



REDD+ in Vietnam: Integrating National and Subnational Approaches



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REDD+ in Vietnam:

Integrating National and Subnational Approaches

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The USAID-funded Lowering Emissions in Asia's Forests (LEAF) program strengthens capacities of developing countries in Asia to produce meaningful and sustainable reductions in greenhouse gas (GHG) emissions from the forest-land use sector, thus allowing these countries to benefit from the emerging international REDD+ framework. LEAF engages governments, forestry and climate mitigation specialists and universities in technical capacity building focused on Reducing Emissions from Deforestation and Forest Degradation (REDD+). The program also focuses on policy and market incentives for improved forest management and land-use planning, develops innovative field demonstration activities, and strengthens regional mechanisms for sharing lessons learned and scaling up innovation. The LEAF program is implemented by Winrock International, SNV – Netherlands Development Organization, and Climate Focus.

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Glossary

Baseline

A projection into the future of expected emissions and/or removals based on “business as usual”. The term is often used in the voluntary market for REDD+ projects. Elsewhere it is sometimes used interchangeably with Reference Emission Levels (REL) or Reference Level (RL), though some experts view them as different concepts..

Clean Development Mechanism (CDM)

A project based mechanism established in Article 12 of the Kyoto Protocol and designed to assist non-Annex I Parties in achieving sustainable development and contributing to the ultimate objective of the UNFCCC, and to help Annex I Parties achieve compliance with quantified emission limitation and reduction caps.

Joint Implementation (JI)

A project based mechanism established under Article 6 of the Kyoto Protocol through which a developed country can receive “emission reduction units” when it helps to finance projects that reduce net greenhouse-gas emissions in another developed country.

Jurisdiction

A defined geographic area that may be an eco-region or encompass a government administrative area such as a nation, province, state, district or municipality.

Leakage

Greenhouse gas (GHG) emissions displacement that occurs when interventions to reduce emissions in one geographical area (subnational or national) cause an increase in emissions in another area.

Measurement, Reporting, and Verification (MRV) System

A national and/or subnational set of processes and institutions that ensure reliable assessment of climate benefits associated with real and measurable emission reductions and carbon removals.

Nested Approach

An accounting, management, and incentive system that accommodates activities and incentives to reduce emissions at various activity and implementation levels. Where projects are nested within subnational or national programs, activity-specific emissions are deducted from the broader (national or regional) accounting for emission reductions against a reference level.

Reference (Emissions) Level (R(E)L)

The term “forest reference emission level and/or forest reference level” is used in the UNFCCC. Reference emission level has been interpreted to refer to an estimation of emissions from forests (e.g. from deforestation or degradation), whereas reference level can be understood to include other REDD+ activities that don’t result in a reduction of emissions *per se*, such as conservation of (non-threatened) forest stocks or enhancement of forest carbon stocks. *They are often referred to together, including in this report where they are combined as R(E)L.* R(E)Ls can be used for a number of purposes, including as a benchmark against which results-based payments can be made.

REDD+

REDD+ covers five separate activities of (a) reducing emissions from deforestation; (b) reducing emissions from forest degradation; (c) conservation of forest carbon stocks; (d) sustainable management of forests; (e) enhancement of forest carbon stocks. The topic of how to create policy approaches and positive incentives on issues relating to REDD+ in developing countries is currently under negotiation under the UNFCCC.

Registry

Electronic software and database designed specifically to support accurate accounting for REDD+ activities. It may be used to transparently record and track information of REDD+ activities such as REDD+ projects, jurisdictional R(E)Ls, monitoring and reporting data, emission reductions or removals, REDD+ units or credits, amongst other pieces of information.

Results-based

Payments or other incentives are made if results are achieved. In REDD+, this is used to describe a system whereby payments are made for emission reductions or removals once they have been achieved, with achievement assessed against a R(E)L.

Subnational Activities

Activities that take place at a scale smaller than the national scale but larger than a small project. It is often understood in terms of a larger Jurisdiction.

Abbreviations

ACR	American Carbon Registry
AD	Activity Data
BDS	Benefit Distribution System
CFM	Community Forestry Management
EF	Emission Factor
ERA	Extending Age/Cutting Cycle (subcategory of IFM)
ERRs	Emission Reductions and Removals
FCPF	Forest Carbon Partnership Facility
FFI	Fauna & Flora International
FLMS	Forest Land Monitoring System
GCF	Governors' Climate and Forests Task Force
GHG	Greenhouse Gas
GHG-I	Greenhouse Gas Inventory
GOV	Government of Vietnam
IFM	Improved Forest Management (REDD+ project type)
IPCC	Intergovernmental Panel on Climate Change
JICA	Japan International Cooperation Agency
LtHP	Low Productive to High Productive Forest (subcategory of IFM)
LtPF	Logged to Protected Forest (subcategory of IFM)
MARD	Ministry of Agriculture and Rural Development
MB	Management Board
MONRE	Ministry of Natural Resources and Environment
NFMS	Vietnam National Forest Monitoring System
NRIS	Vietnam National REDD+ Information System
NRP	Vietnam National REDD+ Program
PaMs	Policies and Measures
PFES	Payment for Forest Environmental Services
REDD+	Reducing Emissions from Deforestation and Degradation, Forest Conservation, Sustainable Management of Forests, and Enhancement of Forest Carbon Stocks
R(E)L	Forest Reference (Emissions) Level
RIL	Reduced Impact Logging (subcategory of IFM)
SFC	State Forest Companies
SOC	State-owned Company
tCER	Temporary Certified Emission Reductions
tCO₂e	Tonnes of Carbon Dioxide Equivalent
UNFCCC	United Nations Framework Convention on Climate Change
UN-REDD Programme	United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
VCS	Verified Carbon Standard
VNFOREST	Vietnam Administration of Forestry

Executive Summary

Despite the significant progress made to date on reducing emissions from deforestation and degradation (REDD+) it is still unclear how a future REDD+ mechanism may be implemented in practice, and in particular how to design REDD+ to deliver ecosystem conservation and restoration in an economically efficient and socially sustainable way. “Nested” approaches to REDD+ offer countries an opportunity to account for overall emission reductions and removals (ERRs) from REDD+ activities at the national level as well as at the level of nested subnational programs and/or projects within the national system. Although nesting can also add considerable complexity in carbon accounting, risk-sharing, and institutional arrangements, the advantages to nested approaches are seen to outweigh this increased complexity. This is true especially as the UNFCCC discussions focus increasingly on accounting and performance at national levels and away from project-level activities that have dominated voluntary carbon markets to date, and yet countries will benefit greatly by building on their project-level capacity. Applying the latest technical understanding on how to integrate national and subnational approaches to REDD+, this paper provides background information and preliminary advice to the Government of Vietnam and stakeholders on applying a nested REDD+ approach in Vietnam.

Vietnam is taking an aggressive role in addressing climate change mitigation and adaptation, and has developed a REDD+ National Action Plan that sets out key legal and institutional roles and priority actions. The Government supports a national framework for its ultimate domestic REDD+ approach, and is exploring the possibility of nested REDD+ approaches for establishing voluntary carbon markets, regulating REDD+ project-based investments and maintaining environment integrity. Moving into Phase II of its REDD+ implementation at the time of writing with participatory and result-based demonstration activities in at least eight pilot provinces, Vietnam is also building provincial MRV capacities, implementation strategies and benefit distribution systems. Further Phase II work is focused on creating conditions for results-based finance to flow into such provinces “nested” within the national framework. More work, however, is needed on how accounting for results at different scales will be carried out and any different approaches or inconsistent findings reconciled.

Issues and options relating to incentives, accounting, and regulatory frameworks all are relevant to REDD+ and will require special consideration with regard to nested approaches. In establishing incentives, governments will need to first prioritize the range of programmatic and project funding prerogatives available in connection with the available public and private sector finance sources, as well as examine the pathways for distributing this finance to appropriate recipients. Fortunately in Vietnam’s case, extensive preparatory work exists relevant to the latter in regard to domestic payments for ecosystem services (PES) and conceptual designs for a compliance-based benefit-distribution system. Accounting issues relevant to nested REDD+ can draw on the work of the Verified Carbon Standard (VCS) and its Jurisdictional and Nested REDD Initiative, which has established guidance on establishing jurisdictional and nested reference emissions levels (RELs); monitoring, reporting, and verification (MRV); leakage; issuing credits and avoiding double counting); and accounting for reversals and forest loss.

Arguably the most complex of these issues is creating a jurisdiction-wide R(E)L to incorporate smaller R(E)Ls such as those at project-level, given the numerous factors that must be considered (determining the boundary and scope of the R(E)L, calculating the R(E)L, creating rules on how to nest different scales, and ensuring additionality). Although the UNFCCC has not established methodologies for setting R(E)Ls, Vietnam is working to adopt interim performance indicators in pilot provinces for each type of REDD+ activity to be implemented, which will be monitored and assessed at the provincial level. This includes calculation of “top-down” jurisdiction-wide R(E)Ls and smaller scale R(E)Ls (e.g., from a project or series of projects) or how it relates to projects developed after the jurisdiction-wide R(E)L is set.

Vietnam is also working to establish a REDD+ National Forest Monitoring System (NFMS), to provide MRV for both REDD+ activity outcomes and mitigation performance, with the aim to reach an accuracy assessment that will bring Vietnam to report at Tier 3 level. Policy and regulatory considerations for nested REDD+ will depend on how nesting is designed and developed within Vietnam. If a national scheme is chosen, provinces could fall under the authority of the national system, or the national government could create institutions or systems tailored to that province.

With regard to regulatory issues, nested approaches to REDD+ require consideration of approval, registration and review, substantive policy issues and carbon rights and crediting. Fortunately for Vietnam, the National REDD+ Action Plan supports the formation of carbon credit markets and encourages private sector participation in REDD+. The Constitution and laws in force in Vietnam appear to support legal land users owning carbon rights.

Vietnam has considerable flexibility in designing a nested approach to REDD+ that can ensure integrity in environmental accounting and maximize financial flows for REDD+ activities and local stakeholder benefits. Essential areas of work include the following:

- Clarifying the legal and regulatory framework regarding carbon rights and pilot project activities;
- Elaborating synergies between project and provincial-level REDD+ activities;
- Elaborating the National REDD+ Action Plan;
- Creating guidelines on safeguards and benefit-sharing for pilot projects;
- Establishing principles for allocating ERRs; and
- Integrating currently available bi- and multi-lateral funding schemes.

The three case studies provided demonstrate both the potential opportunities and complexities of nested approaches to REDD+ in Vietnam, looking at pilot sub-national activities in Dien Bien Province, Kon Tum Province and Lam Dong Province.

1. Introduction

The issue of reducing emissions from deforestation and degradation, plus forest conservation, sustainable management of forests, and enhancement of forest carbon stocks (REDD+) has been high on the international agenda for a number of years. Despite the significant progress made to date it is still unclear how a future REDD+ mechanism may be implemented in practice, both internationally under the United Nations Framework Convention on Climate Change (UNFCCC) and domestically within countries. A key question for policymakers at every level is how to design REDD+ to deliver ecosystem conservation and restoration in an economically efficient and socially sustainable way.

A number of REDD+ projects and subnational programs are underway or being developed around the world. Some of these plan to sell carbon credits on the voluntary market, while others are (or will be) financed with donor government funding. Meanwhile, consensus has continued to build around the idea that emission reductions and removals must ultimately be accounted for at the national level. Figuring out how projects and subnational programs fit in to national accounting is therefore a top priority in many countries including Vietnam.

“Nested” REDD+ refers to a REDD+ system in which projects and/or subnational programs are integrated into higher-level accounting. That is, accounting for overall emission reductions and removals (ERRs) from REDD+ activities occurs at the national level, as well as at the level of nested subnational programs and/or projects within the national system. This integration can occur in stages (i.e., starting with province-wide accounting and scaling up to national), and can also occur when national accounting is in place (i.e., a national system can track (and reward) performance at province and/or project levels.) Integration of these accounting levels can help provide a coherent picture of how a set of projects, policies and measures are contributing to countries’ progress in reducing emissions, but is of primary importance in cases where finance is contingent on measurable results. Consistently measuring and reporting results will be particularly important for markets where payment is made for carbon credits or emissions offsets, and/or under fund-based mechanisms that provide compensation based on monitored and verified emissions reductions.

The Government of Vietnam approved the National REDD+ Action Plan 2011-2020 (hereafter “the Plan”) on 27 June 2012.¹ Some key issues identified by the Plan for 2011-2015 are (i) selection of at least 8 provinces with emission reduction potential that represent different ecological regions for piloting REDD+ activities; (ii) the formation of provincial-level REDD+ action plans; (iii) integrating REDD+ activities into forest protection and development planning, land use planning, and existing projects for reducing emissions from the agriculture sector and other related fields; and (iv) piloting systems of provincial level REDD+ management, coordination, and activities.² To support the implementation of these activities, the government intended to revise and complete existing legal frameworks related to land, forest protection and development, carbon rights, carbon credit investments, financial management, benefit sharing, and social and environmental safeguards.³ As mandated in the National REDD+ Action Plan, REDD+ activities will be scaled-up nationwide during the 2016-2020 period. The Action Plan also promotes private sector collaboration, and public-private partnership in planning, implementation and monitoring of REDD+ activities.⁴

The objective of this paper is to provide background information and preliminary advice to the Government of Vietnam and stakeholders in Vietnam on how to integrate national and subnational approaches to REDD+ in Vietnam.

¹ Decision 799/QĐ-TTg dated 27 June 2012 on approval of National Action Plan on “Reducing Greenhouse Gas Emissions from Deforestation and Forest Degradation, Sustainable Forest Management, Conservation and Enhancement of Carbon Stock” for 2011-2020.

² *Id.*, at 6

³ *Id.*, at 7.

⁴ *Id.*, at 8.

1.1 Why Take a Nested Approach?

Nested approaches to REDD+ have a number of advantages over purely project-based or purely nation-based approaches, as described below, but increase complexity in carbon accounting, risk-sharing, and institutional arrangements. As will be discussed here, the advantages of nested REDD+ approaches can outweigh their increased complexity.

REDD+ discussions in the UNFCCC context are focused on national-level accounting and performance, with some consideration of subnational accounting. This is a marked difference from the historic focus of the voluntary carbon market, which has centered on project-level REDD+ activities. National accounting is seen as important for securing the environmental integrity of REDD+ by mitigating emission “leakage” risks, promoting government engagement to address underlying drivers of deforestation and degradation, and generating ERRs at scale. Oversight at the national level may also be important for setting minimum standards for equitable benefit distribution, transparency, and environmental and social safeguards. Nonetheless, designing and deploying effective national accounting, oversight and emissions reductions programs takes time, and a purely national approach that focuses exclusively on government interventions may limit opportunities for private investment.

Nested REDD+ has several potential advantages to a purely national approach. Integration of REDD+ activities at multiple scales can provide for flexible approaches based on local circumstances, promote private sector investment, facilitate benefit sharing, and support phased implementation of a national REDD+ scheme led by REDD+ projects and subnational programs. While national systems and capacities are being developed and consolidated, subnational activities can continue to support forest investments while providing valuable lessons learned. Finally, nested approaches to REDD+ provide a potentially smooth transition from the current patchwork of voluntary REDD+ projects to national-level accounting. In this respect, the sooner that clarity is provided around any rules governing the future treatment of “early action” projects under emerging national programs, the more successful that these projects will be in generating near-term emissions reductions and investments in forests.

1.2 Subnational versus Project-Level Nesting

There is an important distinction between subnational *programs*, used here to refer to REDD+ programs that are administered/accounted at a subnational jurisdictional level (i.e., at the provincial level) and *projects*. It is possible for both subnational programs and projects to be stand-alone activities or nested within a larger REDD+ accounting scheme. As a stand-alone initiative, subnational jurisdictions could create independent REDD+ programs supported by voluntary markets, bilateral or multilateral agreements. An example of the latter is the Governors’ Task Force on Climate and Forests, which creates linkages to support REDD+ at the state or province level. A subnational jurisdiction could also operate under a national accounting scheme, which is referred to as “nesting”. Similarly, projects can operate independently within the voluntary carbon market, but a project could also operate under (or be nested within) a subnational or national REDD+ accounting scheme.

Nesting subnational jurisdictions and nesting projects each have important roles to play and may be used in conjunction with one another. In discussing issues and options for both types of nesting, this paper attempts to distinguish between the unique issues raised in each.

1.3 The International Context

1.3.1 United Nations Framework Convention on Climate Change

At the 16th session of the Conference of the Parties (COP 16) in Cancun in 2010, parties to the United Nations Framework Convention on Climate Change (UNFCCC) agreed to slow, halt, and reverse forest loss in developing countries. The parties also recognized a “phased approach” to REDD+ implementation, beginning with capacity building and the development of national strategies or action plans, followed by implementation, capacity building,

technology development and transfer, and results-based demonstration activities, and evolving into results-based REDD+ actions that are fully measured, reported, and verified.⁵

In line with ongoing REDD+ readiness activities, the COP 16 decision encourages countries to develop (i) a national REDD+ strategy, (ii) national and, if appropriate, subnational reference emission levels, (iii) a system for measurement, reporting, and verification (MRV) of GHG emissions and emission reductions, and (iv) a system for providing information on how requisite social, legal, and environmental safeguards are being addressed. These and other elements of REDD+ will not be implemented all at once, but rather occur in phases (see Box 1).

According to the COP 16 decision, countries may begin to implement subnational accounting systems for REDD+ while preparing for full-scale national REDD+. This was reinforced in the COP 17 decisions in Durban in 2011. Moreover, as long as overall performance is measured at the national level, countries are implicitly free to create incentives for project-level activities after the adoption of national (and potentially subnational) reference levels. Nesting is relevant both when starting at the subnational level and when integrating small scale activities into a national reference level.

At COP 17 in Durban, Parties provided additional details about REDD+ implementation, particularly in regard to setting reference emissions levels (RELs) and reference levels (RLs). Importantly for nested REDD+, in the decision parties reiterated that subnational R(E)Ls may be developed as an interim measure while transitioning to national R(E)Ls. The COP decision on REDD+ finance from the Ad-Hoc Working Group on Long-term Cooperative Action recognized the option of using non-market-based approaches and also agreed that “market-based approaches” could be developed to support results-based actions undertaken by developing countries.⁶ While it is clear that funding should be available if REDD+ activities are successfully carried out (e.g., emissions decrease or removals increase relative to a R(E)L), the decision leaves unresolved, however, the issue of what is meant by market-based approaches, whether subnational activities could be supported by markets, and whether bilateral (i.e. non-COP) mechanisms will be recognized under the UNFCCC. It is also unclear how a market-based approach for REDD+ may relate to a suggested amendment to the Kyoto Protocol⁷ that could create a link between units generated from market-based mechanisms under the UNFCCC and future commitments under the Kyoto Protocol.

Box 1. Phased Approach to REDD+

The Cancun REDD+ decision recognizes implementation through a **phased approach** beginning with:

- i) The development of national strategies or action plans, policies and measures, and capacity building; followed by
- ii) The implementation of national policies and measures, and national strategies or action plans that could involve further capacity building, technology development and transfer and results-based demonstration activities; and evolving into
- iii) Results-based actions that should be fully measured, reported, and verified. The choice of the starting phase of each country depends on national circumstances and available support.

⁵ UNFCCC. (2010) “Cancun Agreements”. Decision 1/CP.16, par. 73. URL: <http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf>.

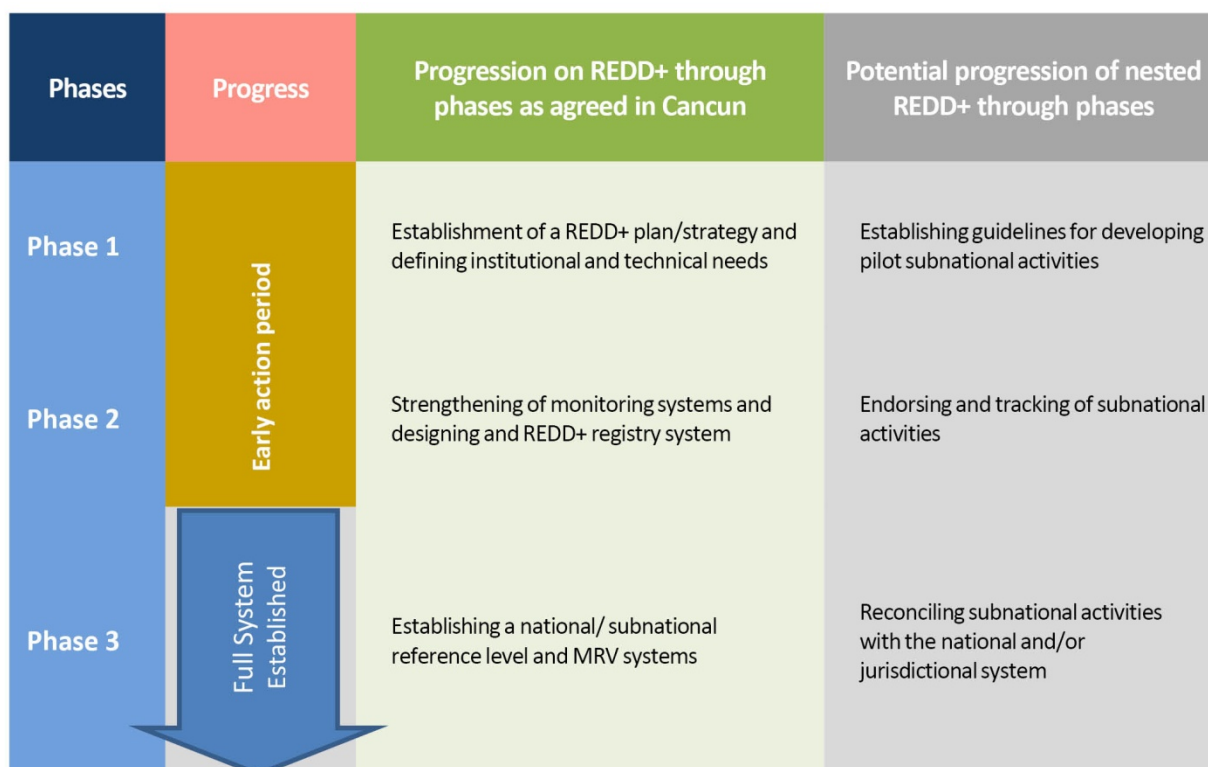
⁶ 2/COP 17 Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, par 66.

⁷ Decision 1/CMP.7 Outcome of the work of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol at its sixteenth session, Annex 3, “Proposed amendments to the Kyoto Protocol”, para. “E. Article 3, paragraphs 12 bis and ter” which states: “12 bis. Any units generated from market-based mechanisms to be established under the Convention or its instruments may be used by Parties included in Annex I to assist them in achieving compliance with their quantified emission limitation and reduction commitments under Article 3. Any such units which a Party acquires from another Party to the Convention shall be added to the assigned amount for the acquiring Party and subtracted from the quantity of units held by the transferring Party.”

1.3.2 International “Readiness” Funding

Developed country parties are called to provide “adequate and predictable support, including financial resources and technical and technological support to developing country Parties”⁸ and to support REDD+ readiness and implementation. Various multilateral initiatives are supporting developing country readiness for REDD+, including the World Bank’s Forest Carbon Partnership Facility (FCPF), the UN-REDD Programme, and the Forest Investment Program. Support for REDD+ readiness also comes from bilateral initiatives sponsored by countries such as Norway, France, Germany, Japan, the U.K., and the U.S. In a few instances -- notably the bilateral agreements between the Norway and Brazil, Indonesia, and Guyana -- funding is performance-based and explicitly linked to demonstrable progress in reducing deforestation. Figure 1 below gives an overview of the parallels between nesting and phased approaches to REDD+.

Figure 1. Phased Approach to Nesting



Source: Chagas et al. 2011.

1.3.3 Exploring Nested Approaches to REDD+

The Governors’ Climate and Forests Task Force (GCF), the Verified Carbon Standard (VCS), and the American Carbon Registry (ACR) are all actively engaged in developing nested approaches to REDD+. The GCF is currently comprised of subnational governments in the United States, Brazil, Indonesia, Nigeria, Peru, and Mexico that are seeking to develop and advance REDD+. As a collaboration between subnational governments on REDD+, the GCF is interested in developing and testing subnational programs that can link to emerging compliance schemes at the international, national, or subnational level. In parallel, California’s emerging cap-and-trade program has been exploring the possibility to incorporate REDD+ offsets from foreign subnational jurisdictions (initially, Chiapas, Mexico and Acre, Brazil) under agreed offset protocols.

⁸ Id., at par. 71.

The VCS Association is currently working with a number of countries and subnational jurisdictions from around the world under the *Jurisdictional and Nested REDD Initiative* to develop a new standard that will allow registration and crediting of nested jurisdictional and systems. The new standard will allow subnational and national jurisdictions (e.g., a province or a country) to develop and register a jurisdiction-wide R(E)L. Credits may then be issued for jurisdiction-wide ERRs at the jurisdiction and/or for ERRs achieved by nested projects. Technical recommendations for developing the new standard have been released⁹ and the new standard is expected to be finalized in the middle of 2012. The VCS technical recommendations represent the most detailed thinking to date on how to implement nested accounting, and provide detailed solutions to many of the technical issues raised and discussed in this report.

Finally, the ACR is also working on expanding its standard to consider some types of nesting. This work is focused on what needs to be done at the project level if the project is located in a jurisdiction that has (or develops) a larger R(E)L that includes the project. It will not result in the ACR registering or crediting ERRs at the province or national level.

2. REDD+ in Vietnam

Vietnam is among the top five most vulnerable countries to the adverse effects of climate change.¹⁰ In response, Vietnam has formulated a number of policies to address both adaptation to climate change and mitigation of GHG emissions, including commitment to REDD+. Since 2009, in line with international developments, Vietnam has taken steps to align its forestry sector with REDD+ and to develop the national capacity and infrastructure for implementation of REDD+. Vietnam is one of the nine countries initially receiving funding for REDD+ implementation under the UN-REDD Programme. It was also one of the first countries to receive approval for a Readiness Project Identification Note (P-PIN) under the FCPF.¹¹ With support from the UN-REDD Vietnam Program, many activities are being implemented to prepare the country for a future REDD+ mechanism. It is also one of the target countries for the USAID-funded LEAF project, which aims to support REDD+ readiness and demonstration activities in SE Asia. The country's Readiness Preparation Proposal (R-PP) identifies four major drivers of deforestation and forest degradation in the country below:

- (i) Land use conversion from forestry to agricultural purposes, especially for perennial crops and aquaculture;
- (ii) Unsustainable timber harvesting (both legal and illegal);
- (iii) Infrastructure development; and
- (iv) Forest fires.

On 27 June 2012 the government approved the National Action Plan on “Reduced Emissions from Deforestation and Forest Degradation, Sustainable Forest Management, Conservation and Enhancement of Carbon Stock in the Forest” for 2011-2012 (hereafter “REDD+ Action Plan”). The REDD+ Action Plan is considered one of the key tasks of the National Strategy on Climate Change. The objective of the REDD+ Action Plan is twofold:

- During 2011-2015: Formulate and pilot mechanisms, policy, organizational structure and technical capacity at national level for management and implementation of REDD+ projects in a way that complies with national situations and international supports; improve awareness and capacity of relevant stakeholders; create jobs and increase incomes for local households through the piloting of REDD+ projects in at least eight provinces

⁹ See *Jurisdictional and Nested REDD Initiative: Summary of Technical Recommendations, Version 2.0* (23rd February), available at <http://www.v-c-s.org/JNRI>

¹⁰ Dasgupta, S. Laplante, B. Meisner, C. Wheeler, D. Yan, J. (2007). *The Impact of Sea Level Rise on Developing Countries: A Comparative Analysis*. World Bank Policy Research Working Paper 4136.

¹¹ REDD Vietnam, <http://vietnam-redd.org/Web/Default.aspx?lang=en-US>.

- During 2016-2020: Completion of mechanisms, policy, organizational structure and technical capacity for the management, coordination and implementation of programs, projects and activities related to REDD+ at the national scale

The targeted beneficiaries of REDD+ as identified by the REDD+ Action Plan are the organizations, local households, individuals, local communities participating in the management, protection, and development of the forests. Several core activities are identified in the Action Plan:

- For 2011-2015:
 - Capacity building and institutional supports for management of REDD+ activities (e.g. providing training and doing advocacy; formulating organizational structure and national REDD+ network; strengthening collaboration among line ministries; completing legal framework and guiding implementation of REDD+ activities)
 - Inventorying and collecting data for formulation of emissions level (e.g. forest resources inventory, R(E)Ls formulation for national scale and for the provinces piloting REDD+)
 - Establishing MRV system for the country
 - Establishing mechanisms for managing REDD+ revenue (e.g. establishing a REDD+ Fund at national and the piloting provinces, establishing REDD+ benefit distribution systems from national to local level, identifying payment level and modes)
 - Piloting REDD+ projects (e.g. selecting at least eight provinces with potential emission reduction for piloting REDD+ projects; making provincial Action Plan; integrating REDD+ with planning, action plans for forest protection and development, and land use planning; formulating mechanisms for managing, coordinating and implementing REDD+ activities at provincial level)
- For 2016-2020:
 - Continuing the completion of mechanisms for coordination, management and implementation of REDD+ programs, and implementing REDD+ at national scale; revising and completing the formulation of R(E)L at national and the provincial level for piloting province projects; completing the systems of MRV, safeguards, and information structure; completion of mechanisms for managing REDD+ fund and benefit distribution

To complete these activities, the REDD+ Action Plan proposes the following solutions:

- Completion of legal framework facilitating the implementation of REDD+ (e.g. reviewing, revising and issuing legal framework on land, forest protection and development, carbon rights, investment in carbon market and trading of carbon credit, financial management, benefit sharing, and safeguards)
- Completion of institutional framework and improvement of technical capacity and human resources (e.g. more effective coordination among line ministries, particularly the Ministry of Agriculture and Rural Development and the Ministry of Natural Resources and Environment; promotion of private sector engagement and public-private partnerships in designing, implementing and monitoring REDD+ activities)
- Review and completion of land use planning and forest protection and management plan
- Review and completion of land allocation, land contracting to organizations, households, individuals, and local communities in order to guarantee legal status of these groups when participating in REDD+ activities
- Strengthening of international collaboration in order to diversify financial resources for REDD+

In 2010, the Ministry of Agriculture and Rural Development (MARD) established the National REDD+ Network and REDD+ Working Group to increase awareness of REDD+ and build capacity at national and local levels to coordinate activities by ministries, international agencies, and organizations. Under the REDD+ Working Group there are six sub-

technical working groups established by MARD¹² to raise awareness for relevant stakeholders and generate insights to contribute to the design and implementation of the National REDD+ Program.

Oversight of REDD+ implementation in Vietnam is the responsibility of the National REDD+ Steering Committee, which includes senior policy makers from the Office of the Government and different line ministries, with MARD being the focal ministry for REDD+. The chairman of the Vietnam REDD+ Office, which is established by MARD, is the country's REDD+ focal point.

In addition to a fund-based approach that does not rely on market-mechanisms for finance, the country is open to the idea of both compliance and voluntary markets, with the expectation that carbon markets revenue will be an important source of funding for forest conservation and development in the future. As a result, project-based REDD+ is now being piloted in Vietnam. Private entities, both domestic and foreign, have been exploring opportunities to invest in the voluntary carbon market, discussing with MARD and provincial authorities and partners to secure carbon rights in forests in order to establish REDD+ projects. Some conservation agencies have followed suit, trying to work on the ground in the hope of generating carbon credits to sell in global markets.

So far, activities related to REDD+ in the voluntary carbon market have focused on natural forests, especially special-use and protection forests currently managed by Management Boards (MBs) and State Forest Companies (SFCs). However, there are uncertainties related to voluntary carbon market projects in Vietnam owing to the lack of legal framework regulating project-based investment activities and carbon trading. The Prime Minister has requested Ministry of Natural Resources and Environment (MONRE) in charge of land and MARD which is responsible for forests in the country to work on an interim circular for regulating the investment in REDD+. To date, however, such a circular has not yet developed. Uncertainties are also triggered because of the lack of clarity on carbon rights of various user groups in different types of forests as described in the later stage of this paper.

Vietnam has already fully accepted that its domestic REDD+ should ultimately occur under a national framework. However, implementing REDD+ across the entire country will take time and would present a difficult starting point. The government of Vietnam is now exploring the potential of nested approaches to REDD+ with the aim of establishing a legal framework for establishing voluntary carbon markets, regulating REDD+ project-based investments and maintaining environment integrity.

Vietnam is now moving into Phase II of REDD+ implementation by preparing the implementation of participatory and result-based demonstration activities in at least eight pilot provinces across the country. It is anticipated that six pilot provinces will be supported through a UN-REDD Programme Phase II initiative. In each province, activities include: (i) creating an implementation plan for the pilot area, including development of the provincial REDD+ Program, a REDD+ action plan for pilot areas, and training for key stakeholders; (ii) developing a MRV system for the province; (iii) exploring benefit distribution system (BDS) options for the province; and (iv) generating lessons-learned to be shared in order to develop and implement the National REDD+ Program. At the provincial level, the REDD+ implementation committee will be established by the provincial People's Committee. By building provincial MRV capacities (including possible Reference Levels/Reference Emission Levels), implementation strategies and benefit distribution systems, Phase II work is creating conditions for results-based finance to flow into these provinces "nested" within the national framework.

More work, however, is needed on how accounting for results at different scales will be carried out and any different approaches or inconsistent findings reconciled. This is important for government (national and provincial) along with

¹² These sub-technical working groups are (i) Local Implementation, which aims to feature lessons-learned from activities undertaken at the local level; (ii) MRV, which aims to discuss MRV technical issues; (iii) Benefit Distribution System (BDS), which aims to discuss issues related to REDD+ revenue distribution; (iv) Private Sector Engagement, which is mandated to discuss mechanisms for involving the private sector (e.g., timber, rubber, coffee industries) in REDD+ design and implementation; (v) Governance, with the goal to strengthen coordination among different government agencies and initiatives (e.g., REDD+ and FLEGT) and (vi) Safeguards.

local communities and private investors that are seeking to engage in and benefit from local efforts to protect and restore forests. The information contained in the following sections provides initial advice on some of the issues and possible solutions to developing such an integrated accounting system in Vietnam.

3. Overview of Issues and Options for Nested REDD+

Nested REDD+ raises challenging technical, regulatory, institutional, and economic issues. Aspects that need to be developed by policymakers and regulators include:

- Incentives: What types of incentives are used, and how are benefits allocated or how do they flow?
- Accounting: How is performance at multiple scales determined, and how do the different scales fit together? This includes setting R(E)Ls, crediting and leakage, amongst others.
- Regulations and institutions: What policy decisions need to be made, and which institutions are responsible for REDD+?

Many of these issues are common to any REDD+ approach, but nested accounting also contains a number of particularities. This paper focuses on issues and options for nested subnational REDD+ programs and projects, where emission reductions and removals are accounted at the national scale.

3.1 Incentives to Nested Programs and Projects

3.1.1 Readiness Funding, Results-Based Payments and Carbon Credits

International funding for domestic REDD+ may include readiness funding, evolving towards results-based payments either from bilateral or multilateral organizations, or potentially from market-based approaches. Outside of the UNFCCC context, voluntary carbon markets can provide some additional, albeit limited, results-based funding for REDD+.

Readiness funding, which is a key focus of current multilateral and bilateral finance, is ideal for supporting REDD+ capacity building and changes in policies and governance structures to support REDD+. The range of legislative or governance measures that may have positive impacts for REDD+ are numerous. Hang et al. (2011) list the following such measures among others:

- Improving forest legislation (e.g., protected forest areas, land use planning)
- Taxes or fines for unsanctioned deforestation or forest degradation
- Land tenure reform, including community tenure rights
- Implement output- or area-based compensation for ecosystem services
- Improve monitoring and enforcement
- Promote alternative income generation opportunities in areas at risk of deforestation or degradation due to drivers such as over-exploitation and conversion for agriculture

Legislative and governance reforms in these and other areas will be essential for successful REDD+ at scale, which makes readiness funding critical to drive positive changes in line with national REDD+ plans. Over time, the UNFCCC process—as well as jurisdictional processes such as the GCF—envisions an evolution towards “results-based actions” that would be compensated. The debate over the role of markets versus public sources of funding to compensate these actions is ongoing and many details remain unresolved under the UNFCCC. Entry points for the private sector are likely to be important for REDD+, as public finance alone almost certainly cannot generate the level of investment

needed to reduce global deforestation rates enough to have a significant climate change mitigation impact.¹³ Credits generated by national or subnational governments may potentially access private capital markets through bonds, sale of verified ERRs, or other structures. From the perspective of many private sector actors, a key entry point for private finance is at the project level, where ERRs can be verified and generated under internationally-accepted standards and then sold as carbon credits. Nested projects therefore provide a potentially promising opportunity for private finance. Clear governance and accounting frameworks, including nested approaches, can translate into more attractive investment opportunities for private finance, with nesting potentially allowing for direct crediting of projects within the national accounting framework. The case study by Fauna and Flora International (FFI, see Case Study 2 in the Annex) describes its ongoing REDD+ project in Vietnam. In this example, the project activities are designed to contribute to emissions reductions by improving forest governance and creating finance/incentive mechanisms to provide benefits to forest-dependent villagers. The expectation of the project is that the designed intervention will be able to connect with emerging national mechanisms around MRV and benefit sharing. But to do this will require a broad set of policies that include institutional reforms in the areas of governance, tenure, decentralization, and community forest management.

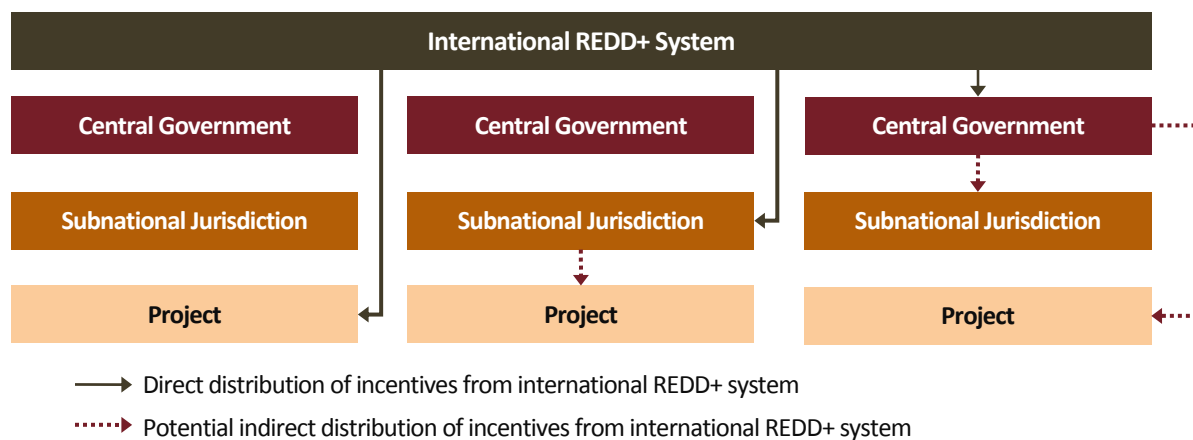
3.2.2 Distribution of REDD+ Incentives in a Nested System

Mechanisms for the distribution of REDD+ incentives (sometimes referred to as “benefit sharing”) involve various policy decisions and alternatives including 1) possible **pathways** for flow incentives from international sources, 2) the **form** that incentives may take, 3) the basis for **allocation** of incentives between different scales and stakeholders.

There are several pathways to distribute REDD+ incentives from the international system to domestic actors within a nested REDD+ system. Payments to programs and projects from the international system may come **directly** from the international REDD+ system, as is the case in the Clean Development Mechanism of the Kyoto Protocol (CDM), or may be paid **indirectly** via the national or subnational government, as is done in some types of Joint Implementation arrangements. Potential options (shown in Figure 2) include:

1. Incentives are paid directly to project-level activities that are nested within a jurisdiction’s accounting.
2. Incentives are paid directly to subnational jurisdictions, and may be passed through to projects.
3. Incentives are paid directly to the national program, and may be passed through to subnational jurisdictions and/or projects.

Figure 2. Potential Incentive Distribution Pathways for Nested REDD+ under National Accounting



Source: Adapted from Chagas et al. 2011.

¹³ Eliasch, J. (2008) *Climate Change: Financing Global Forests*. London: Department of Energy & Climate Change (50% reduction in deforestation rate needed to hold global temp rise below 2 deg, global investment needed of 17-40 b per year. “Investment at this scale is highly unlikely to come from governments alone”).

Available pathways for direct allocation of incentives would be specified by the international REDD+ mechanism, while indirect allocation would be left to relevant national (and possibly subnational) government entities.

REDD+ incentives within nested systems might take the form of monetary compensation or the allocation of tradable rights over emissions reductions (i.e., carbon credits) at different scales and to different actors within jurisdictions. A key issue for nested systems is determining what form the “currency” of positive incentives may take for different actors. For example, this could include either allowing projects the rights to tradable carbon credits they are responsible for selling or financial incentives passed through to local beneficiaries from compensation received by the government.

It is unlikely that results-based finance under the UNFCCC will flow directly to *stand-alone* REDD+ projects (following a CDM model) yet there is the potential for direct incentives to project-level activities that are (1) nested within national accounting and (2) issued credits for emission reductions or removals by an approved national, subnational, or external (approved third party) program. That is, for international incentives to flow to nested projects, the project accounting must be nested within national accounting and the national or subnational government must specify the process under which projects are approved and eligible credits are issued. This has some analogy to the Joint Implementation mechanism established under the Kyoto Protocol.

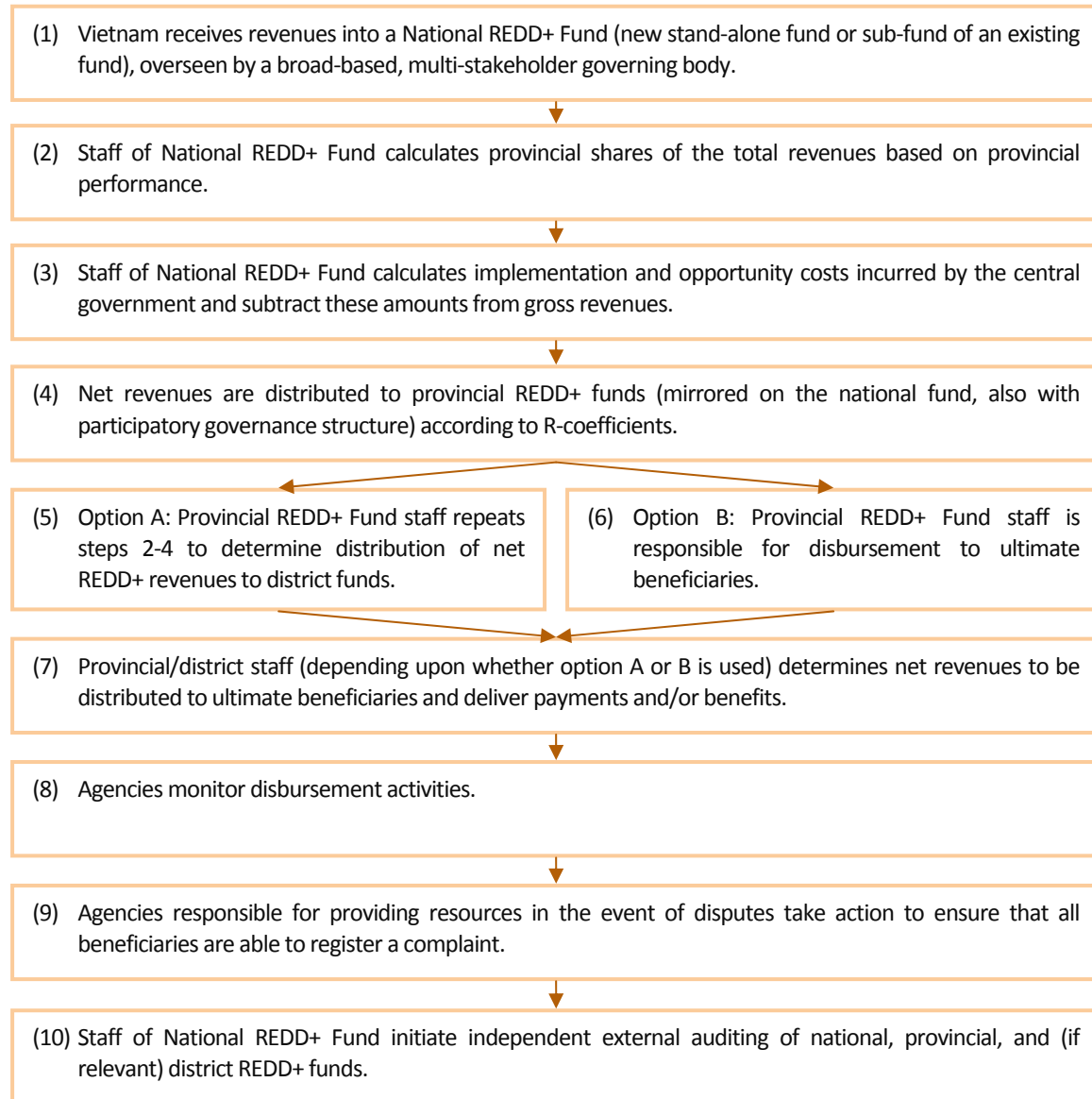
In addition to determining who may receive REDD+ incentives, the government must design criteria for how incentives will be calculated and distributed. In some cases, subnational action may be credited with tradable carbon credits; in other cases, accounting for emission reductions merely serves to assess the effectiveness of subnational actions or to guide the allocation of incentive payments. In all these cases, accounting rules and policies for nesting are relevant. Nevertheless, allocation of incentives may be tightly linked with emissions reductions accounting, as is the case under current voluntary carbon market projects, or far more flexible within a national or provincial program.

Possible options are that the nested program or project receives tradable credits, based on an *ex post* evaluation of how successful nested activities have been in generating emission reductions or removals as planned. Incentives may alternately be calculated on the basis of proxies for ERRs, such as hectares of deforestation prevented (*ex post*) or hectares of forest conserved (*ex ante* or *ex post*). In national or provincial systems, where the total volume of incentives is based on jurisdiction-wide results, allocation of incentives (either carbon credits or financial) within the jurisdiction could be partially decoupled from this sort of emissions reductions (or proxy) accounting, and based on multiple criteria, covering a combination of approaches, (e.g., policies, programs and specific sites/projects), and a combination of multiple stakeholders (e.g., local governments, land owners, protected areas, vulnerable and marginal populations). In Brazil, for example, the Amazon states have proposed a system that allocates a portion of emissions reductions between the Federal (central) government and the State governments, with different states, in turn, developing different systems for allocating and incentivizing emissions reductions within their border.

Vietnam has established an institutional setup for benefit distribution (BDS). The government Decree 05 dated 14 January 2005 mandated the establishment of the Forest Protection and Development Fund – a Trust Fund established to receive revenues from PES and other sources provided by the forest. Decree 99 in 2010 on payment for forest ecosystem services stipulates that revenues derived from environmental services including REDD+ should be channeled to the Fund and should not be mainstreamed to national budget. The recently-approved REDD+ Action Plan allows the formulation of REDD+ Fund at national and provincial level, with the Fund nested within the existing Forest Protection and Development Fund. The national REDD+ fund may derive revenues from bilateral and multilateral sources, as well as revenues from associated forest owners, who market carbon credits from REDD+ in national and international market.

During the first phase of the UN-REDD Vietnam Programme, a BDS system was designed. The designing of this system is very much based on experiences derived from the operation of the Forest Protection and Development Fund in Lam Dong and Son La where the government implemented the Piloting Policy on Forest Environmental Services (PFES). **Figure 3** presents the benefit distribution structure for REDD+. This structure is recommended for the piloting BDS in the forthcoming Phase II of the UNREDD Vietnam Programme.

Figure 3. Benefit Distribution System



Source: Adopted from UN-REDD and MARD, 2010

The above BDS structure is designed primarily for the compliance market. There is no such a structure for voluntary market though it is expected in the REDD+ Action Plan that revenues from the sale of carbon credits in international market will be one of the sources from REDD+ Fund revenues. The REDD+ Action Plan requires the establishment of payment distribution for REDD+ from national to local level. Following the Action Plan, the government plans to pilot BDS in at least eight pilot provinces. Under this plan, benefits derived from REDD+ are to be distributed to many sites and beneficiaries in these provinces. The practical functionalities of the BDS will need to be established accordingly. The BDS in each province will be in line with guiding principles and criteria, but the detailed design will vary from province to province in line with local conditions. It is not clear, however, how benefit distribution structures to be developed for REDD+ projects can connect with subnational and national BDS structures, as the FFI case in Case Study 2 of the Annex indicates.

3.2 Accounting for Nested REDD+

While the idea of nesting is simple, depending on how the nested system is designed the accounting can become quite complex. Accounting for ERRs in a nested system will require a number of technical issues to be addressed and will be affected by the approach taken to nesting and distribution of ERRs. The VCS spent significant time and effort in 2011 and into 2012 to identify a long list of technical issues that need to be addressed, analyzed options for addressing these issues, and proposed a comprehensive set of detailed technical recommendations.¹⁴

The list of accounting issues addressed by the VCS includes:

- i) Establishing a jurisdictional R(E)L (determining the boundary, scope, calculating the R(E)L, nesting different scales, additionality);
- ii) Monitoring, reporting, and verification (MRV);
- iii) Leakage (within a jurisdiction and outside a jurisdiction);
- iv) Issuing credits in a nested system (who gets how many, when are credits issued, how to avoid double counting); and
- v) How to account for reversals/loss of forest (including forest loss due to natural disturbances such as fires or typhoons).

How these accounting issues are resolved will be affected by the overall nested design options chosen. Given this existing work, a detailed analysis of technical issues is not warranted in this report. Rather, the topics of R(E)Ls and crediting are discussed generally along with the issue of how to address “performance risk” using nested accounting. More detailed discussion of these and the complete set of technical issues and possible solutions can be found in *Jurisdictional and Nested REDD Initiative: Summary of Technical Recommendations (Version 2.0)*.¹⁵

3.2.1 Creating Jurisdictional and Nested R(E)L

Establishing a jurisdiction-wide R(E)L that can incorporate smaller scale (e.g., project-level) R(E)L is a key nesting issue. A number of factors need to be considered when creating a nested R(E)L. These include determining the boundary and scope of the R(E)L, calculating the R(E)L, creating rules on how to nest different scales, and ensuring additionality.

A) Determining the Boundary

Determining the boundary of a jurisdiction can be straight forward. If a national system is being established, the boundary would be the national borders. If a subnational R(E)L is being created, the boundary could either be an administrative boundary (such as a district, province or collection of provinces) or it could be an ecosystem/eco-region boundary. There are advantages and disadvantages of using either approach that will be heavily influenced by a country’s political and ecological circumstances. There may also be legitimate reasons for excluding an area from a jurisdiction’s boundary, such as a border dispute or civil unrest within a country.

At the project level, the boundaries for accounting purposes encompass the area (usually of forest) under the control of the project proponent at the time of validation. However, additional reference areas are typically used under VCS methodologies to establish the baseline and calculate the rate and location of expected deforestation, as well as to monitor for possible leakage effects. If multiple projects are generated within a jurisdiction, some of these reference areas associated with project accounting may overlap, and guidance will need to establish how these are reconciled.

¹⁴ See the VCS website on the Jurisdictional and Nested REDD Initiative for additional detail on the issues identified (*JNRI Scoping Paper*, dated 20th April 2011) and recommended technical solutions (*Jurisdictional and Nested REDD Initiative: Summary of Technical Recommendations, Version 2.0*, dated 23rd February 2012), available at <http://www.v-c-s.org/JNRI>.

¹⁵ Ibid.

B) Deciding the Scope

The issue of scope has three elements: which REDD+ activities are included in a nested system, which pools are included, and which greenhouse gases (GHGs) are included.

The UNFCCC breaks REDD+ into 5 activities:

- i) Reducing emissions from deforestation;
- ii) Reducing emissions from degradation;
- iii) Conservation of forest carbon stocks;
- iv) Sustainable management of forests; and
- v) Enhancement of forest carbon stocks.¹⁶

The potential pools are:

- i) Above ground biomass;
- ii) Below ground biomass;
- iii) Dead wood;
- iv) Litter;
- v) Soil carbon; and
- vi) Wood products.

The most important GHGs will be carbon dioxide (CO₂) and potentially methane (CH₄).

A nested system could cover some or all of these activities, pools, and gases in its R(E)L. The scope will need to be decided by each jurisdiction based on an assessment of what is significant and what is technically reasonable to include, given any capacity, financial, or technical opportunities and limitations. It should be noted, however, that the COP 17 decision on methodological issues for R(E)L development states parties must provide information on “reasons for omitting a pool and/or activity from the construction of forest reference emission levels and/or forest reference levels, noting that significant pools and/or activities should not be excluded.”¹⁷ Complexities can arise if nested R(E)Ls have different scopes (e.g., a national REL for deforestation but a nested province has a REL for deforestation and degradation; or different pools or gases included at different scales), but there are accounting solutions to these differences.¹⁸ Although allowing differences in scope at different scales will increase flexibility within a country, this will come at the expense of increased complexity in the accounting.

C) Calculating a Jurisdictional R(E)L

Once the geographic boundary and scope of a R(E)L has been decided, the next step is to calculate the R(E)L. UNFCCC guidance on R(E)L development states that R(E)Ls should take into account historic data and account for national circumstances. This may require collecting and analyzing historic data on the “rate” of change for the chosen

¹⁶ It should be noted that when referring to or using IPCC reporting guidelines, the guidelines divide forests into categories of the following: conversion of forest to non-forest; forest remaining forest; and non-forest converted to forest. All of the UNFCCC REDD+ activities fall within these 3 IPCC categories. The VCS also uses different categories of REDD+ activities. The only UNFCCC activity not clearly covered by the VCS is the REDD+ activity “conservation of forest carbon stocks.” A comprehensive table mapping IPCC, UNFCCC, and VCS treatment of REDD+ is included in the Annexes of *Jurisdictional and Nested REDD Initiative: Summary of Technical Recommendations, Version 2.0*.

¹⁷ Decision -/CP.17 Guidance on systems for providing information on how safeguards are addressed and respected and modalities relating to forest reference emission levels and forest reference levels as referred to in decision 1/CP.16, Annex, paragraph (c). Decision number not allocated at the time of writing.

¹⁸ See the VCS Jurisdictional and Nested REDD Initiative technical recommendation documents available at www.v-c-s.org/JNRI.

activities, along with estimating “emission factors” or “removal factors”¹⁹ for those activities. For example, if the R(E)L covers deforestation only, historic data on rate of change from forest to non-forest will need to be collected. The emission factors for various forest types where deforestation has occurred will also need to be calculated – e.g., the tCO₂e/ha emitted when different types of forests are cleared. When combined, this data will provide estimates for emissions that occurred over a series of points in time in the past, which is the foundation of a R(E)L. However, this historic data can be used and interpreted in a number of ways in order to generate a R(E)L that can be used for assessing results and whether or not ERRs are generated in the future.

To estimate what the future may hold, the historic **average** could be projected into the future, a **trend** could be identified in the data and projected into the future, or the future could be estimated based on economic or other **models** of future changes to a country’s forest. Finally, there is some discussion that a R(E)L used for issuing ERRs that are tradable as offsets may also include a deduction from the future scenario to account for “own effort” or non-market financial support that generate ERRs that are not financed by market mechanisms. This is sometimes referred to as developing a “crediting baseline”.

While the UNFCCC has not established methodologies for setting R(E)Ls, Vietnam is adopting interim performance indicators in pilot provinces to support results-based REDD+. The interim performance indicators will be established for each type of REDD+ activity to be implemented, and will be monitored and assessed at the provincial level. In contrast, monitoring for results-based outcomes may also need to be monitored at the level of the intervention, in order to enable determination of benefit distribution at that level.

The UN-REDD Vietnam Phase II Programme will support development and monitoring of interim performance indicators through the following indicative activities:

- Centrally establish approaches of setting and monitoring interim performance indicators per each type of REDD+ activity;
- In the pilot provinces, assess available past and present data for determining the benchmarks for each type of REDD+ activity;
- Once the indicators and benchmarks have been established, the national MRV capacity that is to be built through the other activities of this same outcome will annually monitor performance for each of the indicators;
- Assess provincial performance as the basis for benefit distribution to the province;
- In line with the progress of UNFCCC deliberation on R(E)Ls, draft recommendations and provide support towards the establishment of R(E)Ls at the national level.

The establishment and monitoring of interim performance indicators is meant to provide insight and lessons for the eventual work of developing R(E)Ls at the national level. The UN-REDD Vietnam Programme Phase II will support Vietnam in the development of national R(E)Ls through a step-wise approach starting with lessons learned from provincial interim performance indicators. In addition to UN-REDD Vietnam Programme, JICA’s ongoing REDD+ project in Dien Bien province in the country’s northwest is also aimed at preparing the province REDD+ program (subnational jurisdiction). The project focuses on the following four main components:

- (i) Design implementation plan for the pilot areas
- (ii) Develop MRV for the province
- (iii) Develop BDS for the province
- (iv) Share lessons to develop and implement the National REDD+ Program

¹⁹The emission factor is the number of tCO₂e emitted per unit of rate (e.g., tCO₂e/ha) and the removal factor is the number of tCO₂e sequestered per unit of rate.

To integrate this subnational level with the national level, JICA has noted that further clarification of roles of provincial MRV for national MRV and the design of provincial MRV as part of national one is needed. For further detail of this discussion, see case study by JICA in Annex.

As the country REDD+ Action Plan clearly states, the country will ultimately develop R(E)Ls for all carbon-related activities within the scope of the REDD+ mechanism being negotiated under the UNFCCC. To do this will require tremendous technical and financial supports from within and outside of the country.

D) Nesting R(E)Ls

While the above discussion on calculating a jurisdictional R(E)L describes how a jurisdiction-wide R(E)L can be calculated, it describes a “top-down” approach of how to create such a R(E)L from scratch. It does not address a key issue of how a jurisdiction-wide R(E)L relates to pre-existing smaller scale R(E)Ls (e.g., from a project or series of projects) or how it relates to projects developed after the jurisdiction-wide R(E)L is set.

Early-start projects or subnational programs can make useful contributions to national REDD+ plans, but also can represent accounting challenges. Pre-existing projects financed by sale of credits in the voluntary carbon market may be able to generate early, measurable emissions reductions, contributing to national objectives. These early projects, operating in advance of full provincial or national systems, can also potentially provide information that is used to create the larger scale R(E)L. This could be information on topics such as deforestation rates, carbon stock estimates, and emission factor estimates. Using this pre-existing information can help to promote consistent information across scales. However, some differences are bound to occur either across projects or between projects and larger-scale accounting methods, and reconciliation of R(E)L between scales to ensure they are consistent will need to occur at some point. If this reconciliation requires a change to the project’s R(E)L, this will affect the volume of credits that can be claimed and potentially alter the flow of benefits to project participants. For this reason it is often proposed that this reconciliation occur a number of years after the project has been developed to provide some certainty to early movers. Rigorous review and approval for projects or provincial programs (discussed in the following chapter) can help ensure that their accounting is likely to be compatible with – though probably not identical to – evolving jurisdictional R(E)Ls.

To date, as highlighted in the Annexed case study 2 by FFI, the government of Vietnam has not yet developed a legal REDD+ framework for linking national and sub-national REDD+ projects and programs. This makes project-based REDD+, including that currently being implemented by FFI, run quite independently. The Government of Vietnam is currently in the process of establishing a legal framework that will govern questions of carbon trading and benefit sharing. This framework will necessarily involve some level of guidance with regard to accounting, thereby integrating the existing stand-alone REDD+ projects into the sub-national or national level architecture. The piloting of REDD+ in at least 8 provinces will serve as an important foundation for the scaling up of REDD+ nationwide, as the REDD+ Action Plan clearly states.

Conversely, a related issue can occur for projects developed after a jurisdiction-wide R(E)L already exists - namely, determining how new projects use or relate to an existing provincial or national R(E)L. A number of options are possible,²⁰ but choosing how to recognize and reward new projects will be affected by national government’s policy on how to implement nested REDD+ accounting.

At a higher level, subnational jurisdictions (e.g., provinces) with R(E)Ls will also need to be harmonized with national R(E)Ls if the subnational jurisdiction’s R(E)L precede the national. This may represent a particular challenge since further criteria and processes for setting national reference levels are likely to be determined by the outcomes of UNFCCC negotiations in the coming years, and are as yet unknown. However, inasmuch as COP 16 and COP 17

²⁰ Options will vary depending on the scope and nature of the higher scale baseline. If the national or provincial baseline is spatially explicit (i.e., predicts on a map where deforestation will occur in the coming years) it may be possible to simply “cut out” the project’s R(E)L. However, if the national or provincial R(E)L does not contain a spatial projection – which may be the case in a number of different types of REDD+ activities – projects could use the same data sets as the existing R(E)L, use their own data, or adopt an R(E)L allocated by the government. There are advantages and disadvantages to each option.

decisions explicitly recognize a role for subnational accounting and reference levels as an interim step towards national systems, these can provide important building blocks and inform the technical and negotiating process for decisions about national R(E)Ls and how subnational R(E)Ls relate to each other in the future.

In Vietnam, following the National REDD+ Action Plan, the national R(E)Ls will principally be aggregates of R(E)Ls developed for each stratum at the sub-national level (in at least 8 REDD+ piloting provinces). Based on agreements on REDD+ related definitions of R(E)Ls for the country, implementing bodies will define eco-regions, assign R(E)Ls based on bio-physical assumptions per eco-region stratum, assess availability of existing forest inventory data according to the eco-region stratum, collect forest inventory and biomass data for each stratum, update/develop emission factors for each eco-region and allocate R(E)Ls for appropriate administrative unit levels (initially at the piloting provinces). The development of REDD+ accounting in the country will take time. According to the REDD+ Action Plan, the government will develop R(E)Ls for the piloting provinces before aggregating them into a national MRV system.

E) Additionality

Additionality will need to be determined for both the national or provincial R(E)L along with nested projects. Additionality of national or provincial R(E)Ls should be factored into the initial R(E)L development. Additionality of nested projects can be assured via a number of options, but as MRV, accounting, and estimation of ERRs will be calculated and reconciled at the national or provincial level, ultimate responsibility for ensuring project additionality should sit at these higher scales.

3.2.2 Measurement, Reporting, and Verification (MRV)

In results-based REDD+, progress from R(E)Ls will be assessed via measurement, reporting, and verification (MRV) systems. In Vietnam, MRV is based on a phased approach, starting with capacity development, and then establishment of an operational forest land monitoring system and conservative assumptions based on emission factors. The final stage of MRV is an operational forest land monitoring system combined with national forest inventory, on the basis of which national GHG emissions are calculated.

3.2.3 MRV system Proposed in the Draft Proposal of the UN-REDD Vietnam Programme Phase II

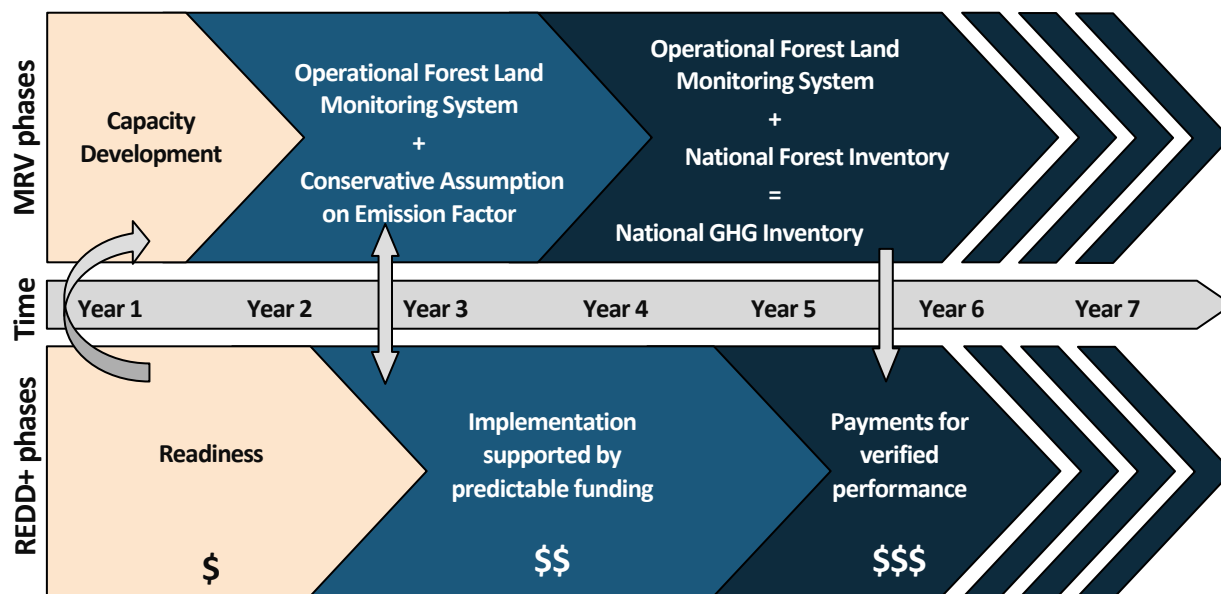
With support from UN-REDD Vietnam Program phase II, the government of Vietnam will establish a National REDD+ Information System (NRIS). The core of the NRIS will be a centralized geo-spatial database (able to interface with decentralized units) that will allow the harmonization and correlation of information linking to the Land Monitoring System (LMS, see below). The NRIS will entail the function of a database catalogue of field interventions to record interventions and monitoring results, which will be used for determining benefits and outcomes at the local level.²¹ This database system will link implemented REDD+ activities to the territorial management structure used by the forestry authorities in Vietnam.

The UN-REDD Vietnam Phase II Programme will help establish and operate Vietnam's REDD+ National Forest Monitoring System (NFMS). The NFMS comprises two separate functions: REDD+ monitoring functions for monitoring of the outcomes of REDD+ activities, and MRV functions for the measurement, reporting and verification of REDD+ mitigation performance (see **Figure 4**). By the end of the UN-REDD Vietnam Phase II Programme, the MRV function component of the NFMS will be used to report the assessments of the forest related emissions and removals at Tier 2 level (based on country-specific data) with the aim to reach an accuracy assessment that can bring Vietnam to report at Tier 3 level (based on more detailed modeling and/or inventory-based approaches) as soon as possible.²²

²¹ For example, the NRIS will record demonstration activities in Phase II of the UN-REDD Program, or broadly all REDD+ interventions.

²² 'Tier levels' described here follow the methodological approaches suggested by the IPCC. See IPCC(2006). Penman J., Gytarsky M., Hiraishi T., Krug T., Irving W., Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (Eds.). 2006 IPCC Guidelines for National Greenhouse Gas Inventories. IPCC/IGES, Hayama, Japan.

Figure 4. Phased Implementation of REDD+ and MRV in Vietnam



Source: Adapted from Hang et al. 2011.

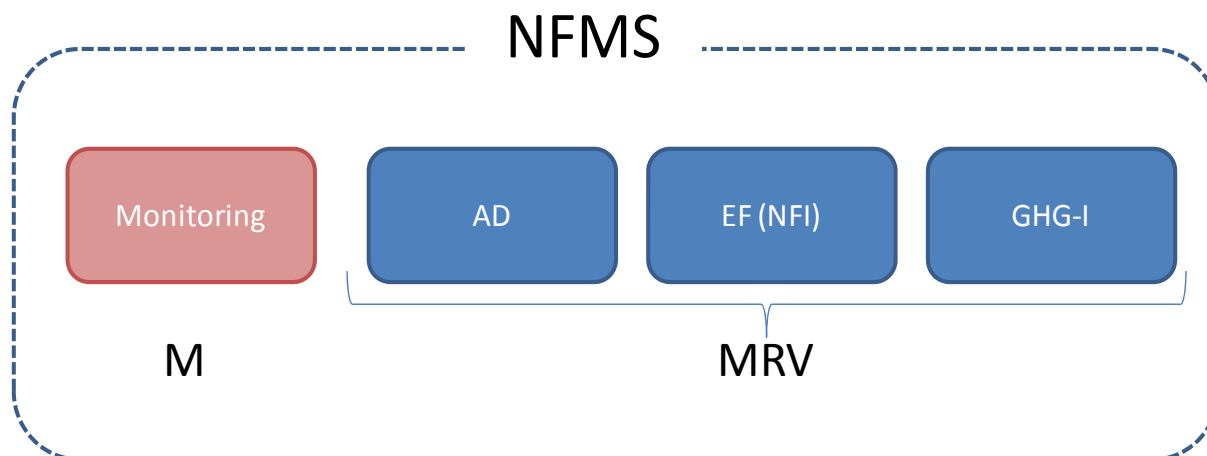
REDD+ financial benefits will be provided to Vietnam on the basis of verified, results-based actions. The NFMS, through its monitoring component, will provide the data that will quantify whether REDD+ activities have resulted in concrete sustainable management or conservation of forest land and will provide the evidence upon which stakeholders will be able to receive benefits. In a parallel process, the MRV component will quantify national scale (with indication of performances at provincial level) ERRs being achieved through REDD+ activities.

The monitoring component of the Vietnam NFMS (see Figure 5) will track progress in the implementation of demonstration activities and ascertain that demonstration activities result in measurable positive outcomes. Innovatively, the monitoring component will test pilot how participatory monitoring can contribute to the NFMS.

The MRV component of the NFMS includes several components:

- (i) *Activity Data (AD)*: a Land Monitoring System (LMS) to assess forest area and forest area changes through the assessment of forest land and non-forest land;
- (ii) *Emission Factor (EF)*: specific studies and measurements to assess biomass and collect data for assessment of relevant carbon stocks and carbon stock changes. In addition to data generated from these studies, country-specific allometric equations and conversion/expansion factors will be developed, for each homogeneous strata identified by the national stratification; this action will be based on the National Forest Inventory and Participatory Forest Monitoring under REDD+ implementation;
- (iii) *REDD+ Greenhouse Gas Inventory (GHG-I)*: information from the above two elements will be combined to estimate and report anthropogenic emissions by sources and removals by sinks for the forestry sector (including transfers to other land-use classes). This will form part of Vietnam's National Communication to the UNFCCC, i.e., the "Reporting" element of MRV (Vietnam is expected to complete its Third National Communication to the UNFCCC Secretariat in 2014).

Figure 5. The Four Elements of the NFMS



Source: UN-REDD Vietnam Programme Phase II draft proposal.

These elements must be supported by clear institutional arrangements to coordinate and facilitate all the administrative and technical aspects. The coordination of the MRV function will be under control of the Vietnam REDD+ Office in Vietnam Administration of Forestry (VNFFOREST).

The NFMS will support national analysis and verification of observed reductions in emissions and enhanced removals, as well as reporting of the National GHG-I. The NFMS will also assess historical data in the development and updating of national R(E)LS.

At a provincial level, the NFMS will provide guidance to provincial authorities on development of the forestry sector elements of new provincial socioeconomic development plans (SEDPs) and their annual updates. Additionally, the NFMS will help in analyzing progress and evaluating the performance of the implementation of forestry sector development plans. It will also support good governance and limit corruption risk by making information available to stakeholders and the general public.

3.2.4 Crediting

Crediting includes a number of issues, such as how the total number of credits is calculated and to whom they are issued. From an accounting perspective, estimating credits in a nested system will need to avoid double counting (i.e., credits issued more than once for the same ERR) and take into account leakage (i.e., the displacement of ERRs estimated in one area of forest to another patch of forest, thereby causing increased emissions or reduced removals overall). Determining who receives credits will be affected by how the nesting system is designed and may also be affected by leakage estimates.

Most types of double counting can be readily avoided through government oversight of domestic REDD+ activities, the use of a national REDD+ registry, and/or using a third party standard that covers nested accounting such as the standard currently being developed by the VCS. Leakage can occur both outside and inside a jurisdiction. It is unlikely that international leakage will need to be tracked for REDD+, but domestic leakage outside a subnational jurisdiction (e.g., province) may need to be estimated and deducted from that jurisdiction's ERR estimates. However, if the province is nested within a national scheme and leakage is captured elsewhere in the national MRV and accounting system, a country could decide to allow some flexibility around an individual province's leakage assessments and deductions. Similarly, project-level leakage from a nested project should be picked up by the national or provincial MRV. However, to ensure that the project does not receive more credits than it is due, some decision will need to be made on leakage deductions for nested projects. This could be based on detailed project level MRV and accounting requirements, but it could also be simplified in a nested system through a policy decision of the national or provincial government to apply default leakage deductions for nested projects. Environmental integrity will still be maintained

because the national or provincial government also conducts MRV and accounting that will ensure all internal leakage is captured. Determining who receives credits will depend on the overall nesting architecture implemented and is discussed above under “Distribution of REDD+ Incentives in a Nested System”.

3.2.5 Performance Risk

Nested accounting can in theory create “performance risks” for both governments and project level initiatives related to the integrated accounting of nesting. The risk will be explained here using a simplified example of a single project nested within national accounting, but it is also applicable to nested subnational jurisdictions.

Performance risk can occur because ERR estimates are calculated as net ERRs at the national level, which means that

- i) Overall national performance will be affected (at least in part) by the success of the nested project. That is, project failure or underperformance will decrease the total number of ERRs generated at the national level.
- ii) At the same time, the ability for a project to receive credits is also affected by overall national success in generating ERRs outside the project boundaries. For example, if a project generates 1,000 ERRs but the country’s emissions outside the project increased by 1,000, the net result for the country is 0 and, potentially, no incentives should flow to that country from the international system.

The integrated nature of nested accounting can therefore create a risk for governments that approve nested projects, along with project developers, local communities, or others considering investing in nested REDD+ projects.

There are a number of ways to address this risk. Where there is direct crediting to a country and nested projects use a buffer account to address reversals/non-permanence risk, a simple option is achieved by recognizing that if an “underperformance” by a country or project is a reversal or non-permanence event it can be compensated from the buffer. This allows performing entities to receive credits for ERRs they generate while ensuring overall environmental integrity through the buffer. If the underperformance is not a reversal (i.e., simply less ERRs were generated than expected), the relevant entities simply receive credits for the ERRs they generated.

There are other options that can be considered in addressing this risk, including:

- Do nothing, leaving the risk entirely on the project or government level (depending on where the reversal occurred).
- Create a government-funded pool of money for compensating successful projects in case of national underperformance.
- Require projects produce guarantees or other assurances that will compensate a government if it is harmed by project failure.
- Set up or facilitate a formal insurance mechanism for REDD+ projects or government efforts.

3.3 Regulatory Framework

In addition to technical accounting issues there are a number of policy and regulatory considerations around nesting. Some of these will flow from how the accounting system is designed while others will be affected by existing law, policy, and institutional variables within a country. This section will first look at some of the broader institutional questions, followed by a review of specific nesting issues that need to be addressed in REDD+ regulations.

3.3.1 Overview of Institutional Structures for REDD+ and Nesting²³

The institutional structure of REDD+ is likely to look very different from one country to another. REDD+ may, for example, be entrusted to a single ministry at the national level, and to subnational offices of that ministry at state/province levels. Alternately, an inter-ministerial coalition may be formally created to oversee REDD+ and related activities, with representatives from a cross-section of relevant ministries. The political system and capacities of different levels of government will also affect how a country organizes REDD+ policy and institutions. Where more decentralization of REDD+ decision making is preferred, the role of the national REDD+ authority may be quite limited, consisting of little beyond managing overarching REDD+ policy and national accounting. In federal systems where a great deal of lawmaking and enforcement is delegated to states or provinces, there will be significant capabilities for implementing and tracking REDD+ programs at the subnational jurisdictional level, though there may also be variation between subnational governments. Related issues include the level of state involvement in the economy and the strength of community and civil society organizations. Greater traditions of state-owned enterprises are likely to tip the balance towards more centralized approaches. Conversely, stronger community and civil society will tend to open the door to more non-governmental activities. Many other possibilities exist, depending upon local needs and circumstances.

The institutional requirements for nested REDD+ will depend on how nesting is designed and developed within a country. If provinces are nested within a national scheme, provinces could simply fall under the authority of the national system, or the national government could create institutions or systems tailored to that province.

Regardless of the structure used, cooperation between relevant government offices will be essential, as REDD+ affects and is affected by diverse sectors like conservation, forestry, agriculture, rural development, finance, tourism, and more. Other important aspects will be transparency, consultation, and opportunities for input by stakeholders, including opportunities for requesting the review of REDD+ rulemaking.

3.3.2 REDD+ Administration: Approval, Registration, and Review

In terms of nested REDD+ program administration, a key role of the national government is approving nested activities. This will require the government to make decisions on scope of approval (what is being approved), criteria for granting or denying approval, timelines, and allocation of any associated costs or fees. The scope of approval could cover issues such as R(E)Ls and other technical design aspects, social or environmental safeguards, or other aspects of a subnational activity such as benefit sharing. A national authority may also consider managing a national REDD+ registry that carries out functions such as project registration and credit issuance. Finally, there need to be mechanisms for local stakeholders to request a review of any administrative decision that adversely affects them, such as the rejection of a project or R(E)L.

The approval process is essential to ensuring that activities are tracked and smaller scales have environmental integrity and complement provincial or national accounting. Approval processes may range from minimal, for example, issuance of an approval or no-objection letter on a case-by-case basis (leaving additional environmental integrity safeguards to, for example, an independent standard), to comprehensive, such as full review of all technical documentation. Where considerable subnational activity is planned or actually taking place, more detailed guidelines and approval processes may be considered to ensure that approved subnational programs and projects advance national environmental, social, and economic goals for REDD+. The scope of approval and whether or not a government should conduct additional administrative functions will also be guided by any relevant external requirements or support. For example, developing countries participating in the CDM were only required to approve

²³More detailed analysis of international and domestic institutional issues on REDD+ generally can be found in Streck C. et al, REDD+ Institutional Options Assessment: Developing an Efficient, Effective, and Equitable Institutional Framework for REDD+ under the UNFCCC (2009) Meridian Institute. Additional details on institutional issues are also found in Chagas, T., Olander, J., Streck, C., O'Sullivan, R., and Seifert-Granzin, J. 2011. Nested Approaches to REDD+: An Overview of Issues and Options. Forest Trends and Climate Focus, Washington, D.C.

voluntary participation by a project and certify that the project contributed to the country's sustainable development. Approval of other technical aspects of a project was left to other entities in the CDM project cycle, as were other administrative tasks such as project registration and credit issuance.

A registry that tracks REDD+ activities and outcomes is essential to a well-functioning system that involves crediting at the project level. The registry must, at a minimum, track credits for emission reductions or removals or any similar instrument to reduce the risk of double-counting. It may additionally serve various other tracking functions, overlaying basic information about project-level activities or subnational programs, applicable safeguards and technical requirements, land-use rights, or other information. The registry may also evolve over time alongside REDD+ development and implementation. Registries may be created at subnational levels instead of, or in addition to, at the national level. A national registry, however, serves an important purpose in aggregating information at the highest level of accounting.

In the future, a mechanism defined under the UNFCCC may offer guidance on the scope of a national government's involvement in approval and registration of activities and other administrative aspects. Voluntary standards that cover nested systems, such as the VCS, can also provide some guidance on what is expected from participating governments and third parties under these systems and can save a government from "reinventing the wheel" of nested REDD+ administration and quality assurance. Administrative review, however, cannot be outsourced – even if REDD+ accounting is developed under the UNFCCC or a third party standard, there needs to be domestic processes in place for review of domestic administrative decisions that rest with a domestic regulator.

3.3.3 Substantive Policy

In addition to these administrative issues, nested accounting requires a number of substantive policy decisions to be made. These decisions include broader questions such as how to design a nested accounting system as well as more detailed technical questions, such as how to account for domestic leakage, treat pre-existing projects, engage local stakeholders, address permanence, address "underperformance risk", determine rights to credits and share benefits or distribute incentives. Many of these more detailed issues have already been raised in earlier sections of this paper, so only need to be flagged here as technical issues that may contain a number of alternative solutions requiring a decision by policy makers. The two exceptions are legal issues around rights to carbon credits, and consultation and safeguards, the latter of which are discussed below.

F) Consultation and Safeguards

While specific social safeguards and public consultation processes will vary between countries and governments depending on political systems, legal norms, and traditions, there has been attention within the UNFCCC process to the importance of minimum international safeguards and participation in the development of REDD+ policies and incentive systems.²⁴ In parallel, a group of countries together with civil society organizations²⁵ have been working to develop a more detailed set of guidance in the form of the REDD+ Social and Environmental Standard, aimed at REDD+ programs and policies (www.redd-standards.org). Free, prior and informed consent (FPIC) in particular is also widely seen as an important principle for activities and policies affecting local and indigenous communities, and is increasingly raised internationally.

National and subnational programs, as well as projects, will need to establish and/or meet specific guidance to ensure that negative social impacts are minimized, benefits are equitably shared – especially with the most vulnerable groups – and that there is adequate participation and consultation in planning and execution. Nested activities will need to ensure, at a minimum, that safeguards and consultations meet the guidance established at higher scales (e.g., UNFCCC at the international level, national standards and regulations for projects or provincial programs).

²⁴ COP 16 (Cancun) laid out guidance and safeguards (Appendix 1 of Decision 1. CP16) while COP 17 (Durban) produced a decision providing guidance on providing information for how safeguards are addressed.

²⁵ Brazil, Ecuador, Indonesia, Nepal and Tanzania, together with the Climate, Community and Biodiversity Alliance (CCBA) and CARE International.

In Vietnam, the sub-technical working group on safeguards has been established, with the aim to implement the Cancun safeguards and other relevant international and national policy commitments.²⁶ The specific tasks of this sub-technical working group are:

- Share information on international and national safeguard policy commitments and responses;
- Coordinate activities among stakeholders implementing and supporting in-country safeguards, and similar other processes in the forestry sector;
- Build in-country technical capacity on safeguard issues and co-benefit aspects of REDD+;
- Assure all stakeholders at all levels (international, national, sub-national and local) of the technical quality of all safeguard response actions; and
- Deliver key outputs as a significant and necessary contribution to Vietnam's REDD+ safeguard response.

The REDD+ Action Plan also mandates the establishment and the functioning of safeguard mechanisms. Following the Action Plan, safeguard mechanisms have to be established and functioned in 2012-2015. Thus, aspects to be included in safeguards and technical guidance for implementing safeguards on the ground need to be developed in the near future.

G) Rights to Carbon or Carbon Credits

Very few countries have defined “carbon rights” in domestic legislation. Used broadly in REDD+, the term can be understood to refer to a bundle of legal rights that may be affected by (or effect) the implementation of REDD+ policies, plans and programs. These rights may include, among others, rights to carbon credits, rights to the benefits from participating in a REDD+ scheme, and/or procedural rights such as rights of consultation where REDD+ projects are planned.

While the UNFCCC may set out technical and procedural criteria for participating in a future REDD+ mechanism, the UNFCCC negotiations will probably not create detailed rules defining substantive issues of carbon rights. Much of this will likely be left to national governments to address under domestic legislation or policies. How such national laws and policies are shaped depends on the particular circumstances of each state where the clarification of land and forest tenure is to take place and the relationship between tenure and forest carbon rights. The importance of national and local circumstances occurs because REDD+ activities will be implemented under domestic law, and REDD+ activities may impact rights ordinarily associated with land/forest tenure, such as rights to use or extract natural resources from a forest. Also, those who own, control, or use forests will play a key role in REDD+ implementation, and their participation needs to be understood under domestic and local law. Nested projects financed by tradable credits also rely on the existence of secure rights to ERRs, whether these rights are held by private individuals, communities, or the state. Without clear rights to ERRs, the risk that uncertainty or conflict will interfere with REDD+ project activities can be high and can act as a barrier to investment. Therefore, the legal status of land, forests, and carbon credits is important for the design of nested REDD+ that involves direct incentives to projects.

In Vietnam, the National REDD+ Action Plan supports the formation of carbon credit markets. The Plan encourages private sector participation in REDD+. The Plan emphasizes that the legal framework will be revised to clearly demarcate carbon rights. This would serve as an important foundation for providing confidence to the private sector in carbon market investments. In the future, legal provisions regulating conditions, procedures and processes for economic entities to transact in carbon credits will be needed. The sub-technical working group on Private Sector Engagement, which aims to engage the private sector including forestry carbon project developers into REDD+ processes in the country, will have a role in developing these processes.

²⁶ The Terms of Reference of this Sub-technical working group can be found at <http://Vietnam-redd.org/Upload/CMS/Content/STWG.Safeguard/STWG-Safeguards%20-%20ToR%20-3-EN.pdf>.

The development of a forest carbon market is very much dependent on clarity of carbon rights. Who holds carbon rights – the rights to the intangible assets attached to different carbon pools – needs to be addressed at a national level. Connected to these rights will be responsibilities for maintaining carbon stocks.²⁷

Carbon trading assumes the separation between land/forest rights and carbon rights. One of the main challenges for REDD+ is to establish certainty for the allocation of benefits for the conservation of a product which “has an ambiguous legal definition, and is governed by various legal standards which are firmly under national sovereignty regimes.”²⁸

H) Who Owns Carbon in Vietnam?

To date, there is no law that specifically addresses carbon ownership in Vietnam. Yet, the laws in force appear to support legal land users owning carbon rights.

The Constitution of the Socialist Republic of Vietnam (revised in 1992) says that all land and forest resources belong to the people and the State manage the lands on behalf of the people. The State allocates these resources to organizations and individuals for “stable long-term use” (Article 18). The 2003 Land Law provides additional detail regarding land allocation: “*The State shall grant land use rights to land users via the allocation of land, lease of land, and recognition of land use rights for persons currently using the land stably*” (Article 5). So whereas the State retains *ownership* of land, individuals and organizations may be granted the right to *use and benefit* from it. This right would presumably extend to carbon.

Article 64 of the 2004 Forest Protection and Development Law recognizes in principle that buyers may purchase forest goods and services (potentially including reduced carbon emissions), with payments delivered to those responsible for generating those goods and services. An earlier decision specifies the ways in which households and individuals can be allocated, leased, or contracted to manage or protect forest and the payments that they can receive for these services.²⁹ The legal basis for a performance-based BDS therefore exists.

Decree 99, Article 4 states types of forest and types of forest environmental services entitled to payment for forest environmental services. However, the 2005 Law on Environmental Protection states that the “transfer, buying, and selling of greenhouse gas emissions quotas between Vietnam and foreign countries shall be stipulated by the Prime Minister” (Article 84). In other words, while individuals and organizations may have the right to benefit from carbon emission reduction credits, transactions with international buyers (as envisaged under a REDD+ regime) would need the Prime Minister’s approval. Without government authorization beneficiaries cannot have direct contractual relations with foreign entities, implying that sub-national implementation could be legally problematic. However, CDM projects in the country are not subject to this regulation, as a decision issued by the Prime Minister in 2007 allows the greenhouse gas emissions reductions (CERs) produced under this mechanism to be sold directly to international buyers.³⁰

Vietnam’s 13.3 million ha of forest are classified into three types according to their designated ecological function. *Special use forest* (15% of the total) is intended for nature conservation, protection of the ecosystem and flora and fauna genetic resources, and historical, environmental, and cultural sites. *Protection forest* (36%) is set aside for the protection of watershed, soil, and the environment. *Production forest* (49%) is the source of wood and forest-based products, and is meant to be consistent with ecological protection.

²⁷ Note that because strict protection of carbon stocks may lead to land access and use restrictions for local communities, compensating their opportunity costs will be an important consideration for REDD+ BDS.

²⁸ Luttrell, C., Schreckenber, K., and Peskett, L.(2007) *The Implications of Carbon Financing for Pro-Poor Community Forestry*. Forestry Briefing 14, Forest Policy and Environment Programme.

²⁹ Decision 178/2001/QD-TTg (November 12, 2001).

³⁰ Decision No. 130/2007/QD-TTg (August 2, 2007).

Almost all special use forests and protection forests are natural forests. The state gives most special use forest and protection forest to management boards (MBs) for protection purposes. It gives state forest companies (SFCs) natural forest classified as production forest for both production and protection purpose. About 1.2 million households have been allocated about 3.4 million ha of forestland, mainly for production purpose.

Natural forest and forestland in Vietnam are state-owned. The State grants rights in forests to different user groups. Management and protection duties are exercised through one of 3 different sets of arrangements promulgated by the state – **allocation, contracting, and leasing**. Each type of arrangement provides for different rights and duties for each forest user group, with important implications for determination and clarity of carbon rights. Forest user groups receiving forest or forestland by allocation enjoy the largest scope of rights compared to those granted under contracting and leasing arrangements.

There are particular risks associated with investment in production forest for carbon credits, as this type of forest may be legally converted to other uses (e.g., agriculture, infrastructure) by the government. It is therefore safer to invest in protection and special use forests for carbon credit, though these types may also be converted under some rare circumstances as identified by the Forest Protection and Development Law.

In Vietnam, the private sector has been exploring opportunities to invest in voluntary carbon markets. Questions relating to carbon rights have become critical as a foundation for benefit sharing. The private sector therefore is very interested to know what specific requirements will apply to natural forests used for forest carbon, as well as what areas will be open for investment.

Provincial authorities are required to manage the forest within their respective areas. Without instruction from the central government, some provincial authorities have felt unable to make decisions regarding investment proposals from the private sector, while others have moved ahead. This confusion constrains private investment while raising concerns about carbon speculation.

In sum, although the government has indicated an interest in the voluntary carbon market, regulation of carbon rights has yet to be developed. As clearly stated in the National REDD+ Action Plan, a legal framework for determining carbon rights must be studied and established in order to attract private investment. Today, the REDD+ Office has been established and is mandated to provide advice and guidance around these issues.

4. Conclusions and Recommendations

Vietnam is taking action on REDD+ at multiple scales, including by strengthening national level institutions, regulatory framework and MRV capabilities, and piloting provincial REDD strategies, MRV, and project initiatives from non-governmental organizations and the private sector. Vietnam is developing many elements that are compatible with some form of nesting for subnational activities including:

- Building MRV capacity at the national level and for several pilot provinces, which will make it possible to establish reference levels, quantify emissions reductions and trigger performance-based payments at the subnational level;
- Establishing a regulatory framework and piloting benefit-distribution systems;
- Working towards drafting of a legal framework to regulate approval, design and revenue-sharing for activities in the voluntary carbon market.

The fact that the international policy and finance context is still taking shape presents particular challenges as well as opportunities. A rigorous and comprehensive nested approach is necessary primarily to the extent that it forms the basis for one or more kinds of performance-based finance. A global agreement and regulatory framework is unlikely

to lead to international results-based compensation before 2020. In Vietnam, Phase II of UN-REDD will constitute an important step towards results-based finance, with pilot provinces positioning themselves through a suite of activities. The voluntary market may provide an important opportunity for certain REDD+ projects in the interim. As highlighted in the case study by SNV (see Annex), any REDD+ project will need to finally be embedded into ongoing sectoral and/or land use plans at the national and subnational level. Following the lesson of SNV, to reduce risks of impermanence, the best approach to subnational REDD+ development is to try work with and influence existing subnational policies and programs that already have national level endorsement.

Vietnam has a great deal of flexibility in designing approaches appropriate to its current circumstances, which would seek to ensure integrity in environmental accounting, and to maximize financial flows for REDD+ activities and benefits to local stakeholders. Elements of a nested approach would allow funding to flow to national-, provincial- and project-level activities in a coordinated fashion. Important areas of future work include:

- Clarifying the legal framework regarding carbon rights, particularly the rights of forest owners to transfer and be compensated for emissions reductions units. Promulgating regulations for carbon services under Decree 99 on Payment for Environmental Services is one option to develop this legal framework that could be explored further.
- Establishing a regulatory framework for assessing, orienting and approving pilot project activities targeted at voluntary markets, including working towards a registry for activities and transactions.
- Exploring synergies between projects and provincial level REDD activities, in particular using pilot projects within pilot provinces to develop nested MRV and REL/RLs.
- Further elaboration of the National REDD+ Action Plan to guide designing and implementation of provincial level pilots.
- Establishing guidelines on safeguards and BDS for pilot projects.
- Studying and discussing principles of allocation from higher to lower levels of ERR, carbon credits or any other REDD+ benefits, in particular where there is varying performance.
- Joining bilateral and multilateral result-based funding schemes available before 2020, including FCPF Carbon Fund and the Bilateral Offset Credit Scheme proposed by Japan.

Case Study 1. Dien Bien REDD+ Pilot Project

By Noriyoshi Kitamura, Forestry Program Adviser (VNFOREST/JICA)

Outline

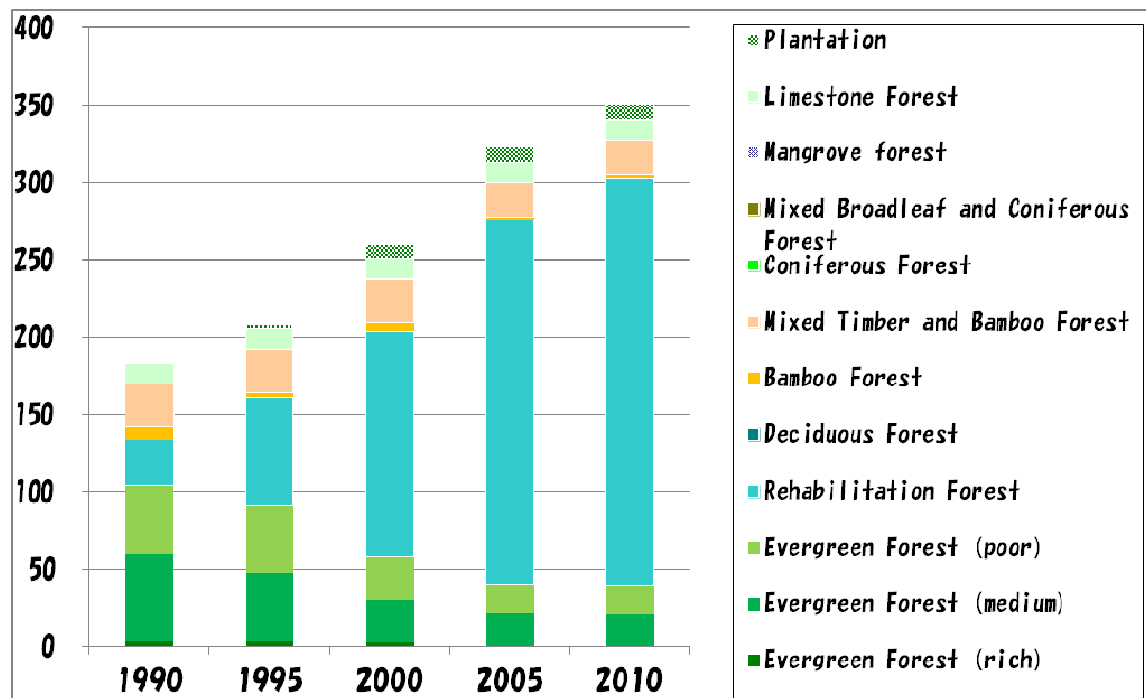
JICA (Japan International Cooperation Agency) in cooperation with VNFOREST and Dien Bien Province has been implementing since March 2011 a provincial level REDD+ pilot project planned to finish in 2.5 years. Its purpose is to build technical and institutional capacity in REDD+ planning of Dien Bien Province through preparation of a Provincial REDD+ program (PRP). The projects' main components include analysis of land use change and deforestation drivers, identification of Policies and Measures (PaMs), R(E)LS, MRV and BDS options. The PRP is to be formulated in line with the national REDD+ Program (NRP). Pilot areas for implementation will be also selected and actions plans prepared for the next phase.

Progress and Findings in 1st year

Forest Changes and Drivers

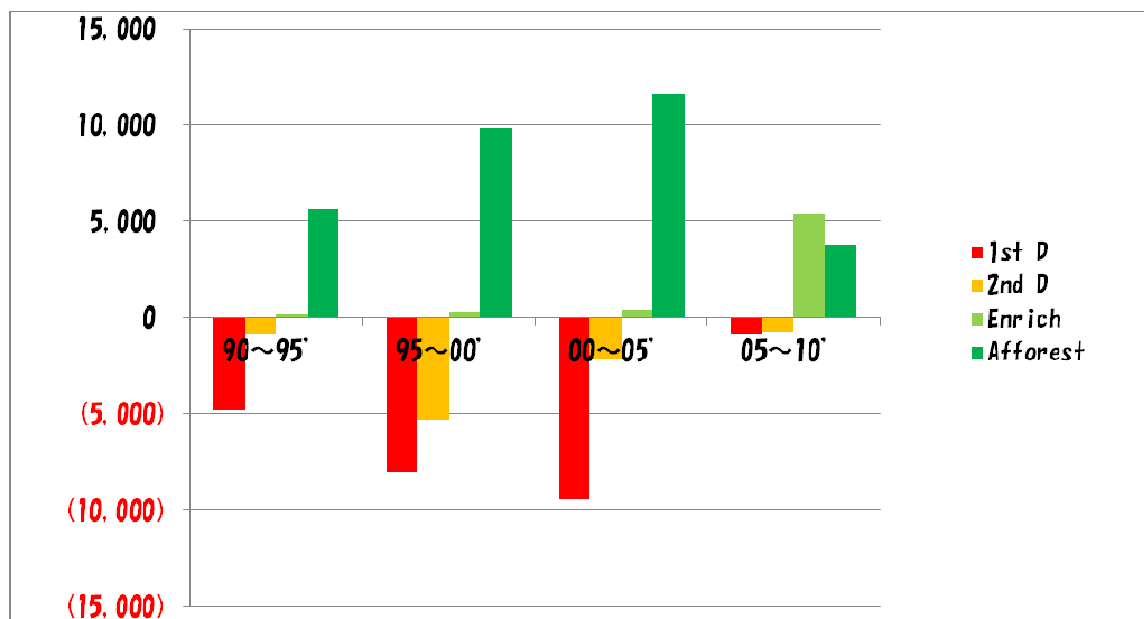
According to the national level forest maps and inventory data improved by another JICA project, forest area in the Province has been increasing steadily since 1990 (as shown in Figure 7), but emissions due to deforestation and forest degradation are also taking place.

Figure 6. Forest Area (1000 ha)



Source; JICA Study

Figure 7. Forest Carbon Change (1000 CO₂t)



Source: JICA Study

In a preliminary survey, drivers for forest increase are government programs, notably forest protection contracts such as by the so-called 661 Program (5 million ha reforestation program), improvement in agriculture production. Conversely, drivers of deforestation/degradation include expansion of agriculture areas, shifting cultivation areas, rubber plantations, forest fires and infrastructure development.

The main spots of forest recovery and deforestation are now being surveyed for identification of the proximate and underlying causes of drivers. It is also expected that impacts of government programs be quantified to some extent in order to adjust the R(E)L according to national circumstances.

Policies and Measures (PaMs)

Through interviews with local officers and villagers in the preliminary survey, several potential REDD+ activities have been identified. These include protection of existing/recovered forest, restoration of degraded areas through assisted regeneration, only allowing rubber plantation development in degraded forest areas, and reforestation/afforestation of Protection Forests.

In line with the findings of the ongoing survey and provincial policies and programs in forest and land use, these potential activities will be further developed into PaMs. In the province, Decree 99 on payment for forest ecosystem service (PFES) is going to be introduced in 2012 and some 200,000 ha of forest in the Province will be paid by PFES scheme. Following this, the payment and institutional set-up of REDD+ PaMs will need to be closely linked with PFES and other government programs.

Reference Emission Levels/Reference Levels

Historical emissions and removals are estimated as shown in Figure 7. Data obtained in 2010 are now being updated through analysis of satellite images taken in 2010. Some methods for incorporation of the government program impacts are also proposed.

After analysis (and quantification of each driver, if possible) of the driving forces for deforestation and forest degradation (DD) and forest recovery, R(E)L for each of deforestation, forest degradation, and recovery and/or total carbon change will be developed.

Provincial Measuring, Reporting, and Verification

The current situation of forest monitoring and related institutional issues in Dien Bien has been analyzed, and it is found that monitoring has been done by organizations in different ways. There is an urgent need to streamline and strengthen data collection and management procedures and capacities of the concerned agencies in Dien Bien.

The roles of provincial MRV as part of national MRV are proposed as follows:

- 1) Provision of **activity data**; areas of plantations and rehabilitation, implementation and impacts of PaMs, boundary checking of FLMS data;
- 2) Provision of **emission factors**; tree volume of plantations and rehabilitated areas by age, tree harvesting in natural forests.

It is necessary to further clarify the roles of provincial MRV in the national MRV system to help design provincial MRV. A prototype provincial MRV system for monitoring performance (including activity data and emission factors) of forest owners/users as well as for (result-based) payment for performance is proposed by the project. The proposal will be further refined in conjunction with PaMs and BDS development.

Provincial Benefit Distribution System

Options for provincial BDS (e.g., payment types, timing, modalities, and fixed or performance-based levels) are identified and discussed by the project. These will be further refined according to the forest situation and socio-economic conditions of the province, especially in pilot areas. Another issue will be how to allocate provincial-level performance among participating forest owners/users based on their performance.

Case Study 2. Developing Community Carbon Pools for REDD+

By Dang Thanh Liem and Linda Rosengren (FFI)

The Asian Pacific programme “Developing Community Carbon pools for reduced emissions from Deforestation and forest degradation, plus enhancing forest carbon stocks” is being implemented in Indonesia, Philippines, Cambodia and Vietnam by Fauna and Flora International (FFI). As for the Vietnam component, the project site is located in Kon Plong District, Kon Tum Province in the Central Highlands region. Kon Tum has 420,000 ha of lowland and mountainous tropical forest, is rich in biodiversity and endemism, and has a mosaic of urban and peri-urban settlements. The province has the highest percentage of ethnic minorities of any in the country and among the highest poverty rates.

Despite having been identified as a Key Biodiversity Area (KBA) by the government, Kon Plong already contains several large dams and a large area of degraded forest has been lost to reservoir inundation. Forest within the KBA is currently categorized as production forest, with unsustainable/illegal commercial logging and conversion into other purposes. As a result, it is realistic to presume that without improved environmental governance in the area, this forest (and the link between existing PAs and KBAs) will be further degraded and eventually lost. Therefore, Kon Plong District, a focus area of the project for protecting High Conservation Value Forest (HCVF) and developing Community Forest Management (CFM), is made up of 99% ethnic minorities, largely forest-dependent peoples. Community forestry and REDD+ project activities targets forest communities and the households with forestland the government allocated to them for a 50 year period as recipients. REDD+ carbon pools will be developed based on allocated forestland areas.

Motivations and Objectives for Developing a Subnational/Project Activity

Overall, the project has been designed to contribute to reducing deforestation and forest degradation through improved forest governance and the development of finance and incentive mechanisms that provide benefits to forest-dependent local and indigenous people. Specifically, this intervention is designed to connect with emerging national mechanisms around benefit sharing and MRV, as are being developed in Vietnam under UN-REDD guidance.

The project has been designed to build the capacity of local communities and governments to actively participate in REDD+ pilot project and feedback lessons learned into policy dialogues at sub-national, national and regional levels. The project will draw from practical local level experience and seek to influence national and regional policy responses to deforestation and forest degradation.

Integration into a National System

In term of policy, FFI and its partner, the Non Timber Forest Products - Exchange Programme for South and Southeast Asia (NTFP-EP) has conducted analytical studies on laws and policies related to community forestry and REDD+ in collaboration with environmental lawyers to provide on-going legal advice on community carbon rights, permitting and licensing systems, and benefit/finance distribution mechanisms in Vietnam. Supported by national lawyers, FFI will provide legal advice for the development of community forestry REDD+ policies and for the incorporation of social and environmental safeguards into the national and sub-national REDD+ policy framework.

FFI will undertake socio-economic studies to define opportunity costs and forest protection costs of local communities, and establish a socio-economic baseline for the REDD+ pilot project at sub-national level. Accordingly, an equitable benefit sharing distribution will be developed that will need to integrate into a national system. Mutual learning and sharing are expected to occur, as well as technical support among subnational and national projects through methodologies, training and short term consultancies.

With existing experiences on community forestry, the FFI project team will conduct pilot schemes and provide practical learned lessons on participatory land use planning, community forest assessment and management planning, community forest protection and development regulations, community-based carbon and biodiversity monitoring system. Against this, technical regulations and/or guidelines are being developed as a practical background for local and national policy development.

As planned, national REDD+ Working Group and thematic REDD+ workshops are regarded as a platform for sharing important policy issues related to local stakeholder participation. At least two national policy workshops will be convened to introduce proposed REDD+ governance, benefit sharing, community rights and safeguard mechanisms. At a local level, several field visits to pilot projects will be held for national/subnational policy makers to engaged local community groups.

Expectations Regarding Funding Sources

Based on VCS/CCB market approach, FFI will facilitate REDD+/PES mechanisms for community forestry pilots through voluntary markets or fund-based mechanisms to ensure the flow of financial resources to provide local benefits and sustainability. Based on existing relationships with potential high volume buyers and investors, FFI's Environmental Markets team will provide site-specific advice to facilitate engagement of appropriate third-party carbon investors, brokers or buyers in the projects after the end of the EU-funded action. This will facilitate community carbon pools' access to markets or funds.

Approach to R(E)Ls and MRV

R(E)L and project scenario models will be built from a range of data, including historical deforestation trends determined through a time-series analysis using existing satellite imagery and predictive modeling of threats of human population expansion and present management zone designations. The analysis will generate statistically robust 'avoided deforestation scenario forecasts', based upon relevant social, environmental and economic data and trends, combined with carbon stock data from the forest. FFI-owned Standard Operational Procedure (SOP) for carbon accounting, already successfully tested in Indonesia and the Philippines, will be adapted consistently with emerging national guidelines. Local stakeholders will be provided with trainings and tools for developing participatory forest carbon inventory and monitoring techniques to qualify and quantify rates of deforestation and degradation.

A plan for ongoing monitoring of forest carbon stocks and land use change indicators will be developed, to demonstrate that the project is meeting deforestation reduction targets. Monitoring will include remote sensing and field sampling to measure forest recovery and the effectiveness of forest protection measures. Third party verification of MRV outputs will be undertaken of the monitored results.

Case Study 3. SNV, Overview of Project-Based REDD+

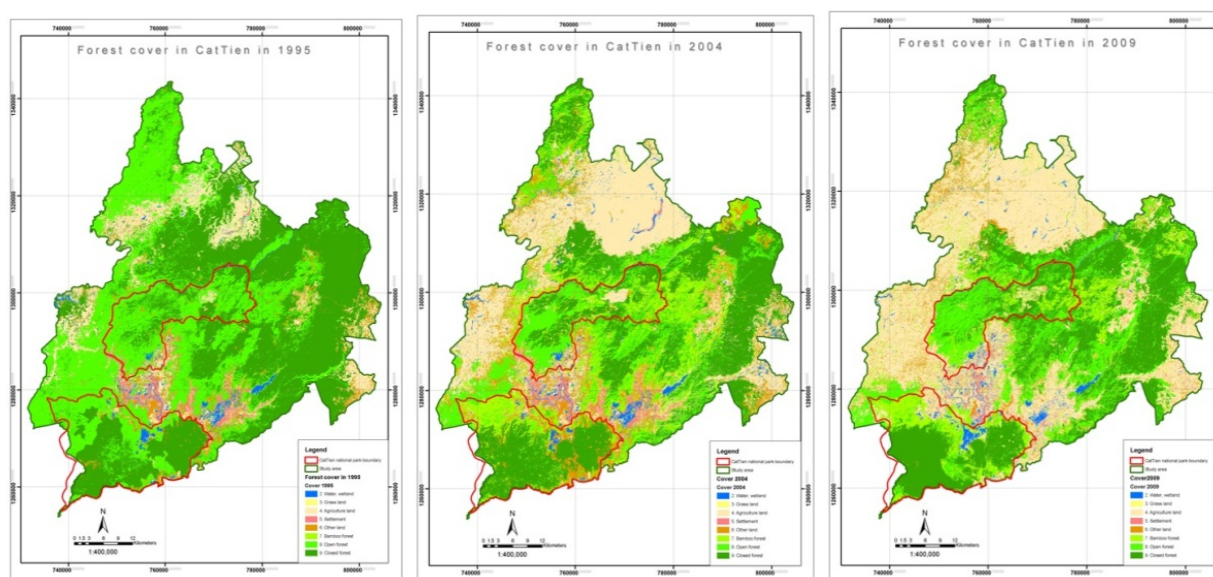
By Richard McNally, SNV REDD+ Global Coordinator

SNV has experience with project-based REDD+ through exploring the feasibility of three sub-national REDD+ interventions in Vietnam.

The Cat Tien Landscape Project: Piloting REDD+ in Vietnam

SNV's first intervention on sub-national REDD+ was through the establishment of the *pro-poor REDD Cat Tien Landscape Project* in early 2010. This covered forested areas across four communes (Tien Hoang, Dong Nai Thuong, Loc Bac and Loc Bao) in Lam Dong Province - part of which borders the Northeastern part of Cat Tien National Park (see Figure 8 below). The rationale for introducing the project was from previous experience working in the area and the need to reduce pressure on the forest of the National Park as well as the need to provide additional income for communities from forest protection. The project examined the potential for avoided deforestation through accessing the voluntary carbon market.

Figure 8. Forest Cover Change between 1995 and 2009 around Cat Tien National Park



In 2009 when the project was designed, there were high levels of uncertainty with regards to a future international REDD+ agreement. It was believed that if the project adhered to the requirements of the VCS methodology, this would provide a robust enough system which could then eventually be nested into any national system. All efforts were made to ensure it fitted with national forestry classification systems, standards and protocols so that it could ultimately be integrated into any national system. By following the Verified Carbon Standard, the expectation was to access funding through the voluntary carbon market, building on SNV's past experience on accessing carbon markets for Afforestation/Reforestation and Biogas.

Based on a number of follow-up assessments, which included developing the baseline, it became evident that there were a number of issues which could hamper the success of the project. Although deforestation was still occurring, it was generally shown to be as a result of planned activities to plant high-earning tree crops, in particular rubber; forest degradation was identified but it was at a small scale and difficult to measure; and at that time there no methodologies existed to address the project situation. In addition to the study SNV undertook on opportunity costs, SNV began to question the technical and economic feasibility of the intervention. There was also a growing concern that the high technical and information requirements of SNV's intervention were eroding their interest, with little to provide in return to the local communities and authorities.

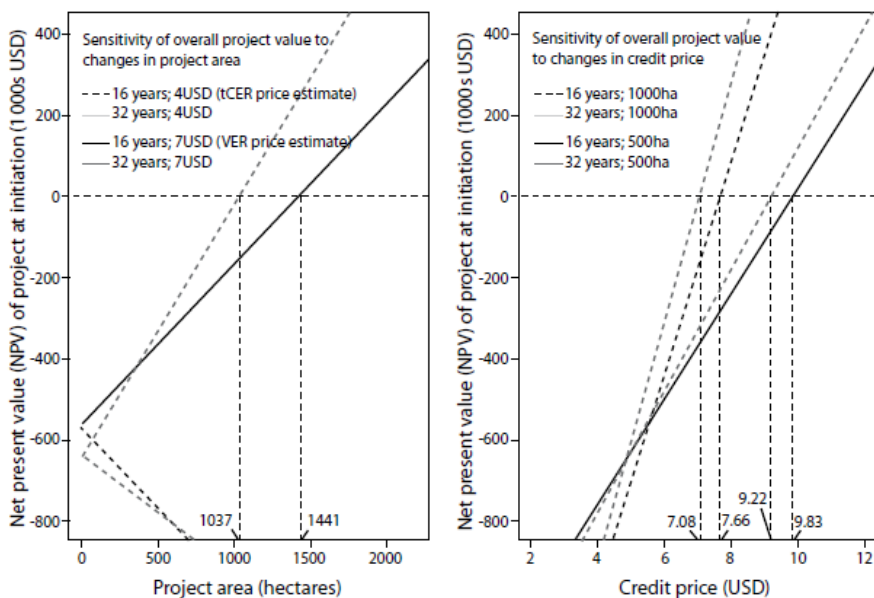
An important lesson learnt was that there is the need for any REDD+ project to be firmly embedded into on-going sectoral and/or land use plans at national and sub-national levels. This is even more pertinent for countries with strong top-down planning systems where the forests are predominately owned by the state, which is the case in Vietnam. Working through on-going policy and planning structures is critical to ensure government buy-in, allow for replication and to reduce any risks associated with impermanence. Based on experiences from this project, SNV switched its strategy to identify potential carbon projects with higher potential economic benefits and ensure any intervention would aim to integrate with on-going government land use and forest management plans in order to reduce emissions.³¹

Looking for Greater Carbon Benefits: Mangrove Forests

To further explore forest ecosystems with greater potential for carbon benefits, SNV assessed opportunities from peat swamp forests and mangroves in Ca Mau Province in 2010.³² The mangrove study provided insights into how sub-national carbon projects would need to be structured and what size of sites would be appropriate. It was concluded, as can be seen in Figure 9, that a project area of around 1,500 ha is needed for mangrove planting (assuming a price of US\$7 for tCERs) in order for the project to be financially viable. Given the fact that there are not many suitable areas and that most of the mangroves are located in thin strips subject to gradual degradation, this again brought into question the viability of introducing a REDD+ project.

This study also raised a number of important issues which are relevant in the context of this paper. Given the large area required to make a carbon project economically attractive and the fact that many of the mangrove areas are in thin strips and/or scattered, a sector wide or delta wide approach was deemed more appropriate. This could, for example, align with national or sub-national targets on mangrove areas. A follow up report assessing the practicality of such an approach was suggested. Secondly, mangroves provide a multitude of non-carbon benefits; for example storm protection and fishery nurseries. A stronger case for mangrove protection could be made if these other benefits were also included. This finding highlights the need to integrate the range of values for forest ecosystems and to include a range of government ministries in the decision-making process.

Figure 9. Sensitivity Analysis to Changes in Carbon Price and Project Area



³¹ SNV is currently implementing the LEAF Project in Vietnam which is working on introducing lower emission forest plans in 2 Provinces (Lam Dong and Nghe An).

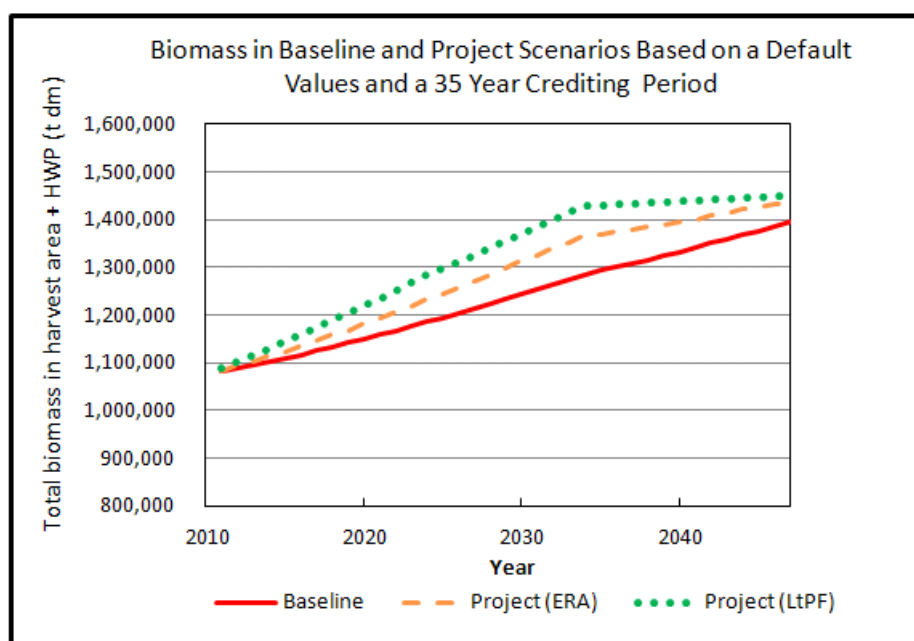
³² McNally, R.H.G, McEwin, A and Holland, T. 2010. The Potential for Mangrove Carbon Projects in Vietnam, SNV, Hanoi.

Improved Forest Management: Loc Bac State Operating Company

Building on the lessons learnt from the Cat Tien Landscape project, SNV teamed up with Rainforest Alliance to examine the possibilities for introducing an Improved Forest Management VCS project in the context of a forest State Operating Company (SOC). SOCs continue to manage a large proportion of the Vietnam forest estate, predominately production forest. It was thought that they offered possibilities for improved forest management, and if it was proven feasible, there would be good opportunities for replication.

The project type of Improved Forest Management (IFM) encompasses four subcategories, namely Reduced Impact Logging (RIL), Logged to Protected Forest (LtPF), Extending Rotation Age/Cutting Cycle (ERA) and converting Low Productive to High Productive Forest (LtHP). An initial assessment of these four sub categories was carried out.³³ The graph in Figure 10 below provides an estimation of the biomass stored in baseline and project scenarios (LtPF and ERA) using default values and a 35 year crediting period.

Figure 10. Estimation of Biomass Stored in Baseline and Project Scenarios (Ltpf and ERA)



The results from the study highlight that there is potential from IFM, however, it will have higher applicability in larger SOCs where there is greater scope for reduced impact logging and for moving from logged to protection forest and/or low productive to high productive forest. SNV and Rainforest Alliance are currently carrying out a follow-up report in a larger SOC with a focus on carbon and cost estimations of moving from low productive to high productive forests.

This study provided a number of useful insights into developing sub-national carbon projects within Vietnam. First, the fact that SOCs are going through a reform process means that there are already efforts underway to further explore carbon as one potential financing option. Having national level support is critical to ensure any findings at a sub-national level are followed through. Also, by working through existing government plans, which have been endorsed by national and provincial authorities - in the case of SOCs this entails harvesting plans - these can be used to set baselines. At the provincial level, this might be the Socio-economic Development Plans and/or Forest Sector

³³ Gibbon, A. Evans, V. Buana, L. Nguyen The Chien, Lai Tung Quan, Nguyen Trung Thong and McNally, R.H.G.2011. A feasibility study for the potential of land-based carbon project development in Loc Bac State Operating Company, Lam Dong Province, Vietnam, SNV and Rainforest Alliance, October 2011.

Provincial plans, all of which have been endorsed by the national authorities. Nevertheless, some assessment of past deviation of plans would be needed to ensure they are actually met.

In short, the lessons we have drawn show that in the context of Vietnam the most appropriate approach to sub-national REDD+ is working through already adopted sub-national policies and program (which have national level endorsement) and to try and influence them. This could be accomplished via a provincial-level forest plan or it through a harvesting plan in a SOC or a mangrove plan. This approach will ensure consistency across all levels and is the most likely means to reduce risk of impermanence.

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