

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

March 8, 2008

Guidelines:

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

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Date submitted:

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- ∅ Conservation International-Bolivia (CI)
- ∅ Friends of Nature Foundation (FAN, Spanish acronym)
- ∅ Noel Kempff Mercado Natural History Museum (MHNNKM, Spanish acronym)

c) Who was consulted in the process of R-PIN preparation, and their affiliation?

The Government has created two coordinating instances in order to start REDD activities:

(1) The REDD Policy Committee, with the participation of: Viceministry of Biodiversity, Forestry and Environment (Environment National Authority), Viceministry of Land Use and Environmental Planning, Viceministry of Land and the Ministry of External Affairs, as well as the Forests Superintendence (FS), and the National Clean Development Office from the National Program on Climate Change which is the REDD secretariat.

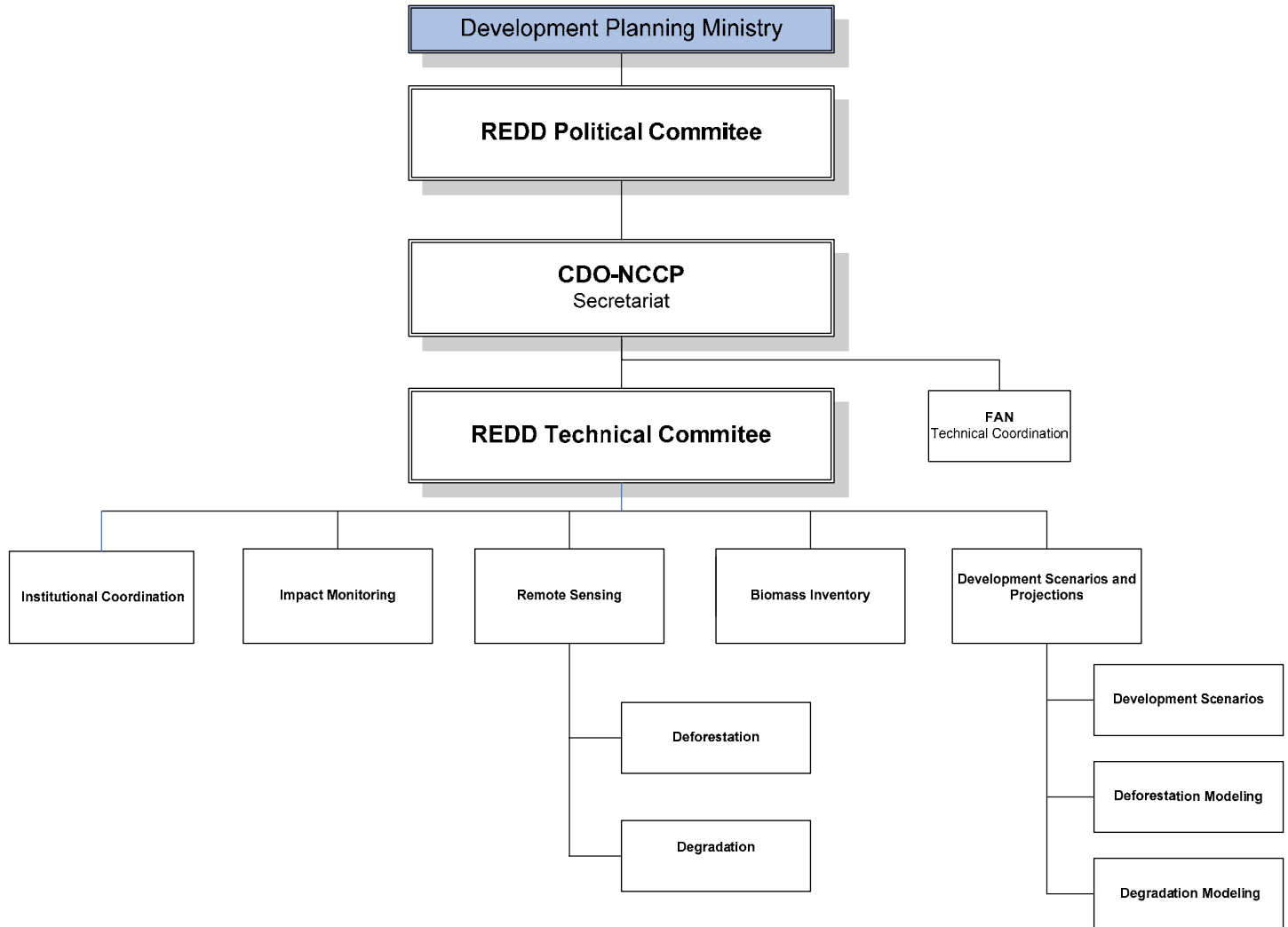
(2) The REDD Technical Committee, composed of technical institutions relevant to the forestry sector, government agencies, private technical entities, NGOs and other relevant actors:

- ∅ National Climate Change Program (NCCP)
- ∅ National Clean Development Office (CDO)
- ∅ Viceministry of Land Use and Environmental Planning
- ∅ Viceministry of Land
- ∅ Viceministry of Biodiversity, Forestry and Environment
- ∅ General Forestry Directorate
- ∅ Forests Superintendent
- ∅ Friends of Nature Foundation (FAN, Spanish acronym)
- ∅ Conservation International, Bolivia
- ∅ Noel Kempff Mercado Museum
- ∅ Bolivian Forestry Research Institute (IBIF, Spanish acronym)
- ∅ Ministry of External Affairs (or Foreign Affairs)

The technical committee was created to address technical aspects regarding design and implementation of a national accounting system as a key component of a REDD mechanism. The coordination mechanism currently at place is a committee that will evolve and incorporate new members, as different aspects of implementation and design arise. The Viceministry of Land is coordinating closely with indigenous and peasant organizations on REDD design and implementation.

Other Ministries will be involved in pertinent steps during the readiness phase. For example, during the design of the REDD revenue share mechanisms the Finance Ministry and the Economics Policy Unit will be involved. The policy committee is in charge of informing and consulting with other governmental entities.

Chart No. 1.- Organization for REDD in Bolivia



CDO-NCCP: Clean Development Office- National Climate Change Program

2. Which institutions are responsible in your country for:

a) forest monitoring and forest inventories:

Forests Superintendent

b) forest law enforcement:

- Forests Superintendent
- Legal Affairs Ministry
- Penal courts

c) forestry and forest conservation:

- Forests Superintendent
- Forestry Directorate, Viceministry of Biodiversity, Forestry, and Environment
- National Protected Areas Service

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

- Viceministry of Biodiversity, Forestry and Environment
- Forestry Directorate
- Viceministry of Rural Development

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.):

Deforestation and forest degradation occur in all of Bolivia's ecosystems, however primarily in the Amazonian rainforest, transitional forests, Chiquitano dry forests, Sub-Andean forests and in the Chaco (See Map 1, attached).

Table 1: Deforestation for the time periods 1976 – 2004 by ecoregion type (hectares)

Ecoregions (according to WWF, 2001)	Period 1 Before 1976	Period 2 1976-1986	Period 3 1986-1991	Period 4 1991-2001	Period 5 2001-2004
Pantanal	3	0	203	1,128	4,472
Southern Yungas Andean	11,686	10,396	2,903	10,447	12,297
Mountain Dry Forests of Bolivia	10,031	1,005	1,611	4,436	1,667
Savannas from Beni	13,883	6,790	24,434	15,042	11,796
Wet Forests from Madeira – Tapajos	5,108	8,978	20,810	17,436	16,686
Amazon wet forests	167,568	98,589	221,543	289,842	286,786
Dry Chaco Forest	47,239	25,211	43,689	79,997	66,640
Dry Chiquitano Forest	432,899	236,885	400,229	921,620	337,376
Forest from Yungas, Bolivia	215,648	100,775	96,776	127,867	75,752
Total					813,572
Yearly average (since 1976)					162,694

Source: Prepared by Conservation International with WWF (2001) and Killeen et al. (2007) data

There is no detailed information regarding deforestation related to land ownership types. There is, however, data on deforestation occurring in TCOs (Indigenous Communal Lands) and National Protected Areas. Deforestation rates have increased progressively in Bolivia's protected areas since the mid 1970s (Table 2). However, most deforestation is located in three protected areas (Carrasco, Amboró and Isiboro Secure); with lower levels occurring in Bolivia's other 22 protected areas. Similarly, the impacts of deforestation in TCOs indicate that deforestation rates differ greatly depending on the location of the TCO in relation to roads and urban centers (Table 3).

The information on both TCOs and protected areas is based on an incomplete analysis of the country for the last temporal period, where only those areas of Bolivia with historically high levels of deforestation were updated. Many TCOs and protected areas are located in remote regions of the country and show low levels of deforestation (see Killeen et al. 2007 for details).

Table 2. Historical Deforestation in Protected Areas

Protected area	Total area	Total LUC	LUC <1976	LUC 1976-1986	LUC 1987-1991	LUC 1992-2000	LUC 2002-2004
Total	15,006,137	186,480	1,300	2,288	9,023	4,865	11,694

Table 3. Historical Deforestation in Indigenous Lands (TCOs, Spanish Acronym)

TCO-Under claim (2005)	Total area	Total LUC	LUC prior to 1976	LUC 1976 – 1986	LUC 1986 - 1992	LUC 1992 - 2001	LUC 2000 - 2004
Total	27,465,004	672,743	2,985	7,763	17,258	26,682	51,234

TCO-Titled (2005)	Total area	Total LUC	LUC prior to 1976	LUC 1976 – 1986	LUC 1986 - 1992	LUC 1992 - 2001	LUC 2000 - 2004
Total	3,415,300	56,646	56,837	1,439	2,734	3,186	7,044

LUC= Land Use Change

Source: Killeen et al., 2007 and MHNKM, unpublished

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

During its first period (1997-2005), the Noel Kempff Mercado Climatic Action Project avoided 1, 034,107 tCO₂ emissions over an area of 634,000 ha. The PDD and the results have been certified by SGS Ltd. UK on 2005.

According to the National Greenhouse Effect Gases Inventory for the years 90-94, 98 and 2000, LULUCF emissions were reported as follows: YOU SAY YOU WILL GIVE DATA FOR 90-94 BUT ONLY GIVE FOR TWO YEARS, 1990 AND 1994

2000: 44.756 Gg.

1998: 43,591 Gg.

1990: 31.508 Gg.

1994: 40.301 Gg.

This data were estimated using IPCC Methodology from 1996 and the 2000 IPCC Good Practice Guidelines.

Source: National Greenhouse Effect Gases Inventory of the decade of 1990 – 2000 for Bolivia. National Program on Climate Change.

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.).

Source	Coverage	Sensor	Spatial Resolution	Date	Bibliographic Reference
Deforestation					
Sustainable Development Ministry	National: 60 scenes	Landsat 4 MSS y 5 TM	60/30m	1975-93	1
UMD	National: 44 scenes	Landsat 4 MSS y 5 TM	60/30m	1986-92	2
BOLFOR	National: 39 scenes	Landsat 5 TM, 7 ETM	30m	1993-2000	3

Museo de Historia Natural Noel Kempff Mercado	National: 56 scenes	Landsat 5 TM, 7 ETM	30m	1990-2000	4			
Museo de Historia Natural Noel Kempff Mercado	15 scenes	Landsat 5 TM, 7 ETM	30m	2000-2004	5			
Forests Superintendence	National: 145 scenes	MODIS	230m	2004-2007	6			
Degradation								
Forests Superintendent, FAN Bolivia	Pando: 002 / 068	Landsat 5 TM	30m	09.07.2005	8			
				13.08.2006				
				31.07.2007				
	Ascención: 231 / 071	Landsat 5 TM	30m	08.08.2006	8			
				ASTER		15m	08.08.2006	8
				29.07.2005		8		
				01.08.2006				
				20.08.2007				
				Chiquitania: 229 / 072		Landsat 5 TM	30m	16.9.2007
	ASTER	15m	16.9.2007		8			
	SPOT 5 MS 679/381	10m	12.06.2007		8			
					29.07.2005	8		
01.08.2006								
20.08.2007								

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

Direct causes.

- Advance of agricultural frontier:** This deforestation occurs mainly in the department of Santa Cruz, and represents almost 75% of Bolivia's total deforestation. It is produced mainly by large scale agro-industry for soy bean and other industrial crops. The deforestation monitoring data almost in real time indicate that 40% of the annual deforestation (>6 ha) results from 250 large scale interventions (> 200 ha; Forests Superintendence, 2006).
- Slash and burn practices caused by migrants and colonists:** This type of deforestation is considered minor compared to the former (Direct cause 1)) type, although is difficult to precisely measure it due to scale and resolution of satellite images.
- Forest fires:** Although burning is used for forest clearance both in agricultural expansion and slash and burn practices, uncontrolled forest fires are considered a direct cause of deforestation when occurring at a large scale and expanding uncontrolled. In general, forest use and forest fires are the principal anthropogenic degradation activities causing greenhouse gas emissions.
- Infrastructure development:** Roads and gas pipelines are considered both a direct and underlying cause for deforestation as direct forest clearing occurs as the first step for infrastructure development. Bolivian environmental law requires mitigation of negative environmental impacts however forest losses are generally not compensated.
- Mining activities:** Mining activities contribute marginally to the loss of forest cover.

Underlying causes. The following factors are considered underlying causes for deforestation and are not listed in order of importance:

- Low prices of land in Bolivia attract foreign investments directly into the agricultural sector. Moreover, the increases in the price of soy and bio-energy market dynamics stimulate the expansion of the production of oleic crops. In general, poverty level and limited access to means of life also contribute to deforestation in lower scale (<5 ha per intervention)

2. Weaknesses in the governance of forest and agricultural sectors also favor the tendency for deforestation. There are great delays in land tenure consolidation and inconsistencies between different land use zoning schemes. Although legal regulation allows controlling and penalizing of unauthorized selective tree felling, follow up to illegal interventions does not work because of administrative inconsistencies and because of the lack of resources for the operative entities, since Soil Usage Plans are not followed.
3. In addition to all previously stated causes, the impacts of climatic change in the Andean zone are also considered an underlying factor, given that it stimulates migration to lower lands due to food insecurity, thereby contributing to low scale deforestation.
4. Finally, timber harvesting is considered an underlying cause for deforestation due to forest road development that leads to further colonization and deforestation. While forest use under Forest Law No. 1700 obliges forest concessions to follow a sustainable forest management, there are selective tree felling processes in communal and indigenous lands and inside other forest areas. The first results of the degradation pattern detection for the REDD process indicate that near the borders, illegal selective timber logging is quite common. Additionally, the practice of slash and burn (*chaqueo*, in Spanish) causes forest fires, which depending on the intensity can cause the degradation or irreversible loss of forest coverage.

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.?)

1. Forest concessions and ASLs

Although the revised Forest Law 1700 requires the National Forest Authority to evaluate, every 5 years, compliance of logging activities with authorized logging plans, a comprehensive nationwide assessment has yet to be executed due to lack of resources. In addition, several concessionaires and forest dweller associations (Agrupaciones Sociales del Lugar, ASLs) are delayed in paying royalties (patentes forestales) to the municipalities, funds earmarked to strengthen local monitoring capacities and governance. As an obvious result, forest monitoring remains weak.

There is also pressure from some wood-industry sectors that practice illegal tree felling. This occurs principally in the departments of Cochabamba, La Paz, Beni and Pando, where precious woods still exist.

Consequently, REDD has to improve monitoring and prosecution capacities and its corresponding administrative procedures.

2. Land tenure

Currently, several conflicting land claims between indigenous communities, forest dwellers, peasant unions, concessionaires, and private land owners hamper compliance with approved land use plans. The revised land titling process started 11 years ago under the responsibility of the National Agrarian Reform Institute (INRA, Spanish acronym). This process is behind schedule and its cadastral data base is not readily accessible to other relevant governmental agencies.

In order to avoid conflicts regarding overlapping land rights and to support the monitoring of illegal deforestation activities it is necessary to establish a rural cadastre that will strengthen vertical and horizontal integration of government entities.

3. Land use planning

There are still inconsistencies within the framework of functions and competencies of different government entities involved in land use planning and titling. Planning schemes have been established at municipal, departmental and national levels, and can result in inconsistent planning schemes.

Strengthening governance in the forest and agricultural sectors requires the intensification of vertical and horizontal coordination amongst governmental entities involved in land use planning.

4. Institutional responsibilities on forest policy and forest law enforcement

Several governmental institutions are involved in planning and authorization of land use change decisions. Different institutions are sharing responsibilities on forestry and agricultural law enforcement. This dispersed institutional setting has generated a complex workflow in prosecuting illegal land use change which is virtually ineffective due to its complexity and lack of resources. To overcome these shortcomings, institutional responsibilities have to be adjusted, and procedures should be simplified linking near real-time monitoring, legal prosecution and penalization efficiently. The effective deterrence of actors that illegally deforest requires the speeding up of the control and penalization system. Local actors at municipal and community levels hold a key role in monitoring the activities inside the forest. As a result of this, their participation in the follow up and enforcement of land use zoning must be encouraged.

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.):

Forest dwellers can be classified as follows:

1. Indigenous communities and settlers that operate within the legal framework of the Native Communal Lands (TCOs, Spanish acronym). As indigenous lands, the TCOs are registered in the rural land registry managed by the Instituto Nacional de la Reforma Agraria (INRA, Spanish acronym). TCO legalization is still underway, and currently approximately 50% of the indigenous lands are legalized. In the present-day context, indigenous people in Bolivia are empowered under the current government. The national indigenous organization for the lowlands (CIDOB, an indigenous confederation in the Bolivian lowlands) represents forest indigenous groups of the Bolivian lowlands. Currently, most of these areas are lacking effective control and planning tools to facilitate sustainable income generation.

2. Local Social Associations (ASL). ASLs are registered under the Ministry of Rural Development, Agriculture and Environment and operate as forest concessions. Land registry information is managed at municipalities and governmental (prefecture) level. All land registry data is available in GIS form. Some ASLs have forest inventories and General Forest Management Plans (PGMF). The main challenges that this sector faces are lack of economic and organizational capacities to comply with forest law, as well as weaknesses in forest management.

3. Peasant Unions. Peasant unions represent the majority of Bolivia's colonists and peasants. They are able to interact directly with the Bolivian state. The main challenge for this sector is consolidation of land rights and land titling. Migration processes in Bolivia started after the agrarian reform in 1952, and were accompanied by land assignments. Spontaneous migration to the lowlands continues to the present day due to lack of economic opportunities in the highlands, and is causing inefficient land use practices in the lowlands. Poverty levels are still high in this group. The main problems for peasant unions are inadequate land distribution and lack of economic alternatives and opportunities for more efficient land uses.

There are also planning tools such as the Major Land Use Plans for the majority of the departments of Bolivia (Santa Cruz, Pando, Beni, Chuquisaca, Norte de La Paz). These plans are not carried out, mainly due to current institutional weakness.

While cadastral information on indigenous and forest dweller territories is partially available, comprehensive information quantifying the dynamics and impacts of smallholder expansion in the agriculture frontier and small scale logging is still lacking. Closing this gap would require a high-resolution time series analysis (monthly at 30m spatial resolution) in relevant settlement zones to be financed under a REDD readiness mechanism. This effort should be consistent with the near real-time monitoring of large-scale deforestation already working on a pilot basis.

The REDD strategy will incorporate incentive mechanisms in land-use zoning plans (which in Bolivia include traditional or customary land uses) already in place. Where land-use zoning plans have not been developed, the REDD mechanism will support their development incorporating incentive mechanisms in the design phase.

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

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

The National Development Plan (NDP) is the government main framework for action. The NDP resulted from a participative process that involved the principal instances of the government, grassroots organizations, and civil society.

The National Development Plan includes a policy (No. 4) on Carbon Sequestration and GHG reduction policy, which states: "The State participates, as owner of the natural resources, on income generation activities through international negotiations, certification, sale, equal and fair distribution commercialization benefits from CERS.... The State will develop a strategy for income generation through carbon sinks, conservation and R&F activities as environmental services promoters"

The NDP mentions the importance of climate change mitigation activities that support sustainable development through alternative income generation mechanisms. A REDD mechanism under the conceptualization of the Bolivian position is

aligned with the NPD.

Other current strategies and programs in place are:

- Programs to support sustainable forest management for indigenous communities, ASLs, TCO and other actors,
- Programs to promote sustainable use of natural resources and reduce threat of deforestation in Category 6 of the UICN definition of protected areas.
- Adaptation Mechanisms will organize financial resources to start and progressive implementation of adaptation measures which include REDD activities
- Programs to promote alternative use of forest lands, such as the implementation of non-timber forest products management

In general, Bolivian management instruments are developed in a participatory way, involving all the relevant actors and especially grassroots organizations. Each of these programs requires participatory management instances including management committees and specific guidelines for consultation processes, especially when applied at the municipal level.

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

National level:

As stated in incise b), among the policies established in the National Development Plan is the mitigation of climate change in the energy and forestry sectors.

The activities of the forestry sector are framed inside the Forestry Law 1700. Land use planning is managed at different levels of decentralization. At the departmental level, the department land use plan (PLUS, Spanish acronym) is handled by departmental governments. At municipal level, a Municipal Territorial Organization Plan (PMOT, Spanish acronym) is required by law. For land assignment types, there are Native Communal Lands (TCOs), Local Social Associations (ASLs) and Forest Concessions that require a General Forestry Management Plan for the use of forest resources.

Under the Environment Law No. 133, Municipalities Law No. 2028 and the Forest Law No. 1700, national, municipal, and private reserves are defined and legally recognized as protected areas. In addition, the National Protected Areas Service, created through Supreme Decree No. 25158 (September, 1998) is designated as the responsible entity charge of the management of the national protected areas system.

Currently, the national policy that frames reforestation and afforestation activities is being developed. This policy includes an incentive scheme and considers the CDM as an alternative source of funding that could create additional source of income to support these activities.

It is considered that this policy will have an impact on the reduction of deforestation, especially in the areas where afforestation and reforestation activities will generate an additional source of income.

Also, there are new settlement policies under elaboration. Such policies may have an impact on the deforestation rate. These policies should include REDD in their final definitions.

Other valid regulations in the country that help to protect our resources are land Law (INRA), Wetlands Regulation, National Strategy for Biodiversity conservation, etc.

Sub-national level:

Based on national-level land use zoning and legal and strategic management tools, departmental, municipal and sectoral strategies are being elaborated. These tools seek an efficient and long term use of forest resources that considers the reduction of deforestation and degradation, not as fundamental objectives but as a result of efficient use of natural resources.

Four of Bolivia's nine departments have approved land use zoning plans (Santa Cruz, Pando, Tarija and Beni) and one is under development (Cochabamba). IDB financed the development of a regional land-use zoning plan for the Amazonian region of Bolivia, which has yet to be officially approved. In addition, the departments are starting to develop regional climate change mitigation and adaptation plans, as well environmental services plans. Santa Cruz is the first department to develop such tools.

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):

Deforestation reduction programs will be based on departmental and municipal development strategies, focusing on mechanisms to be implemented in each area and based on: 1) governance characteristics; 2) poverty levels associated with deforestation drivers; 3) existent legal enforcement plans; 4) socio-economic characteristics; and 5) area and type of actors, among others.

Deforestation reduction mechanisms at a sub-national level would be adapted to each area's specific conditions, and its development would be monitored in order to replicate successful models in other areas with similar characteristics.

In a first phase until year 2012, different schemes and mechanisms will be tried out in key areas with specific characteristics inside the country in order to inform a national program based on the national REDD strategy.

The control and field monitoring system will be established to verify the effectiveness of REDD interventions and mechanisms, this system and the results will have to be integrated into the REDD national accounting system.

The interventions and mechanisms to be used will be diversified from command and control interventions to market mechanisms, such as a deforestation permits scheme for private medium and large-size soy production companies.

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

The programs/mechanisms will be designed to help resolve the causes of deforestation and degradation, gathering the features of each department and/or municipality or selected area for participation in the REDD Program. There are a number of incentive mechanisms already in place that could be part of a REDD program. The application of these mechanisms in a specific area should affect various causes for deforestation and not only one. Also, it should be in line with the current development and management strategies for natural resource use and management supporting these processes:

Week law enforcement

In Bolivian nearly 40% of detected annual deforestation (minimum mapping unit 6 has.) is caused by 240 large scale interventions. Improving monitoring control and prosecution procedures will reduce illegal large scale deforestation by:

- Strengthening mechanisms for the implementation of regulations and laws in the forestry sector,
- Strengthening entities in charge of controlling land use could reduce illegal logging and timber trade, forest and pasture destruction,
- Transfer of certain control responsibilities to local stakeholders as well as training and transfer of monitoring, control and deforestation prevention to municipalities

Consequences of migration and Poverty

The "drivers" associated with **migration and poverty** require the development of programs that generate alternatives for income generation through activities not associated with deforestation and a mechanism for carbon compensation. For example, development programs based on a farm scheme, sustainable agriculture, reforestation and conservation have demonstrated good results because of medium and long term income generation activities. Productive programs associated with the sustainable use of forest resources, such as sustainable forest management, non-timber forest products, ecotourism and reforestation will also contribute.

- Promote the sustainable use of non-timber forest resources, wildlife and environment services by peasant communities and indigenous populations, according to their knowledge, uses and customs.
- Encourage community forestry to allow forest integral use (forest timber resources, non-timber, wildlife and environment services)
- Programs carried out to reduce migration to forest lands. This will require supporting the development of income generation activities in highlands that could reduce migration to low lands. How?

High opportunity cost of forest conservation

Industrial agriculture and cattle ranching generate profits that overpass largely sustainable forest use and forest conservation. Therefore, a set of multiple programs shall be design in order to reduce the opportunity cost of sustainable forest use and forest conservation.

- A combined scheme of deforestation permits and incentives scheme could be implemented to cope with medium and large agricultural enterprises (soy industry), in order to improve efficiency in soil use increasing the value of

forest land.

- Associated programs to promote silvipastoral systems as a more efficient alternative for cattle ranching.
- Subnational pilot activities with specific selection criteria will be allowed
- Support municipalities directly increasing their budget if maintaining a level of forest in their land.

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.)?

In Bolivia, the following complementary programs are currently operating:

- National Development Plan, role in REDD was outlined in question 5
- The National Program for Climate Change, which includes:
 - The Adaptation Fund, implementing activities for adaptation to climate change that could be associated with initiatives on REDD.
 - GHG inventory study of Bolivia. The NPCC has developed the First National Communication to the UNFCCC and currently is developing the Second National Communication of Bolivia will support and be supported by the information generated by the REDD process.
- Forestry Department:
 - Forestation and Reforestation Plan at national level.
- Land Vice Ministry
 - Settlement and colonization plans and policies: The implementation of these policies could increase deforestation rates. The timely inclusion of REDD mechanism could inform decision makers on the opportunities and benefits of preventing deforestation.
 - Land use and property rights in rural areas
- If the country is in favor of the use of bio-fuels, this may cause further deforestation. Currently, the Bolivian government is against bio-diesel production.
- The National Watershed Management Program from the Ministry of Water includes the role of forest ecosystems for watershed protection and outlines programs and projects to protect water resources in key watersheds.
- National Protected Area Service (SERNAP) has a strategic and financial program for strengthening Bolivia's protected area system.

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.

The REDD strategy is framed within the National Development Plan for inter-sectoral coordination and it is recognized that if it is not properly coordinated with strategies impacting the sector it will be difficult to have a coherent national strategy. The relationship between NDP and REDD was described in question 5. Consultation process with specific sectors already started with the technical and policy committee meetings, and sectoral consultations. The first specific consultation and workshop to develop a coordination mechanism with the indigenous sector was carried out on the 29th and 30th of May, 2008. As an outcome of this meeting, the indigenous organizations designated representatives to participate in the REDD technical committees.

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):

- The Netherlands Cooperation and the German Cooperation are supporting the development of a methodological study for measurement and monitoring of degradation in specific areas of Bolivia. This project is being implemented by a national team with the support of the German Cooperation (GTZ) and national technical entities in coordination with PNCC-ODL.

- The Netherlands Development Cooperation is funding a feasibility study to detect the degradation patterns through satellite imagery and the corresponding emissions in three different sites with an investment of 220,000 US\$.
- GTZ is providing the support of two integrated experts in remote sensing and biomass accounting, the GTZ CIM program is supporting the feasibility study and the REDD process in Bolivia.
- The Natural History Museum Noel Kempff Mercado (MHNNKM), together with Conservation International, measured land use change in 1990, 2000 y 2004.
- The European Space Agency (ESA) supported the processing of 56 LANDSAT images and 3 AWIFS scenes to homogenize the temporal cover of GeoCover 1990 and the data from 2004/2005 processed by the MHNNKM.
- The German Financial Cooperation (KfW) is considering financial support of 50,000 US\$ to finish the processing of land use change detection between 2000 and 2005 through the MHNNKM.
- Conservation International Bolivia is supporting the execution of technical-scientific workshops on the REDD process in Bolivia, as well as technical elements for the position of the country and the REDD scheme.
- The Bolivian Government through the PNCC-ODL is carrying out studies on opportunity costs of land use and economic scenarios for development.
- In addition, the Bolivian Government is carrying out a training process on Climate Change and REDD for indigenous peoples.

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?

The National REDD Program will be guided by an inter-ministerial committee, the same that will establish political guidelines for it. The procedure for the development of strategies and programs under REDD will be carried out following the same participative mechanism based on the current scheme. The existing policy and technical committees will include grassroots organizations as a specific coordination body, and technical support that will operate under the Environmental Planning, Director from the Land use and Environment Planning Viceministry. The existing municipal coordination mechanisms will be used for the definition and implementation of the activities.

The development of the REDD strategy shall be based upon departmental and municipal natural resources management strategies and additional planning mechanisms in order to incorporate adequate mechanisms for REDD according to the specific characteristics of each area. Mechanisms on how to integrate the REDD variable into sectoral development plans need to be revised and in place before the implementation phase (after 2012), therefore should be development during the pilot phase.

a) The National Development Plan is the government's action framework, being the result of a participatory process that involved all government entities, as well as grassroots organizations and civil society. In general, management tools in Bolivia are developed in a participatory way with all the relevant actors and especially with grassroots organizations. These tools are built with a combined bottom up and top down approach.

The process to develop strategies and programs under REDD will follow the same participatory mechanism based on the current scheme. It will be developed with existing policy and technical committees and grassroots organizations working under the Environment Planning Department. The work with grassroots' organizations will evolve as a specific instance of coordination and technical support.

The REDD National Program will be headed by an inter-ministerial committee that will be in charge of providing policy guidelines. In the same way, existing coordination mechanisms with department governments and municipalities will be used in order to define and implement the activities.

The process for strategy development will be based on departmental and municipal strategies for natural resources management and additional planning tools in order to incorporate into REDD the adequate tools according to the characteristics of each area. Additionally, the mechanism to integrate the REDD variable in sector development plans will be evaluated after 2012.

b) It is considered that there will be a risk to reduce the effectiveness of the strategy and regional, departmental and/or municipal programs if relevant actors are not aware and do not support the strategy/programs.

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

The consultation process is a normal practice in the public sector and in the last year it has actively involved social grassroots organizations, because they are organized in 5 large entities representing all the regions and sectors (this organizations are described in question 7). In the same way, the civil society actively participates in public activities through NGOs.

The private sector is consulted through the National Forest Chamber and other sectoral chambers when necessary. In all the Departments of the country, coordination committees are established and consultations are made through meetings and discussions of relevant issues.

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?

National consultations were made during the elaboration process of the national and joint positions on REDD under the process of UNFCCC. Participating stakeholders include members of the Policy Committee, REDD technicians and other actors from the forestry sector, National Forestry Chamber, representatives of grassroots organizations and from the Foreign Affairs Ministry. Workshops were held to validate the positions on the technical side and meetings were also held with the Policy Committee to approve positions.

Since 2006, five national technical consultations were held in order to develop the documents on the country position. These consultations were organized by the Clean Development Office from the National Climate Change Program. Since 2007, five meetings of the policy committee were held, as well as five meetings of the technical committee.

Regarding participation of local communities and forest dwellers, it is important to understand that to have a proper consultation process during the design and implementation of a REDD strategy, it is necessary to create specific coordination schemes with each relevant sector or stakeholder group to develop a structured exchange of plans, positions, and information. This process is crucial in order to achieve agreements without creating false expectations and misunderstandings of the scope of a REDD mechanism. In the case of indigenous communities in Bolivia, they are organized in 5 grassroots organizations and a coordination mechanism is currently being developed with their participation.

In the case of other relevant stakeholders, such as the agro-industrial sector, both the technical and policy committees will coordinate with their representatives, such as the Camara Agropecuaria Industrial Comercial del Oriente (CAINCO), the Camara Agropecuaria del Oriente (CAO), and the Asociacion Nacional de Productores de Oleaginosas (ANAPO). A consultation process with this sector will be developed when there is a concrete proposal with financial resources available as part of a national strategy design.

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

The Policy Committee will be used for the discussions and the committee will be strengthened according to and through the consultation process. The Technical Committee adequately combines relationships with technical instances and civil society. As a result of the committee meetings, proposals will be developed for the review and approval of actors linked to the sector.

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

Amplified Policy Committee and prefectural/municipal Committees and grassroots organizations. Subnational consultations are scheduled for the first period of the readiness phase.

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

The Technical Committee, strengthened with different organizations according to land use type, such as TCO, ASLs, Forestry Concessions, Protected Areas, Agriculture Chambers, National Forestry Chamber and Departmental Forestry Chambers, as well as small producers associations when required.

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

A coordination mechanism with representatives of grassroots organizations is already in place under the current administration, consisting on periodic consultation with national-level indigenous and peasant organizations (CIDOB¹, CONAMAQ², and Bartolina Sisa³, CSUTCB⁴, and FEJUVE⁵). Yearly evaluations of government performance include recommendations of these organizations and parts of their suggestions (including Ministers' ratings) are taken into account in government plans and personnel evaluations. These mechanisms need to be improved in order to have a more organized and structured top-down participation for REDD.

National-level indigenous representatives were invited to participate in the REDD Bolivia Government's positions presentations (March, 2006, November 2006, March 2007). However, indigenous people's participation was limited for the technical level of the workshop. For this reason a capacity-building program is currently being designed and will be applied during the readiness phase.

A specific coordination mechanism for REDD is currently under discussion and will be designed and established based on agreements with national level, regional, and individual indigenous groups representatives during a workshop between indigenous peoples and the government, to be carried out at the end of May, 2008.

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.):

The following challenges were identified:

- Lack of financing for the development of the complete framework
- Low level of coordination among public institutions and with local social organizations and relevant actors.
- Delegation of precise responsibilities under the REDD strategy and program to state and municipal level
- Coordination with the private sector and civil society.
- Lack of capacity to monitor forest use control systems
- Delays in the land use titling process that can delay the implementation phase in some areas
- Rural cadastral problems
- Contradictions between forest and agriculture laws
- Social conflicts and low governance in some municipalities.
- Low capacity to enforce the land use plans

During the readiness phase, the mechanisms to address these challenges will be designed with appropriate participation of relevant sectors and stakeholders, taking in account lessons learnt from past experiences to prevent deforestation and to develop sustainable forest management activities.

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

The selection of incentive mechanisms will consider the conditions in each municipality and therefore some mechanisms will be applied in some areas and not in others. The selection criteria will also consider each driver of deforestation and depending on them it will be possible to measure the specific impact of the intervention, as opposed to others in which only the national accounting system will reflect the impact. In this sense, a performance-based payment system is relevant and it could be used adequately with certain mechanisms and under certain conditions.

The result assessment system for REDD mechanisms will require a performance-based system however such a system will have to consider the variety of mechanisms to be designed and used. The way to measure the performance will depend on each of them.

¹ CIDOB is the Indigenous Confederation for Bolivia's Lowlands

² CONAMAQ is the Indigenous Confederation for Bolivia's Highlands

³ Bartolina Sisa is the Highland's Indigenous Women Organization

⁴ CSUTCB is Bolivia's Union Workers Confederation

⁵ FEJUVE: National representative of Cities' Neighborhood Organizations

In the pilot phase the mechanisms and the activities will be developed and tested in order to learn and to replicate the success in other areas.

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.):

Deforestation Detection

Since 2005, the Forests Superintendent is monitoring deforestation in real time applying the methodology of INPE (Brazil) with twice weekly data from a MODIS sensor (resolution 250 m, minimum area detection 6,25 ha). This system has been designed to track illegal interventions, not to detect area change. However, it is essential to effectively reduce deforestation, as it generates the relevant input to guide ground-truthing and validation efforts as well as prosecution and penalization of illegal activities.

The Noel Kempff Mercado National History Museum (MHNKM) is processing LANDSAT and CBERS images to update the 2005-forward data base. Other state offices (Land Viceministry, Agriculture Superintendence, Prefecturas) and scientific institutions (BOLFOR II, FAN Bolivia, CLAS) are monitoring the land use change in specific areas. The definition of the national reference emission scenario will build on these efforts implementing an annual high resolution deforestation monitoring combining annual wall-to-wall and area frame sampling schemes.

Degradation detection

At the moment, a project is investigating the feasibility of detecting and quantifying the impacts of degradation in 3 pilot sites applying the methodology developed by Carlos Souza of AMAZON, Brazil (Souza et al 2005) that determines the Index of Difference in Normalized Fractions (NDFI) as proxy for the change of the area and the intensity of the impact for the forest use. The first results indicate that it is feasible to detect the pattern of the degradation in the Amazon forest and in the transitional forest.

Forest inventories and biomass measurements

The Forests Superintendent oversees the requirement by law that forest concessions upgrade their forest inventories every 5 years. The Bolivian Institute of Forest Investigation (IBIF), the Friends of Nature Foundation (FAN) and other scientific institutions are periodically re-measuring the 540 permanent plots of biomass (see the details in the annex). All sampling schemes have been designed and implemented to reach a 95% confidence interval within the targeted 10.0% of the mean. Currently, a comprehensive synoptic report is prepared to describe the different measurement systems, its gaps and efforts to harmonize it.

In addition, the Climate Change National Program periodically prepares greenhouse gases (GHG) inventories of the LULUCF sector.

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.):

To detect wall-to-wall deforestation in Bolivia, 56 LANDSAT scenes are needed annually, which represents a relatively high cost. It is feasible to homogenize the temporal consistency of the analysis base for the periods 1990 - 2000 and 2005 - 2006 taking advantage of the data given by the ESA, to process the detection of change annually on the basis of systematic sampling (area frame sampling), and to process the wall-to-wall covering every 4 years.

Detection of forest degradation processes with different remote sensors (LANDSAT TM (30m), ASTER (15m), SPOT (10m)) shows that ASTER data gives the most cost-effective results. However, this means scheduling acquisition of images based on a sampling scheme (area frame sampling) and interpolation of results. To determine carbon fluxes due to forest degradation, monitoring should be done twice a year in a semi-automatic way.

Given the high diversity of the forest ecosystems in Bolivia, the biomass range is very wide. Therefore, it has not been possible so far to establish a comprehensive biomass inventory covering all the Bolivian forests.

To achieve understanding of the key and underlying drivers of deforestation macroeconomic and micro-economic data are needed (commodity and input prices, agricultural operating costs, etc) at national and international scales. Not all of these parameters are currently available.

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.)

Deforestation monitoring will be performed annually applying systematic sampling (area frame sampling) and the methodology to detect the changes with a supervised classification of a composition of 12 bands of 2 dates (supervised classification of two dates, 12-band composite image) to the LANDSAT TM data in combination with CBERS2. It will combine change-detected polygons with measurements of the corresponding biomass, following the recommendations given by IPCC 2003 (LULUCF Good Practice Guidance) and 2006 Guidelines. Results will be validated using a wall-to-wall analysis every 4 years, aerial pictures and videography. Real time large scale deforestation monitoring will continue (twice a year, wall to wall, using MODIS and INPE methodology, Brazil) to generate data for control and penalization.

Forest degradation monitoring will be implemented under a systematic sampling scheme (area frame sampling) with a biannual frequency, applying Souza et al. (2005) methodology, in addition to measurements of the impact of logging on biomass applying already developed protocols (Winrock International's Carbon Impact Zone Plots and IBIF's experimental plots, see Annex 1). ALOS Radar data is currently being processed to evaluate its potential to normalize and compensate seasonality effects in dry deciduous forests.

Independently, improved access to basic goods and services by local populations as result of the REDD scheme will be monitored at the national level and in indigenous communities and TCOs.

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?

We expect financial incentives to improve livelihoods of indigenous and local communities around and inside forests, specifically through strengthening sustainable forest management practices. In this context, carbon finance shall be used to improve logging practices (low-impact logging) by reducing collateral damage and corresponding biomass losses. Apart, using carbon finance to facilitate the application of voluntary forest certification schemes could guarantee market access in the long run and reduce the transaction costs of implementing them. On the other hand we expect to provide resources for land titling with REDD funds.

Reducing deforestation rates on key ecosystems prioritized within Bolivia's National Protected Area System GAP analysis will contribute to maintain ecosystem biodiversity and connectivity. It will be important to consider projections of deforestation patterns due to infrastructure development and their impacts on forests. For example, along the Santa Cruz-Puerto Suarez Bioceanic Corridor, the Chiquitano Dry Forest and the Forestry Reserve Bajo Paraguá are the last remaining forest connecting Chiquitano Dry with Amazonian forests, and they should therefore be protected.

By reducing GHG emissions from forest fires associated with deforestation and forest degradation, a REDD program will mitigate the proliferation of respiratory diseases and air pollution that is already occurring in lowland Bolivia. Reducing deforestation will also contribute to stabilizing hydrologic cycles and to strengthening ecosystem capacity to adapt to climate change. On the other hand the REDD scheme will promote the valuing of multiple ecosystem services including benefits to biodiversity and water sources through deforestation reduction, integrating reduction of land degradation and forest erosion.

A national REDD scheme will serve as an incentive to value Bolivian forests and demonstrate their contribution to national development. In this sense, the REDD scheme will seek to benefit indigenous populations inhabiting forests, by contributing to the conservation of their living areas, with their active participation. By integrating the REDD scheme in agricultural and other development sectors, we will be able to integrate climate change issues in sectoral policies that are part of the national development policy.

The government will develop a coherent national strategy incorporating carbon benefits as well as the contribution of sustainable compensation mechanisms.

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

Biodiversity is currently being monitored at national, regional and local scales, as well as in some forestry concessions

and protected areas. SERNAP is monitoring biodiversity status in national protected areas through a monitoring system using TNC standards. Conservation International is monitoring the distribution of endangered species in Bolivia and WCS monitors the distribution of a wide range of species. Museums, herbariums and fauna collections have databases with collections on plants, vertebrates, and invertebrates of Bolivia.

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

The REDD national program provides for the strengthening of biodiversity conservation monitoring schemes currently being implemented, through coordination with institutions on charge of biodiversity monitoring within the REDD technical committee. In addition, the national authority will coordinate with public and private conservation institutions to monitor specific impacts of REDD projects or programs on biodiversity conservation. Specific proxies will be considered to monitor ecosystem integrity and the status of key terrestrial and aquatic species, as well as some environmental services such as hydrologic regulation.

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

The National Statistics Institute (INE, Spanish acronym), and the Unit for Economic Policy Analysis (UDAPE, Spanish acronym) are currently monitoring poverty indicators using the Unsatisfied Basic Needs (UBN) based on the results of national census. The United Nations Development Program (UNDP) elaborates a yearly Human Development Report, which monitors and evaluates the well being of the population. However, these indicators only show a national and departmental approach and lack a regional approach.

UNDP along with INE and UDAPE, coordinate their efforts in order to provide a clear analysis of the country situation, therefore they have developed municipal-level indicators to evaluate the impacts of public policies in a comprehensive way.

The Climate Action Project Noel Kempff Mercado is currently monitoring the project's socio-economic impacts through the sustainable livelihoods methodology, which provides a framework to understand the underlying causes of poverty, without losing track of influencing factors. By means of the social project component, benefits for rural communities and other stakeholders are monitored.

There is a need to integrate all the monitoring systems already in place into a national information system that will support not only REDD activities but others, including the social benefits component, of great importance and at the core of REDD implementation activities.

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

A preliminary analysis on current national public policies showed the need to identify regions, departments, municipalities and communities **were** monitoring of socio-economic impacts will be taken into account not only at aggregated levels -- national and departmental indicators such as UBN or Human Development Index (HDI)--but also at the municipal level.

In addition, monitoring should also take in account household-level surveys currently being implemented by the MECOVI program (Survey and livelihoods conditions in Latin America and the Caribbean improving program), which generated several useful data on spending and consumption at a household level.

The REDD program intends to strengthen existing monitoring mechanisms, however, an adaptation of the indicators and areas to be monitored will be necessary in order to fit with the proposed REDD scheme.

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 REDD coordination unit will be set up at the government, will have the responsibility of:

- International negotiations at the UNFCCC
- Finance strategy and coordination with donors
- National coordination with relevant institutions and stakeholders
- Design, approval and implementation of REDD sub-national activities
- Monitoring and evaluation of REDD performance

Please refer to the tentative budget for estimates of the amount support for each category.

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

An initial capacity-building process will be implemented with the different sectors at different levels, in order to acquire skills for informed participation in the consultation processes, with emphasis on the indigenous and peasant sectors. The first workshop specifically directed to the indigenous sector was carried out in May 29th and 30th, 2008. Also, it will be necessary to create the REDD structure through coordination mechanisms defined in a participatory way. It is anticipated that the process will not be complex. However, additional resources will be necessary in order to set up the conditions for the implementation phase. In late May 2008 a first workshop is scheduled to set up the initial phase of this coordination mechanism with the indigenous sector, in which the national leaders will designate delegates to participate. For the other sectors (forestry, agriculture, public sectors and others) sector-specific participation and coordination mechanisms will be set up.

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

This work is on-going; please refer to question 9 for details on projects and organizations involved.

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.):

This will be the core of the REDD program implementation and will require a combination of sectoral and sub-national activities focusing on:

ACTIVITY	IMPORTANCE	URGENCY	FEASIBILITY	TIME FRAME
Law enforcement through reform prosecution and procedures and increasing financial and technical capacities for law enforcement	HIGH	HIGH	MEDIUM	MEDIUM
Removal of legal barriers and perverse incentives for deforestation	MEDIUM	MEDIUM	LOW	LONG

FCPF R-PIN Template

Development of programs that generate alternatives for income generation not associated with deforestation (for example, ecotourism, bio-commerce, increased agriculture efficiency, promotion of sustainable forest management and community forestry, and a mechanism for carbon compensation)	HIGH	HIGH	MEDIUM	LONG
Influence development sectors to promote programs for economic development not linked with deforestation (for example, programs carried out to reduce migration to forest lands and improve livelihoods conditions in the highlands)	MEDIUM	MEDIUM	MEDIUM	LONG
Creation of a market for deforestation permits	HIGH	MEDIUM	HIGH	SHORT
Sub-national pilot activities with specific selection criteria	MEDIUM	MEDIUM	HIGH	SHORT
Support for municipalities by directly increasing their budget if maintaining a level of forest in their land (such as performance-based payments)	HIGH	MEDIUM	HIGH	SHORT

The FCPF would finance the design phase. The implementation of these programs will require co-financing from other donors due to implementation costs

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

Please refer to question 9

FCPF R-PIN Template

TENTATIVE BUDGET AND TIMELINE	2008	2009	2010	2011	2012	Total
A. Stakeholder consultation						182.000
Indigenous-peasant sector consultation	28.000	28.000	14.000	14.000	14.000	98.000
Sectoral consultations (forestry, agriculture, cattle, and public)	21.000	21.000	14.000	14.000	14.000	84.000
B. Evaluation of historical emissions from deforestation and forest degradation						1.200.000
Data harmonization 1990 - 2000 - 2004	50.000					50.000
Deforestation detection 2004 - 2007	100.000					100.000
Implementation of the national strategy for biomass inventories: 9 ecosystems x 40 plots x 1,000 US\$	90.000	360.000	90.000	90.000	360.000	990.000
National REDD report		30.000			30.000	60.000
C. National REDD strategy development						690.000
Cost opportunity analysis		80.000				80.000
Mechanism for Sectoral incentives allocation	100.000	50.000				150.000
Mechanism for areas incentives allocation	100.000	100.000				200.000
Sectoral policy analysis and integration of climate change in national planning	100.000		30.000		30.000	160.000
Publications and communication		50.000			50.000	100.000
D. Emissions and emissions reduction monitoring system						940.000
Near real-time large-scale deforestation monitoring (SIF)	60.000	60.000	60.000	60.000	60.000	300.000
Degradation monitoring (SIF)	90.000	90.000	90.000	90.000	90.000	450.000
Deforestation monitoring (small-scale MHNNKM)		30.000	30.000	30.000	100.000	190.000
E. Institutional development						2.885.000
REDD coordination unit (including international negotiations)	193.000	193.000	193.000	193.000	193.000	965.000
Intersectoral coordination	50.000	50.000	50.000			150.000
Municipal and indigenous sector strengthening	150.000	150.000	150.000	150.000	150.000	750.000
Centralized information system		300.000	40.000	40.000	40.000	420.000
Legal framework improvement	100.000	100.000	100.000	100.000	100.000	500.000
REDD monitoring and evaluation			50.000		50.000	100.000
TOTAL						5.897.000

e) Other?:

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?:

In Bolivia several institutions cooperate on REDD, cited in question 6 incise d).

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 time-frame for them yet, or not?

In Bolivia several important activities for REDD are on-going. These include:

- Technical and policy committee functioning and regular meetings
- Design of a national biomass inventory system, based on a network of institutions with forest data
- Coordination strategy with the indigenous sector at a national, regional and specific indigenous group levels
- Pilot activities in remote sensing and biomass measurement that inform a REDD national emission accounting system
- Technical studies in progress on opportunity cost analyses for land-use and land-use change, scenarios for economic development and associated deforestation rates, and regional and local deforestation analysis

In order to adequately move toward Readiness the following stages supported by FCPF are necessary:

1. Setting up the REDD coordination unit
2. Definition of institutional responsibilities and networking for REDD
3. Establishment of an inter-ministerial work plan to develop policies and technical guidelines for REDD implementation
4. REDD information system
5. Complete stakeholder consultation
6. Definition of national reference emission scenarios
7. Design of a monitoring system for emissions and socio-economic and biodiversity impacts
8. Design of new prosecution and processing mechanisms
9. Design and implementation of three REDD pilot activities that are 1) law enforcement based 2) pilot project based, and 3) municipality based 4) TCOs based
10. Design of financial mechanisms to reduce performance risk for a REDD system
11. Develop co-financing strategies for REDD

14. List any Attachments included

(Optional: 15 pages maximum.)

Annex 1. Technical annex