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

R-PIN Format Version of 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.

Country submitting the R-PIN: The Kingdom of Thailand
Date submitted: Initial R-PIN Submission 15 Dec 2008; Revised Submission 16 Feb 2009

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Tenasserim Biodiversity Corridor, Ratchaburi and Kanchanaburi Province

Name List of Village Headman and Cluster Headman
Sai Yok Cluster (5 villages)
Mr. Kowit Pueksa, Head of Ban Bong Ti Lang, Sai Yok, Kanchanaburi
Mrs. Phayong Namoon, Head of Ban Thung Ma Sur Yor, Sai Yok, Kanchanaburi
Mrs. Aunruean Phonrachom, Head of Ban Ton Ma Muang, Sai Yok, Kanchanaburi
Mr. Prachoen Tapbaiyam, Head of Ban Bong Ti Noi, Sai Yok, Kanchanaburi
Mr. Pracha Saengsun, Head of Ban Chai Thung, Sai Yok, Kanchanaburi

Suan Phueng Cluster (5 villages)
Mr. Sakol Kunaphitak, Head of Ban Thung Faek, Suan Phueng, Ratchaburi
Mr. Sanit Boonmang, Head of Ban Pha Pok, Suan Phueng, Ratchaburi
Mr. Amphon Phienphol, Head of Ban Tham Hin, Suan Phueng, Ratchaburi
Mr. Phirot Sitaptim, Head of Ban Huai Phak, Suan Phueng, Ratchaburi
Mr. Boonlerd Panthongkam, Head of Ban Tako Lang, Suan Phueng, Ratchaburi

Tanaosi Cluster (5 villages)
Mr. Nawee Chokong, Head of Ban Tha Makham, Tanaosi, Ratchaburi
Mrs. Tatsanee Chumnak, Head of Ban Huai Muang, Tanaosi, Ratchaburi
Mr. Nattapol Wongthong, Head of Ban Bo Wee, Tanaosi, Ratchaburi
Mr. Boonlek Khangphu, Head of Ban Huai Haeng, Tanaosi, Ratchaburi
Mr. Phut Yamphom, Head of Ban Huai Namnak, Tanaosi, Ratchaburi

Ban Bueng Cluster (5 villages)
Mr. Chusin Cheechuang, Head of Ban Pong Krathing Bon, Ban Bueng, Ratchaburi
Mr. Sompong Ruamphoree, Head of Ban Phu Nam Ron, Ban Bueng, Ratchaburi
Mr. Samphao Suksawang, Head of Ban Dong Kha, Ban Bueng, Ratchaburi
Mr. Sangkom Phumrat, Head of Ban Huai Makrut, Ban Bueng, Ratchaburi
Mr. Prasert Kanchanapiwat, Head of Ban Phu Hin, Ban Bueng, Ratchaburi

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Mrs. Kanisara Chetbundit, Protected Areas Administration Office 3
Mr. Tosaporn Rakchan, Protected Areas Administration Office 3

2. Which institutions are responsible in your country for:

a) forest monitoring and forest inventories:

In Thailand, the Department of National Park, Wildlife, and Plant Conservation (DNP) is responsible for resources assessment and monitoring within protected areas while the Royal Forest Department is responsible for reserved forests outside protected areas. Both DNP and RFD have, with the support of ITTO, established a national forest resources monitoring information system. This national monitoring system has established a national network of 1,285 permanent sample plots for collecting biophysical data over time. Out of these, data has been collected from 1,129 plots and used to update the national forest database. A preliminary mapping of tree volume across Thailand's forests has been undertaken. A 'panel' approach for plot measurement, whereby 1/5th of the plots are re-measured every year, has been developed. The sampling design used is a single systematic sample of points on 20 km x 20 km uniform grid, covering all Thailand's land mass, whether vegetated or not, including fresh water bodies. The sampling has just started and it is expected that the data from sample plots will provide valuable input for updating information of forest cover and deforestation.

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b) forest law enforcement:

Primary responsibility for forest law enforcement within and around Protected Areas rests with DNP. Outside protected areas within reserved forests, forest law enforcement is the responsibility of the protection unit of RFD. There are five Acts under which two departments are currently employed, namely:

(1) Forest Control Act, 1941 concerns logging operations and non-wood forest products collection, transportation of timber, and non-timber products and, sawnwood production as well as forest cleaning.
(2) National Park Act, 1961 covers the determination of the National Park land, National Park Committee, as well as protection and maintenance of the National Park.
(3) National Reserved Forest Act, 1964 includes the determination of National Reserved Forest, control and maintenance of the National Reserved Forest.
(4) Wildlife for Preservation and Protection Act, 1992 establishes provisions for the National Wildlife preservation, establishment of Protection Committee and identification of 15 species of reserved wildlife.
(5) Reforestation Act, 1992 cover the determination of reforestation and land registration of private reforestation right, ownership and exemption from royalty on forest products from reforested areas.

Besides the provisions for heavy penalties under these Acts, other provisions have been made to ensure that any crime or illegality in the field of forestry and wildlife is effectively controlled and convicted. As a whole, there are more than 20 laws and a number Cabinet decisions for forest and resource management. Under Section 39.23 of Forestry Act, 1941, whoever moves the timber or forest products shall have a moval pass issued by the competent officer in accordance with the terms specified in the ministerial regulations.

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c) forestry and forest conservation:

The Ministry of Natural Resources and Environment (MNRE), Thailand has ultimate responsibility for all state forest lands. It is the main policy making body for forestry and forest conservation in Thailand. Institutions directly responsible for forestry are:

Central level:

(i) Royal Forest Department (RFD) is responsible for reserved forests outside protected areas.
(ii) The Department of National Park, Wildlife and Plant Conservation (DNP) is responsible for forest Protected Areas.
(iii) Department of Marine and Coastal Resources (DMCR) is responsible for mangrove forests.
(iv) The Forest Industry Organization (FIO) is in charge of forest plantations

In addition, the following central level departments/agencies under MNRE may be involved in forest related issues:

(v) Office of Natural Resources and Environment Policy and Planning (ONEP) develops the natural resources and environmental enhancement and conservation management plan and policy.
(vi) Pollution Control Department (PCD) regulates supervises, directs, co-ordinates, monitors and evaluates rehabilitation, protection and conservation of environment quality.
(vii) Department of Environment Quality Promotion (DEQP) carries out research, development training, public awareness, development of environment technology, natural resources and environment.

Local levels (province, district-Amphoe, sub-district-Tambon and villages):

The DNP/RFD have regional offices around the country, which are responsible for all forest related activities. These liaise with the Superintendents of National Parks and Wildlife Sanctuaries as well as the Provincial and local authorities, such as Tambon (sub-district) administrations.

The Governor of each province coordinates forestry activities with local level departments and the responsible regional

offices of DNP/RFD. Technical extension assistance to forest farmers is provided by the specialized departments and the regional offices. For instance technical assistance on community forestry is provided by the Community Forestry Officers. Forest rangers are employed by DNP/RFD.
In some areas, NGOs such as FORRU and Yaad Phon Foundation etc. also play an important role in forest conservation and provision of extension services at local levels.

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d) coordination across forest and agriculture sectors, and rural development:
At national level, the National Economic and Social Development Board (NESDB) provides frameworks across sectors for social and economic development plan including agriculture and forest. Recently, NESDB has announced a long term 20 year development period with a five-year interval plan. Currently the 10th Social and Economic Development Plan (2007-2011) is being implemented. The plan has emphasized the maintenance of forest ecosystem integrity and restoring the over exploited forest ecosystems including the promotion of sustainable used of biodiversity at local community level through the sufficiency economy concept of H.M. the King. It is, therefore, NESDB has played an important role in coordinating forest, agriculture and rural development sectors.
While Department of National Parks, Wildlife and Plant Conservation (DNP) is the major coordinating organization on forest conservation mandate mainly in Protected Areas, Royal Forest Department (RFD) is responsible for the protection of reserved forests and keen on community forestry. In addition, the Department of Marine and Coastal Resources (DMCR) has been assigned to take care of mangrove forests. However, all of the mangrove forests reside within the reserved forests which are under the RFD. Therefore, both DNP and RFD have played key role in forest conservation areas. Under R-PIN, DNP and RFD needs to be clarified on what role each department will be a major contribution as well as other departments who contributed to the major land use conflict. It is vital for R-PIN to support organizing workshops to verify which parts they would be able to make a contribution to REDD.

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? (i.e., location, type of forest ecosystem and number of hectares deforested per year, differences across land tenure (e.g., national forest land, private land, community forest, etc.)):
Between 1961 – 1999, forest cover estimates were done using manual methods and GIS/Satellite imagery was not well advanced/used. Hence, forest cover data shown below must be differentiated between data before 1999 and data after 2000. A discrepancy will be noticed in the Table 1 below:

Table 1. Land-use in Thailand 1961-2006

Year	(1) Forest area		(2) Farm holding area		(3) Unclassified (others)	
	(1,000 ha)	%	(1,000 ha)	%	(1,000 ha)	%
1961	27,362.90	53.30	na	na	na	na
1973	22,170.70	43.21	na	na	na	na
1976	19,841.70	38.67	na	na	na	na
1978	17,522.40	34.15	na	na	na	na
1982	15,660.00	30.52	na	na	na	na
1985	15,086.60	29.40	na	Na	na	na
1986	na	na	20,943.83	40.82	15,525.30	30.26
1987	na	na	20,992.42	40.91	15,712.02	30.62
1988	14,380.30	28.03	21,083.64	41.09	15,847.03	30.88
1989	14,341.70	27.95	21,092.99	41.11	15,876.81	30.94
1990	na	na	21,139.91	41.20	16,173.43	31.52
1991	13,669.80	26.64	21,292.19	41.50	16,349.51	31.86
1992	na	na	21,128.19	41.18	16,688.24	32.52
1993	13,355.40	26.03	21,003.34	40.93	16,956.06	33.05
1994	na	na	21,093.33	41.11	16,969.93	33.07
1995	13,148.50	25.62	21,196.57	41.31	16,966.43	33.07
1996	na	na	21,091.12	41.10	17,131.03	33.39
1997	na	na	20,977.22	40.88	17,303.70	33.72
1998	12,972.20	25.28	20,862.96	40.66	17,476.31	34.06
1999	na	na	21,014.62	40.95	17,399.25	33.91
2000	17,011.08	33.15	20,991.35	40.91	13,309.09	25.94
2001	na	na	20,969.60	40.87	14,239.79	27.75
2002	na	na	20,942.72	40.81	13,357.71	26.03
2003	na	na	20,909.12	40.75	13,391.31	26.10
2004	16,759.10	32.66	20,876.85	40.69	13,675.56	26.65
2005	16,100.13	31.38	20,909.12	40.75	13,391.31	26.10
2006	15,865.26	30.92	20,846.51	40.63	13,705.89	26.71

Source: (1) Forestry statistics of Thailand, RFD 2007, (2) and (3) Agricultural Statistics of Thailand, 2007

From 1989 – 1993, when use of GIS data and satellite image information and technology assisted in improving information processing, most of the intensive deforestation had occurred in Northeast and the North of Thailand (See ANNEX 1: Map 1 Forest cover 1989 and Map 2 Forest Cover with Deforestation 1993). Between 1995 and 2000, deforestation continued to occur in pockets of areas in the North and the Northeast (see ANNEX 1: Map 3 Forest Cover 1995 and Map 4 Forest Cover and Deforestation 2000).

By 2006, the total forest cover in Thailand is estimated at 15.865 million ha, representing over 30% of the total land area of 513,000 Km^2 or 51.31 million ha compared to 1961, which had an estimated forest cover of over 50% of total land area. After submission of the Initial National Communication in 2000 by Thailand to the UNFCCC, covering 1990-1994 data, the mapping (benchmarking) of forest cover and areas deforested using GIS technology has been produced for the years: 1995, 2000, and 2005 (see Table 2 below and Maps in Annex 1).

Table 2. Landuse in Thailand, 1995 – 2005

Year	(1) Forest Area		(2) Farm holding area		(3) Unclassified (others)	
	(1,000 ha)	%	(1,000 ha)	%	(1,000 ha)	%
1995	16,596.64	32.06	21,196.57	41.31	16,966.43	33.07
2000	17,011.08	33.15	20,991.35	40.91	13,309.09	25.94
2005	16,100.13	31.38	20,909.12	40.75	13,391.31	26.10

Table 3. Average Annual Rate of Deforestation in Thailand 2000 – 2005

Duration		Average Rate of Deforestation		
From	To	(1,000 ha)/yr	(1,000 Km^2)/yr	%/yr
2000	2005	182.19	1.82	1.07

The deforestation rate estimated between 2000 and 2005 is at 1.07%, which is higher than what has been so far assumed 0.73% in the period 1991-1998.

The description of forest types and area (2000) is given below.

Table 4. Forest Type, Thailand and area, 2000

Forest ecosystem	Km^2	1,000 ha
Tropical rain evergreen forest	15,448.85	1,544.89
Semi-evergreen forest	22,903.16	2,290.32
Hill evergreen forest	14,327.04	1,432.70
Pine forest	462.08	46.21
Swamp	560.79	56.08
Mangrove forest	2,452.55	245.25
Beach forest	124.96	12.50
Mixed deciduous forest	87,444.74	8,744.47
Dry deciduous forest	18,569.52	1,856.95
Bamboo forest	1,503.50	150.35
Eucalyptus Plantation	1,510.28	151.03
Other (forest spp.) Plantation[a]	1,966.72	196.67
Rehabilitated forest	2,836.59	283.66
Total	170,110.78	17,011.08

Note: a) excludes rubber plantations, which is considered a commercial agricultural crop.

Description of Forest Types in Thailand:

There are two main types of forests in Thailand: (1) evergreen forest and (2) deciduous forest. The ***evergreen forest*** is subdivided into the tropical evergreen forest, the pine forest, the mangrove forest and the beach forest.

(1.1) ***Tropical evergreen forest*** is found all over the moist part of the country. This type of forest is also subdivided into the tropical rain forest, the semi-evergreen forest and the hill evergreen forest.

(1.1.1) ***Tropical rain forest*** is characterized by a very rich flora and very dense undergrowth. This type of forest is commonly found in the Southern and the Eastern regions where rainfall is above 2 000 millimetres. It is also found along rivers and/or in valleys in other parts of the country. The predominant species (the top store species) are, for example, *Dipterocarpus spp, Hopea spp, Lagerstroemia spp, and Shorea spp,* whereas the lower storey species are bamboos, palms and rattans.

(1.1.2) ***Semi-evergreen forest*** is scattered all over the country where the rainfall is between 1,000-2,000 millimetres. The predomainant species are *Dipterocarpus spp, Hopea spp, Diospyros spp, Afzelia spp, terminalia spp, and Artocarpus spp*. The main undergrowth species consist of bamboos and rattan.

(1.1.3) ***Hill evergreen forest*** is found on the highlands (above 1 000 metres from the sea level) where the climatic condition is the humid subtropical type. The presence of mosses and lichens on trees and rocks is the indicator of this forest type. The predominant species are oaks (*Quercus spp*) and chestnuts, (*Castanopsis spp, and Lithocarpus spp*).

(1.2) ***Pine forest*** has two species of tropical pines, *Pinus merkusii* locally called Son Song Bi (the two-needle pine) and *P. kesiya* locally called Son sam Bi (the three-needle pine). *P. merkusii* is found in the northern and the western part of the Central region, where the soil is poor (grave) lateritic and podzolic. *P. kesiya* is found only the highlands of the Northern and Northeastern regions.

(1.3) ***Mangrove forests*** occur along the coastal areas of the Eastern, Central and Southern regions. The mangrove forest is scattered along the estuaries of rivers and seashores where the soil is muddy and influenced by the tide. The predominant species are *Rhizophora spp, Xylocarpus spp, Avecennia spp, Bruguiers spp,* and *Nypa spp.*

(1.4) ***Beach forests*** occur along the sandy coastal plains especially in the eastern coast of the Southern region. The main species in this type of forest are *Diospyros spp, Croton spp, Lagerstroemia spp* and *Casuarinas pp.*

Deciduous forest is characterized by the presence of deciduous tree species and is commonly found throughout the country. It is broadly subdivided according to the species composition into the mixed deciduous forest (with and without teak) and the dry dipterocarp forest.

(2.1) ***Mixed deciduous forest*** is commercially among the most valuable forest of Thailand. In the Northern Region, this type of forest is called the teak forest with *Tectona grandis, Xylia kerrii, Pterocarpus marcrocarpus, Afzelia xylocarpus and Dalbergia spp* (rose wood) as dominant/common species.

(2.2) ***Dry dipterocarp forest*** is commonly found in the dry area (rainfall below 1 000 millimeters) with sandy or gravely lateritic interfertile soils. The predominant species are mainly *Dipterocarpaceae* such as *diptercarpus tuberculatus, D. obtusifolius, Shorea obtuse, S. sidmensis* with the presence of *Dalbergia spp, Lagertroemia spp, Terminalia spp* and other species

Plantations:
In 2007, the country had about 2.5 million hectares of plantations (about half of which are rubber plantations, which are considered to be agricultural crops). Rubber planting has been actively promoted by the Government since the 1960s and the total area reached in 2005 was 1,906 million ha and 2.377 million ha in 2007, of which 75% is found in the Southern region, 10% in the Eastern region and 14% in the Northeast region.

b) Are there any estimates of greenhouse or carbon dioxide emissions from deforestation and forest degradation in your country? If so, please summarize:

Information from Initial National Communication submitted to UNFCCC by Thailand, 2000
Using the 1996 Revised IPCC Guidelines, Thailand's gross emissions of CO_2 were estimated at 241 Tg (megatons) in 1994. Taking into account the amount of carbon sequestered through reforestation activities and the re-growth of natural vegetation on abandoned land, total net CO_2 emissions were estimated at 202 Tg. The energy sector accounted for more than half of gross CO_2 emissions in 1994. Compared to 1990, CO_2 emissions from forestry and land use changes declined while those from the energy supply sector increased. Total Methane (CH_4) emissions in Thailand were estimated at 3,171 Gg in 1994. About 91 percent of emissions were from agriculture. Of this, approximately 73 percent were from rice

cultivation, especially the main-season crop, and 22 percent were from enteric fermentation. Land use change and forestry sector activities emitted about 60 Gg of CH_4, while solid waste disposal and wastewater treatment generated about 35 Gg in 1994.

Thailand also produced approximately 56 Gg of N_2O in 1994, almost all of which came from agriculture. Agricultural soils emitted about 35 Gg, while manure management in the livestock sector emitted about 19 Gg. Other minor sources were the energy supply sector, land use change and forestry. Other GHG emissions estimated for 1994 were NOx, CO and NMVOC. The emissions were 287 Gg, 555 Gg and 2,513 Gg, respectively. The energy sector was the main source of NOx emission (95 percent). The industrial process was almost the only source of NMVOC emissions (94 percent). Land use changes and forestry were the main CO emitters (94 percent). In terms of global warming potential (GWP) in 1994, Thailand emitted approximately 286 Tg of CO_2 equivalent. The amount was marginal, compared to the world total. Of this total, CO_2 contributed about 71 percent while CH_4 and N_2O contributed about 23 and 6 percent respectively.

Projections of GHG emissions were performed in selected sectors. Based on assumed GDP growth rates, final energy demand was projected to increase from 48.4 mtoe in 1995 to 68.7 mtoe by 2010, and further to 92.2 mtoe by 2020. These projections result in CO_2 emissions of 282 Tg in 2010, and 475 Tg in 2020. Regarding the forest sector, predicting change in forest cover was difficult. However, based on the national policy on forest conservation and reforestation, it is expected that the carbon sequestration rate would increase, resulting in lower net emissions. If the trend for emissions between 1990 and 1994 is maintained, CO_2 emissions from land use changes and forestry could drop from 59 Tg in 1994 to about 51 Tg by 2010 and 46 Tg by 2020 (see figures 1 and 2 below).

Figure 1. Projection of CO_2 emissions 1994 – 2020

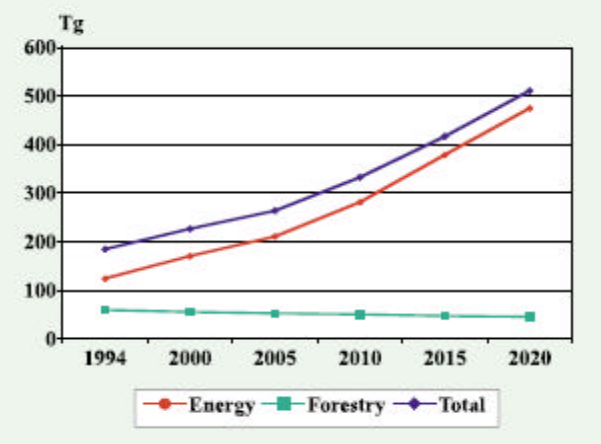
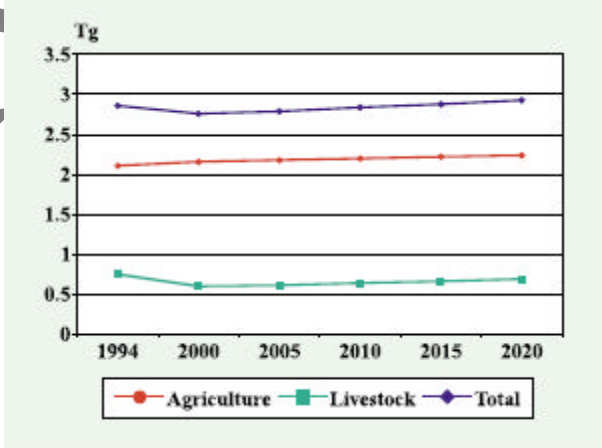


Figure 2. Projection of CH_4 emissions 1994 - 2020



These projections, especially from the forestry sector and from land use change need to verified and updated or adjusted under the proposed REDD interventions.

secondary data on forest area and biomass. The results showed that the net emission has been reduced in 1994 compared with 1990 (**Table 5**). However, in subsequent years (see **Table 6**) emissions from deforestation have been going up in the period 2001 - 2006.

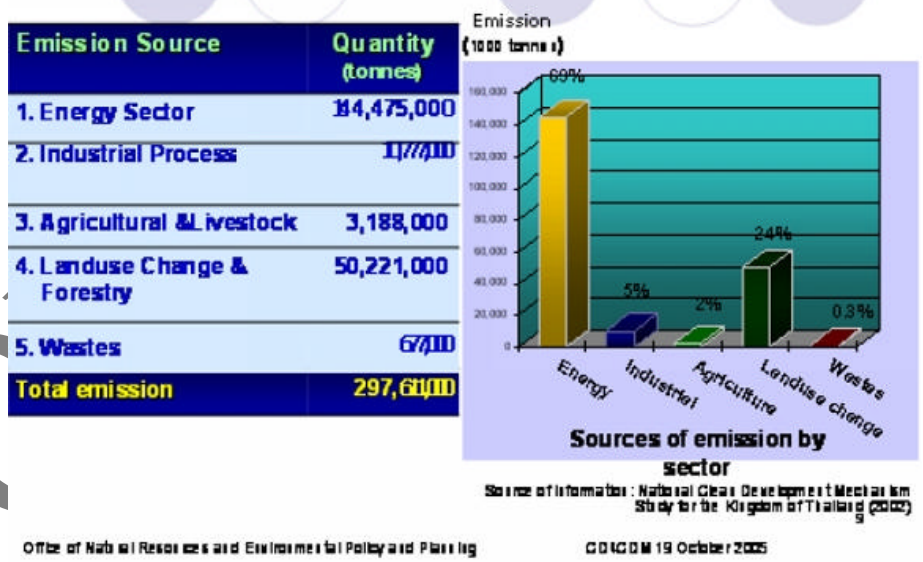
Table 5 Comparison of Carbon Dioxide Emission and Sequestration from Forests, 1990 and 1994 (Gg)

Emissions and Sequestration	1990	1994
Net Emission	+ 77,920.22	+ 60,475.75
Carbon sequestration	- 24,964.10	- 39,101.60
Uptake from plantation	- 812.50	- 17,457.26
Uptake from secondary forest	- 24,151.60	- 21,644.34
Total emission	+ 102,884.32	+ 99,577.35
Change in woody biomass	+ 21,160.59	+ 40,180.51
Wood and fuelwood consumption	+ 21,160.59	+ 40,180.51
Forest conversion	+ 81,723.73	+ 59,396.84
Biomass burning on site	+ 6,455.61	+ 13,650.78
Biomass burning off site	+ 68,321.84	+ 14,508.08
Decay of timber biomass	+ 6,946.28	+ 31,237.98

Source: Puangchit, L. 2000. Thailand's National Greenhouse Gas Inventory 1994, Chapter 6: Forestry Sector. Ministry of Science, Technology and Environment, p. 91

In October 2005, the Office of Resources and Environmental Policy and Planning (ONEP) calculated emissions from Land Use Change and Forestry for 2002, which were estimated to be 24% of total greenhouse gas emissions of Thailand (Figure 3 below).

Figure 3. Emissions from Landuse Change & Forestry 2002



The data on emission from 1990 and 1994 is currently under revision by ONEP. However, updating current level of CO_2 emissions from deforestation has been difficult due to incompatible, inconsistent and insufficient statistical forest data in each year from RFD/DNP statistical reports. Some rough calculations have been attempted here, which may be highly unreliable and need verification.

Table 6. CO_2 Emissions from Forests (Gg)

	CO_2 emission (Gg)				
	1990	1994	2001	2005	2006

NET EMISSION	**+77,920.22**	**+60,475.75**	**+70,343.87**	**+252,739.51**	**+128,545.41**
Carbon sequestration	***-24,964.10***	***-39,101.60***	***-13,344.66***	***-12,770.24***	***-13,555.75***
Uptake from plantation	-812.50	-17,457.26	-575.61[1]	-1,189.59[1)]	-783.70[1)]
Uptake from secondary forest	-24,151.60	-21,644.34	-12,769.05[2)]	-12,769.05[2)]	-12,769.05[2)]
Total emission	***+102,884.32***	***+99,577.35***	***+83,688.53***	***+265,509.75***	***+142,101.16***
Change in woody biomass	**+21,160.59**	**+40,180.51**	**+45,845.64**	**+45,807.03**	**+44,961.45**
Wood and fuelwood consumption	+21,160.59	+40,180.51	+45,845.64	+45,807.03	+44,961.45
Forest conversion	**+81,723.73**	**+59,396.84**	**+37,842.89**	**+219,702.72**	**+97,139.71**
Biomass burning on site	+6,455.61	+13,650.78	+8,884.19	+92,830.66	+33,089.51
Biomass burning off site	+68,321.84	+14,508.08	+9,101.29	+95,205.20	+33,935.92
Decay of timber biomass	+6,946.28	+31,237.98	+19,857.41	+31,666.86	+30,114.28

Source: Inoffical calculations by L. Puangchit (2009)
Note [1)] planting area by governmental sector only, excluding private plantation.
[2)] using secondary forest area estimated by RFD available only for year 2000

The source of data for calculations in Table 6 have been incomplete datasets and hence spikes in the figures for 2005 are difficult to explain.

Using another, indirect method of calculation gives us an estimated CO_2 emissions of 135.8Tg over the 2000 and 2005 period, which seems higher than what is projected to be the case in 2006 in Table 6 above. This is arrived at by taking the difference in forest area between 2000 and 2005 and multiplying biomass per ha and applying conversion factors for carbon and carbon dioxide:

CO_2 Emission=[17 million ha (2000)*78ton/ha-16.1million ha (2005)*77.75ton/ha]* 0.5 (Carbon default conversion) * 3.66 (CO_2 Conversion)
=135.8million ton CO_2
=135.8 Tg CO_2

Hereby, FAO figures on above-ground biomass for the years 2000 and 2005 have been used. (FAO, Global Forest Resources Assessment 2005; http://www.fao.org/forestry/32183/en/tha/).

These figures will definitely need reconciliation under the REDD Readiness preparation.

It is also difficult to note, how much of the remaining forest area is degraded and what is the current carbon stock estimation. However, the total stand volume is a rough estimate from 61 provinces at approx 126.1 million m^3. This estimation excludes 12 non-forested area provinces and three inaccessible forested area provinces in the South. It is difficult to estimate the carbon stock correctly as we need the wood density of each forest ecosystem types for calculation. Each forest ecosystem type will differ in carbon sequestration potential, which is what has been identified as an activity to be targeted under the REDD Readiness Plan. Thailand could improve the estimations based on primary data from remote sensing and ground check inventory through REDD Readiness mechanism.

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c) Please describe what data are available for estimating deforestation and/or forest degradation. Are data published? Describe the major types of data, including by deforestation and forest degradation causes and regions if possible (e.g., area covered, resolution of maps or remote sensing data, date, etc.).

Between 1961 – 1999, Thailand published forest cover data using manual means of calculation. Only in 2000, using remote sensing data and GIS, did the DNP and RFD come up with revised figures of forest cover. Hence there is a discrepancy between data collected and projected by Thailand between 1961 and 1999 and that published after 2000. From 2000 onwards the forest area has been assessed from LANDSAT-5 interpretation imageries at the scale of 1:50,000, while the earlier assessments were made using imageries of 1:250,000. Due to the change of scale and method of calculation[1] a new benchmark was established for forest area. In 1961, forest cover in Thailand was estimated at about 27 million ha covering over 53.3% of the country. Subsequently, forest areas were encroached for the purpose of slash-and-burn, shifting cultivation, land resettlement, dam and road construction, land reform for agriculture, etc. The current forest cover is estimated at 15.8 million ha which is just over 30% of the Thailand's total land area (see table 6 below)

Table 7. Thailand Forest Cover 1961-2006

Year	Forest Cover	
	1,000 ha	% of the country area
1961	27,369	53.33

[1] Any pixel containing an element of tree cover was included as a whole in forest/area (Charuppat, pers.comm.).

1973	22,172	43.21
1976	19,841	38.67
1978	17,522	34.15
1982	15,680	30.56
1985	15,087	29.40
1988	14,380	28.02
1989	14,343	27.95
1991	13,670	26.64
1993	13,355	26.03
1995	13,148	25.62
1998	12,972	25.28
2000	17,011	33.15
2004	16,759	32.66
2005	16,100	31.38
2006	15,865	30.92

Source: DNP/RFD 2008

The table above shows a decrease in forest cover between 2000 and 2006 and Thailand proposes to halt and reverse this deforestation trend by implementing activities under REDD.

The data on forest cover is published in hardcopy by DNP, Statistical Data 2007 and RFD, Forestry Statistics of Thailand, 2007.

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

Thailand's forest resources have been subjected to continuing pressure and devastation. Between the 1960s and the 1980s, forest resources were reduced by shifting cultivation (mainly in the northern part of Thailand), land resettlement, dam and road construction and conversion to agricultural use (mainly in the northeastern part of Thailand). Demand for land for subsistence farming, rubber plantation (in all regions), commercial agriculture, physical infrastructure, land development for tourism, tourism and other uses remains high (mainly in the North/Northeastern and Southern parts of Thailand) was high, which caused deforestation and forest degradation.

Thailand banned all commercial logging in natural forests in 1989 and this has been effective as far as illegal logging is concerned. However, deforestation and forest degradation have continued because of demand for land for agriculture and development. Most of the deforestation is on forested area outside Protected Areas (i.e. National Forest Reserve area) at local level, where governance and control by provincial and district authorities needs strengthening and standing up to political pressure.

National efforts by DNP and RFD to combat forest loss and degradation have focused on encouraging local community and forest dwellers to participate in conservation and forest restoration projects as well as strengthening law enforcement and public awareness campaigns. REDD will provide more options to strengthen forest dwellers and local communities to put increased effort in forest conservation and restoration of forest ecosystems. Specifically, provision of incentives under REDD to local communities to avoid deforestation as well as undertaking zoning of land for livelihood plantations and agroforestry are expected to have a positive impact. Locally, communities need to have participatory and governance structures that enable them to manage forests, plantations and undertake livelihood activities using such mechanisms as a community revolving fund. These interventions are being tested in the Tenasserim Biodiversity Corridor Pilot Site (in Ratchaburi and Kanchanaburi Provinces) under the Greater Mekong Subregion Biodiversity Conservation Corridor Initiative funded for the period 2006 -2009 by the Asian Development Bank and Governments of Finland, Netherlands, and Sweden.

Lessons learned and success models from REDD Readiness Plan implementation in the Tenasserim Biodiversity Corridor, particularly relating to governance and institutional mechanisms dealing with participatory community management of forest resources, will be tested for replication to other parts of Thailand and applied appropriately or adapted to local cultural diversity during implementation of the REDD Readiness Plan.

Forest fires are another main cause of deforestation. Although this is mainly used as a slash and burn practice as well as for land preparation, most widely practiced in the North, the total area of forest burned is on the decline (see figures 4 and 5).

Figure 4. Forest destroyed by fire

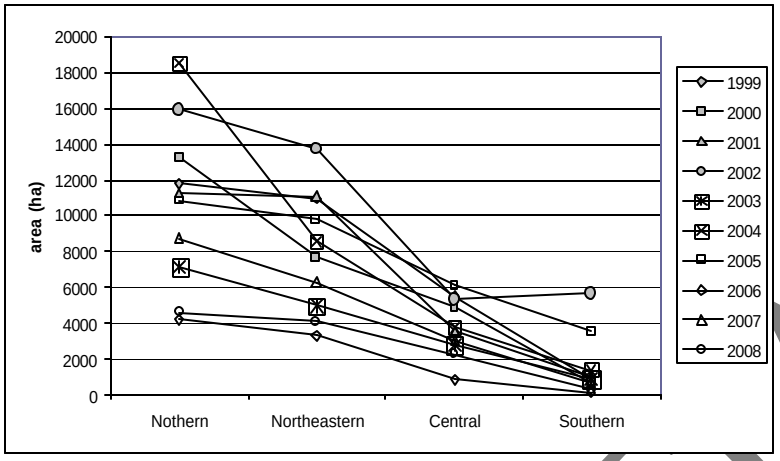
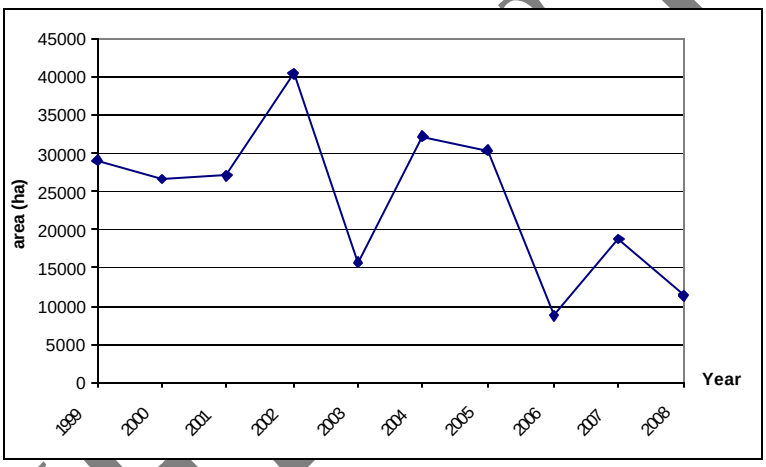


Figure 5. Total Forest Area destroyed by fire



In December 2007, a cabinet resolution enabled DNP to launch several measures on forest conservation, including an urgent, intermediate and a long term plan for forest fire control. Fires are now being brought under control and there are 15 fire control operation centers with 4 fire control training centers under the central head office (DNP) and 119 forest fire fighting sub-units all over Thailand.

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e) What are the key issues in the area of forest law enforcement and forest sector governance (e.g., concession policies and enforcement, land tenure, forest policies, capacity to enforce laws, etc.?

One of these is a need to address high levels of dependency on forest resources by the poor and ethnic minorities living in or adjacent to protected areas. Effective land use and land tenure arrangements need to be put in place where forest dwellers and ethnic minorities claim ancestral land, which is now under a protected area mandate. The DNP has set up forest demarcation project to settle this land conflict and multi-stakeholder participatory and consultative approaches have to be used under REDD mechanism to resolve conflicts and speed up forest demarcation with participatory benefits for local communities. In particular, establishing Payment for Ecosystem Service (PES) schemes could be beneficial in Northern Thailand.

Moreover, providing alternative livelihood options and linking REDD positive incentives with carbon sequestration may go some way to alleviate some of the constraints currently being faced.

Financial incentives will be directed to where they are needed for Emission Reductions. Thailand government with involvement of local communities, individuals and the private sector, will facilitate provision of carbon revenues (or alternative financing or support) in recognition of their contributions. In on-going projects in Thailand, where mechanisms

private sector would be the primary actors implementing the ER Programs and will be the principal beneficiaries of ER payments.

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.):

Accurate data on forest dwellers is not available but currently, the DNP has estimated numbers of households having land holdings inside Protected Areas.

Table 8. Forest Dwellers inside Protected Areas, Thailand (estimates 2007)

PA	No. of PA	Area of PA		Area holdings		Estimated
		1,000 ha	household	Plot numbers	1,000 ha	Population
National Park	148	7,321.57	92,717	100,953	195.39	370,868
Wildlife Sanctuary	60	3,691.29	41,576	47,744	97.98	166,304
Non-hunting Area	56	443.15	4,475	5,209	10.43	17,900
Total	264	11,456.01	138,768	153,906	303.80	555,072

Note: Population is estimated for non-municipal area from National Statistical Office of Thailand (household x 4 (average population/household of rural areas in some parts of Thailand))
Source: Protected area rehabilitation and development Office, DNP (updated 25 April 2007), Thai version, non-published

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:

The main objective of Thailand's first comprehensive National Forest Policy, 1985 was to maintain forest area at 40 percent of the total land area, with initially 15 percent set aside for conservation and 25 percent for production purposes. As a result of floods and landslides in Southern Thailand in 1988, the Ministry of Agriculture and Cooperatives was authorized to impose on January 17, 1989 a ban on all timber extraction from natural forests. The Government increased the percentage of the conservation forest from 15% to 25% in the 7th NESDP (1992-1996). The 9th NESDP (2002 – 2006) continued with maintenance of 25% of forest as conservation area and set targets such as establishing class 1 watershed areas as protected areas, providing opportunities in the management of community forest for the local communities, recognize community rights, promulgate the community forest act, and establish a network of local administration organizations, NGOs and communities to participate in management of natural resources and community forest. It also called for at least 200,000 ha to be maintained as mangroves. By 2004, the total mangrove area (before Tsunami in Dec 2004) was estimated to be 233,307 ha and by 2007, the total area of mangrove forest had reached 237,218 ha. The 10th NESDP (2007 – 2011) sets a target of maintaining at least 33% of the total area under good forest cover, of which 18% should be protected area; the target for restoration of protected areas is set at 464,000 ha.

To cope up with deforestation issue in accordance with the cabinet resolution on December 18, 2007, at the implementation level, DNP has launched several measures on forest conservation and forest fire control.

Urgent Plan:

1) Empowering personnel,
2) Updating news on forest encroachment,
3) Improving the efficiency of forest protection and conservation,
4) Networking, and
5. Controlling of forest fire

Intermediate plan:

1) Following up and controlling natural resources change,
2) Strengthening forest protection and conservation,
3) Rehabilitation of degraded forests,
4) Enhance people participation in forest management

Long term plan:

1) Forest rehabilitation,
2) evaluation of reforestation,

3) Solving land use conflict, and
4) Reshaping protected area boundary.

Specific focus on Development of the efficiency of the forest protection and fire control has been put on **reducing deforestation and degradation in protected areas** by:

1) Established a Hot Line (1362) for illegal logging and forest fire centre,
2) Established an Area Based and Multi-stake-holders Approach forest enforcement Centre,
3) Improving efficiency on forest protection and conservation,
4) Strengthening local community participation in forest conservation (Forest protection volunteers), and
5) Improving local people income using sufficiency economy approach.

(Source: 4 Year Implementation Plan (2008-2011), DNP 2008)

More specifically increasing public awareness and people especially forest dwellers, ethnic minority groups and local community participation on forest conservation and restoration will make REDD more appealing and achieve success.

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

NESDB follows a national level consultation process to arrive at formulation of the NESDPs. Combating deforestation and forest degradation is a major focus under government policy and programs.

The most significant recent political development in Thailand has been the 1997 Constitution that recognizes the rights and roles of Thai people to participate in national policy formulation regarding resources and environmental development and conservation. The Constitution clearly notes the rights of civil socialites in managing natural resources and the roles of actors[2].

The Community Forestry Bill of 2007 was passed by National Assembly but has not yet become law because activists have challenged it in the Constitutional Court. The decision of the Court is pending but the concept of Community Forestry is still being implemented. The area coverage of community forests has not been reduced and community forest organizations still exist and continue their activities in community forest management. The REDD Readiness Plan will take full cognizance of the Community Forestry Bill principles of participation and benefit sharing and integrate these in the National REDD Strategy. In particular, multistakeholder consultations under REDD and participatory management approaches will assist in alleviating conflict between traditional forest dwellers, resource users, and ethnic minorities.

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

Thailand's strategic framework for addressing its national development challenges from 2007 to 2011 is the 10th National Economic and Social Development Plan. This consists of five strategies. The first is human and social development, with an emphasis on education and developing a learning-based society. It is grounded in the need to increase Thailand's productivity and competitiveness in the global economy. The second is strengthening the economic foundation of local communities. The third is restructuring the national economy to achieve productivity gains, promote domestic and foreign investment, and increase competitiveness. Infrastructure development, capital market development, and energy efficiency improvements are core elements of this strategy. The fourth is sustainable development through protection and sound management of the environment and natural resources. The fifth strategy is good governance for sustainable, long-term economic growth and development.

The 10th National Economic and Social Development Plan has also emphasized on the utilization of natural resources especially biodiversity as the base for social development through the conceptual sufficiency economy of H.M. the King in order to secure both natural resources and community.

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 subnational level):

1. National Institution and working group on REDD will be identified.
2. The National Monitoring Data and Forest Resource Information needs improvement and regularly updated. And set up as a national forest restoration program to integrate and strengthen institutional collaboration focusing inter-

[2] Article 46, 56, 59, 69, 79 and 290.

government agencies.

3. Public awareness and capacity building on forest conservation and forest development need to be strengthening, including the use of technology for assessments and research at national and sub-national levels,
4. REDD Workshop on identification hotspot areas in 4 regions of Thailand should be organized.
5. There is a need for up scaling of on-going poverty reduction, biodiversity conservation and restoration programs such as the GMS Biodiversity Conservation Corridor Initiative (BCI), which emphasizes on participatory and multi-stakeholder consultation approaches and decentralized fund management through Village Funds.
6. There is also a need to link up with and collaborate on REDD implementation with subregional countries of the Greater Mekong Subregion (GMS) that have various bodies meeting annually, such as the Working Group on Environment consisting of representatives from Cambodia, PR China, Lao PDR, Myanmar, Thailand, and Viet Nam. Currently, the GMS is already implementing a Biodiversity Corridors Initiative (BCI) in five countries and six pilot sites (except Myanmar). Thailand will collaborate with other GMS countries on the REDD mechanism through the GMS framework.

Based on the above, the R-PIN and attachments submitted to FCPF by Thailand propose to secure resources to implement REDD interventions focusing on four major areas:

A. National Capacity Building for REDD with MMV

Funds received under the REDD Readiness Mechanism will be used by the DNP and RFD, coordinated at national level, to collect and update forest sector data and compare with recent historical emission levels, identify reference scenarios using appropriate models, assess data on carbon emissions form forest sector and update/compare with projections documented in the Initial National Communication to UNFCCC, assess drivers of deforestation, carry out multi-stakeholder consultations, prepare a REDD national strategy and discuss/disseminate widely before adopting it at national level, and build capacity to enhance measurement, monitoring, and verification at national level and local levels.

B. Carbon Cycle Assessments and relevant research

A representative sampling of Thailand's forest types will be taken to carry out experiments and calculate emissions and assess carbon cycles. Results will feed into the reference scenarios to be developed at national level. Hotspots of deforestation and pressure on forests (drivers) will be identified and mapped with detailed information and possible strategies to mitigate pressure on forests. Data on carbon emissions will be tagged to hotspot maps to monitor case by case improvement or deterioration of site conditions.

C. Emission Reduction in Tenasserim Biodiversity Corridor

In the BCI pilot site in the Tenassserim, which has already received inputs and TA under the GMS BCI Pilot Site interventions between 2006-2008[3], funding under REDD will enable communities and village clusters to undertake restoration work, provide positive incentives to local communities to undertake: (i) livelihood plantations as buffers to core natural forest areas; (ii) restoration of degraded forest areas with indigenous and long rotation species providing long term carbon sequestration potential. It will also provide models of protection and positive incentives in terms of cash payments to maintain and protect forests by village level patrolling. (see attached proposal in Annex 2 for details)

D. Subregional Collaboration with GMS Countries on REDD Readiness Implementation

Thailand is already a participating country in the Greater Mekong Subregion Economic Cooperation Program since 15 years, which is facilitated by the Asian Development Bank. Under this Program, the GMS Working Group on Environment (WGE) enables all six countries (Cambodia, PR China, Lao PDR, Myanmar, Thailand, and Viet Nam) to participate in annual meetings and also implement environmental projects/programs. Under the GMS Core Environment Program, the Biodiversity Corridors Initiative (BCI) is now operating in five countries (except Myanmar). Thailand sees itself in a good position to collaborate and cooperate on R-PIN activities in the neighboring GMS countries and share information through the WGE, which could invite all REDD Focal points from the GMS for a sub-meeting within the framework of the WGE.

[3] ADB RETA 6289, GMS Core Environment Program and Biodiversity Conservation Corridors Initiative supported by the GMS countries, the Asian Development bank and the Governments of Finland, Netherlands, and Sweden.
[4] CBO has been used here as a generic name; in Thailand these groups are referred to as Village Associations or Farmer Group.
[5] This amount should not be based on value of trees but rather the community contribution to maintaining and protecting forests as a common and public good; thus payments are being made as an incentive initially for protecting the ecosystem for a period of 3 years but should be phased out as village level patrolling costs are met from the proceeds of the VF (revolving fund) and voluntary community contributions. While payments should be household based, these must be made out by CBOs once mandated organizations certify intactness of forest (i.e. work done) as payments must be performance based.

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

Apart from building National capacity for REDD, these programs will enable Thailand to:

1. Channel resources to beneficiaries through CBOs and VFs

Resources secured under REDD proposal for pilot activities have to be channeled to beneficiaries at village level, who are the true guardians of the ecosystem. Without active participation of village dwellers living adjacent to NPs and FPs, enforcement and patrolling by NP and FR authorities will be insufficient to provide effective protection and establish sustainable use of ecosystem resources. The REDD program strategy aims at channeling resources directly to those community based organizations (CBOs) or village groups, which have already received inputs and some technical assistance from the BCI pilot site project under ADB RETA 6289 or similar on-going programs and projects in the Tenasserim Biodiversity Corridor, such as the Royal Princess's Project. It is proposed that REDD pilot implementation will provide three financing streams directly to CBOs, which: (i) are covering households and based in local communities that are adjacent to National Park and Forest Reserve areas in the Tenasserim Biodiversity Corridor; (ii) are "registered" with local authority bodies and confirmed as "eligible" by the BCI project management; (iii) have opened and are operating an account; (iv) are wide enough in their charter and mandate to allow undertaking of dverse income generating activities (IGAs) and not restricted to a single sub-sector (e.g. bee-keeping only); (v) are involved in land or farm based activities; and (vi) have received or will receive technical assistance to manage micro-credit operations through competent service providers engaged by BCI project management.

2. Participatory benefit sharing and benefit streams

Given the importance of imparting benefits to local communities and enabling them to sustainably manage the ecosystem resources, it is essential to implement approaches that provide incentives to local communities under REDD. It is proposed that REDD pilot implementation in the Tenasserim Biodiversity Corridor will provide three financing streams directly to selected local communities and households that live adjacent to National Park and Forest Reserve:

a) Direct grant of $10,000 to selected Community Based Organizations (CBOs)[4], whose "eligibility/readiness" to receive this grant for establishing a **Village Fund with revolving mechanism (VF)** for Income Generating Activities (IGAs) is **"confirmed"** by BCI project management based on results of TA currently being provided in the pilot site through RECOFTC;

b) Financing of cash-based fast growing (with 8 years rotation) **livelihood plantations** for participating households, using an equity and benefit sharing model that allows households to plant up to 5 ha of degraded land currently under jurisdiction of government and local authority agencies in the Tenasserim Biodiversity Corridor and providing "user rights" based on **Participatory Benefit Sharing Agreements (PBSA)** that allow cash payments for planting and maintenance and sharing of revenue accrued at harvest at a ratio of 70:30, whereby 70% goes to participating households and 30% flows back to the Village Fund (revolving fund) under "a" above for replanting;

c) Cash payments for replanting of degraded areas closest to the PA and FR with a belt of indigenous species that have longer rotation periods (15-25 years or more) and provide co-benefits of ecosystem services, biodiversity, and **carbon sequestration** to mitigate against anticipated negative impacts of climate change.

3. Zoning of Protected Areas and Forest Reserves for livelihood access

Land is scarce and burgeoning populations are hungry for land. Yet it is difficult to continuously provide land by degazetting current mandated land use from protection to production. Existing national parks and forest reserves may have already identified zones within their mandated areas; these need to be reviewed in the light of increasing pressure for land. The REDD strategy proposes to promote the concept of zoning within and adjacent to National Parks and Forest Reserves in the Tenasserim BC area as a pilot measure, whereby the "core area" of protection should have, where technically feasible, at least three belts or zones to buffer the core area as follows:

a) ***Zone 1 (fuelwood-agroforestry zone):*** a narrow strip of land for fuelwood and fruit tree plantations immediately adjacent to settlements, where the eligible CBOs are engaged in IGAs, providing each household

access to fuelwood and fruits; this agro-forestry strip could contain fruits and species such as: *Calamus siamensis* Becc, *Thyrsostachys siamensis* Gamble, *Syzygium cumini* (L), Skeels, *Cassia siamia, Azidirachta indica.* Species selection will be based on choice of participating farmers and households.

b) ***Zone 2 (livelihood zone):*** a wider strip of land adjacent to the fuelwood strip (zone 1) but moving inwards towards the protected area, that provides land for undertaking cash-based livelihood plantations by participating households, using the equity and benefit sharing model that allows households to plant up to 5 ha of degraded land with fast growing trees and quick rotation periods; in this zone, *Eucalyptus*, *Pterocarpus macrocarpus* Kurz, *Cassia fistula* Linn., *Afzelia xylocarpa* (Kurz), Craib, *Melia azedarach* L., *Acacia catechu* (L.f.) Willd. Here too, species selection will based on choice of farmers and households with a mix of fast growing commercial species that have a foreseeable viable market .

c) ***Zone 3 (carbon zone):*** the widest strip of degraded land closest to the "core area" that can be replanted with indigenous trees, restoring the natural forest and ecosystem connectivity and which can be described as the "carbon" zone for sequestering carbon over a longer period of time. Carbon stocks can be estimated using this zone as well as the natural forest in the core area. In this zone, the following species or species mix could be considered: *Hopea odorata, Afzelia xylocarpa* (Kurz) Craib, *Wrightia arborea* (Dennst.)Mabb. *Dipterocarpus alatus* Roxb., *Termilinalia bellirica* (Gaerth.) Roxb.

4. Linking livelihood interventions to deforestation avoidance under REDD

By linking replanting of degraded forests in Protected Areas for sequestering carbon and paying cash for planting and maintenance activities (such as fire management and forest protection), climate change mitigation activities can be linked to livelihoods improvement. It is important to test the REDD concept at local community level also for protection of existing forest stands using cash payments for deforestation avoidance, where intact natural forest still stands adjacent to the selected communities and settlements in the Tenasserim BC area, cash payments of $70[5] per ha per year will be offered to households through the CBOs for protection of these intact forest patches/trees. Payments will be performance based: 100% protection deserves 100% payment; in addition, if CBOs engage in additional voluntary plantation outside the PA, they will be entitled to receive an additional bonus of $50 per ha; these payments will be limited to a three year period after which the CBO and the settlement adjacent to this intact forest will be expected to protect it voluntarily as the Village Fund (VF) should have brought about additional livelihood benefits.

5. Carbon sequestration through forest restoration and afforestation

In Zone 3 (carbon zone) as mentioned above, cash payments for reforestation (CC mitigation) can be provided to households and CBOs living in areas adjacent to PA or FR to restore degraded forest land closest to the "core area" by planting with indigenous trees, thus restoring the natural forest and ecosystem connectivity. This can be described as the "carbon" zone for sequestering carbon over a longer period of time. This carbon zone can also be designed/created in other areas of the district/Tambon that lie in the vicinity of the Protected Areas. Moreover, cash based afforestation activities could be undertaken around schools, public buildings, along highways etc.

6. Climate change awareness and disaster preparedness at local level

Anticipated impacts of climate change could already be affecting large areas of Thailand in the form of recurring dry periods or intensive periods of incessant rainfall. There are already increasing incidences of landslides in the upper elevations and flash flooding downstream. It is important to undertake climate change adaptation activities that range from identifying vulnerable and high risk areas, such as marginal and steep slopes of land that are now being used for settlements and agriculture in some communities, raising awareness about climate change impacts, identifying adaptation measures that will require policy decisions and stricter enforcement of laws and bye laws as well as infrastructure modifications and investments, such as water harvesting technology, and capacity building measures relating to disaster preparedness. There is potential to extend the use of environmentally friendly technologies (such as sun driers for processing food, micro-hydro to generate on farm electricity, and small wind driven turbines) covering a larger number of households.

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b) Would any cross-sectoral programs or policies also play a role in your REDD strategy (e.g., rural development

policies, transportation or land use planning programs, etc.)?

Policies of poverty reduction, sustainable development and rural development play a big role in the REDD strategy/approach that is being proposed herein. While the Government is pursuing policies and making investments in human resources (education in rural areas), it is also improving infrastructure, access to health care, and promoting poverty reduction, all of which will create synergistic impacts on local populations/beneficiaries receiving support under REDD.

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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? (e.g., agriculture, water, energy, transportation). If you have not considered this yet, you may want to identify it as an objective for your REDD planning process.

There is strong coherence between REDD and Thailand's Tenth Socio-Economic Development Plan (SEDP). REDD will directly contribute to Thailand's obligations under the UNFCCC, and CBD, and to the economic development of remote, upland and ethnic minority areas.

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d) Has any technical assistance already been received, or is planned on REDD? (e.g., technical consulting, analysis of deforestation or forest degradation in country, etc., and by whom):

No external technical assistance has yet been formally offered for the establishment of REDD mechanisms in Thailand. Technical assistance expertise from on-going GMS BCI (ADB RETA 6289) has been provided as advisory support in formulating REDD proposals.

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?

1. Thailand will need a broad based inter agency, governmental and non-governmental consultation process under REDD;
2. As per policy, the protected areas have established the Protected Area Advisory Committees (PAC) and many project areas work effectively using this mechanism. PAC is a multi-stakeholder body including ethnic minorities, forest dwellers and women. An effective PAC can support protected area management and reduce conflict between protected area managers, forest dwellers and ethnic minorities through Community Based Natural Resource Management (CBNRM) and community forest management. Some PAC still need strengthening. A number of ethnic minority groups and forest dwellers live within and around forest areas and they will need special attention in the consultative process under REDD Readiness Plan implementation.
3. At local (sub-national) levels, in the GMS BCI, DNP has carried out multi-stakeholder consultations at village level and with Tambon (sub-district) and Provincial administrations; project activities were launched in conjunction with participation of all key representatives from villages; promotion of income generating activities are conducted in a participatory manner and Village Funds are managed by the villagers. It was assisted in these activities by RECOFTC, which is well known for conducting participatory approaches in community forestry.
4. There are geographically and traditionally differences in many parts of Thailand. For administration, Thailand has been divided into 4 major regions, northern, north-eastern, central and southern regions. Therefore, the best practice in a region might not be applicable to all others. Other areas will be identified to accommodate REDD mechanisms. However, some tested and tried institutional and governance mechanisms from the BCI Pilot site in the Tenasserim may be upscaled to other sites around Thailand.

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

Under Community Forestry Program in Thailand, all villagers are consulted before activities on restoration and community forestry are implemented. Representatives of local communities also serve as board members of the Protected Areas Advisory Committees (PAC). Directly affected groups living around forests and protected areas are generally consulted through dialogue and public consultation process before new programs are launched or protected area extensions are

proposed or changes are implemented. Such processes may take many years and there are several examples of such processes being held up because locally affected groups have challenged plans and programs. In the past, there may have been certain conflict situations arising from weak consultation processes but the Government has taken steps to improve participation.

Community forest organizations have built up their networks in each region and formed their network at national level that includes ethnic minorities, particularly in the northern part of Thailand there is a Northern Farmer's Network that is active across several sub-watersheds. The national community forest network is a potential stakeholder for participation in the national REDD mechanism to share benefits and reduce marginalization of their groups.

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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?:

No consultations have been conducted on REDD specifically. But a lot of consultations have been held on reducing deforestation, protecting natural forest area, model forestry, sustainable forest management, community forestry, protected area extension, law enforcement, and payment for watershed protection and management and by villagers etc.

Numerous groups were involved all over Thailand. However, recent examples are from the Tenasserim Biodiversity Corridor Area (BCI) in Ratchaburi and Kanchanaburi in the period 2006 – 2008. RECOFTC, local authorities, DNP and other agencies have been involved in at least 20 villages in these consultations. In the BCI pilot site area there exists a diversity of socio-cultural aspects and local communities, forest dwellers, ethnic minorities such as Karen and Morn, and in-migrants etc. At community level, BCI-Thailand together with RECOFTC, have already started implementing participatory approaches and community-based natural resource management (CBNRM). The multi-stakeholder consultation includes local communities, forest dwellers and ethnic minorities working through series of group discussions, informal and official meetings for activity implementation.

There are some socio-economic constraints, such as poor economic conditions, illegal status of some in-migrants, and gender bias, which inhibits participation in developmental activities. Thus the BCI Project has introduced participatory activities on identifying alternative livelihoods and establishing village revolving funds, providing capacity building to formal and informal community leaders. The village fund aims to improve their livelihood and sustainable forest utilization and promote CBNRM related poverty reduction. The focus group discussions help them to gain more understanding about their natural resources and participatory natural resource management, community forest management planning, participatory monitoring and assessment in ecosystem and conflict management. Some communities have already started their community forest including forest fire management with protected area officers and community authorities.

The FORRU Project (www.forru.org) conducts participatory forest restoration activities in northern Thailand.

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

Wide multi-agency consultations on the development of REDD national strategy and the roles of different stakeholders at national level will be undertaken after launching of REDD activities in Thailand. The REDD Focal Point in Thailand is in DNP, and it will be the secretariat and document such consultations.

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d) Across state or other subnational governments or institutions?

In the Tenasserim Biodiversity Corridor Area, a cabinet decision of January 2008 instructs multi-agency collaboration to make the project a success. The Provincial Governor is involved in this inter-agency collaboration and DNP is the secretariat. This can be emulated in other sub-national parts of Thailand, once the REDD Readiness Plan starts implementation.

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e) For other stakeholders on forest and agriculture lands and sectors, (e.g., NGOs, private sector, etc.)?

DNP/RFD will hold consultations with local level NGOs, private sector to promote involvement and investments in awareness raising and forest restoration. In the past, forest restoration in Thailand under the Royal Jubilee Program has

been supported by private sector, governmental, and parastatal bodies: Siam Cement Group, Petroleum Authority of Thailand (PTT), Police Department (govt), Electricity Generating Authority of Thailand (EGAT) etc.

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

The government of Thailand has officially recognized 10 ethnic minority groups as "Chao Khao" which literally means 'hill tribes' or 'people of the hills'. These hill tribes are concentrated around 20 provinces in the Upper and Lower North and the Western regions of Thailand. They are heterogeneous with distinct cultures, languages, customs, modes of dress and belief. Among the well known groups are: Karen, Hmong, Lahu, Lisu, Mien, Akha, Lua, Htin, and Khamu, as well as other groups sharing similar characteristics. Although they account for a small percentage of the total population (1.22 percent or approximately 753,000 people; source: http://www.adb.org/Documents/Studies/Health_Education_GMS/chap_02.pdf), the concentration of highland peoples is large in a number of these northeastern provinces (20 to 49 percent of provincial populations), even in one province going up over 80% in Mae Hong Son. In the northern part of the country, around 1.2 million people reside in or around forested areas. Many of them lack citizenship, have restricted access to land and forest and therefore are sidelined from the development process.

The Hill Tribes' natural resource management systems have been developed, tested and passed down from generation to generation. However, increasing pressure on land and in-migration has led to the need for measures to protect watersheds and forests to maintain ecosystem services for future generations. It has been recognized that the effect of deforestation and forest degradation directly affects forest dwellers and ethnic minorities as well as local communities who are living in or near the forests. These people have been dependent on forest ecosystem services for their livelihood for generations. The success of REDD will primarily depend on their active participation in the project. There is need of their input for improvement of REDD planning and its implementation.

The year 1969 marked the establishment of the Royal Project in the North of Thailand initiated by His Majesty King Bhumibol, which has attracted funding from the Royal Thai government, foreign governments, universities, public and private agencies and volunteers. During the past three decades, the Royal Project has successfully fulfilled His Majesty's wish by placing emphasis of proper cultivation of highland crops for opium substitution. The hill tribe's consciousness on the conservation of forest and watersheds has been motivated and a better standard of living in the project areas has been achieved. Today in six mountain stations researchers test hundreds of temperate-climate fruit trees and vegetables for their potential as cash crops. Volunteers from universities and government agencies then introduce successful ones to villagers in demonstration centers throughout the highlands. An intensive effort has been and is being made to develop the necessary infrastructure, e.g. village roads, small irrigation systems and village electricity. Teams are working on improvement of watershed areas through proper land use management and soil conservation practices in the already slashed and burned areas. Nearly 300 upland villages benefit directly from the Royal Project, which is also introducing schools, cooperatives, rice banks and primary medical services. At present the Royal Project administers 28 extension stations situated in Chiang Mai, Chiang Rai, Mae Hong Son. Lamphun, Phayao and Nan provinces. Some 274 villages are covered comprising of 10,695 families or 53,589 people. The Royal Project received the 1988 Ramon Magsaysay Award for International Understanding.

REDD implementation can only learn from the positive examples set by the Royal Project. Ethnic minorities, local community and forest dwellers have access to consultations and communication through the PAC. They can also use their networks and national level interest groups to get involved in the process of REDD Readiness Plan and will be key actors. The experience of participatory consultation process in BCI-Thailand can be duplicated to other regions, which have multi ethnic minorities and marginalized groups.

However, as has been mentioned, there are geographically and traditionally differences in many parts of Thailand. Where it is appropriate, approaches used in the Tenasserim, with local adaptation will be applied including other regional approaches.

8. Implementing REDD strategies:

a) What are the potential challenges to introducing effective REDD strategies or programs, and how might they be overcome? (e.g., lack of financing, lack of technical capacity, governance issues like weak law enforcement, lack of consistency between REDD plans and other development plans or programs, etc.):

There is little or no integrated approach to land use planning and zoning within the Provinces. In particular, land area adjacent to protected areas and forest reserves need to apply a multi-criteria based assessment of land use, landscape planning, and zoning for specific purposes. This needs to be introduced under REDD in at least one pilot area to demonstrate its usefulness.

There is also limited state investment in restoration and reforestation although Thailand has shown the way in the past by launching restoration programs under the King's Jubilee celebrations. Public-private partnerships in forest restoration are needed.

There is a lack of awareness of the implications of forest loss and climate change impacts amongst both communities and local authorities.

As far as local communities are depending on forest ecosystem services for their living, there is the need to set up a framework to formulate effective sustainable use and conservation including:

1) public awareness creation at all levels of gender, age and profession to make a sympathetic understanding on the need to conserve forest ecosystem;
2) the extension of forest sustainable utilization focusing on local communities by introducing the sufficiency economy, a conceptual thought of H.M. the King;
3) the enhancement of local community participation in forest ecosystem conservation and restoration;
4) local community networking on forest ecosystem conservation.

All of these measures will have to be supported by all stakeholders in order to raise the living standard of forest dependent communities to lessening their ecosystem service need.
Whenever, all of these aspects have been formulated properly, this will lead to the security of forest ecosystem and local community as well as sustainable forest ecosystem service and agriculture which are interrelated.

However, these activities need many aspects of support especially financial, technical capacity, the improvement of law and enforcement as well as cooperation among multi-stakeholders and consistency.

With the financial and technical support from R-PIN, it would be possible for Thailand to initiate the necessary framework ready for REDD mechanisms.

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b) Would performance-based payments though 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):

In areas where intact forests are under severe pressure, performance based payments for deforestation avoidance will go a long way to alleviate cash flow needs of the households, as these payments can be piloted in the Tenasserim Biodiversity Corridor, which will be in addition to the seed capital being currently provided under the Village Funds for income generating activities.

Once participatory benchmarking and demarcation has been done with the villages and committees, households will enter into a contract to protect intact natural forest areas that are adjacent to their dwellings and settlements; alternatively, in some cases, village forest guard system is also being tried out in some BCI pilot sites in the GMS. Both approaches will do an annual check and provide the payments through the Village Funds for distribution either: (i) to households; or (ii) to the village forest guards. In the medium to long term, it is expected that costs of village patrolling will be borne by the income from Village Funds as voluntary contribution towards sustainable forest management.

Villagers are also involved actively in forest fire protection schemes and deforestation avoidance activities fit very well into the current schemes at village level.

Testing of performance-based incentives schemes in the Tenasserim under REDD will provide lessons and experience for replication elsewhere in Thailand.

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.):

An ITTO supported project titled 'To Establish a National Monitoring Information System for the Effective Conservation and Sustainable Management of Thailand's Forest Resources" (PD 195/03 Rev.2 (F)) has established a national forest resources monitoring information system to provide change and trend data on timber and non-timber forest resources. The project's immediate achievement has been an unbiased independent data showing the currently reported national total forest area statistic of 33.66%; and national tree volume, biodiversity and other attribute statistics have been obtained, which were not previously available. A follow up ITTO project PD 376/05 Rev.2 (F,M) aims to develop methods to increase the accuracy of tree volume and other attributes for small areas (sub-districts) for tree resources outside forest;

The most current satellite (Landsat TM) data and GIS were used to establish a network of unbiased permanent monitoring points on a uniform, fixed, 20 km x 20 km grid over the entire country. The database is based on a grid design for collecting data at 20 x 20 km (and 40 x 40 km) grid under the UTM projection, Everest spheroid Everest, and Indian1975 datum separated in two zones (47 & 48). The grid intersections formed the monitoring points from which biophysical data were collected and change detection over time will be observed. This grid size resulted in a total of 1, 287 monitoring points, with approximately 425 points falling in the forested areas. The 20 km x 20 km grid was adopted as a balance between cost and data resolution. A uniform grid was selected as it would be simpler to maintain plot selection probabilities over time. The grid was generated through the image processing system onto the geo-referenced image and monitoring points are referenced using UTM coordinates. The grid intersections are classified and described based on the land use map and overlays of data from other sources. In the future, whenever new satellite data or other data are available, the GIS system will be used to describe the changes in conditions at the monitoring points over time.

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b) What are the constraints of the current monitoring system? What constraints for its application to reducing deforestation and forest degradation? (e.g., system cannot detect forest degradation of forest stands, too costly, data only available for 2 years, etc.):

Ground truthing needs to be done in a representative sampling of forest ecosystem types around Thailand. In addition, carbon cycle assessments need to be specific to particular forest types so that forest cover data can be correlated with carbon sequestration potential. Furthermore, the state of forest degradation needs to be physically checked in a similar grid system, taking data on volume/density of trees and verifying these with physical checks. In the Tenasserim, such checks are being done within grids of $1Km^2$ (see detailed proposal) in order to come up with zonation proposals.

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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.)

At national level and local levels:

1. By regular updated satellite imagery supported GIS maps;
2. Supported by ground checks in sample plots and reference points
3. With additional local level reports from Tambons and Regional offices from deforestation hotspots
4. Updated with mapping of plantation and restoration coverage

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 (e.g., social, environmental, economic, biodiversity)? What are they, where, how much?

It is expected that co-benefits generated from REDD implementation will be in the forestry sector, maintaining ecosystem services, improving environmental health, and creating additional employment. These need to be estimated in $ terms and valuation in the pilot REDD areas in order to produce policy recommendations for the Ministry of Finance for consideration in national investment decision-making.

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

In major Forest Complexes, when budgetary provisions allow, biodiversity conservation is being monitored. But under the specific Tenasserim Biodiversity Corridor the following activities are being undertaken:

1. Five important criteria were identified: - Area requirement; - Habitat heterogeneity; - Vulnerability; - Functionality; and - Socio-economics values.
2. Several species from 16 candidate species were found in the study area, amongst which were (i) elephant; (ii) tiger; (iii) leopard; (iv) Gaur; (v) Common muntjac; (vi) Great Hornbill (vii) Serow; (Viii) Sambar;
3. Their habitat and movements were mapped to identify important corridor connections (north-south).
4. The Office of Natural Resources and Environment Policy and Planning, MNRE as the national focal of CBD, has initiated a biodiversity hotspot conservation.

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

Very much so. The model being used in the Tenasserim Biodiversity Corridor will be tested in other pilot REDD sites and adapted for fauna and flora.

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

Yes, in the Tenasserim Biodiversity Corridor these are being monitored; a pre-BCI project baseline has been developed on income levels and other benefits/income streams. A survey will be conducted after Village Funds become fully operational.

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

(see "d" above)

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. (Preliminary; this also could be discussed later.)**
- **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.):
Outreach will be needed for assistance;

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b) Developing a reference case of deforestation trends: Assessment of historical emissions from deforestation and/or forest degradation, or projections into the future.
Thailand would need the support for guidance in setting up a reliable satellite imagery GIS monitoring system for effective monitoring of any forest land use change acceptable to REDD mechanisms;

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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.):

There is a need of assistance in governance issues;

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

Technical and financial assistance in carbon dioxide cycle assessment for all forest types and regional variation across the country.

BESIDES ALL THE NEED MENTIONED, THERE ARE ALSO OTHER REQUIREMENT GIVEN BELOW UNDER A, B, AND C.

A. At National level

On receiving approval and funding under a REDD readiness mechanism, tentatively the following outputs are expected to be achieved in Thailand:

(i) A comprehensive REDD Readiness Plan draft document submission to FCPF by July 2009;
(ii) A REDD national strategy that has undergone wide participatory, multi-stakeholder consultations and is adopted by government by Feb 2010;
(iii) Potential for carbon sequestration (carbon cycle assessments) from different types of natural forest in Thailand (carbon sink) during dry and wet seasons including differentiation between mature, old growth forests and plantations by Dec 2010;
(iv) Updated emissions data (2005/6) from forest sector as compared with baseline of 1994, and projections to 2020 by Dec 2010;
(v) By March 2011, updated information and data at national level on deforestation and land use change by types of forest ecosystem affected, and by administrative regions; immediate causes of deforestation and underlying drivers; updated forest cover and land use maps with comparisons between 1989, 1995, 2000, 2005, and 2010;
(vi) A national referencing scenario with measurement, monitoring and verification mechanisms in place at national and local institutional levels (RFD/DNP and regional offices) by June 2011.

TENTATIVE COST ESTIMATES FOR "A": US$1.92 million (see ANNEX 3 containing detailed budget)

B. At the Tenasserim Biodiversity Corridor level: Piloting of REDD measures

By end 2012, investments under REDD in the Tenasserim Biodiversity Corridor under the REDD readiness mechanism or Carbon Emissions Reduction program are expected to achieve the following outputs:

(i) Total amount of estimated carbon sequestration per ha/year in the 70 km connecting corridor and in the two forest complexes: Western Forest Complex (WEFCOM) and Kaeng Krachan Complex;
(ii) Livelihood improvements (cash and non-cash benefits) for about 7,000 households (including 4,438 from existing four clusters) of local population living adjacent to forests in the corridor area;
(iii) Restoration with native species of at least 5,000 ha of degraded forest and denuded land in designated zones around protected areas and reserve forest land creating carbon sequestration zone and additional 5,000 ha of enrichment planting;
(iv) Establishment of up to 5,000 ha of livelihood plantations in buffer zones using fast growing, short rotation species for use by beneficiary households;
(v) Demarcation of 5,000 ha of land for agro-forestry and provision of funds to households enabling them to grow fruits, NTFPs (rattan), fuelwood etc.;
(vi) Provision of start up seed capital for 20 Village Funds (in addition to current existing ones under BCI Pilot Site project) bring the total to 40 VFs and establishment of functioning revolving fund mechanisms linked to income generating activities and environmental protection;
(vii) Payment of performance-based cash incentives to households through Village Fund mechanism for protection of up to 10,000 ha of intact forests and maintenance of restored/rehabilitated forest areas (thus reducing deforestation);
(viii) Assessment of potential for sale of CERs from forest to voluntary carbon market; and
(ix) By June 2010, updated information and data from Tenasserim Biodiversity Corridor fed into national level on deforestation and land use change by types of forest ecosystem affected and updated forest cover and land use map with comparisons 1995, 2000, 2005, and 2010.

TENTATIVE COST ESTIMATES FOR "B": Under REDD from FCPF for piloting: US$1.62 million; TO BE SOURCED FROM OTHER CO-FINANCIERS: US$10 million

C. Embedding REDD Thailand into Greater Mekong Subregion (GMS) and ASEAN

Collaboration on R-PIN activities with neighboring GMS countries will undertaken and information shared through the WGE, which can invite all REDD Focal points. A dedicated REDD website will be launched by DNP/RFD and linked to TGO Thailand. Results and lessons learned from REDD readiness mechanism and interventions in the Tenasserim Biodiversity Corridor will be shared among agencies in Thailand and GMS countries partnering in the GMS Biodiversity Conservation Corridor Initiative[6] as well as with ASEAN member states. The findings and recommendations for REDD implementation will be widely disseminated for general public consumption (in a user friendly version) as well as technical documents will be on the website for downloading. The Mekong River Commission (MRC) is currently also formulating a Climate Change Initiative. As Thailand is also a member country of the MRC, and the four lower Mekong countries (Cambodia, Lao PDR, Thailand, and Viet Nam) are also participating in the GMS Core Environment Program, which includes PR China and Myanmar, the REDD subregional cooperation will take into account any initiative launched by MRC in order to avoid duplication. By Dec 2009, first REDD consultation among GMS countries may be held under the auspices of the WGE.

TENTATIVE COST ESTIMATES FOR "C": US$ 0.2 million

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?:

None so far.

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?

Priority steps, once funding is secured will be to:
1. Office of Natural Resources and Environmental Policy and Planning (ONEP) is the focal point for UNFCCC, while the Thailand Greenhouse Gas Organization (TGO) communicates officially with the World Bank on all matters

[6] Cambodia, PR China with Yunnan and Guangxi provinces, Lao PDR, Myanmar, and Viet Nam.

relating to R-PIN. Currently, the DNP is the lead institution in formulating the R-PIN and a national REDD working group will be formed by key stakeholders after approval of R-PIN. The focal point (organization) for REDD will establish a centralized REDD Project Management Unit (PMU) and convene a Steering Committee. The REDD project will be supervised by the PMU and will be implemented by a consortium of state and non-state agencies.

2. Recruit experts to review the current existing database and provide advice on how the national REDD database should be structured and updated to comply with a reliable Measurement, Monitoring, and Verification (MMV) system.
3. A national consultation workshop will be held to invite all pertinent stakeholders at national level (state and non-state) and inform them about the REDD Readiness Mechanism and seek collaboration from relevant actors.
4. Additional steps of participatory consultations at field level will be held once budgeted amounts are disbursed and received by the PMU. Information on data and logistics on consultations nationwide will be facilitated by numerous regional offices and sub-stations operated by DNP, RFD, and DMCR. The existence of such a decentralized structure will minimize costs and facilitate quick and effective communication and information sharing. The network of agencies involved will form a REDD-Thailand Network (RTN). Representatives of the RTN will also participate in the sub-regional GMS discussions on REDD.

14. List any Attachments included
(Optional: 15 pages maximum.)

ANNEX 1: Maps of Thailand showing Forest Cover and Deforestation
ANNEX 2: Proposal Document for REDD in the Tenasserim Biodiversity Corridor (BCI Pilot Site) and National Capacity Building for Benchmarking and Monitoring (REDD Readiness Plan)
ANNEX 3: Detailed Budget (Excel File)