

The Forest Carbon Partnership Facility (FCPF) Readiness Plan Idea Note (R-PIN) Template

March 8, 2008

Guidelines:

1. The purpose of this document is to: a) request an overview of your country's interest in the FCPF program, and b) provide an overview of land use patterns, causes of deforestation, stakeholder consultation process, and potential institutional arrangements in addressing REDD (Reducing Emissions from Deforestation and Forest degradation). This R-PIN will be used as a basis for the selection of countries into the FCPF by the Participants Committee. Information about the FCPF is available at: www.carbonfinance.org/fcpf
2. Please keep the length of your response under 20 pages. You may consider using the optional Annex 1 Questionnaire (at the end of this template) to help organize some answers or provide other information.
3. You may also attach at most 15 additional pages of technical material (e.g., maps, data tables, etc.), but this is optional. If additional information is required, the FCPF will request it.
4. The text can be prepared in Word or other software and then pasted into this format.
5. For the purpose of this template, "Deforestation" is defined as the change in land cover status from forest to non-forest (i.e., when harvest or the gradual degrading of forest land reduces tree cover per hectare below your country's definition of "forest." "Forest degradation" is the reduction of tree cover and forest biomass per hectare, via selective harvest, fuel wood cutting or other practices, but where the land still meets your country's definition of "forest" land.
6. When complete, please forward the R-PIN to: 1) the Director of World Bank programs in your country; and 2) Werner Kornexl (wkornexl@worldbank.org) and Kenneth Andrasko (kandrasko@worldbank.org) of the FCPF team.

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2. Which institutions are responsible in your country for:

a) forest monitoring and forest inventories

The Forest Inventory and Planning Institute (FIPI) of MARD is the lead national institution in resources assessment and monitoring in Vietnam. The Institute is responsible for conducting the National Forest Inventory, Monitoring and Assessment Program (NFIMAP) which is carried out every 5 years. FIPI has a Headquarters Office in Hanoi, three Centres and 6 regional offices (Sub-FIPI) throughout the country with a total of about 700 staff. The NFIMAP is supervised by a steering committee, chaired by the DOF.

Other institutions such as the Forest Protection Department (FPD) and the Department of Forestry (DOF) also have experience in planning and carrying out forest assessments at all levels. Each of these agencies uses different methods and techniques to collect and analyse data. FPD Headquarters in MARD and its branch offices at provincial and district levels are in charge of preparing annual monitoring reports on new forest plantations and forest loss, using FIPI's data as a baseline. These are compiled by FPD into annual national forest cover statistics. As of December 2007, FPD has about 11,000 officers and forest rangers from national down to commune level.

b) forest law enforcement

Primary responsibility rests with the FPD of MARD, their Special Task Force for Law Enforcement at national level, and their offices at provincial, district and commune levels. Other agencies play important roles including a recently created Environmental Police Force under the Ministry of Public Security (MPS), which works with local police forces and other agencies to investigate and prosecute environmental crimes, soon to include illegal logging and wildlife trade; the National Ministry of Defence, responsible for preventing deforestation in border areas and often called in to support protection elsewhere; the General Department of Customs, responsible for enforcing the law on imports and exports of timber and forest products; and the Ministry of Justice and the Supreme People's Procuracy of Vietnam. The Joint Circular No. 144 dated 6th December 2002 sets out a framework for coordination between enforcement agencies (MARD, MPS and Ministry of Defence) to address forest violations.

c) forestry and forest conservation

Resolution No 57/2006/QH11 of the National Assembly dated 29th June 2006 mandates that 16.2 million hectares of the 32.9 million hectares of the total land area of Vietnam is classified as forest land (with or without forest cover). This means that the area of designated forest land has decreased by about 3 million ha compared to the previously approved figure

(19.2 million ha). Forests are classified in 3 categories: production forest (for commercial purposes), protection forest (for watershed and environmental protection) and special use forest (primarily for biodiversity conservation). Decision 186/2006/QĐ-TTg of the Prime Minister dated 14th August 2006 provides clear regulations on the management of each category. Furthermore, Decision No. 245/1998/QĐ-TTg of the Prime Minister dated 21st December 1998 mandated the forestry administration responsibilities of government agencies at central and local levels (Please see Annex 1 for more detailed information). The main institutions responsible for forestry and forest conservation in Vietnam are as follows:

Central level: The Ministry of Agriculture and Rural Development (MARD) is the primary agency of the Government for administration, management and development of the forestry sector. It comprises several departments having responsibility for policy, forest management, forest protection and conservation, science and technology, product quality, extension, education and international cooperation. The Department of Forestry (DOF), the Forest Protection Department (FPD), The Enterprise Management and Renovation Board, the National Centre for Agricultural, Forestry and Fishery Extension, the Department of Agricultural, Forestry and Fishery Product Processing and Salt Industry, the Forest Science Institute of Vietnam (FSIV), the Forest Inventory and Planning Institute of Vietnam (FIPI) and the Forestry University of Vietnam (FUV) at Xuan Mai operate under the authority of MARD. Donor-assisted forestry development projects with large loan and credit components are coordinated and managed by a Management Board for Forestry Foreign Aid Projects and the Forestry Sector Support Partnership (FSSP, see section 7a).

- Forestry administration: The Minister of Agriculture and Rural Development assigns responsibility for overall forest management and development to the DOF and its branch offices at provincial level.
- Forest conservation: The FPD takes overall responsibility for management of the protection and special use forests at national level. However, FPD directly manages only six inter-provincial national parks. Other Special Use Forests (national parks, nature reserves, protected landscapes) and protection forests are the responsibility of individual Forest Management Boards at provincial level.
- Forest processing industry: The Department of Agricultural, Forestry and Fishery Product Processing and Salt Industry is in charge of advising the Minister in the formulation of policies on forestry industry.
- Forest management: In the past, forest management activities at the local level, including both protection and production forestry, were carried out by over 400 state forest enterprises (SFE), which also functioned as forest product industries. Since 1999, a series of restructuring steps have taken place to dissolve ineffective SFEs and transform others into autonomous, commercially viable companies based on sustainable forest management. Commercial forest operations and industries are now managed by private and state forest companies or the Vietnam Forestry Corporation (VINAFOR). The Enterprise Management and Renovation Board is responsible for advising the Minister on SFE reform.
- Forest Research and Extension: These tasks are mostly carried out by the FSIV, FUV, and the National Centre for Agricultural, Forestry and Fishery Extension.

MARD has administrative linkages with the Ministry of Natural Resources and Environment (MONRE) which was established in November 2002 to control the Land Department and the Land Registration and Statistics Department. MONRE has ultimate responsibility for all State lands including forest lands.

Local levels (province, district and commune): The Chairman of People's Committees at all local levels has responsibility for forest management, protection and development functions within their administrative units. All provincial governments have Departments of Agriculture and Rural Development (DARD) which have operational responsibility for forest administration and report to the provincial government on administrative, technical and financial matters. Provincial departments direct and control forest operations in districts and communes. The Branch Offices of the DOF and FPD are under the DARD. Forest Management Boards have to report to the Provincial Peoples' Committees. Within each province, a number of districts have responsibility for implementing government policies. Below the provincial level, Districts, led by a District People's Committee (DPC), are responsible for implementing government policy, including forestry policy, and for providing technical extension assistance to farmers in both forestry and agriculture. Forest rangers employed by District-level offices of the FPD are in charge of providing consultation on forest management, protection and extension to the Commune People's Committees. NGOs also play an important role in forest conservation, management and provision of extension services at local levels.

d) coordination across forest and agriculture sectors, and rural development

Forestry, agriculture and rural development are all under MARD. The respective departments are under the direction of Vice Ministers, who are responsible for coordinating policy and activities within MARD.

3. Current country situation (consider the use of Annex 1 to help answer these questions):**a) Where do forest deforestation and forest degradation occur in your country, and how extensive are they?**

The official statistical data shows that the area of actual forest cover (forested) declined from 14 million hectares in 1943 (42% of the land area) to 9.2 million hectares in 1990 (28%). This implies that deforestation occurred at a rate of 110,000 hectares per annum. Furthermore, a vast area of primary forests has been converted to secondary forests with few remaining valuable species and low timber volume. The deforestation and forest degradation caused a huge reduction in industrial and domestic wood supplies. In recognition of the negative consequences of forest resources depletion, the Government of Vietnam issued a series of policies and programs to protect remaining forests and restore deforested areas. These included the program for Re-greening barren hills and mountains from 1993-1997 (Program 327) and the Five Million Hectares Reforestation Program from 1998-2010 (Program 661). Partly as a result of these programs, MARD statistics indicate that the total forest area in Vietnam increased by 30% from 1990 (9.2 million ha) to 2006 (12.8 million ha). However, this trend mainly appears to be the result of a rapid increase in plantation forests and the expansion of natural forests regenerated from grass and shrub land.

Forest cover statistics:

Annex 1 shows that between 1976 and 2006, the natural forest area of Vietnam declined at a rate of 62,140 ha per year, corresponding to a 10% reduction in forest cover. The most intensive period of natural forest decline was in the early post-war recovery period (1980-1990), when the rate reached about 175,530 ha per annum, and 17% of Vietnam's forested area was lost. The national statistics indicate that this trend was arrested between 1995 and 1999 and the natural forest cover estimates showed a positive annual change of 298,000 hectares (FDS, 2001). MARD official data shows that in 2006 the total forest area of Vietnam was 12.87 million hectares, of which 10.4 million hectares were natural forests and 2.5 million hectares were planted forests. The area of bare lands and denuded hills in 2006 was 5.6 million hectares.

However, the statistical information on forest data is inconsistent and questionable. In the last decade, for instance, the statistics show the total area of all types of natural forest has been increasing at a rate of approximately 196,000 ha/yr, but this is largely due to the inclusion in Cycle 3 of the inventory of some 637,000 ha of previously-omitted limestone forests. Discounting this, the natural forest area actually declined between 2000 and 2005, but only at about 6,000 ha/yr, but many observers think this is a considerable underestimate. Furthermore, a recent case study of the World Bank on deforestation in Krong No district of Dak Nong province in the Central Highlands uses satellite image interpretation to provide a more accurate picture of forest trends in upland areas of Vietnam. In this district, with a total area of 81,549 ha, the natural forest area decreased from 72,887 ha (89%) in 1987 to 37,972 ha (46%) in 2007 – a reduction of nearly 50% in 20 years. Of this total, 13,200 ha of forest were lost during the period from 1987-1996 and 21,700 ha were lost between the period from 1997-2007. The annual deforestation rate therefore increased over time (See Annex 4 for full details). If this trend continues, all natural forests in the district will disappear in 12 years. Furthermore, DARD of Dak Nong reported that, during the period from 1997-2007, the deforestation rate in neighbouring districts was much higher than that of Krong No.

Forest quality data:

There are a large number of criteria used for monitoring quality of forests. The selection of criteria depends upon the main function of that forest (production forest or protection forest), level of assessment and available resources. It is not easy to find a set of indicators that is suitable for assessing the quality of all three forest categories in Vietnam. Several criteria are used by NFIMAP such as forest type, timber volume, canopy closure, composition of timber species, and fragmentation.

The reports of the second and third Cycles of the NFIMAP indicate that the quality and biodiversity of natural forests have been continuously deteriorating in many places. Even as the forest cover increased in recent years, the degradation in natural forests has remained a serious concern. Vietnam suffers from the "empty forest" syndrome.

Between the period from 1999 to 2005 the area of natural forest classified as rich forest decreased by 10.2%, and medium forest reduced by 13.4%.

Meanwhile, plantation forest area increased by 50.8%, consisting primarily of a range of exotic tree species such as Pinus, Eucalyptus and Acacia genera. According to a recent report of the UK-based Environmental Investigation Agency and its Indonesian partner, Telapak, in March 2008, between 2000 and 2005 Vietnam lost 51% of its remaining primary forests, ranked second worst in the world, considerably worse than the third ranked country, Cambodia, with losses of 29%.

The commercial value of natural forests has declined markedly. Most remaining rich forests are located in remote and mountainous areas where they are very difficult to access due to complex terrain and a poor road network. NFIMAP reports indicate that the percentage of commercially valuable forest species has reduced over time and now stands at less than 25% of the species composition. Forests have become more fragmented with only 1-3 forest stories. Degradation of natural forests has been observed in all regions.

The report of the third Cycle of the NFIMAP shows that forest expansion in Vietnam in 1995-2005 was due to both

reforestation (naturally regenerated forests) and afforestation. However, most of the regenerated forests were dominated by (or contained large proportions of) bamboo. The carbon stocks in these types of forests are much lower than that of the rich and medium natural broadleaf forests. In 2005, there were over 5.5 million ha of severely degraded natural forests (timber volume less than 30 m³/ha), which consisted of low valuable forest species and diseased trees. NFIMAP further estimated that it would take at least 50 years for such forests to recover to and reach a timber volume above 90 m³/ha. At present, most forest plantations are planted for pulp and woodchip with a short rotation (5-7 years). The carbon stocks in under-story vegetation, dead wood, litter and soil is not comparable to that of the natural evergreen broadleaf.

A study on forest change from the period 1989-2002 in four districts of Son La province in the north-western region shows that forest cover reduced from 53% in 1989 to 35% in 1994 but recovered to 38% in 2002. However, the areas of rich forests decreased continuously from 46,702 ha in 1989 to 10,141 ha in 2002 (equivalent to an annual loss of 3,324 ha). In 2002, rich forests only existed at the top of mountains. Conversely, areas of regenerated forests (largely plantations) increased from 13,715 ha in 1989 to 14,858 ha in 1994 and reached 47,819 ha in 2002. Despite reforestation, forests in some regions became more fragmented.

In general, the country's forests have been transformed into young, poorly stocked forests with relatively low economic value.

i) Main Forest Types

The three main forest types suffering deforestation and change in their respective areas from 2000-2005 are as follows:

- Evergreen /Semi-evergreen broadleaved forest - 330,415 ha (-4.4%)
- Coniferous/Mixed coniferous and broadleaved forests - 52,627 ha (-20.5%)
- Mangrove - 14,459 ha (-18.6%)

More details are provided in Annex 2.

ii) Location

According to the reports of the second and third Cycles of NFIMAP, deforestation and forest degradation have been severest in the Central Highlands, the eastern part of the southern region and the Central coastal provinces. The pattern of deforestation in different regions during the period 2000-2005 was as follows:

- The Central Highlands is a key area for watershed protection and biodiversity conservation in Vietnam. The net change of forest area in the region was - 118,984 ha, equivalent to 4% of forest area in 2000. However, the changes in forest area were very different between forest types. Notably, 364,614 ha of evergreen broadleaved forests, mixed deciduous forests, coniferous forests and mixed coniferous and broadleaved forests were cleared. In other words, 18.1% areas of these forest types disappeared during the 5-year period. FIPI reported that this figure underestimates actual forest losses because forest data for 2005 was extracted from satellite images acquired in previous years. In addition, during the same period of time, the total timber volume in the region reduced from 317,794,000 m³ to 288,559,000 m³.
- The eastern part of the Southern region experienced the most rapid rate of deforestation in the country losing 86,872 ha or 8.6% of its natural forest cover. About 110,758 ha of evergreen broadleaved forests, mixed deciduous forests, coniferous forests and mixed coniferous and broadleaved forests in this region were cut. This implies that 18.6% areas of these forest types were destroyed during the period 2000-2005. A report from the FPD shows that in only the first three months of 2008 about 200 ha of natural forests was lost from one district of Binh Phuoc Province.
- North West and North East Vietnam have lost most of their lowland forest and have much reduced and highly fragmented forest cover in mountainous areas. NFIMAP's reports show that the evergreen broadleaved forests in this region have been severely degraded and the timber volume per unit area was lower than forests in other regions. In 2005, the timber volume of the poor evergreen broadleaved forest was only 20.8 m³/ha compared to 135 m³/ha in the Central Coastal region;
- The North Central and South Central Coast regions have lost most of their lowland forest, but still retain a significant block of forest in mountainous areas; deforestation here was 50,207 ha or 2.5%.

See Map in Annex 3.

b) Are there any estimates of greenhouse or carbon dioxide emissions from deforestation and forest degradation in your country?

There is no national estimate of greenhouse or carbon dioxide emissions from deforestation and forest degradation. However, the carbon emission data for Vietnam's forests (tCO₂/year) are provided in the draft Second National

Communication to the IPCC, but should be treated as only indicative: According to the Communication, 338,000 ha of land use change, including 40,600 ha of evergreen forest converted to non-forest land use, resulted in the following emissions:

- CO₂: 56.72 million tons
- CH₄: 0.18 million tons
- CO: 1.57 million tons

Although forest conversion constituted only 10% of the total area under land use change, it accounted for 40% of the emissions under this category of around 20 million tons (according to IPCC figures: 1 ha forest releases 500 ton CO₂).

A study carried out by scientists from Louvain University indicates that in Vietnam the average biomass carbon stock per hectare of forest declined between 1980 and the 1990s. For broadleaf forests, for which the data are the most accurate, it declined from 147 (125–169) MgC/ha in 1980 to 115 (99–133) MgC/ha in 2005. The carbon density in broadleaf forests, which represents around 50–60% of the total forest area, declined steadily since 1980.

c) Please describe what data are available for estimating deforestation and/or forest degradation. Are data published?

Several data sources are available for estimating deforestation and forest degradation in Vietnam. All of the data referenced below are formally published:

Deforestation (Forest Cover) data

At national level, the main sources of data on forest cover, in order of importance, are:

- i. FIPI's National Monitoring and Assessment of Forest Resources Change Program, which has used progressively more advanced satellite imagery in each of its 5-yearly cycles over the last 20 years. Forest cover maps of the entire country in hard copy and digital format with the scales ranging from 1:100,000-1:1,000,000 in 1990, 1995, 2000 and 2005 produced by FIPI under NFIMAP. In addition, forest cover maps of some provinces in various years before 1990 have been established by FIPI. All forest cover maps are published and available at FIPI;
- ii. Detailed forest cover maps of some forestry strategic provinces at scales from 1:25,000-1:100,000 at different points in time are also available at FIPI Headquarters and its regional offices;
- iii. Annual Reporting from provinces to FPD since 2002, using field observation and estimation;
- iv. General Forest Inventory Program. Local authorities were responsible for this bottom-up data collection exercise, covering compartments, districts, and provinces. Most provinces contracted regional sub-FIPIs to conduct the work. It was supposed to take place every five years, but has only been conducted in 1992 and 1997. The results were felt to be biased. The data is available in tabular and GIS map formats;
- v. Annual Land-use statistics and General Land-use Inventory (every 5 years) by MONRE;

Forest degradation data

As mentioned in Section 3a: forest type, timber volume, canopy closure, composition of timber species, and fragmentation are the proxies for forest quality. At national level, the main data sources are as 1) and 3) for Forest Cover Data, with some input from local level projects and programs.

d) What are the main causes of deforestation and/or forest degradation?

Commercial interests are driving much of Vietnam's deforestation and degradation. There is a huge demand in Europe, Japan and North America (and increasingly in domestic Asian markets) for inexpensive furniture made from tropical hardwood. Forest industries in Vietnam and China, with access to a tradition of skilled craftsmanship and low labour costs, are rapidly responding with increased production. Vietnam has built a dynamic wood processing industry. In 2007, exports of furniture reached US\$ 2.4 billion in value, a stunning ten-fold increase since 2000, making wood products Vietnam's fifth largest export earner. Vietnam currently exports 4 times more processed timber products by volume than it officially harvests from its own forests. This is placing enormous pressure on forests, not just on Vietnam's few remaining natural forest areas, but also on forests all over the Asia Pacific region, and indeed, the world.

There is growing pressure on forest land for conversion to cash crops especially coffee, pepper, rubber and cashews. This is a very important driver of deforestation and degradation in some areas, especially the Central Highlands (Tay Nguyen). Migration from the populated lowland areas to the Central Highlands and other remote and land-abundant

places has significantly contributed to vast deforestation during the last decades. It is estimated that over six million people have migrated to the Central Highlands during the period from 1980-2000. Inequitable forest land tenure and benefit sharing arrangements are exacerbating this, since they discourage investment in sustainable forest management by forest users.

Poor people, particularly the ethnic minority communities in Vietnam's uplands, need forest products for fuel, construction and income, in an increasingly cash-driven economy, and require forest land for shifting agriculture. These basic needs and the lack of livelihood alternatives translate into high levels of forest dependency and compel people to degrade or clear natural forest. More sustainable management of the forests is hampered by widespread lack of legal tenure over the forests, which ethnic minorities traditionally perceive as a common pool resource.

Rapid economic development is driving deforestation and degradation in various ways. National demand for electricity and other forms of energy is increasing, and Vietnam has developed plans for over 80 new hydro-electric power projects, in addition to those already under construction and on-line. Dams cause a lot of deforestation in the uplands, not just from the reservoirs created by dams, but also from the associated infrastructure of roads and power lines, and the resettlement of whole communities. The general expansion of the road network and other infrastructure improvements as the country develops also results in enormous additional pressure on forests. The lack of inter-agency cooperation and planning results in forestry and biodiversity conservation often losing out to infrastructure (and other lucrative) development projects.

A lack of capacity amongst forest planners, managers and protection staff and a lack of political will by local government perpetuate this situation, and in some cases, collusion between officials and illegal users acts as an additional driver.

e) What are the key issues in the area of forest law enforcement and forest sector governance?

A national assessment of forest law enforcement and governance, currently underway with the support of the EC and World Bank, has identified several key issues that need to be addressed if effective strategies are to be put in place. One of these is a need to address high levels of dependency on forest resources by the poor. This will require an acceleration of reforms of sector policy towards multiple-use forest management and a move away from centrally-defined state harvesting quotas.

Accelerated forest land allocation, particularly to communities, is also needed to improve forest tenure, and will help address poverty, increase investments in forest land management, simplify benefit sharing arrangements, and open up new opportunities for forest owners to access markets for forest services, including from tourism, watershed protection and carbon sequestration.

Urgent action is also needed to eliminate imports of wood of uncertain legal provenance. This practice drives deforestation and degradation in neighbouring countries, and could be construed as "leakage" in REDD calculations, and nullify any benefits. Further, illegal imports allow an illegal market to thrive and undermine efforts to strengthen the law locally and thus protect Vietnam's forests. Improvements to the legal framework for forest law enforcement are needed, for example to streamline the legal system, close loopholes that allow organised criminals to benefit unhindered from forest crime and to strengthen legal sanctions against the possession and trade of stolen wood.

Finally, the Government's strategy for enforcement requires considerable reform through improving coordination and operating procedures, better use of intelligence – such as the use of forest surveillance and monitoring approaches, better collection and use of violation data and re-targeting enforcement efforts at sawmills and wood processors.

4) What data are available on forest dwellers in lands potentially targeted for REDD activities (including indigenous peoples and other forest dwellers)? (e.g., number, land tenure or land classification, role in forest management, etc.).

The Central Highlands (Tay Nguyen) and upland areas of the North Central provinces will be the focus of a future REDD program. These areas are home to a large proportion of Vietnam's ethnic minority communities. These communities have strong cultural associations with forest areas and depend on them for their livelihoods to a greater extent than the majority Kinh community, as sources of food, fuel, construction and agricultural implements. Many communities have practiced swidden agriculture for generations and include forest products in livestock fodder and bedding. Indigenous minorities account for about 10% of Vietnam's population, or approximately 8 million people. About 90% of these communities inhabit rural areas.

Forest land allocation to local people has been proceeding since the late 1980s but most of the land allocated has been bare or degraded land subsequently converted to plantation forests. Natural forests have largely been retained under the tenure and management of local government agencies. Under the 5 million hectare reforestation project (Project 661)

some local communities have been awarded forest protection contracts for natural forest areas.

Since 2006 MARD has implemented a pilot community forestry program in ten provinces nationally, including some in the Tay Nguyen and North Central zones. This will result in greater involvement of local communities in natural forest management and decentralization of forest tenure. Prior to 2006, allocation of natural forest areas was primarily to individual households.

5. Summarize key elements of the *current* strategy or programs that your government or other groups have put in place to address deforestation and forest degradation, if any:

a) What government, stakeholder or other process was used to arrive at the current strategy or programs?

The Forest Protection and Development Strategy (FSDP) development was led by MARD's DOF, in consultation with other MARD departments, selected line ministries and Forest Sector Support Partnership (FSSP), and was approved by the Prime Minister in 2007. Development of a strategy for REDD will follow a similar process, using the existing FPDS as a starting point. It will be led by the MARD Steering Committee on Climate Change Mitigation and Adaptation. FCPF funding will be requested to support activities identified through this process. Broad consultations will be required under the auspices of the inter-ministerial Steering Committee for the National Target Program on Climate Change that covers both climate change adaptation and mitigation. The Climate Change Working Group of the ISGE, of which both MARD and MONRE are members, will provide the opportunity for international perspectives to shape REDD strategy/program design.

This process for REDD strategy development will include: a) building a foundation of national awareness and capacity on carbon mitigation through REDD and b) developing a clear national support framework for REDD, including guidelines and incentives for REDD sub-project developers. International expertise will be sought to help in designing programs and subprojects that can deliver verifiable emission reductions for trade on international carbon markets.

b) What major programs or policies are in place at the national, and the state or other sub-national level?

The most important measure has been the elaboration of a comprehensive legal framework relating to deforestation and forest degradation. A revised Land Law was approved by the National Assembly in 2003. In 2004 a new Forest Protection and Development Law (FPDL) was approved. The Criminal and Penal Codes include provisions relating to deforestation and degradation and detailed regulations exist to guide law enforcement and forest management.

The first major policy initiative to tackle forest degradation was the National Target Program for the reforestation of barren hills, started in 1992. After a successful initial phase, it was replaced by the 'Five Million Hectares Reforestation Program' or '661 Program' in 1998, which will run until 2010, but focusing only on protection and special use forests. The new Program 147 "Support for Development of Forest Plantations" (2007-2015) will focus on production forests and help reduce pressure on natural forest. Both will contribute to the national goal of restoring forest cover to 43% of national land area by 2015.

The current national strategy for the forest sector is the Forest Protection and Development Strategy 2006-2020 (FPDS). Two of its 'operational programs' are intended to help address natural forest loss and degradation:

- i) Sustainable forest management and development program, and
- ii) Forest protection, conservation and environmental services program.

The Government and multi-lateral and bilateral donors are funding various supporting programs and projects intended to have direct and indirect effects on deforestation and degradation, including a national assessment of forest law enforcement and governance now underway, which is expected to be translated into a Forest Law Enforcement and Governance (FLEG) action plan during 2008. The FSSP has established a fund for forest sector donor coordination, the Trust Fund for Forests (TFF). Projects will be selected for funding through the TFF on the basis of their compliance with the FPDS and by consensus of the FSSP member organisations. The Technical Assistance for preparation of Country Program Framework for Sustainable Forest Land Management (CPFSFLM), supported by GEF and TFF falls under the framework of National Action Program to Combat Desertification., This has several programs, among which one funded by WB and GEF focuses on natural forest sustainable management in Central Vietnam through forest land allocation and livelihood improvement measures.

REDD strategy development has started, with the appointment of MARD as the Focal Point. MARD has already appointed a Steering Committee for Climate Change Mitigation and Adaptation, and the Government as a whole understands the importance of the program.

6. What is the current thinking on what would be needed to reduce deforestation and forest degradation in your country? (e.g., potential programs, policies, capacity building, etc., at national or sub-national level):

The five main tools for addressing deforestation and forest degradation in Vietnam are currently:

- The Country Program Framework on Sustainable Forest Land Management (CPFSFLM)
- MARD's Action Plan to Mitigate and Adapt to Climate Change
- Community-Based Forest Management
- The National Forest Development Strategy
- Strengthening Monitoring, Assessment and Reporting (MAR) on Sustainable Forest Management

a) How would those programs address the main causes of deforestation?

CPFSFLM: The overall project development objective is to sustainably improve key functions of natural forests through household and community management in selected areas in Vietnam providing increased local income, and global and local environmental benefits. Progress towards the attainment of this objective will be measured by monitoring the area of natural forest areas managed by households or communities in the project areas. The goal of the project is to contribute towards the conservation of biodiversity in natural forest in production forest landscapes, reduce greenhouse gas emissions from forest degradation and deforestation, and increase carbon sequestration in production forests. Progress towards the achievement of these objectives would be measured by how well biodiversity is maintained or enhanced in selected natural forest ecosystems and the increase in forest biomass within the project area.

Action Plan to Mitigate and Adapt to Climate Change: The plan is currently under development and needs to be completed as a matter of urgency in response to the GOV's priority on climate change adaptation and mitigation. Vietnam has been officially recorded as one of the five countries most affected by climate change after COP13 of UNFCCC in Bali, and agriculture and rural development in Vietnam have been reported as the most affected sectors.

Community Based Forest Management: A national pilot project for community forestry is currently being conducted in forty communes in ten provinces, including several provinces in the Tay Nguyen that are potential focus areas for REDD. This project is funded through the Trust Fund for Forest (TFF) and is road testing guidelines for community forestry drawn up in 2006 by a national working group under MARD. MARD expects the current TFF project to result in recommendations for establishing a clear legal framework and benefit sharing system for community forest management. This framework will include income generation from sustainable productive forest management and capacity building for FPD staff to reorient them towards extension and training service provision. Community forestry is seen as a key tool in combating forest degradation by giving forest-dependent people clear long-term financial incentives to engage actively in sustainable forest management and forest protection.

National Forest Development Strategy: Programs under NFDS seek to complete the demarcation of the permanent forest estate, accelerate forest land allocation to households and local communities and encourage the development of plantations that could reduce the pressure on natural forests. The programs also address several initiatives to promote sustainable forest management and to empower local communities in these activities. Furthermore, NFDS addresses forest product processing and market promotion for improvement of forest-dependent people's livelihoods.

Strengthening the monitoring and reporting system: Improved forest inventory and monitoring are essential to address forest degradation by providing reliable data to reflect the seriousness of the problem and to develop properly-targeted responses. The project on Strengthening MAR, as well as addressing technical shortcomings, will tackle two key problems in information management – the retention of data at FIPI headquarters and the unequal sharing of analytical work. Information flow will become more of a two-way process, with analysed data flowing downstream to the local levels as well as raw data flowing upstream to FIPI. User-friendly software will be developed to allow inventory analysis to be conducted by provincial FPD or sub-FIPI. These objectives are also key to the success of REDD. MARD is in the process of developing the proposal for Strengthening MAR for presentation to international donors. It will also include measures to harmonize forest definitions and forest classification systems with international standards.

REDD strategies and programs will be aligned to the FPDS and will prioritise support to areas where the Government has identified that forest loss and degradation rates are the greatest – particularly the Central Highlands – and where poverty rates amongst forest dependent people are highest and thus financial incentives to forest owners could have maximum impact in preventing further illegal logging and land conversion. Links will also be explored for targeting key watershed protection forests where a “triple dividend” of environmental service protection, livelihood benefits and biodiversity conservation could create strong forest protection benefits from investment in the REDD mechanism.

b) Would any cross-sectoral programs or policies also play a role in your REDD strategy?

Several Government programs focus on rural development/improvements to livelihoods:

- The Forest Livelihoods in the Central Highlands (FLITCH) program aims to improve livelihoods of forest dependent ethnic minorities in the Tay Nguyen.
- Program 2740 “Natural Forest Allocation and Leasing” (2007-2010) will allocate and lease forest and forest land to entities including households, cooperatives and businesses. It aims to have 12 million ha of natural forest allocated by 2010.
- Program 2945 “Support to sustainable agriculture and forestry development in the uplands” (2008-2012) will assist upland communities to intensify agriculture and thereby reduce the cultivated land area, leaving less fertile land for forest restoration and reducing pressure for forest conversion.
- The national biogas program aims to provide substitutes for fuel wood from forests.
- Policy on Payment for Environmental Services (PES): This policy aims to create an incentive framework for local people’s active participation in forest development and protection through innovative funding mechanisms for sustainable forest management. This policy may be closely coordinated with policy on REDD.

MARD needs to consider the sustainable land management program currently under development – natural forest land allocated to communities and households under this program could be eligible for FCPF support, the Program 661 and a future FLEG action plan.

c) Have you considered the potential relationship between your potential REDD strategies and your country’s broader development agenda in the forest and other relevant sectors?

There is strong coherence between REDD and Vietnam’s Socio-Economic Development Plan (SEDP). REDD will directly contribute to Vietnam’s obligations under the UNFCCC, CBD, UNCCD and to the economic development of remote, upland and ethnic minority areas prioritised in national and provincial SEDPs. However, adoption of REDD will require a review of the management prescriptions for all forest types (production, protection, special use) to reflect the importance of reduced degradation and improved monitoring. The FPDS will need revision to reflect the increased importance of natural forest management relative to plantations as a result of REDD implementation.

The economic benefits of REDD will also assist Vietnam in the transition away from donor-funded forest management programs. REDD income will provide funding to continue the decentralisation of forest management and forest protection.

d) Has any technical assistance already been received, or is planned on REDD?

No specific external technical assistance has yet been formally offered for the establishment of REDD mechanisms in Vietnam.

7. What are your thoughts on the type of stakeholder consultation process you would use to: a) create a dialogue with stakeholders about their viewpoints, and b) evaluate the role various stakeholders can play in developing and implementing strategies or programs under FCPF support?

a) How are stakeholders normally consulted and involved in the forest sector about new programs or policies?

For the formation of new policy, legislation and programs, consultations are carried out by National Working Groups established for the purpose. National Working Groups are composed of government and non-government representatives. Documents developed by the working groups are circulated to a wider range of provincial and national stakeholders and reviewed and revised through a series of national workshops. Consultations for the Forest Protection and Development Law of 2004, for example, included stakeholder consultation workshops at national level to which individuals from government departments, the private sector and NGOs were invited. Field trips were organized for National Working Group members to a number of provinces, districts and communes to consult with stakeholders. National and International NGOs often contribute to the development of new policy and legislation directly, through formal and informal channels, and by facilitating consultative workshops and meetings and by reviewing and commenting on draft documents.

The Forest Sector Support Partnership (FSSP) is an official body formed to provide a forum for discussion of forest policies and program and to allow harmonization of government, official development assistance and international NGO supported program. The FSSP is formally comprised of 26 institutions drawn from various government ministries, donor agencies and NGOs, which form the partnership’s governing body under the chairmanship of MARD. The FSSP recently opened its membership to all interested parties including the private sector and national NGOs and Civil Society organizations. An integral part of the FSSP is the six Provincial Reference Groups (PRGs). These are groups that have

been formed from groupings of provinces by agro-ecological zones. The PRGs select membership from provincial DOF, FPD and DARD officials and each group elects a representative to attend FSSP meetings. The PRGs provide a mechanism for stakeholder consultations.

The Department of Forestry has offices within provincial and district administrations, while the Forest Protection Department has staff located and operating at these levels and at the commune level too, communes being the lowest tier of government. Forest Management Boards also have staff located or operating at commune level. All three institutions hold stakeholder consultation meetings at village and commune level. The results of consultations at lower tiers are fed up through the system to support development of policy and regulation at district and provincial levels, and to support the development of policies and practices of Forest Management Boards. Consultations at commune and district levels are especially important for developing practical structures to integrate the roles and functions of different stakeholders in the implementation of programs.

All three mechanisms for stakeholder consultation would be employed to support the development of REDD policies and programs.

b) Have any stakeholder consultations on REDD or reducing deforestation been held in the past several years? If so, what groups were involved, when and where, and what were the major findings?

EU-WB FLEGT Assessment 2006-2007: This is a regional project funded by the European Union through the World Bank. In Vietnam, several government agencies are involved in the project implementation such as International Cooperation Department (ICD) under MARD, DOF, FPD, General Custom Office and several selected provincial authorities. An assessment report and a case study on forest cover change in one district of Dak Nong province in the Central Highlands are the preparation process.

- WB Custom Modernization Project: this project is aimed to strengthening the capacity of the General Department of Custom in Vietnam in monitoring the import and export timber and wood products.
- WWF Global Forest and Trade Network (GFTN) FLEGT (TRAFFIC): aims to develop criteria and guidelines for the definition and verification of legal timber in Vietnam. The results are guidelines, policy papers and consultation workshops
- IUCN FLEGT “Strengthening voices for better choices”: Similar to the EU-WB project, this project has also supported organizing several national workshops to introduce the importance of the FLEGT and to draw attention from decision makers and publics in this issue.

c) What stakeholder consultation and implementation role discussion process might be used for discussions across federal government agencies, institutes, etc.?

Consultation on the development of REDD programs and the roles of different stakeholders at national level will be undertaken through the National Working Group on Climate Change (NWGCC). Chaired by the Ministry of Natural Resources and Environment (MONRE), which hosts the Focal Point for Climate Change in Vietnam, the NWGCC brings together all ministries, departments and agencies that have a role in climate change mitigation and adaptation. MONRE’s Institute of Hydrology, Meteorology and Environment (IHMEN) has been appointed to develop a National Target Program on Climate Change Adaptation (NTPCCA), and will work closely with the Ministry of Science and Technology (MOST), which is the ministry responsible for the science relating to climate change, to achieve this.

The Minister and Vice Minister of MARD sit on the NWGCC. MARD is responsible for mitigation as it relates to forests, and is the Focal Point for REDD. MARD has set up its own Steering Committee on Mitigation and Adaptation to Climate Change to develop an action plan. This Steering Committee includes representatives from many MARD departments, including DOF, FPD and a range of research institutes and universities. The Steering Committee is chaired by the Vice Minister who also sits on the NWGCC, ensuring close integration between national and MARD consultation and discussion processes.

d) Across state or other sub-national governments or institutions?

A Sub-Committee on Mitigation and REDD will be established under MARD’s Steering Committee with representation of the forestry companies (both private and state owned), Forest Management Boards, national and international NGOs, provincial authorities and the National Committee on Ethnic Minorities to represent the interests of forest dwellers and users. This Sub-Committee will be charge with the development of REDD policies and programs. It will employ the consultative mechanism referred to in section 7a to ensure the participation of provincial and district governments, sub-national institutions and non-state stakeholders.

The Sub-Committee will also establish a structure for carrying out consultations with its particular stakeholder group in

relation to forest related mitigation and adaptation and REDD programs.

e) For other stakeholders on forest and agriculture lands and sectors?

FSSP provides an important body for consultations with a broad range of stakeholders, especially the private sector and NGOs. MARD's Sub-Committee of Mitigation and Climate Change will also be important for consultations with these stakeholders and for consultations with other sectors working at provincial and district levels. Consultation with provincial DARD Extension and Service Centres will be through the Sub-Committee and the structures referred to in Section 7a.

The International Support Group for the Environment (ISGE) of MONRE is a policy forum on the environment bringing together government line agencies, international donors and other interested parties, including NGOs. It has convened a Working Group on Climate Change (WGCC).

The NGO community has established the Climate Change Working Group (CCWG) under the Vietnam Union of Friendship Organisations (VUFO). NGOs will play an important role in ensuring that biodiversity and socio-economic concerns are well integrated into REDD policies and programmes, and in particular, that benefits from REDD reach the local level and that REDD promotes rather than undermines community-based forest management.

The private sector has shown a diversified interest in climate change mitigation, particularly in relation to biogas development and pilot CDM forest projects. Some media organisations and private companies with an interest in carbon finance participate in the CCWG.

For discussion of project implementation under FCPF, provincial forest sector consultation groups will be expanded to include private forest management enterprises, forestry academic institutions and locally-prominent environmental NGOs.

The development of web-based mechanisms for soliciting and receiving input from a broad range of stakeholders through web-forums will also be employed on an experimental basis. This form of consultation may be most suitable for urban based members of the public with an interest in forest conservation and management who may otherwise find it difficult to join consultative processes.

f) For forest-dwelling indigenous peoples and other forest dwellers?

There is a strong correlation between the locations of remaining natural forests in Vietnam and areas occupied by ethnic minority people. These communities are known to be amongst the poorest communities in Vietnam, to remain strongly dependant on forests for their livelihoods, and to have clear historical and de facto tenure over forest lands. The National Committee on Ethnic Minorities will be important in ensuring that the interests of these groups are represented in consultations for the design and implementation of a REDD program. Existing government infrastructure, especially the offices and officers of the FPD all the way down to the commune level, will be essential to ensure that the voices of ethnic minority peoples and other local communities in forest areas are heard and inform the development of REDD programs and policies.

The current piloting and subsequent expansion of a national community forestry programme will provide the opportunity for forest-dependent communities to become directly involved in a stakeholder consultation process for REDD program development and implementation. REDD has the potential to become a significant source of income generation for communities which are allocated natural forest land.

The ongoing process of forest allocation to communities involves participatory planning at village, commune and district levels. REDD implementation will become a central part of all community forest management strategies and will therefore feature prominently at all stages of the participatory planning process.

Priority areas and activities for REDD programs will be discussed as part of the general planning for REDD implementation in community forests.

Within provinces where REDD programs are anticipated, existing forest sector consultation processes referred to above (section 7a.) will be employed to bring together provincial, district and commune level government bodies involved in the forest sector, and to bring together state and non-state actors.

Local mass organisations (Unions), CBOs and NGOs will be especially important in ensuring that the views of local communities are heard.

8. Implementing REDD strategies

a) What are the potential challenges to introducing effective REDD strategies or programs, and how might they be overcome?

Effective forest law enforcement is the main challenge facing Vietnam. Despite the introduction of tight restrictions on logging in natural forests in 1997, the area of primary natural forest continues to decline. The scale of the problem is a challenge in itself. Forest violations have numbered 30,000 - 50,000 per annum in recent years, very few of which are ever investigated and only a tiny proportion of which result in criminal prosecution.

Other challenges include:

- the lack of capacity and investment in forest monitoring, evaluation and protection, especially at district and provincial levels;
- A lack of cooperation and coordination among the law enforcement agencies and forest management and protection institutions at both national and local levels;
- a lack of awareness of the implications of forest loss amongst both communities and local authorities;
- reducing the economic marginalization of forest boundary communities;
- centralized planning targets;
- weakness of physical planning; and
- problems with inter-sectoral and inter-provincial planning

The Forest Protection and Development Law (FPDL) is already out of date, particularly in terms of the respective mandates of MONRE and MARD, and this will hamper effective collaboration on enforcement. FPDL lacks consistency with the Land Law (2003); the latter gives tenure of natural resources as well as land, but the FPDL does not. Forest classification and definition, which is at the heart of effective forest land use planning, is not up to date, in light of the recent reclassification exercise: percentage canopy cover is the only criteria. Targeted reform of these laws is needed.

While Program 661 has succeeded in increasing overall forest cover through monoculture plantations of exotic species, it has so far failed to protect natural forests from degradation and loss. There are two main reasons for this: 1) the subsidies (previously \$3, now \$6/ha) are too low to create a genuine incentive to protect forests against competitive economic forces, such as legal and illegal logging and conversion to commodity cash crops, and 2) local monitoring agencies lack incentives and means to monitor and report accurately on the performance of forest protection contracts. Monitoring and evaluation are based on inputs and activities, rather than results. Further, a lack of funding limits the proportion of natural forests which benefit from the program. Insufficient attention is paid to land suitability when planning plantations and appropriate levels of funding are not provided.

Insecure land tenure prevents forest and forest land managers from giving significant incentives in sustainable forest management. The land allocation programs are being hampered by lack of funding and institutional problems, such as the overlapping mandates of MARD and MONRE. Programs have been running since 1995, and a directive was issued in 1998, requiring the process to be complete by 1999, but even in 2008, many millions of hectares remain to be allocated. Furthermore, the Government has no clear policy on sustainable forest management, making it difficult to understand and implement the FPDS program. There are no incentives for managers or users to manage sustainably. Harvesting quotas are still imposed centrally, and no reference is made to any inventory when preparing them. The national quota is too low and does not reflect annual increment of high value timbers as well as preventing deforestation and forest degradation. Development of sustainable forest management models and adoption of the FSC are supposed to be the good solutions.

For REDD, "leakage" and "monitoring" challenges make the assessment and performance-based monitoring of forest areas, and verification of data by an independent third party auditor problematic. Forest surveillance and monitoring support may be needed to create and monitor a national forest carbon inventory database. Conservative estimates for landscape modelling would be favoured over site-specific, detailed monitoring – to ensure that VERs can quickly be validated, transferred and brought to market. Specialized cutting-edge techniques such as spatial assessment technologies, aerial survey investments and costs, and monitoring training could be applied to assist monitoring of multiple forest landscapes. Human resources and capacity, especially at the local level, is a problem, and corruption besets the system at all levels. There has been a lack of coordination amongst the various enforcement agencies. The Prime Minister has issued Decision 12/2006 that exhorts MARD to work in close coordination with other enforcement agencies, including MPS and MOD, to address continuing forest crimes that lead to deforestation and degradation. Sufficient investment in strengthening the capacity of forest management and law enforcement agencies, promoting active participation of the local authorities and communities and raising public awareness on sustainable forest management are needed.

b) Would performance-based payments through REDD be a major incentive for implementing a more coherent strategy to tackle deforestation? Please, explain why. (i.e., performance-based payments would occur after REDD activities reduce deforestation, and monitoring has occurred):

REDD offers a clear incentive to retain natural forest cover and improve forest quality by ascribing monetary value to standing timber. Unlike PES schemes for watershed protection, for example, this value is linked directly to measurable biomass and therefore benefits will grow with improved forest quality. Furthermore, this biomass value applies to all species. The revenue foregone by reduced harvesting of valuable timber is therefore likely to be offset by the value ascribed to otherwise uneconomic species, particularly in remote locations.

The strength of the consequent incentive to protect forest resources will depend on the unit price of REDD-generated credits, and will only be felt by those who receive the revenue. The mechanism will work best, therefore, when the revenue is channelled to those with a direct impact on forest protection: forest-dependent rural communities, natural forest management boards and local forest protection enforcement agencies. The benefits can be directly linked to the results of work performed by these stakeholders on forest protection that is through increases in sequestered carbon, measured through their participation in forest carbon accounting on the ground. This contrasts with previous strategies such as local forest protection contracts under Program 661, which provide very low rates of remuneration for forest protection and forest monitoring and were not linked to measurable performance indicators; contract holders basically know they will get the payments irrespective of whether they 'protect' forests. Performance-based payments should address these problems, but this will require robust independent monitoring and a change in mindset amongst national and local authorities.

9. REDD strategy monitoring and implementation

a) How is forest cover and land use change monitored today, and by whom? (e.g., forest inventory, mapping, remote sensing analysis, etc.):

The FPD of 2004 mandates that the National Forest Inventory, Monitoring and Assessment Program (NFIMAP) must be conducted every 5 years by MARD. As mentioned above, the forest cover changes are primarily monitored by FIPI and the results are reported to MARD under the supervision of the DOF (see Sections 2a, 3a and 3c above). The FPD and its branch offices at provincial and district levels are in charge of preparing annual monitoring reports on new forest plantations and forest loss, using FIPI's data as a baseline. These are compiled by FPD into annual national forest cover statistics. As of December 2007, FPD has about 11,000 officers and forest rangers down to commune level. The NFIMAP is conducted every five years and is correlated with a combination of remotely sensed imagery and field surveys to make forest cover maps for the entire country. To date, FIPI has completed three Cycles of NFIMAP (1991-1995, 1996-2000 and 2001-2005) and is currently conducting the fourth Cycle (2006-2010). Each cycle has used progressively more advanced satellite imagery. Cycle 1 (1991-1995) used 30m x 30m resolution Landsat TM imagery to make forest cover maps at scale of 1:250,000, Cycle 2 (1996-2000) used 20m x 20m resolution Spot imagery to establish forest cover maps at 1:100,000 and Cycle 3 (2001-2005) used Landsat ETM to produce forest cover maps at 1:100,000. Cycle 4 is using Spot 5 imagery with a resolution of 2.5m x 2.5m to create forest cover maps up to 1:25,000.

The remote sensing data from this program is supplemented by detailed forest inventories, carried out by FIPI, in permanent plots covering all forest types and species associations occurring throughout the country. This system consists of 4,200 permanent sample plots which are systematically distributed within a grid of 8 km x 8 km. Each sample plot has an area of 100 ha (1km x 1km) and a large number of indicators are measured and collected; for example, forest type, forest tree composition, diameter at the breast height (dbh) and height of forest tree species, status of regeneration, forest insects and diseases, wildlife, soil and socioeconomic conditions, etc. The NFIMAP is an independent program. Furthermore, 100 permanent sample plots are randomly distributed in major forest ecosystems of Vietnam to study their dynamics over time and space.

The General Forest Inventory Programs were also conducted in 1992 and 1997 to produce a second forest data source. These inventories were under the supervision of local government but contracted out to regional offices of FIPI. No inventories have been carried out under this program since 1997.

MONRE is responsible for the compilation of full and detailed land use changes statistics. They rely primarily on satellite imagery for the national land use inventory and use this to update provincial land use classification every 5 years. However, provincial and district authorities themselves are held accountable for land classification in their respective jurisdictions, including the total area classified as forest land.

b) What are the constraints of the current monitoring system? What constraints for its application to reducing deforestation and forest degradation?

Given the diversity of Vietnamese institutions with responsibility for forestry, the existing monitoring, reporting, and information systems are fragmented. Unclear institutional arrangement in forest management among the government agencies lead to fragmented and inconsistent monitoring, reporting, and information systems.

Claims of changes in natural forest area has over the past few years are difficult to substantiate objectively because there is no stable national legend and classification system in the country to yield comparable information. Added to this, lack of a systematic approach between successive reporting and national standards has generated differences in figures on forest and land uses. Changing classifications and definitions between and within national institutions (e.g. Centre for Land Inventory and Planning (CoLIP), National Institute for Agricultural Planning and Projection (NIAPP) and FIPI) is the major source of inconsistencies in national data. Furthermore, the current standard legend on maps used in national reports is not consistent with international standards in criteria and indicators for sustainable forest management. This hinders the fulfilment of Vietnam's obligation to report to international processes. The lack of collaboration between various national mapping agencies also leads inevitably to poor harmonisation of cadastral and geographic data within the country. The major outstanding problems are: poor integration and coordination between different sectors and mapping institutions, lack of systematic approach to update the information within FIPI, poor harmonisation with ongoing regional and international processes, inadequate staff capacity for mapping programme and no clear data management and data sharing policy among information providers and users.

The General Forest Inventory Program was discontinued because local authorities were both responsible for approval of the monitoring work and held accountable for the results. The objectivity of the data was thus brought into question. Many districts released figures for forest cover which were inflated and clearly at odds with satellite images. If accurate data showed a decrease in forest cover and quality, then districts would receive censure from central government. They thus had a clear incentive to withhold such data. Independent verification of inventory data is therefore a necessity.

The inventories carried out by FIPI as part of the NFIMAP are more reliable, of greater detail and are correlated with satellite images before data is released. Data on deforestation in the areas covered by this process can be considered reliable (at national level). However, the data for computing forest biomass and forest carbon stocks are not collected. Furthermore, the NFIMAP is designed for monitoring forest changes at national and regional levels and is not well-suited to detect forest degradation at the levels of forest stands and compartments. FIPI is using outdated forest inventory techniques which are heavily dependent upon manual labour. FIPI's manpower and resources are therefore insufficient to cover the forest area required to scale up the results to national level with confidence. This is particularly the case for information on forest quality and therefore degradation. There is still, as with the General Inventory Program, a lack of independent verification of the data. Degradation which occurs outside the permanent plot areas is effectively not recorded. Furthermore, no common database has been established, causing difficulty in efficient data management, sharing and harmonization. Data is analysed and retained at FIPI headquarters and it is difficult for provincial and district offices to access this information. Their lack of involvement in data processing means that, even if they can access the data, it is often difficult to interpret.

A further constraint of the current forest monitoring systems is inconsistent forest classification. Forest definitions were changed in 2004. Each agency has used a different forest classification system, which are all different from the international definitions used by FAO and other international bodies. Therefore it is difficult to compare the forest data of Vietnam with other countries.

At present, NFIMAP only collects data on living biomass of forest trees. There is no inventory or monitoring program to gather data on the biomass of understory vegetation, the dead mass of litter, woody debris and soil organic matter. Therefore, it is difficult to estimate the forest carbon pools in the various forest ecosystems in Vietnam.

The major constraint in this process is data processing for which FIPI lacks capacity both with respect to qualified personnel, computer hardware and software utilities. This is evidenced by the huge amount of raw field data from the national forest inventory cycles 1 and 2 which were undertaken by FIPI from 1991-2000 but not processed by the end of 2003. The data from cycle 1 was eventually processed in 2004.

c) How would you envision REDD activities and program performance would be monitored? (e.g., changes in forest cover or deforestation or forest degradation rates resulting from programs, using what approaches, etc.)

Improved forest inventory will form the bulk of proposed REDD activities. MARD is now developing a proposal on "Strengthening Monitoring, Assessment and Reporting (MAR) on Sustainable Forest Management" to ask for support from international donors to strengthen the capacity in forest monitoring and assessment (see 6a). The Government of Vietnam has approved a project to establish a national system for monitoring and assessment of natural resources and

environment. A part of the project is to install a ground receiving station to acquire SPOT 5 and other remote sensing imagery. Thereafter, MARD can use some medium spatial resolution images provided by the Station for more frequent forest cover monitoring at national level and to detect hotspots of deforestation. In addition, the high-resolution SPOT 5 images (spatial resolution up to 2.5m x 2.5m) could be employed to detect deforestation and forest degradation at the local level.

Furthermore, forests and forest land have been allocated to individual households and other economic entities, so that monitoring would be based on forest inventories conducted by grassroots stakeholders, including community forest management groups, forest protection management boards and commune-level FPD officials. These inventories will employ simple methodologies developed through previous and current community forestry pilot projects. The emphasis will be on frequency and area coverage rather than depth of information. For example, 20% of a community forest management unit might be subject to an inventory each year on a 5-year rotational basis, at a 2% sampling intensity.

Grassroots stakeholders will submit their inventory results to provincial focal points in FIPI or FPD, where they will be used to calculate forest carbon stocks. In parallel, FIPI would continue their ongoing detailed inventories of permanent forest plots. The greater flow of additional data through grassroots REDD inventories will provide an indication of the accuracy of the FIPI data in relation to the wider forest area and reveal short term and localised trends on deforestation and degradation. The greater pool of inventory data and improved ground truthing will allow satellite imagery and other remote sensing data to be better calibrated for forest quality and hence degradation.

Both grassroots REDD inventories and FIPI plot monitoring will be subject to annual external verification by a national REDD auditors' network. These auditors will be trained and accredited to international standards, and therefore subject to regular review of their practice by international standard setting agencies. Only provinces which maintain consistent standards of REDD monitoring according to this independent auditing process will be permitted to contribute to the national REDD account.

REDD activities will aim to improve on current forest inventory methodology by addressing the following problems:

- *Low intensity:* Greater area coverage of forest inventory under REDD will allow claims of deforestation and degradation trends to be made with greater confidence
- *Poor objectivity of data:* The agency accountable for the accuracy of inventory data (FIPI) will have their results held up for comparison with another source. The agencies ultimately responsible for forest protection (local government) will not be involved in the collection, supervision or approval of data on forest quality.
- *Lack of independent verification:* An external auditing process to ensure grassroots monitors and FIPI staff perform REDD activities in accordance with standards and are held accountable for inaccurate or fabricated data.
- *Inaccurate calibration of remote sensing data:* Regular flow of inventory information at greater intensity and from a wider area will allow satellite imagery to be constantly recalibrated and refined against forest quality on the ground
- *Lack of human resources:* Mobilisation of a much extended pool of forest monitors using basic inventory tools

The financing scheme for REDD, to be devised with assistance of FCPF, will ultimately determine whether the improved monitoring system delivers REDD results. In particular:

- Monitors should receive some financial acknowledgement for inventory work done, if verifiably conducted according to minimum performance standards, regardless of the results when measured against REDD targets. This is to acknowledge that the monitors cannot be held wholly accountable for forest degradation, in which case they would be likely either to cease monitoring or to fabricate results when targets are unlikely to be met.
- Additional remuneration to monitors for verified achievement of REDD targets must be at a level to provide monitors with the incentive to contribute towards forest protection, according to their capacity and management responsibilities, without encouraging fabrication of results. It must also be sufficient to exceed the opportunity costs of revenue from illegal forest product extraction or land conversion.

10. Additional benefits of potential REDD strategy**a) Are there other non-carbon benefits that you expect to realize through implementation of the REDD strategy? What are they, where, how much?**

The REDD strategy has the potential to significantly improve the overall quality of forest management in targeted areas when measured against economic, biodiversity and social parameters.

The improved quality of inventory data will allow the refinement and improvement of existing forest growth models and the creation of new models for some types of forest where they have not yet been developed. Accordingly, forest management plans will be generated according to verifiably sustainable management standards. Thus it will be possible to realise productive value of forests which are currently managed exclusively for protection objectives. Achievement of REDD targets will inevitably increase the area of natural forest which can be sustainably managed for production.

The economic benefits of sustainable management of natural forests will be of particular importance to the community forestry program currently under development. Reliable prediction of productive capacity, and thus income generation, from natural forest areas will provide a clear incentive for communities to engage proactively in the program. In areas where productive capacity of community forests is still limited, REDD-generated income will provide a secure income source for communities engaged in monitoring work.

Achievement of REDD targets will necessarily contribute towards biodiversity conservation at the macro level, through preservation of forest ecosystems and the associated habitats of indigenous flora and fauna. At the local level the relationship may be more complex, with some species being displaced as degraded or 'edge' forest becomes mature.

The social benefits from REDD of greater decentralisation of forest tenure and management, participation in forest land allocation and planning (particularly of ethnic minorities) are not easily measurable but will be an inevitable side benefit of a successful REDD programme.

b) Is biodiversity conservation being monitored at present? If so, what kind, where, and how?

Biodiversity monitoring is not carried out at national level and formal protocols for monitoring biodiversity at the national level have not been developed. No formal reporting on national level biodiversity trends is currently provided. The institutional structure of responsibilities for biodiversity may make development of such national level reporting difficult. MONRE is responsible for the conservation of biodiversity, while MARD is responsible for the majority of sites in which biodiversity is conserved. On the ground management of these conservation sites is most generally provided by provincial authorities, and monitoring protocols would therefore require inter-provincial collaboration.

At individual site level, the managers of protected areas carry out monitoring of biodiversity within the scope allowed by their often limited human and financial resources. Externally funded projects supporting conservation in Vietnam often make provision for the support of biodiversity monitoring but the short term nature of these interventions generally result in one-off inventories of biodiversity rather than on-going monitoring. These initiatives are often designed as stand alone activities, and do not easily lead to analyses of biodiversity trends at higher geographical scales. It is also necessary to note that designing a standardised monitoring protocol for the great range of ecosystems existing within Vietnam will be difficult.

c) Under your early ideas on introducing REDD, would biodiversity conservation also be monitored? How?

Biodiversity will be an important element to monitor under a REDD program, especially as the commercial value of CERs and VERs will be influenced by the degree to which positive outcomes for biodiversity can be demonstrated.

The Vietnam Conservation Fund (VCF), a World Bank GEF project, is supporting protected area Management Boards to develop systematic monitoring of biodiversity at site level. There is a parallel initiative under the VCF to build on these site level monitoring initiatives to establish a national level system under the management of the Forest Protection Department. It is anticipated that the establishment of national level biodiversity indicators will allow biodiversity from any site, including REDD project sites, to be integrated into and compared with national level trends.

Biodiversity within REDD project areas will be monitored through mechanisms similar in logic and design to the improved forest inventory referred to elsewhere, drawing on simple methods and covering large areas carried out in parallel with more intensive monitoring techniques on randomly selected focus areas.

Participatory assessment, monitoring and evaluation of biodiversity (PAMEB) will be employed, based on tools that can be used by local communities and other grassroots REDD monitors. Biodiversity monitoring will be integrated into forest inventory monitoring systems and forest patrols. Tools may include timed counts of indicator species, inventories of non-timber forest products, and monitoring of biodiversity 'hotspots' such as water holes and salt licks.

PAMEB results will be used to identify general trends of change in biodiversity in REDD project forests. Researchers from government institutions, universities and other bodies will be able to use PAMEB results to identify new topics and locations for intensive study.

d) Are rural livelihood benefits currently monitored? If so, what benefits, where, and how?

Yes. Rural livelihood benefits from forest management and development in general and from REDD activities in particular will be monitored through the following censuses and programs:

- The RAFC is a nationwide census and is carried out every 5 year since 2001. Three RAFCs were done in 1994, 2001 and 2006. About 1% of total rural households were randomly selected. The RAFC focused on gathering the data of the different livelihood activities of the household, farms and enterprises in agricultural, forestry and fishery sectors and condition of infrastructure in rural areas; for example, i) Status household indicators; ii) Number and production status of farms; iii) Number and production status of agricultural, forestry and fishery cooperatives; iv) Number and production status of agricultural, forestry and fishery enterprises; v) Status of infrastructural facilities in rural areas; vi) Composition of household economy, income generation, ownership of durables and production investment.
- The HLSS is conducted in 2 year basis. At present, three Censuses were done: in 1999, 2002 and 2004. Monitoring and evaluation of the National Integrated Strategy on Economic Development and Poverty Alleviation. In 2006, the 45,900 households represented for 8 geo-political and economic regions were surveyed. The main groups of collected indicators are: geo-demography, income (by different sources), expenditure, employment, private properties, sanitary conditions, education and ownership of agricultural and forest land. The data is then extrapolated to district, provincial and national levels.
- The Population and Housing Census is carried out in 10 year basis and two Censuses were completed: 1989, 1999. The GSO is planning to implement the third census in 2009. Major indicators are: i) Population by administrative unit, sex, by age groups, by ethnics, by education levels; and ii) Housing conditions and ownership of durable goods. Furthermore, the survey on population and population dynamics is conducted annually and 3840 communes are randomly selected. Indicators and reports of the censuses and surveys are formally published by the GSO.
- In addition to the above mentioned censuses and survey, Ministry of Labour, Invalid and Social Affairs (MOLISA) also implement annual poverty monitoring survey using the national poverty standards.

e) Under your early ideas on introducing REDD, would rural livelihood benefits also be monitored? How?

Under the REDD mechanism described in 9c and elaborated in 10a above, the involvement of forest-dependent people through a community forestry programme would ensure that rural livelihood benefits are intrinsically linked to the success of REDD.

Transparent disbursement of payment to communities for REDD inventory work and for achievement of REDD targets will allow the link between REDD and rural livelihoods to be closely and objectively monitored. In addition, the economic and subsistence benefits resulting from sustainable management of natural forests can be considered as indirect livelihood benefits from REDD, as a result of improved forest growth models (see 10a).

11. What type of assistance are you likely to request from the FCPF Readiness Mechanism?

- Identify your early ideas on the technical or financial support you would request from FCPF to build capacity for addressing REDD, if you are ready to do so
- Include an initial estimate of the amount of support for each category, if you know
- Please refer to the Information Memorandum and other on-line information about the FCPF for more details on each category

a) Setting up a transparent stakeholder consultation on REDD (e.g., outreach, workshops, publications, etc.):

Goal of support: To ensure development of Vietnam's REDD strategy is in accordance with the best and most up-to-date information on:

- Progress of UNFCCC negotiations
- Technical information on carbon accounting systems, remote sensing and ground truthing elements.
- National and international forest sector stakeholder concerns

1. Establish a working group on REDD under FSSP
2. Establish a Sub-Committee on Mitigation and REDD under MARD
3. Distribution, interpretation, circulation and translation of SBSTA reports and proceedings of official fora
4. National workshops for REDD readiness planning

Estimated budget requirement from FCPF: \$100,000 (Year 1: \$70,000, Year 2: \$30,000)

b) Developing a reference case of deforestation trends: Assessment of historical emissions from deforestation and/or forest degradation, or projections into the future.

Goal of support: To develop objective, accurate and evidence-based models for evaluating trends in Vietnam's forest carbon stocks

1. For all major types of forest ecosystem in Vietnam, develop equations for deriving carbon stocks from standing volume based on species-specific allometric equations. Research to include field and laboratory measurements correlated with data from other countries in Southeast Asia;
2. Calculate trends in forest carbon stocks, and thus emissions, over 20 years using historical inventory data and allometric equations;
3. Correlate historical emissions of each forest type with remote sensing information over the same period.
4. Develop a country-specific software package to project emissions, based on inventory data, remote sensing and equations derived under (1);
5. Training program for national and provincial DARD, FIPI, FSIV, FPD, DOF staff, NGOs and private sector auditors to roll out software package; and
6. Establish dedicated offices within national and regional FIPI, FSIV for assessment of forest carbon stocks and annual revision of emission projections based on latest inventory and remote sensing information.

Estimated budget requirement from FCPF: \$ 800,000 (Year 1: \$400,000, Year 2: \$400,000)

c) Developing a national REDD Strategy: Identification of programs to reduce deforestation and design of a system for providing targeted financial incentives for REDD to land users and organizations (e.g., delivery of payments, governance issues, etc.):

Goal of support: To incorporate the practical and strategic implications of REDD into national policy:

1. Establish objective baseline scenarios and REDD targets based on realistic emission projections;
2. Independent assessment of the socio-economic and environmental implications of REDD implementation according to targets;
3. Consultative process with ministries, provinces and NGOs to assess the impact on specific sectors and provinces of achieving REDD targets.

Estimated budget requirement from FCPF: \$500,000 (Year 1: \$300,000, Year 2: \$200,000)

d) Design of a system to monitor emissions and emission reductions from deforestation and/or forest degradation

Goal of support: To develop a forest emission monitoring system that enables Vietnam to verify REDD targets.

1. Develop a forest inventory system adapted to the data requirements of the software package in (c) above, to be implemented by commune-based forest protection officials and rural communities, with minimal supervision
2. Develop and implement training program for forest inventory and conduct national baseline survey
3. Establish permanent monitoring network in REDD focus provinces, consisting of rural communities, commune and district forest protection officials and provincial FIPI.
4. Develop transparent auditing network for inventory of forest carbon stocks, using domestic and international independent expertise, to standards approved by UNFCCC.
5. Optimise flow of forest inventory and carbon stock information within and between national, provincial, district and commune offices, NGOs and private sector stakeholders
6. Develop participatory forest biodiversity monitoring scheme to be implemented in forests under REDD

Estimated budget requirement from FCPF: \$3.5 million (Year 1: \$1.5 million, Year 2: \$2 million)

e) Design of a system for providing targeted financial incentives for REDD

Goal of support: To ensure that the financial benefits of REDD provide incentives to all stakeholders directly involved in forest protection and monitoring

1. Incorporate community forest management of natural forests under national and provincial forest strategies, with secure community forest tenure rights
2. Provincial-level agreements between DARD/FIPI or FSIV and community forest managers to establish remuneration to communities and commune-level officials for inventory of forest carbon stocks. Remuneration rates to be based on a combination of verifiable work (inventory conducted) and results achieved (emissions reduction)
3. Develop system for transparent and efficient transfer of national REDD income to provincial FIPI or FSIV on delivery of independently verified annual accounts of forest carbon stocks
4. Develop regulations for independent verification of provincial forest carbon accounts by network of national and international auditors established under (e) above.

Estimated budget requirement from FCPF: \$1 million (Year 1: \$300,000, Year 2: \$700,000)

12. Please state donors and other international partners that are already cooperating with you on the preparation of relevant analytical work on REDD. Do you anticipate these or other donors will cooperate with you on REDD strategies and FCPF, and if so, then how?

A number of international organisations have been involved in the development of this PIN (FFI, SNV, and IUCN) and a number of others were consulted (see list at top of document). It is anticipated that these organisations and a number of bilateral donors will work with the Government of Vietnam on development of a REDD strategy both in the context of the FCPF and independently. REDD will be discussed within the FSSP as a first step to exploring opportunities for advisory and financial contributions to Vietnam's national REDD strategy.

13. Potential Next Steps and Schedule:

Have you identified your priority first steps to move toward Readiness for REDD activities? Do you have an estimated timeframe for them yet, or not?

Vietnam will carry out the following actions to move forward Readiness for REDD activities. However, assistance from the FCPF and other donors are vitally important:

Activities	Time frame
1. Consultation of relevant partners	
<i>1.1 Establishment of a sub-committee on Mitigation and REDD under MARD and specification of its TOR</i>	July 2008
<i>1.2 Organization of consultation workshops on the REDD with the participation of various government agencies at central and local levels, potential international donors, INGOs, NGOs and representatives from local communities</i>	March – July 2008
<i>1.3 Implementation of the consultation processes</i>	July - December 2008
2. Development of the outline for the national REDD strategy	October –December 2008
14. List any Attachments included (Optional: 15 pages maximum.)	