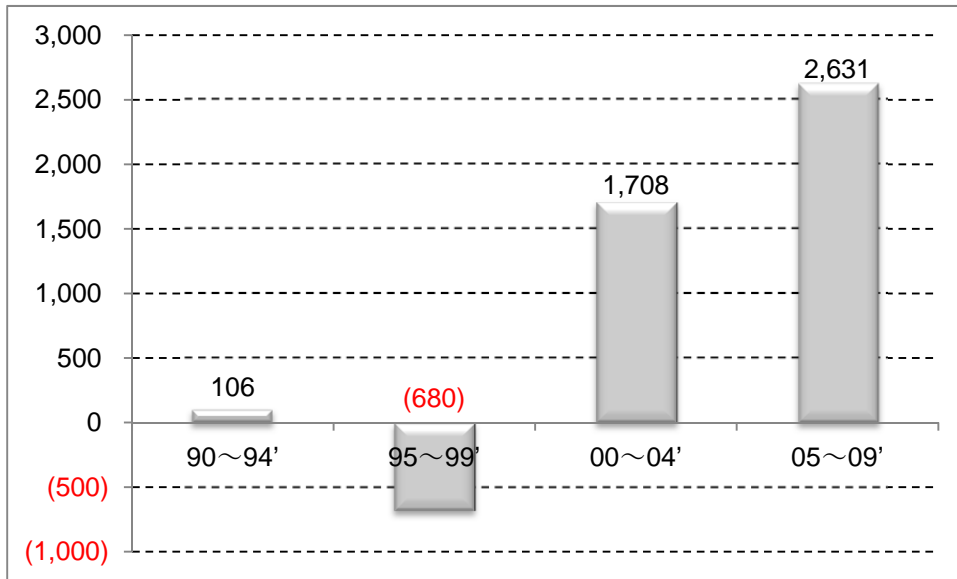


Figure Historical trends of net emissions (or net increase of sequestration)

6. Consideration of National Circumstance

Under UNFCCC discussion, in the process of FRELs/FRLs construction, each Party could apply taking into consideration of national circumstances⁷.

In case of Dien Bien province, reforestation and afforestation program from 1990 could apply as an early action of circumstances. Program 661 made big contribution for carbon stock trends in 2005 to 2009

Table Effort of Program 661

Categories	Effort of 661 Program (ha)		
	2000	2005	2010
Bare land with scatter tree	629	3,991	22,324
Bare land with shrub	343	203	568
Mixed timber and bamboo forest	-	-	476
Natural medium forest 100 - 200 m ³ /ha	1	-	3,126
Natural poor forest < 100m ³ /ha	-	-	31
Natural rich forest > 300m ³ /ha	-	-	-
Plantation	163	179	299
Regrowth forest < 10m ³ /ha	-	77	7,376
Regrowth forest > 10m ³ /ha	88	15	9,988
Total	1,225	4,464	44,189

(Data source, Program 661)

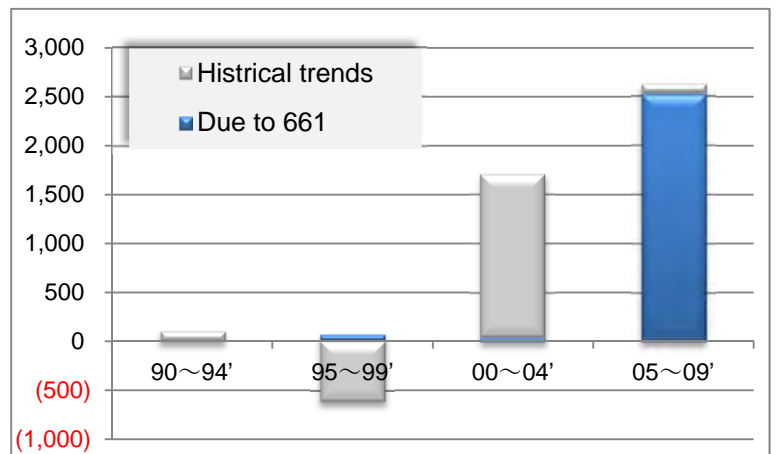


Figure Contribution of Program 661 in carbon stock trends

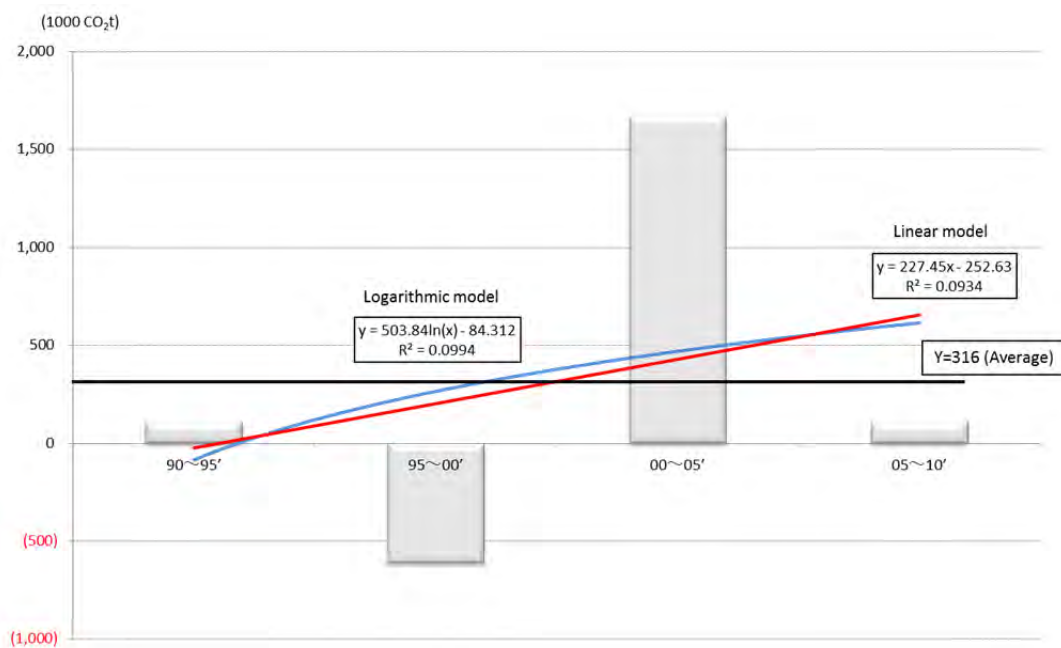
⁷ Decision 1/CP16. Paragraph 71.

7. Application of extrapolation model

Three potential FRLs have been set:

- Extrapolating the historical data by linear regression model;
- Extrapolating the historical data by logarithmic regression model;
- Extrapolating the historical data on the averaged value. The analysis shows very low correlation for both linear and logarithmic models. Therefore, the averaging the historical data is considered most reasonable

Judging from correlation coefficient, average model for extrapolation is appropriate model to apply in terms of conservative assumption. In summary, this historical data is averaged and extrapolated to estimate the amount of net emission/sequestration in the future. The result is net sequestration of 63,000 CO₂t/year



Annex 2. Calculation of the Expected Amount of Net Carbon Sequestration

Area of forest protection, regeneration and afforestation planned for each district under FPDP is provided in the table below.

In addition to the provincial FPDP for the period 2009 -2020, more detailed district FPDP for the period 2012 - 2020 has been approved by the Dien Bien Provincial People's Committee. The FPDP for each district clarifies the plan of each activity by communes and by years. On the basis of the district FPDP, with consideration of the time of implementation, the goal in terms of the carbon stock is net increase of 376,650 CO₂ ton per year.

Unit: ha

		2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Protection	Dien Bien	0	5,483	5,100	5,200	5,100	1,000	2,200	3,700	2,700	30,483
	Dien Bien Dong	0	6,000	6,000	6,500	5,791	600	2,000	2,600	2,600	32,091
	Dien Bien Phu	0	595	600	618	369	60	170	70	70	2,552
	Muong Ang	347	11,247	77	27	0	258	227	220	117	12,520
	Muong Cha	42,573	68	49	0	87	220	1,340	1,290	1,080	46,707
	Muong Lay	4,441	0	0	0	0	100	100	100	200	4,941
	Muong Nhe	82,288	0	0	0	0	80	350	190	210	83,118
	Tua Chua	27,076	0	0	21	0	60	60	60	120	27,397
	Tuan Giao	28,488	3,942	4,078	141	71	210	1,245	210	250	38,635
	Total	185,213	27,335	15,904	12,507	11,418	2,588	7,692	8,440	7,347	278,444
Regeneration	Dien Bien	0	1,000	1,500	1,500	1,000	1,000	1,000	600	400	8,000
	Dien Bien Dong	0	1,200	1,800	1,800	1,800	1,200	1,000	900	600	10,300
	Dien Bien Phu	0	100	0	0	0	0	0	0	0	100
	Muong Ang	0	5,078	0	0	0	0	0	0	0	5,078
	Muong Cha	0	1,400	1,400	1,000	4,131	1,442	0	0	0	9,373
	Muong Lay	0	690	0	0	0	0	0	0	0	690
	Muong Nhe	0	7,097	0	0	0	0	0	0	0	7,097
	Tua Chua	0	750	728	600	633	567	509	462	263	4,512

	Tuan Giao	0	1,025	1,069	2,026	4,200	0	0	0	0	8,320
	Total	0	18,340	6,497	6,926	11,764	4,209	2,509	1,962	1,263	53,470
Afforestation	Dien Bien	70	1,000	1,000	1,000	1,000	800	600	300	300	6,070
	Dien Bien Dong	0	600	800	800	800	700	700	500	300	5,200
	Dien Bien Phu	0	60	70	70	70	60	50	40	30	450
	Muong Ang	0	650	627	657	497	380	250	50	50	3,161
	Muong Cha	87	420	260	290	420	360	330	400	390	2,957
	Muong Lay	0	100	100	150	150	100	0	0	0	600
	Muong Nhe	0	410	790	725	540	305	120	80	30	3,000
	Tua Chua	0	120	180	180	240	240	290	300	300	1,850
	Tuan Giao	71	517	685	975	550	690	435	380	530	4,833
	Total	228	3,877	4,512	4,847	4,267	3,635	2,775	2,050	1,930	28,121

Source: Forest Protection and Development Plan for Period 2012 – 2020

Successful implementation of the forest protection under FPDP makes no change of land cover types (from forests to forests).

Successful implementation of the regeneration under FPDP changes bare lands to the regrowth forest after 5 years.

Successful implementation of the afforestation under FPDP changes bare lands to the plantation forest after 4 years.

Assuming that all of the planned activities will be implemented successfully, the amount of carbon stock to be gained is described in the table below.

Emission factors of the regrowth forest and the plantation forest for the 4th cycle of the NFI are 93 CO₂/ha and 102 CO₂/ha respectively.

Emission factor of the forests are calculated by the weighted average of the emission factor of each forest class and its area in 2010; it is estimated to be 116 CO₂/ha.

Emission factor of the bare land is 0 CO₂/ha.

Unit: CO₂t

	EF*	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Protection	Dien Bien	116									0
	Dien Bien Dong	116									0
	Dien Bien Phu	116									0
	Muong Ang	116									0

	Muong Cha	116											0
	Muong Lay	116											0
	Muong Nhe	116											0
	Tua Chua	116											0
	Tuan Giao	116											0
	Total												0
Regeneration	Dien Bien	93					0	93,000	139,500	139,500	139,500	372,000	
	Dien Bien Dong	93					0	111,600	167,400	167,400	167,400	446,400	
	Dien Bien Phu	93					0	9,300	0	0	0	9,300	
	Muong Ang	93					0	472,254	0	0	0	472,254	
	Muong Cha	93					0	130,200	130,200	93,000	93,000	353,400	
	Muong Lay	93					0	64,170	0	0	0	64,170	
	Muong Nhe	93					0	660,021	0	0	0	660,021	
	Tua Chua	93					0	69,750	67,704	55,800	55,800	193,254	
	Tuan Giao	93					0	95,325	99,417	188,418	188,418	383,160	
	Total							0	1,705,620	604,221	644,118	2,953,959	
Afforestation	Dien Bien	102				7,140	102,000	102,000	102,000	102,000	102,000	415,140	
	Dien Bien Dong	102				0	61,200	81,600	81,600	81,600	81,600	306,000	
	Dien Bien Phu	102				0	6,120	7,140	7,140	7,140	7,140	27,540	
	Muong Ang	102				0	66,300	63,954	67,014	50,694	50,694	247,962	
	Muong Cha	102				8,874	42,840	26,520	29,580	42,840	42,840	150,654	
	Muong Lay	102				0	10,200	10,200	15,300	15,300	15,300	51,000	
	Muong Nhe	102				0	41,820	80,580	73,950	55,080	55,080	251,430	
	Tua Chua	102				0	12,240	18,360	18,360	24,480	24,480	73,440	
	Tuan Giao	102				7,242	52,734	69,870	99,450	56,100	56,100	285,396	
	Total						23,256	395,454	460,224	494,394	435,234	1,808,562	
Grand Total													4,762,521

*EF: emission factors

The forested area of Dien Bien Province in 2010 is 339,825 ha according to the analysis made by the Dien Bien REDD+ Pilot Project by JICA. On the other hand, area of the forests protected under the FPDP is 278,444 ha. Area of the forests that are not protected under the FPDP is 61,381 ha. It is estimated that the forests not protected under the FPDP will be deforested with the rate of deforestation for the period between 2000 and 2010, which is 36 %. As a result, assuming 22,097 ha of the forests will be deforested, the amount of emission would be 2,563,271 CO₂t. Subtracting the gross sequestration by the emission, net sequestration would be:
 $4,762,521 - 2,563,271 = 2,199,250 \text{ CO}_2\text{t}$.

FRLs is 316,000 CO₂t during the period between 2016 and 2020, the amount of carbon increase against the FRLs for the five years would be:

$$2,199,250 - 316,000 = 1,883,250 \text{ CO}_2\text{t}$$

This in turn is 376,650 CO₂t/year.

Annex 3 Prioritized communes for the REDD+ implementation

Result of the analysis to select the prioritized communes on each criterion is described below.

(1) Large forested area (10,000 ha or larger) remaining in 2010

A commune with remarkably large area of the forests is considered potential for REDD+ regardless of whether the forest has been increasing or decreasing. For this criterion, the forested area of 10,000 ha or larger is set as the indicator to identify the large forested area. As shown in the table below, six communes meet this criterion and hence selected as the prioritized communes.

Commune	District	Forested area in 2010 (ha)
Muong Loi	Dien Bien	15,247
Muong Nha	Dien Bien	13,274
Sen Thuong	Muong Nhe	11,895
Chung Chai	Muong Nhe	11,530
Muong Mun	Tuan Giao	11,029
Leng Su Sin	Muong Nhe	10,986

Source: JICA Dien Bien REDD+ Pilot Project

(2) Large forested area remaining (5,000 ha or larger) in 2010 and net decrease of the forested area between 2000 and 2010

Forested area was net-increasing in most communes between 2000 and 2010 largely due to Program 661 and other efforts to protect and develop forests. Under this circumstance, attention should be paid to the communes where the forested area has been net-decreasing. It can be suspected that the efforts of forest protection and development did not go well in these communes. In order to address the deforestation and forest degradation, these communes should be carefully looked at and hence prioritized for REDD+.

On the other hand, communes with little forest to protect are not suitable for being prioritized on forest protection. Consequently, the communes should have somewhat large amount of the remaining forests. Therefore, among the communes with forested area of 5,000 or larger, those where the forests are net decreasing are considered to be prioritized under this criterion. Eight communes listed in the table below are selected as the prioritized commune on this criterion.

Commune	District	Forested area (ha)		Change of the forested area (ha)
		2010	2000	
Chung Chai	Muong Nhe	11,530	14,790	-3,261
Muong Tung	Muong Cha	6,988	9,363	-2,375
Muong Toong	Muong Nhe	6,825	8,977	-2,152
Nam Ke	Muong Nhe	7,792	9,813	-2,021
Muong Nhe	Muong Nhe	8,802	10,482	-1,680
Leng Su Sin	Muong Nhe	10,986	11,604	-618
Cha Cang	Nam Po	6,870	7,478	-608

Muong Muon	Muong Cha	5,890	6,392	-503
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Source: JICA Dien Bien REDD+ Pilot Project

(3) Large forested area remaining (5,000 ha or larger) in 2010 in the area to be covered under PFES

PFES is a useful tool for protecting forests as described in the next section (Solution 5) and therefore, the communes to be covered under PFES should be prioritized for REDD+. Moreover, the PFES will be applied to areas with the forest cover. Therefore, the communes to be prioritized on PFES should have large amount of the remaining forests. For this criterion, among the communes lying in the watershed areas covered by PFES, those with the forested area of 5,000 ha or larger are considered as the prioritized communes. 15 communes listed in the following table are selected as the communes to be prioritized.

Commune	District	Forested area (ha)	Commune	District	Forested area (ha)
Sen Thuong	Muong Nhe	11,895	Nam Ke	Muong Nhe	7,792
Chung Chai	Muong Nhe	11,530	Muong Tung	Muong Cha	6,988
Muong Mun	Tuan Giao	11,029	Cha Cang	Nam Po	6,870
Leng Su Sin	Muong Nhe	10,986	Muong Toong	Muong Nhe	6,825
Hua Ngai	Muong Cha	9,698	Muong Muon	Muong Cha	5,890
Sin Thau	Muong Nhe	9,464	Muong Pon	Dien Bien	5,715
Pa Tan	Nam Po	8,989	Nam Khan	Nam Po	5,199
Muong Nhe	Muong Nhe	8,802			

Source: JICA Dien Bien REDD+ Pilot Project

(4) Large area (1,000 ha or larger) planned for regeneration under FPDP (2012 – 2020)

Regeneration to be implemented under the FPDP supports enhancement of the forest carbon stock. In this association, communes where large area of the regeneration is planned under the FPDP have more potential to sequester large amount of the carbon. For this criterion, the planned area of 1,000 ha or larger is set as the indicator to select the prioritized communes. The regeneration activity takes 5 years to complete for any given area. For calculating the total planned area, areas planned for the 1st year are counted. As a result, 7 communes meet the criterion and hence selected as the prioritized communes.

Commune	District	Area planned for regeneration (ha)		
		2012 - 2015	2016 - 2020	Total
Muong Tung	Muong Cha	400	3,088	3,488
Muong Loi	Dien Bien	500	1,660	2,160
Muong Nha	Dien Bien	400	1,540	1,940
Hua Ngai	Muong Cha	1,400	448	1,848
Sen Thuong	Muong Nhe	1,796	0	1,796
Muong Toong	Muong Nhe	1,334	0	1,334
Muong Dang	Muong Ang	1,000	0	1,000

Source: Forest Protection and Development Plan for Dien Bien Province 2012 – 2020

(5) Large area planned for afforestation under the FPDP (2012 – 2020)

Afforestation to be implemented under the FPDP supports enhancement of the forest carbon stock. In this association, communes where large area of afforestation is planned under the FPDP have more potential to sequester large amount of the carbon. For this criterion, the planned area of 500 ha or larger is set as the indicator to select the prioritized communes. The afforestation activity takes 4 years to complete for any given area: planting in the 1st year; tending in the 2nd through 4th years. For calculating the total planned area, areas planned for the 1st year are counted. As a result, 14 communes meet the criterion and hence selected as the prioritized communes.

Commune	District	Area planned for afforestation (ha)		
		2012 - 2015	2016 - 2020	Total
Muong Loi	Dien Bien	1,000	1,040	2,040
Muong Nha	Dien Bien	965	945	1,910
Toa Tinh	Tuan Giao	482	320	802
Nam Ke	Muong Nhe	730	20	750
Keo Lom	Dien Bien Dong	280	420	700
Bung Lao	Muong Ang	370	250	620
Pa My	Muong Nhe	220	330	550
Xa Nhe	Tua Chua	126	402	528
Muong Dang	Muong Ang	320	187	507
Luan Gioi	Dien Bien Dong	220	280	500
Muong Luan	Dien Bien Dong	220	280	500
Chieng So	Dien Bien Dong	220	280	500
Phi Nhu	Dien Bien Dong	220	280	500
Pu Nhi	Dien Bien Dong	210	290	500

Source: Forest Protection and Development Plan for Dien Bien Province 2012 – 2020

(6) Potential for external funding source for REDD+ implementation

Since there is no specific fund for REDD+ confirmed yet as of October 2013, the existing policies, programs and projects with their budget are tools to be applied to forest protection and development activities. However, the budget may not be enough to implement the policies, programs and projects as they are planned. and external funds may be needed. There is a plan of private investment on forest protection and development in Muong Phang Commune and therefore, Muong Phang Commune is selected as the prioritized commune.

Furthermore, the special use forest has been newly established in Muong Phang Commune. Setting up the special use forest newly in the area where the local people practice agricultural activities may require the local people to give up their cultivation land and lead them to convert the forests in other areas into their cultivation land.. In order to protect and develop the forests in association with establishment of the special use forest, a model to protect and develop the forests involving the local people should be developed. The model established for the special use forest in Muong Phang Commune can be applied to the other sites where the special use forest will be established.

1. Result of the analysis of the whole communes on the six criteria to select the prioritized communes

Unit: ha

Commune	District	Crit. 1 Forest in 2010	Crit. 2 difference 2000/2010	Crit. 3 PFES	Crit. 4 Regeneration under FPDP	Crit. 5 Afforestation under FPDP	Crit. 6 Private investment
Muong Loi	Dien Bien	15,247	10,751		2,160	2,040	
Muong Nha	Dien Bien	13,274	7,643		1,940	1,910	
Na U	Dien Bien	5,772	2,593		560	230	
Nua Ngam	Dien Bien	4,710	1,891		620	210	
Sam Mun	Dien Bien	2,421	1,628		520	100	
Nong Het	Dien Bien	45	16		80	50	
Noong Luong	Dien Bien	742	490		80	50	
Thanh An	Dien Bien	195	148		130	100	
Thanh Yen	Dien Bien	522	342		70	50	
Pa Thom	Dien Bien	3,864	2,234		110	50	
Thanh Xuong	Dien Bien	255	191		130	50	
Thanh Chan	Dien Bien	964	666		0	30	
Thanh Hung	Dien Bien	802	561		100	30	
Thanh Luong	Dien Bien	920	315		360	150	
Muong Phang	Dien Bien	3,060	1,667	3,060	590	150	Yes
Thanh Nua	Dien Bien	3,663	2,834	3,663	410	200	
Na Nhan	Dien Bien	2,374	1,348	2,374	920	250	
Na Tau	Dien Bien	3,671	65	3,671	100	100	
Muong Pon	Dien Bien	5,715	3,253	5,715	620	320	
Pu Hong	Dien Bien Dong	3,876	1,872		537	300	
Tia Dinh	Dien Bien Dong	4,071	2,714		530	200	
Phinh Giang	Dien Bien Dong	2,616	1,162		587	400	
Hang Lia	Dien Bien Dong	2,242	733		567	200	
Luan Gioi	Dien Bien Dong	1,743	1,060		537	500	
Keo Lom	Dien Bien Dong	3,037	2,242		617	700	
Muong Luan	Dien Bien Dong	1,481	258		567	500	
Dien Bien Dong	Dien Bien Dong	528	181		525	100	
Chieng So	Dien Bien Dong	952	515		537	500	
Phi Nhu	Dien Bien Dong	2,486	504		587	500	
Noong U	Dien Bien Dong	1,902	788		537	200	
Xa Dung	Dien Bien Dong	2,066	1,360		525	200	
Na Son	Dien Bien Dong	944	851		617	400	
Pu Nhi	Dien Bien Dong	3,112	1,537	3,112	530	500	
Nam Thanh	Dien Bien Phu	64	61		0	20	
Muong Thanh	Dien Bien Phu	30	20		0	0	
Noong Bua	Dien Bien Phu	78	29		20	55	
Tan Thanh	Dien Bien Phu	56	21		0	10	
Ta Leng	Dien Bien Phu	582	436		30	120	
Thanh Binh	Dien Bien Phu	0	0		0	0	

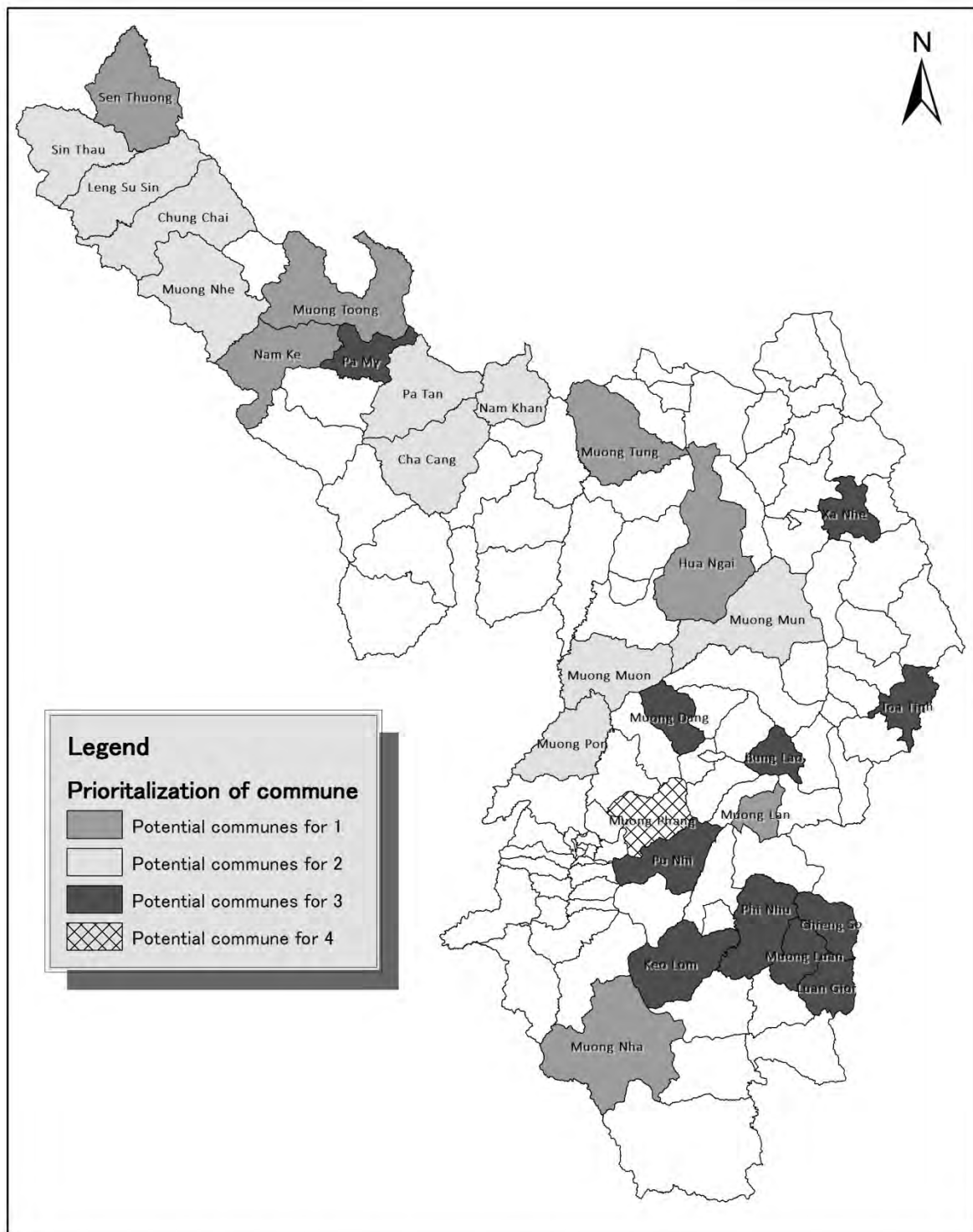
Him Lam 2	Dien Bien Phu	12	-23		0	0
Him Lam	Dien Bien Phu	126	-3		0	30
Thanh Truong	Dien Bien Phu	16	10		0	5
Thanh Minh	Dien Bien Phu	1,038	706		50	180
Muong Lan	Muong Ang	970	447		281	260
Xuan Lao	Muong Ang	1,315	941		700	440
Nam Lich	Muong Ang	650	404		400	270
Ang Cang	Muong Ang	1,299	960		602	477
Muong Ang	Muong Ang	84	84		0	30
Ang Nua	Muong Ang	277	277		234	67
Bung Lao	Muong Ang	1,008	481		400	620
Ang To	Muong Ang	934	659		622	380
Ngoi Cay	Muong Ang	1,179	993		839	110
Muong Dang	Muong Ang	2,389	615		1,000	507
Muong Muon	Muong Cha	5,890	-503	5,890	330	370
Muong Cha	Muong Cha	874	541	874	302	40
Na Sang	Muong Cha	3,625	49	3,625	230	340
Sa Long	Muong Cha	3,346	257	3,346	836	180
Ma Thi Ho	Muong Cha	2,873	1,372	2,873	821	462
Pa Ham	Muong Cha	2,174	-66	2,174	329	380
Huoi Leng	Muong Cha	2,545	1,027	2,545	517	313
Hua Ngai	Muong Cha	9,698	2,586	9,698	1,848	400
Muong Tung	Muong Cha	6,988	-2,375	6,988	3,488	402
Xa Tong	Muong Cha	3,248	1,513	3,248	672	420
Na Lay	Muong Lay	1,325	284	1,325	75	100
Lay Nua	Muong Lay	2,601	518	2,601	540	300
Song Da	Muong Lay	1,485	1,162	1,485	75	200
Quang Lam	Muong Nhe	4,279	1,275	4,279	473	180
Pa My	Muong Nhe	2,378	470	2,378	182	550
Nam Ke	Muong Nhe	7,792	-2,021	7,792	466	750
Muong Toong	Muong Nhe	6,825	-2,152	6,825	1,334	270
Muong Nhe	Muong Nhe	8,802	-1,680	8,802	567	220
Nam Vi	Muong Nhe	1,753	-1,906	1,753	33	110
Chung Chai	Muong Nhe	11,530	-3,261	11,530	797	210
Leng Su Sin	Muong Nhe	10,986	-618	10,986	847	120
Sin Thau	Muong Nhe	9,464	483	9,464	602	340
Sen Thuong	Muong Nhe	11,895	2,187	11,895	1,796	220
Si Pa Phin	Nam Po	364	-235	364	0	0
Phin Ho	Nam Po	1,210	-68	1,210	0	0
Cha Nua	Nam Po	3,976	-672	3,976	0	0
Cha To	Nam Po	3,203	1,228	3,203	0	0
Nam Khan	Nam Po	5,199	3,129	5,199	0	0
Na Bung	Nam Po	3,850	74	3,850	0	0
Na Hy	Nam Po	4,113	-44	4,113	0	0

Na Khoa	Nam Po	3,145	559	3,145	0	0
Cha Cang	Nam Po	6,870	-608	6,870	0	0
Na Co Sa	Nam Po	4,148	1,993	4,148	0	0
Pa Tan	Nam Po	8,989	814	8,989	0	0
Tua Chua	Tua Chua	29	-23	29	0	0
Muong Bang	Tua Chua	1,216	615	1,216	326	407
Xa Nhe	Tua Chua	1,133	683	1,133	351	528
Muong Dun	Tua Chua	1,599	781	1,599	282	273
Sinh Phinh	Tua Chua	2,056	716	2,056	251	0
Trung Thu	Tua Chua	1,861	332	1,861	251	0
Tua Thang	Tua Chua	3,537	856	3,537	408	463
Ta Phinh	Tua Chua	1,434	254	1,434	299	0
Lao Xa Phinh	Tua Chua	1,786	40	1,786	278	0
Ta Sin Thang	Tua Chua	1,167	191	1,167	142	0
Sin Chai	Tua Chua	3,983	-242	3,983	433	0
Huoi So	Tua Chua	1,224	140	1,224	270	179
Tenh Phong	Tuan Giao	2,155	575	2,155	0	230
Chieng Sinh	Tuan Giao	1,278	-37	1,278	90	311
Quai To	Tuan Giao	1,468	897	1,468	190	489
Tuan Giao	Tuan Giao	582	88	582	30	106
Quai Cang	Tuan Giao	714	77	714	80	283
Toa Tinh	Tuan Giao	2,304	1,559	2,304	106	802
Na Say	Tuan Giao	4,565	1,156	4,565	40	250
Muong Thin	Tuan Giao	1,247	818	1,247	98	138
Qoai Nua	Tuan Giao	714	147	714	90	364
Pu Nhung	Tuan Giao	2,083	558	2,083	70	260
Ta Ma	Tuan Giao	4,839	1,450	4,839	99	190
Muong Mun	Tuan Giao	11,029	60	11,029	49	449
Mun Chung	Tuan Giao	2,131	521	2,131	70	493
Phinh Sang	Tuan Giao	4,331	610	4,331	50	380

Result of the analysis on the prioritized communes is illustrated in the map attached to the next page. Prioritized communes are categorized in the following 4 groups.

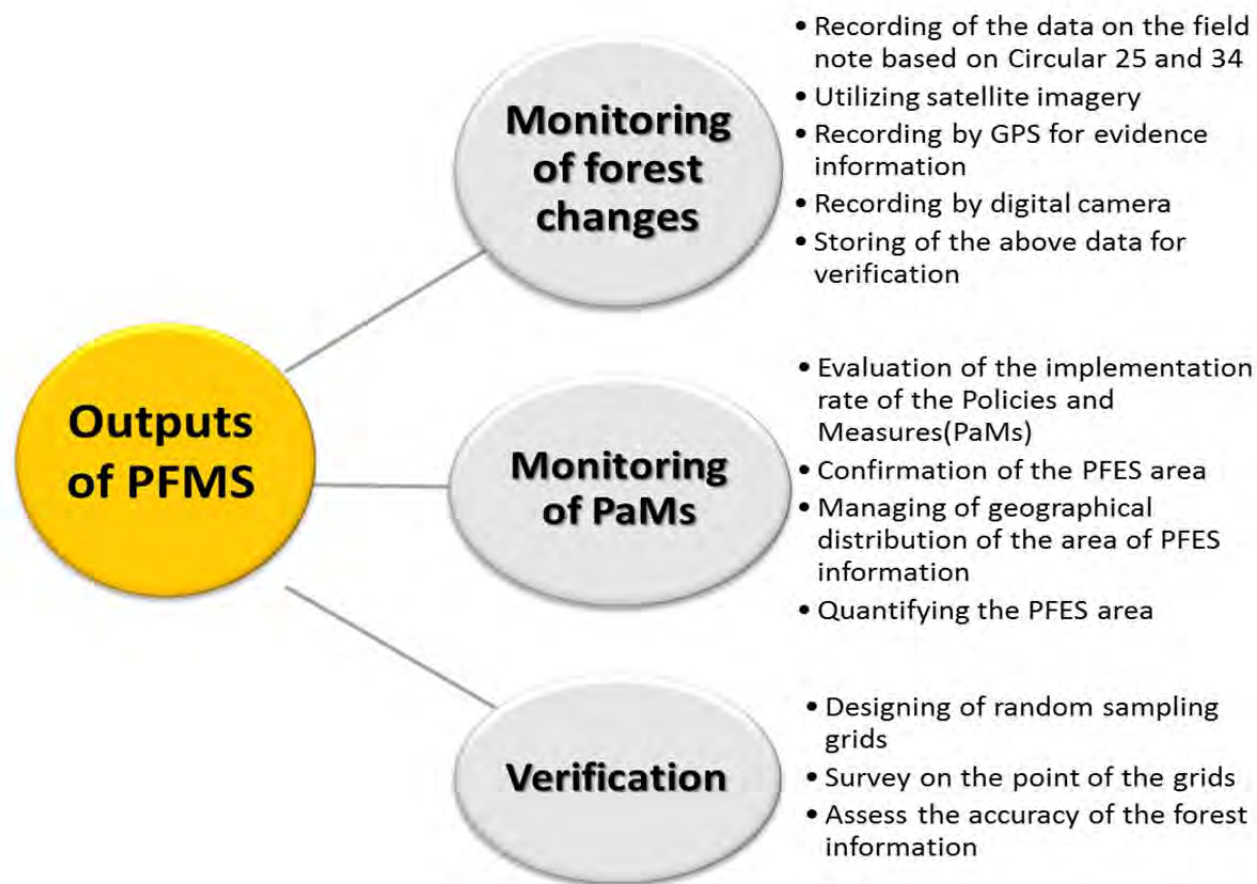
- Potential commune 1: selected on at least one of the criteria 1 – 3 (suitable for reducing deforestation and forest degradation) and for at least one of the criteria 4 – 5 (suitable for increasing forests)
- Potential commune 2: selected on at least one of the criteria 1 – 3 (suitable for reducing deforestation and forest degradation)
- Potential commune 3: selected on at least one of the criteria 4 – 5 (suitable for increasing forests)
- Potential commune 4: selected on criteria 6 (socio-economic conditions)

2. Prioritized communes for the REDD+ implementation

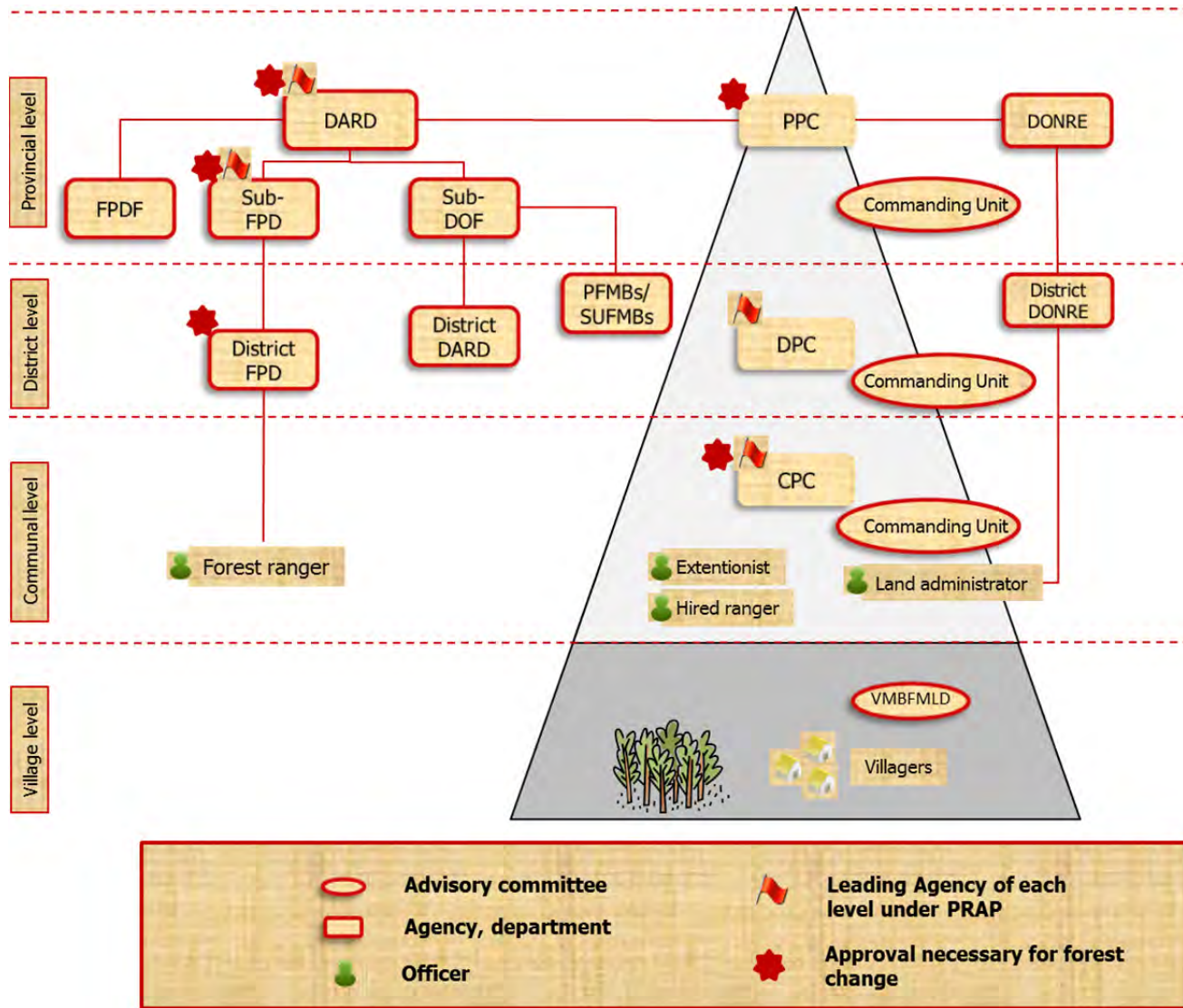


Potential communes for 1; Reducing deforestation and forest degradation and increasing forest
 Potential communes for 2; Reducing deforestation and forest degradation
 Potential communes for 3; Increasing forest
 Potential commune for 4; External funding source

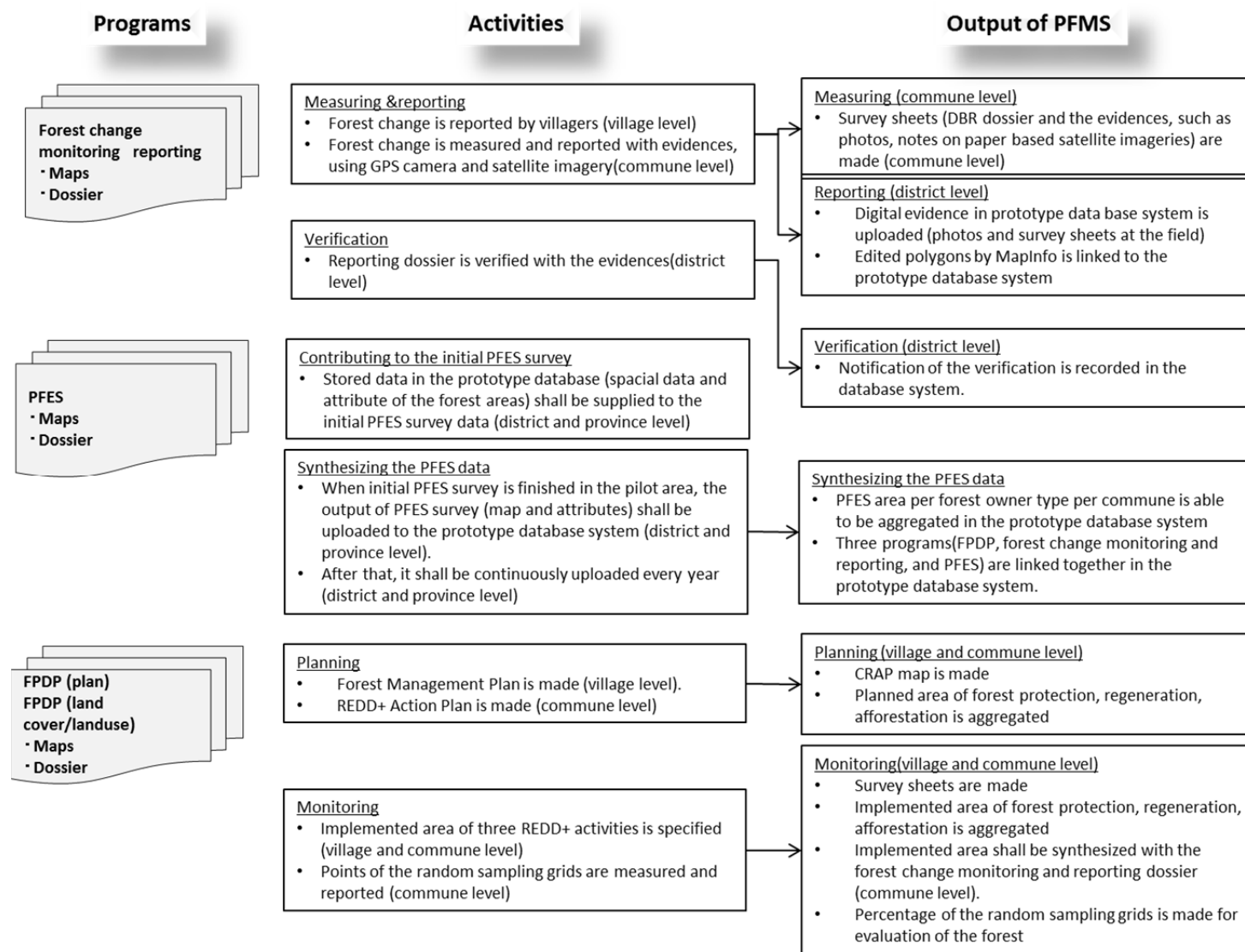
Annex 4. Three Outputs of PFMS



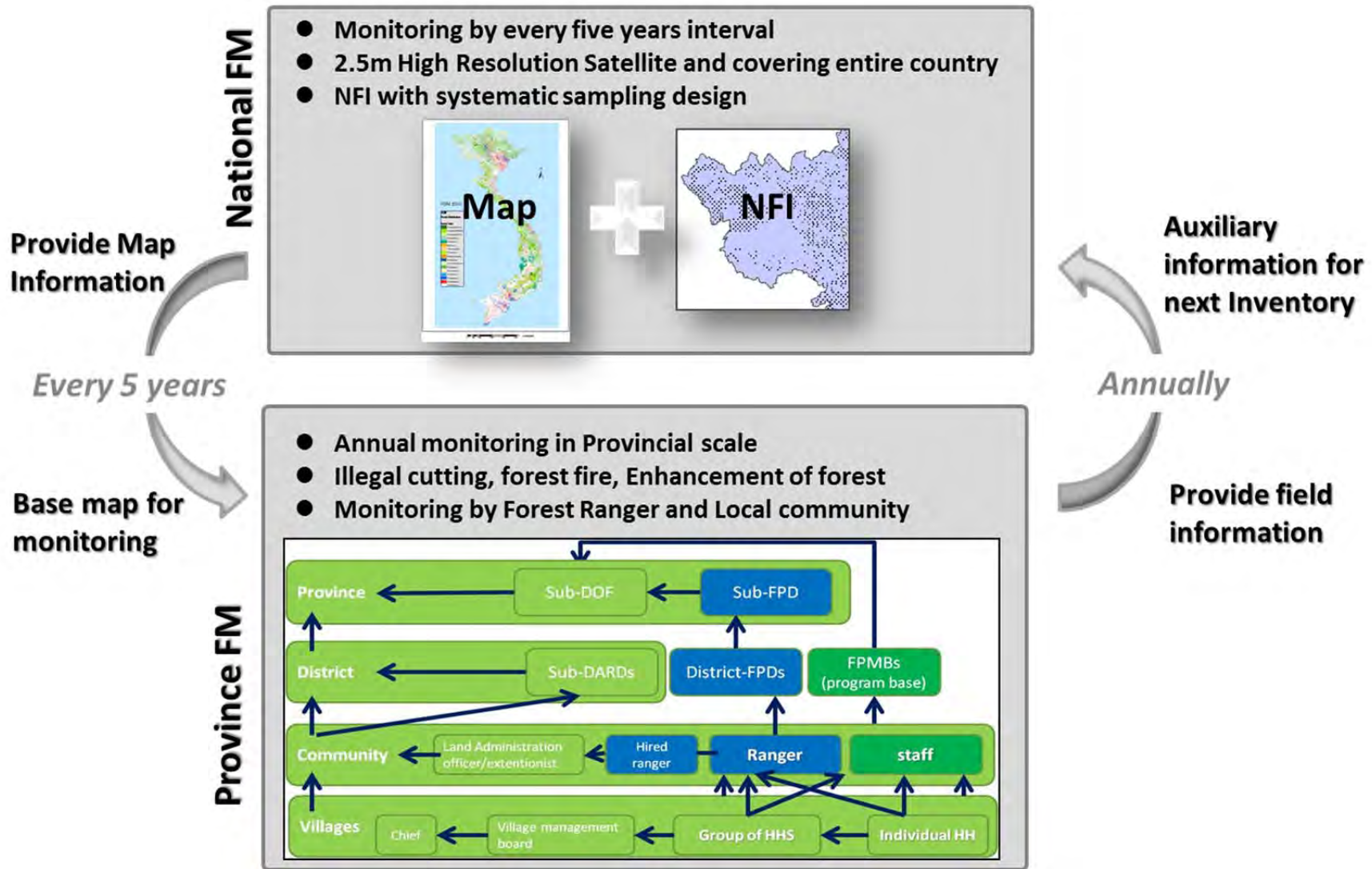
Annex 5 Overview of Organization Chart of Provincial Forest Monitoring System



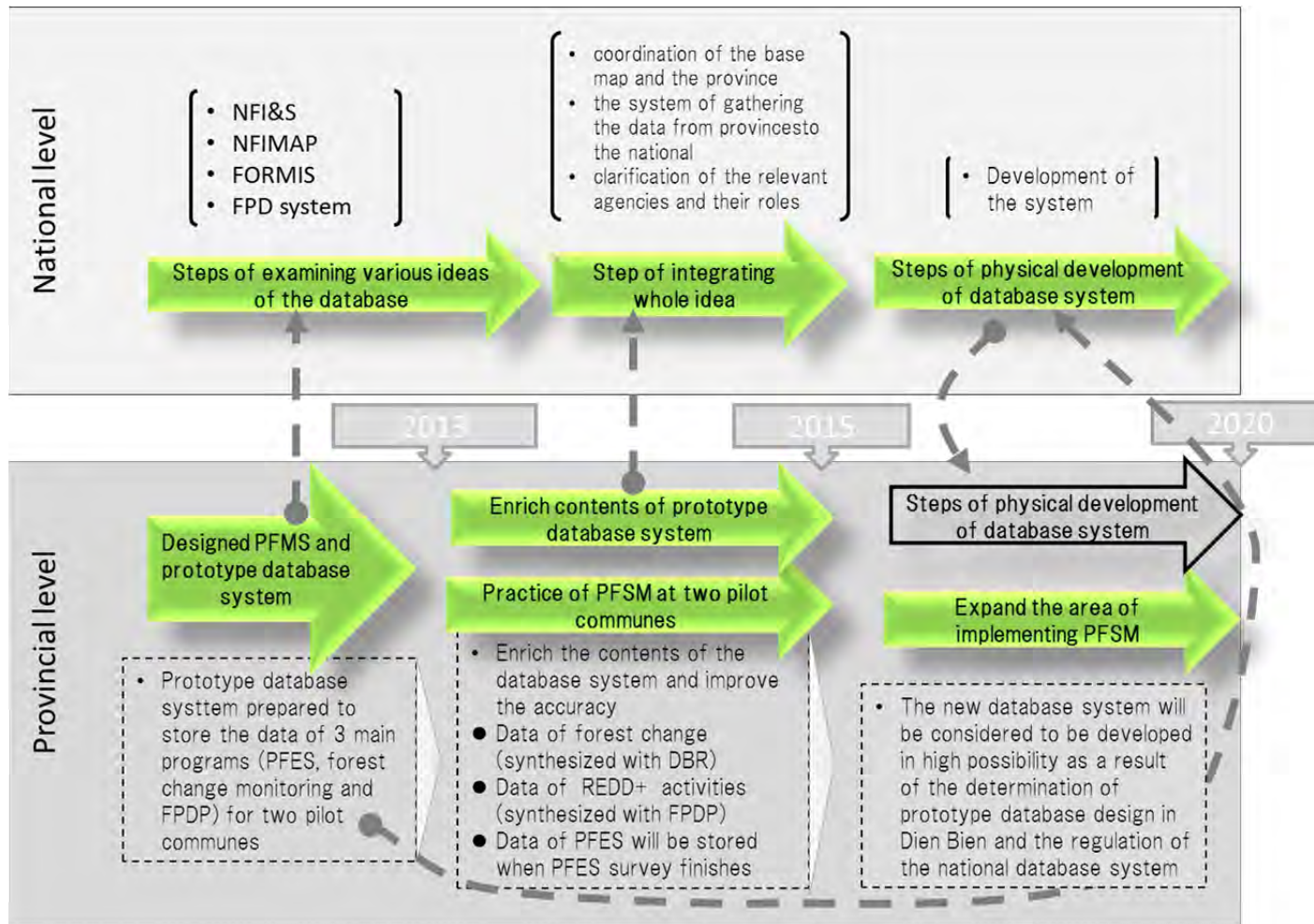
Annex 6. Flow of the Present Program, Activities related with PFMS and the Output



Annex 7. Harmonization of National Forest Information System and Provincial Forest Monitoring System

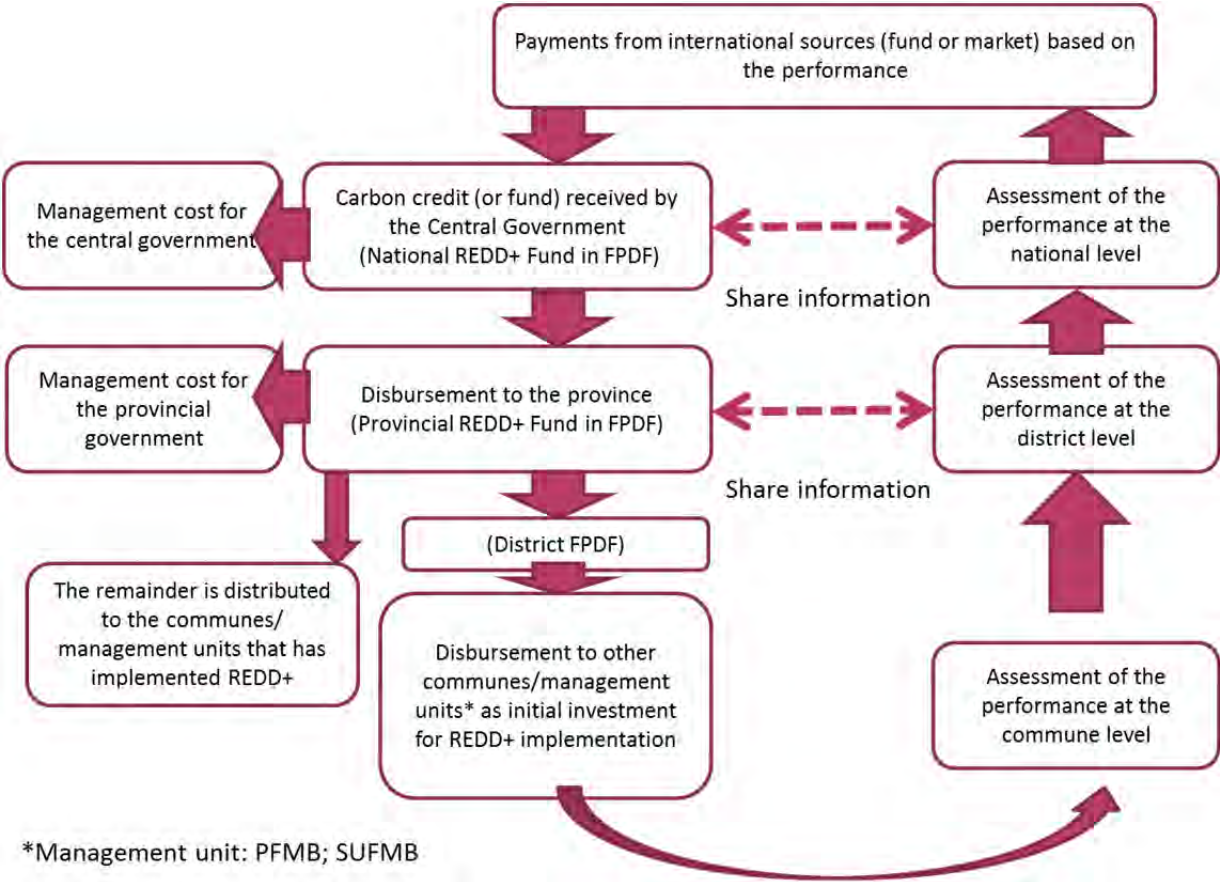


Annex 8. Time Frame of Developing Database System at National and Provincial Levels



Annex 9. Idea of Benefit Distribution

Flow of distribution of REDD+ carbon benefit



Annex 10. Plan for capacity development in the province to implement REDD+

Theme	Subject	Methods	Trainers` resources	Training Target	Time
Enhancement of governance	Management skills for the management boards and village funds	-Holding workshops to understand management skills for the management boards and village funds.	DARD, DPC, PFMB, SUFMB, Sub-FPD, District-FPD, and CPC	Villagers in the pilot area	2013 ~ 2015
		-On-the-job training through the management of the management boards and the village funds	DARD, DPC, PFMB, SUFMB, Sub-FPD, District-FPD, and CPC Villagers in the pilot area	Villagers other than the pilot areas	2016 ~ 2020
	Reporting of progress and result of implementing the monitoring system	-Holding workshops on the monitoring system to understand the mechanism of the monitoring and reporting flow in the different administrative level -Conducting on-the-job trainings to monitor and report in the REDD+ implementations	Sub-FPD and DARD in the pilot areas	District-FPD, CPC in the pilot areas	2013 ~ 2015
			District-FPD and CPC in the pilot areas	District-FPD and CPC other than the pilot areas	2016 ~ 2020
Financial procedure associated with BDS	-Holding workshops to understand financial mechanism associated with BDS -On-the-Job Training on financial procedure to deal with BDS	National REDD+ Coordination Office	DARD, DPC, PFMB, SUFMB, Sub-FPD, District-FPD, and CPC	-	
Strengthening facilitations skills	Strengthening facilitations skills to draft the Forest management plan and Livelihood development plan	-Holding workshops to strengthen facilitation skills to prepare the plans	DARD	DPC, PFMB, SUFMB, District-FPD, and CPC	2013 ~ 2015
		-Conducting on-the-Job training through practice of facilitating at the village meetings	DPC, PFMB, SUFMB, District-FPD and CPC in the pilot area	DPC, PFMB, SUFMB, District-FPD and CPC other than the pilot areas	2016 ~ 2020

Promotion of forest management activities	Promotion of Forest allocation and forest management technology	<p>-Holding workshops to understand and to promote forest allocations.</p> <p>-Conducting on-the job trainings to improve the technology for forest management including afforestation, tending, and patrolling.</p>	DARD, DPC, PFMB, SUFMB,CPC	Villagers	2013 ~ 2015
			DARD, DPC, PFMB, SUFMB,CPC, and Villagers in the pilot areas	Villagers other than pilot area	2016 ~ 2020
Developing capacity of the forest monitoring	<p>Monitoring Forest Status</p> <p>-Strengthening field survey skills (GPS and GIS operation, remote sensing analysis and identification of forest type)</p> <p>-Strengthening operation of the forest information database system (compiling the field data, GIS operation and remote sensing analysis, random sampling grids)</p> <p>-Strengthening the skills of villagers on recording and reporting forest change of the field</p>	<p>-Providing lectures about forest monitoring technologies</p> <p>-On-the-Job Training on the field survey, operation of the database</p>	Sub-FPD, Sub-DoF in the pilot areas	Sub-FPD,CAFDP, District-FPD, and VMBFMLD in the pilot area	2013 ~ 2015
			Sub-FPD,CAFDP, District-FPD, and VMBFMLD in the pilot area	Sub-FPD,CAFDP, District-FPD, and VMBFMLD other than the pilot area	2016 ~ 2020
Promotion on the livelihood development activities	Improving livelihood development skills (Agricultural activities, Energy efficient lifestyle, Livestock production, Forestry activities)	<p>-Holding workshops to enhance knowledge and technique of agricultural activities involving raising livestock.</p> <p>-On-the-job training on each</p>	DARD, DPC, PFMB, SUFMB	CPC and the villagers in the pilot area	2013 ~ 2015
			CPC and the villagers in the pilot area	CPC and the villagers other than pilot area	2016 ~ 2020

		livelihood development activity. -Holding a meeting to identify available resources and potential products in the market.			
Awareness raising	Enhancing awareness to protect forests	Holding workshop and meeting to understand the importance of forest protection.	DARD, DPC, PFMB, SUFMB, Sub-FPD, and District-FPD	CPC and the villagers in the pilot area	2013 ~ 2015
			CPC and the villagers in the pilot area	CPC and the villagers other than pilot areas	2016 ~ 2020

Note: Corrections and additions to this plan for capacity development are to be made as appropriate in the course of conducting C-RAP

Annex 11. Unit Cost of the Various Activities

Unit cost of each item is summarized in the table below.

	Cost items	Unit cost
1	Forest protection	200,000 /ha/yr.
2	Regeneration	200,000 /ha/yr.
3	Afforestation (Total)	15,000,000 /ha
3.1	Planting (1st yr.)	8,300,000 /ha
3.2	Tending (2nd yr.)	3,000,000 /ha
3.3	Tending (3rd yr.)	2,200,000 /ha
3.4	Tending (4th yr.)	1,500,000 /ha
4	Management cost of forest protection, regeneration and afforestation	8 %
5	Forestland allocation	200,000 /ha
6	Livelihood support. *	3,000,000,000 /commune
7	Monitoring equipment*	1,550,910,400
8	Field work for monitoring*	15,000,000 /commune/yr

* Details of the calculation of livelihood support, monitoring equipment and field work for monitoring are provided below.

< Calculation of the unit cost of the livelihood support >

#	Supporting activity	2013	2014	2015	2016	2017	2018	2019	2020	Total
I	Direct support									
1	Improved stove									
	Amount (# HH involved)	300	300	0						
	Unit cost (1,000 VND/HH)	50	50	50						
	Sub-total (1,000 VND)	15,000	15,000	0	0	0	0	0	0	30,000
2	Animal raising (providing animals)									
	Amount (# receiving HH)	300								
	Unit cost (1,000 VND/HH)	2,800								
	Sub-total (1,000 VND)	840,000	0	0	0	0	0	0	0	840,000
3	Animal raising (construction material)									
	Amount (# animals)	300								
	Unit cost (1,000 VND/HH)	1,000								
	Sub-total (1,000 VND)	300,000	0	0	0	0	0	0	0	300,000
4	Animal raising (grass plantation)									
	Amount (# HH involved)		300							
	Unit cost (1,000 VND/HH)		100							
	Sub-total (1,000 VND)	0	30,000	0	0	0	0	0	0	30,000
5	Fruit tree plantation									
	Amount (# HH involved)		600							
	Unit cost (1,000 VND/HH)		100							
	Sub-total (1,000 VND)	0	60,000	0	0	0	0	0	0	60,000
6	Vegetable plantation									
	Amount (# HH involved)		600							
	Unit cost (1,000 VND/HH)		50							
	Sub-total (1,000 VND)	0	30,000	0	0	0	0	0	0	30,000
7	Producing commercial products (1,000 VND)				520,000					520,000
II	Indirect supports									
1	Training courses at village (1,000 VND)	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	
	Number or training courses	100	30		20	10	10	10	10	
	Sub-total (1,000 VND)	200,000	60,000	0	40,000	20,000	20,000	20,000	20,000	380,000
2	Study tour (1,000 VND)	8,000								
	Number of study tour	20								
	Sub-total (1,000 VND)	160,000								160,000
3	Market research, trial production and registration and sales of products (1,000 VND)				650,000					650,000
	Total (1,000 VND)	1,515,000	195,000	0	1,210,000	20,000	20,000	20,000	20,000	3,000,000

Estimation made by REDD+ Pilot Project

<Calculation of the unit cost of the monitoring equipment>

equipment	Unit price (VND)	Unit	quantity	unit	# procurement	Total amount (VND)
Satellite data (0.5m resolution)	599,200	km2 (=100ha)	237	km2	1	142,010,400
GPS	10,000,000	set	112	set	1	1,120,000,000
PC (for GIS)	32,100,000	set	9	set	1	288,900,000
Total						1,550,910,400

Estimation made by Dien Bien REDD+ Pilot Project

<Calculation of the unit cost of the field work for monitoring>

Responsibility	Item	Unit price (VND)	Quantity	Unit	Total amount (VND)	Remarks
Forest ranger	Daily allowance	100,000	52	days	5,200,000	
	Fuel	760	2,080	km	1,580,800	20km average x 2 x 52 times
Total					6,780,800	

Estimation made by Dien Bien REDD+ Pilot Project based on the Provincial Cost Norms

Annex 12 Terminologies on REDD+

Terminologies	Definition
Activity Data (AD)	Activity Data (AD) is generated by assessing forest land and non-forest land by satellite imagery and ground truth. AD is a factor of estimating carbon emissions and reductions by forests by the methodological equation proposed by IPCC: Carbon emissions and reductions = AD x EF
Annual forest statistics	Forest statistics is the recording, consolidating, and analysis of forest area, forest volume according to the books and forests management dossiers; implemented on all areas of forest inside and outside the planned area of 3 types of forests and dispersedly grown trees and plants; carried out nationwide annually and results are made publicly available on the 31st day of December every year (MARD, Circular 25//2009/TT-BNN)
Benefit Distribution System (BDS)	BDS is one of the core components of the NRAP. Main goal of REDD-compliant BDS is to ensure that those who are directly responsible for undertaking actions to reduce deforestation and forest degradation are rewarded and compensated (Design of a REDD Compliant Benefit Distribution System for Viet Nam, UNREDD, 2010).
C-RAP	Commune REDD+ Action Plan is so-called “C-RAP”. This action plan is to implement REDD+ for the commune level. The framework of this plan is consistent with PRAP to contribute to successful implementation of PRAP. This plan is illustrated on the basis of each commune characteristic to be focused on practical implementations.
DBR	The software of compiling and reporting of the result of annual forest statistics survey in the province developed by central FPD
Emission Factor (EF)	EF is carbon stock of each forest types generated by ground-based NFI. EF is a factor of estimating carbon emissions and reduction by forests by the methodological equation proposed by IPCC: Carbon emissions and reductions = AD x EF..
Forestland allocation	Forestland allocation is the program to allocate the forestland from the state to organizations, households or individuals in order to encourage management of the forestland, ensuring its stable and long-term use. In Vietnam, the Decision 163/1999/ND-CP has been issued and conditions on the implementation are defined.
Forest Protection and Development Plan (Decision 57/QD-TTg)	Forest Protection and Development Plan (FPDP) is a comprehensive plan on forest covering the period from 2011 to 2020, which is succeeding Program 661. The objectives include effectively managing the existing forests, increasing the forest cover to 42 – 43 % by 2015 and 44 – 45 % by 2020 and improving the living conditions. The tasks include protecting the existing forests of 13,388,000 ha, afforesting 2,600,000 ha, regenerating 750,000 ha, etc.
Forest reference emission levels (FRELs)	FRELs are gross emission at a reference time period that can be set as a benchmark, based on which emission reduction by the activities to reduce deforestation and forest degradation is measured

		(NRAP)
Forest reference levels (FRLs)		FRLs are net emission (or net increase by sequestration) at a reference time period that can be set as a benchmark, based on which net emission reduction (or net increase by sequestration) by the activities to reduce deforestation and forest degradation and the “plus” activities including conservation of forest carbon stock, sustainable forest management and enhancement of forest carbon stocks is measured. (NRAP)
Measuring, reporting, and verification (MRV)		MRV is a concept of mechanism and/or requirements to enable objective evaluation of the implementation status of REDD-plus policies and emissions and removals for the credit mechanism. However, international discussions on the specific purpose and target of MRV and on who is responsible for implementing it are still in progress. As of 2013, MRV modalities of forest monitoring for REDD-plus were also under consideration by the Subsidiary Body for Scientific and Technological Advise (SBSTA). (REDD-plus cookbook, REDD research and development center Japan, 2013)
National Forest inventory (NFI)		Forest Inventory is the act of doing surveys, assessment, identification of the actual state of the forest, the forest volume on and outside of planned forestry land, and reconciliation of data on the increases and decreases in forest area, forest volume based on the forest statistics records, and forest management dossiers. The inventory cycle is locally repeated every 5 years on the portion of management (MARD,Circular 25//2009/TT-BNN). Background of NFI: There are two types of NFI in Vietnam, NFIMAP (National Forest Inventory, Monitoring and Assessment Program) and NFI&S (National Forest Inventory and Statistical Survey). NFIMAP has finished its 4 cycles (1990, 1995, 2000, 2010) to survey on the forest resources in terms of forest area, volume, and quality by interpreting satellite imagery with ground survey and utilizing system sampling plot survey led by FIPI under MARD. NFI&S undergoes the implementation (2013-2016), considered as 5 th cycle of NFI, after the pilot implementation at Bac Kan and Ha Tinh province, aiming to define the boundary of forest owners as well.
National Forest Monitoring System (NFMS)		The frame work of NFMS in Vietnam consists of monitoring of forest resources and activities of REDD+; reporting of the monitoring result compiled to the format like GIG-Inventory; and safeguard information. The safeguard information is collected separately in order to confirm that the criteria and indicators are respected.
NRAP		National Action Program on “Reducing Emissions from Deforestation and Forest Degradation, Sustainable Management of Forests, Conservation and Enhancement Forest Carbon Stocks” is so-called “NRAP”. The enforcement period of this program is 2011 to 2020. The decision was issued by the No: 799/QD-TTg by the Prime Minister on June 2012.

Payment for Forest Environmental Services (PFES)	Payment for Forest Environmental Services (PFES) is a program to give forest owners incentives to protect their forests in exchange for managing their forests to provide the environmental services. In Vietnam, the Decision 99/2010/ND-CP has been issued to define the modality of implementing the PFES.
Policies and Measures (PaMs)	PaMs at provincial level shall be linked to the national level and implemented to evaluate the performance on GHG emissions and removals under REDD+. The monitoring of the implementation of PaMs is included in the PFMS, which will allow the country to track the success of its PaMs, and to adjust them accordingly, as necessary.
Poverty Alleviation Program (Resolution 30a/2008/NQ-CP)	Resolution 30a/2008/NQ – CP is a poverty alleviation program for 61 poor districts in the country. Main activities include forest protection contract for Rich and Medium forests (200,000 VND/ha/yr), providing seedlings (2,000,000 – 5,000,000 VND/ha), food support (15 kg of rice/HH/month; maximum 7 years) and assisting reclamation of the food production land (5,000,000 VND/ha/HH).
PRAP	Provincial REDD+ action program is so called “PRAP” which is designed to contribute to defining strategy of the province to develop REDD+, preparation of the implementation plan and enhancing the implementation of REDD+.
Provincial Forest Monitoring System (PFMS)	Improved PFMS is the improved version of the present provincial forest monitoring system proposed by Dien Bien province based on the present annual forest statistics survey in the province. The uniqueness of the improved PFMS is explained in the box of detailed contents of step 10.
Safeguard	Safeguard is the measure taken to precipitate, minimize, mitigate or address the impacts triggered by the action. Hence, safeguard in the REDD+ scheme will identify the potentially negative impacts of the planned activities, and measures to mitigate negative impact.
Safeguard Information system	Safeguard information system is the system for providing information on how safeguards are addressed and respected. Effective systems to share information will help promote transparency, the guard against unintended social and environmental harms, and provide information on the impact of REDD+ actions. Safeguards are often accompanied by safeguard systems to ensure effective implementation.
661 program	The Five Million Hectare Reforestation Program (Decision 661) is so called 661 program, implemented in 1998 aiming to increase forest cover in Vietnam to be 40% by 2010 by establishing five million hectares of new forest.

Annex 13. Acronyms

AD	Activity Data
CFM	Community Forest Management
CPC	Commune People's Committee
CRAP	Commune REDD+ Action Plan
CRPMU	Commune REDD+ Program Management Unit
CSR	Corporate Social Responsibility
DANIDA	Danish International Development Agency
DARD	Department of Agriculture and Rural Development
DONRE	Department of Natural Resources and Environment
DPC	District People's Committee
DRPMU	District REDD+ Program Management Unit
EF	Emission Factor
FMS	Forest Monitoring System
FORMIS	Forest Monitoring Information System
FOs	Forest Owners
FPD	Department of Forest Protection
FPDP	Forest Protection and Development Plan
FRELs/FRLs	Forest reference emission levels/Forest reference levels
GHG	Greenhouse Gas
GIS	Geographic Information System
GPG-LULUCF	Good Practice Guidance for Land Use, Land-Use Change and Forestry
GPS	Global Positioning System
IPCC	Intergovernmental Panel on Climate Change
JICA	Japan International Cooperation Agency
MARD	Ministry of Agriculture and Rural Development
MNNR	Muong Nhe Nature Reserve
NFI&S	National Forest Inventory and Statistics
NFMS	National Forest Monitoring System
NRAP	National REDD+ Action Program
NTFP	Non-Timber Forest Product
ODA	Official Development Assistance
PDCA	Plan-Do-Check-Action
PFES	Payment for Forest Environmental Services
PFMB	Protection Forest Management Board
PFMS	Provincial Forest Monitoring System
PFPDF	Provincial Forest Protection and Development Fund
PPC	Provincial People's Committee
PRAP	Provincial REDD+ Action Program
PaMs	Policy and Measures
REDD+	Reducing emissions from deforestation and forest degradation and the role of

	conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries
RELS/RLs	Reference Emission Levels and Reference Levels
RPMU	REDD+ Program Management Unit
SBSTA	Subsidiary Body for Scientific and Technological Advice
SUF	Special Use Forest
SUFMB	Special Use Forest Management Board
SUSFORM-NOW	Project for Sustainable Forest Management in the Northwest Watershed Area
Sub-DOF	Sub-Department of Forestry of Dien Bien Province
Sub-FPD	Sub-Department of Forest Protection of Dien Bien Province
TFF	Trust Fund for Forest
UNFCCC	United Nations Framework Convention on Climate Change

Annex 14. Modification of the PRAP on the financial aspect to correspond with the changing situation

1. Objectives of this Annex

There are many items to be finalized in the mechanism of REDD+; along with this situation, many international negotiations are held every year and new decisions are made for each occasion. Due to this changing situation, contents covered in the PRAP depend on the conditions at the time based on which the PRAP is prepared. Therefore, this PRAP is prepared on the basis of conditions given inside and outside of the country as of November 2013 and the project activities implemented by that time.

On the other hand, at the COP 19 held in the end of November 2013 in Warsaw, many agreements were realized as “Warsaw Framework for REDD+”. There was a huge progress on the finance in particular, which can be considered as a large step on REDD+ development.

Information on how this PRAP can be modified taking into account the outcome of COP 19 is supplemented in this Annex. In reality, there should be a process by which NRAP is revised on the basis of the decisions made in COP 19 and then PRAP is revised accordingly. This Annex is prepared before going through this process and therefore, it should be noted that this Annex is from the provincial point of view.

2. Elements decided at COP 19

Principally, two agreements were made on the financial matters at COP 19. Reviewing these agreements, ideas necessary to modify the PRAP are described.

- 1) “Work program on results-based finance to progress the full implementation of the activities referred to in decision 1/CP.16, paragraph 70.”

This decision indicate budgets for REDD+ implementation will come from various resources, including multilateral and bilateral cooperation, public financial, private investments, and Green Climate Fund (GCF) is an important source for result-based payment for REDD+ implementation.

Moreover, it is requested to the Standing Committee on finance to start considering method of performance-based payment and its financial sources for the future.

- 2) “Coordination of support for the implementation of activities in relation to mitigation actions in the forest sector by developing countries, including institutional arrangements”

This decision describes that the national entity or focal point can nominate the entities to receive the performance-based payment in accordance with the national circumstances in order to receive the performance based payment for the mitigation actions made by the forest sector.

- 3) Conclusion

It can be said that most of the discussions on REDD+ methodology are completed by COP 19 and progress is also made on the financial issues that have been disputed in many occasions. In short, completing the readiness phase in the phased approach, it is considered that the focus is shifting from demonstration activities to full-scale implementation.

Taking into account such background, it is necessary to project the timing to receive the performance-based payment and design a roadmap to build the framework and outputs that can access to the payment.

3. Basic approach to REDD+

Necessity of preparing the roadmap on the finance can be understood from the decisions made at COP 19. However, reviewing the policies that Vietnam has been implementing, the basic approach can be summarized as follows.

- In Vietnam, before REDD+ initiative came out, the Government has promulgated many policies, programs and projects on forest protection and development, and significant results have been achieved.
- REDD+ is considered as one of the important solutions to contribute to implementation of the national strategy on forest protection and development as well as local master plans on forest protection and development and promoting socio-economic development.
- However, as a developing country with limited domestic resources, Vietnam is expecting technical and financial supports from international community to prepare for REDD+ implementation, as well as to pay for result of emission reduction from REDD+ implementation in accordance with decisions of UNFCCC.
- Vietnam is not responsible to be forced to reduce emission, and without the supports of international community, REDD+ implementation in Vietnam in general will be difficult to become the real.

It is concluded that REDD+ is a part of voluntary approaches and international support is essential to realize it, the international support is clearly oriented in the PRAP, and the roadmap on REDD+ implementation that includes the finance is necessary in the PRAP.

4. Revision and additional elements to the PRAP

Taking into account change of the conditions described above, revision and addition to the PRAP expected in the future are considered as the following.

1) Clarify basic principles of REDD+ and international support on the finance

Section concerned: Part 3 Provincial REDD+ Action Plan / 1.4 Formulation of the financial management mechanism applicable for implementation of the REDD+ (Key task 9) Paragraph-1	
Present version	Suggested to revise as

<p>Budget sources that will contribute to REDD+ includes: Budget for FPDP and PFES (Payment for Environmental Services) fund. There are other applicable sources such as budget for Program 30A, budget of the projects by donors, and so on.</p>	<p>Budget sources that will contribute to REDD+ includes: Budget for FPDP and PFES (Payment for Environmental Services) fund. There are other applicable sources such as budget for Program 30A.</p> <p>In Vietnam, before REDD+ initiative came out, the Government has promulgated many policies, programs and projects on forest protection and development, and significant results have been achieved and Vietnam is not responsible to be forced to reduce emission.</p> <p>On the other hands, implementation of REDD+ in Vietnam is consistent with the national policies, showing the goodwill of Vietnam in taking a part with international community on protection of the earth's climate system.</p> <p>However, as a developing country with limited domestic resources, Vietnam is expecting technical and financial supports from international community to prepare for REDD+ implementation, as well as to pay for result of emission reduction from REDD+ implementation in accordance with decisions of UNFCCC.</p> <p>Therefore, it is indispensable to exploring budget sources by International fund and cooperation</p>
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2) Clarification of the roles of state fund and donor funds

Section concerned: PART 4. Funding for Implementing the PRAP / 2. Analysis of Costs and Financial Sources	
(the following description is to be added to the end of the section concerned)	
<p>The financial sources described above are based on the situation where the state budget will be allocated for 100 %. Considering the nationwide situation and other sectors, however, it is not clear on whether these programs are thoroughly implemented. Consequently, the scenarios on how much of the finance will become deficient depending on the situations on how much of the budget will be installed in the programs are described in the following table.</p>	
Items	From available sources

	(% in compare with amount of 2013)			
	100	70	50	30
Cost (billion VND)	1,721	1,721	1,721	1,721
Possible amount (billion VND)	1,293	1,140	1,054	969
Shortage (billion VND)	428	581	667	752

As shown in the table, implementation of the PRAP may become difficult depending on how much budget will be actually put on the programs. Therefore, it is important to work on acquiring the external financial sources.

3) Possible external financial sources and Roadmap on finance for implementation of the PRAP

Section concerned: PART 4. Funding for Implementing the PRAP / 2. Analysis of Costs and Financial Sources

(the following description is to be added to the end of the section concerned – after the description added on 2) Clarification of the roles of state fund and donor funds)

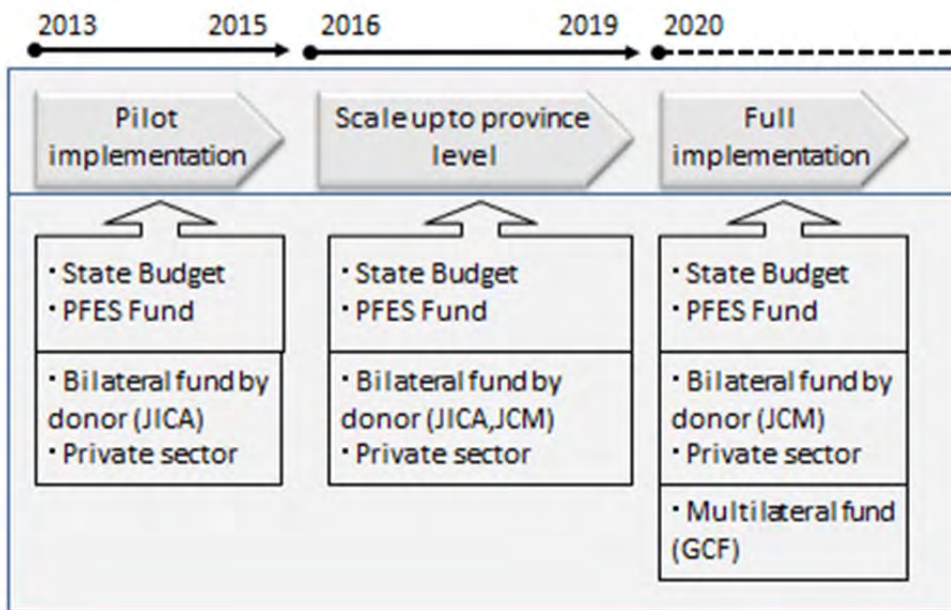
As discussed in the above sections, the finance for implementing the PRAP may become in serious deficiency depending on how much of the budget will be allocated to the existing programs. Based on the principle that REDD+ will be implemented voluntarily by Vietnam and the fund should not fully depend on the state budget, it is necessary to search the external sources from the international donors.

What is considered as possible financial sources are GCF, JCM, etc. However, it is not clear at this point of time how the framework of these finance will be developed. Therefore, the roadmap for finance to implement the PRAP is arranged with the following pre-conditions. As described at the beginning, this measure is based on idea of Dien Bien Province.

[Pre-conditions]

- GCF is to be paid on the outcome of REDD+ implementation only and therefore not spent for readiness or demonstration phases.
- GCF is only paid on the national approach. In short, it is not paid on the sub-national or project approaches.
- Payment by GCF will start from 2020 and until then, other financial sources will cover the implementation.
- It is agreed between the two countries that REDD+ is included under JCM.
- JCM fund will be used for the up-front payment and can be used with GCF.

On the basis of the above pre-conditions, implementation of the PRAP and financial roadmap can be described as follows.



During the first period up to 2015, the pilot implementation as described in the PRAP is major activity and this is implemented by the provincial fund and JICA's support. On the other hand, during the 2nd phase up to 2020, large amount of the fund is necessary in order to scale-up the implementation to the province level. JCM that is still under the negotiation will be expected to be used. In order to realize this, it is necessary to make an arrangement so that REDD+ is included in REDD+. GCF is to make the payment for the outcome of implementing the PRAP. It is expected that the boundary of the payment in this case would be the national base and therefore, Dien Bien Province preceding other provinces would be prioritized to receive the disbursement of the fund.

