

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



Government of Nepal

Ministry of Forests and Soil Conservation

Submission to the World Bank

Forest Carbon Partnership Facility

Readiness Programme Idea Note (R-PIN)

for

Reducing Emissions from Deforestation and Forest Degradation (REDD)

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

1. GENERAL DESCRIPTION of R-PIN SUBMISSION

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2. Which institutions are responsible in your country for:

a) forest monitoring and forest inventories:

Ministry of Forests and Soil Conservation (MFSC)
 Department of Forest Research and Survey (DFRS)
 District Forest Offices

Note: Community Forest User Groups are responsible for the handed over community Forests

b) forest law enforcement:

Ministry of Forests and Soil Conservation
 Department of Forests
 Department of National Parks and Wildlife Conservation

c) forestry and forest conservation:

Ministry of Forests and Soil Conservation/Department of Forests
 Department of National Parks and Wildlife Conservation

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

National Planning Commission is responsible for planning, monitoring and co-coordinating the activities of all sectoral ministries

3. Current country situation:

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.):

Nepal, with an area of 147,180 km² encompasses a diverse landscape in the Hindu Kush Himalayas (Country profile: Annex 1 and Annex 2.1). The National Forest Inventory (NFI, 1999) showed that Nepal had a forest area of 5.8 million ha (40% forest cover) that consisted of 4.2 million ha (29%) of forest and 1.6 million ha (10.6%) of shrubland. These forests are distributed across the three geographical regions of the country. The middle mountains have about 48% of the forest area and the plains (Terai) has about 25%. The remainder is distributed in the high mountains of the Himalayas.

Earlier, the Land Resource Mapping Project (LRMP, 1984) conducted an assessment of the distribution of forest in the country. A comparison of NFI results with LRMP shows that the forest area in the country decreased by 24% over a period of 15 years (1979–1994), (an annual rate of 1.6%), and the area under shrubland increased by 126% during the same period. The high increase in shrubland whilst the overall forest area was decreasing gives clear evidence of high rates of forest degradation over the period, although the total loss of forested area was not substantial. In mountain districts, forest cover declined from 34.2% in 1978-79 to 23.7% in 1992-1996 (a decrease of 2.3% annually). The statistics presented above are official estimates of forest cover changes in Nepal.

The Master Plan for the Forestry Sector (1989) updated the LRMP results, taking into account the loss of forests due to various reasons. The results show a small increase in forest area in the hills and mountains and a decrease in the Terai and the Siwaliks. An analysis of the changes in forest area between 1965 and 1986, based on the estimates of forest cover by the FRSO/USAID, WECS, LRMP, and the Master Plan, shows that the highest rate of deforestation during the period was in the Terai followed by the Siwaliks. The deforestation rate in the Siwaliks increased substantially after 1979. The forest area in the mountains remained largely stable during the same period.

FAO's Global Forest Resource Assessment (2005) based on national data sources clearly shows the decreasing forest area in Nepal from 4.82 million ha (in 1990) to 3.64 million ha (in 2005). In addition, 400,000 ha were estimated to have been lost through fires in 2000. This area does not include forest degradation caused by grazing and encroachment. LRMP (1984) estimated that forest and shrub cover was 42.7% of the total land area (forest 38% and shrub 4.7%). Analysis made in this study also indicated a historically high rate of forest loss of 0.5% annually (of forest and shrubland combined) since 1978-79 and an annual decrease in forest cover of 1.7% (forest only).

The intensity of degradation is high in National forests compared to other forest management modes. Evidence strongly suggests that once the forest management regime is transferred to the local communities, the degradation and deforestation is substantially reduced in that forest. However, it is also argued that the community forests have improved only at the cost of adjacent national forests in several places.

The analysis of deforestation and forest degradation shows that the pressure is highest in the Terai region. Currently, nearly 80,000 ha of forest in the Terai is encroached for agriculture and settlements. The extent of forest encroachment in the mountains is not yet studied. Similarly, forests elsewhere in the Terai and in the mountains are under high pressure as they have to meet the daily needs of local communities for fuelwood and fodder for their livestock.

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

There is no reliable estimate of CO₂ emissions from deforestation and forest degradation in Nepal. However, the information provided above gives an indication of the extent of emissions from this sector. The National Communication Report (2004) estimates 22,895 Gg emissions from the land-use sector (forest and grassland conversion 18,547 Gg and from soil 4, 948 Gg), based on the 1994/95 data.

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.).

The periodic inventory of the forest resources serves as the basis for the estimation of deforestation and degradation. The following are the key published documents for this purpose:

(i) The first measurement of Nepal's forest resources was carried out by the Forest Resources Survey Office of Government of Nepal (now Department of Forest Research and Survey, DFRS). This survey was based on aerial photographs taken during 1953–67 and complemented by strip photographs covering 10% of the surveyed area. Based on this survey, the total forest area of the country in 1964 was estimated to be 6.4 million ha. The aerial photographs used for the survey were of high-quality 1:12,000 scale. As the survey did not cover the high Himalayan region and there were considerable gaps in the coverage of the hill region, these results give only a rough estimate of the country's forested area.

(ii) A detailed mapping of land resources for the entire country was carried out by the Land Resources Mapping Project (LRMP, 1984), a joint venture between government of Nepal and Kenting Earth Sciences Limited of Ottawa, Canada. The survey was based on aerial photography flown in 1978–79, supplemented by extensive field checking and sampling. The LRMP estimated the total area covered by forests and shrubs as 6.3 million ha, including 4.0 million ha in the mountains, 1.7 million ha in the *Siwaliks*, and 0.6 million ha in the Terai (LRMP 1986). The land use land cover map produced by the project still forms the basis for the sectoral assessment in the country. The maps are on a scale of 1:25,000 for the Terai and 1: 50,000 for the mountain and Himalayan regions.

(iii) For approximately the same period, the Water and Energy Commission Secretariat (WECS, 1986) of the Government of Nepal estimated the total area under forest and shrubs as 6.5 million ha, including 3.9 million ha in the hills and mountains, 1.7 million ha in the *Siwaliks* and 0.8 m ha in the *Terai*. The estimates were based on aerial photographs taken between 1964/65 and 1978/79.

(iv) The latest national level forest inventory (NFI) was conducted by the Department of Forest Research and Survey (DFRS) of the government of Nepal between 1987 and 1998, under the support of the government of Finland. NFI took 1994 as the reference year. The aerial photographs for the Central and Eastern regions were taken in 1992 and rest of the country was flown in 1996. The survey used different methods for different areas. Landsat Thematic Mapper satellite images taken in November–December 1990 and 1991 were used to map the forest cover of 14 Terai and inner-Terai districts. Forest cover data for another 10 Terai and inner-Terai districts was obtained from aerial photo interpretation supplemented by field checking. The forest cover for the rest of the 51 hill districts was analyzed by interpreting a systematic grid of air photo points (DFRS/FRISP, 1999). The aerial photographs used for the survey were at 1:50,000 scale. The documents and source data are published in by the Department of Forests and serve as the authentic national data for the country (Annex 2.2).

(v) A forest cover change analysis of the 20 Terai districts was done by MFSC/DoF (DoF, 2005), in cooperation with SNV, WWF, DFID and SDC, using two sets of satellite images (Landsat image data from 1991 and 2001). The study showed that the annual rate of deforestation in the Terai was 0.08% compared with 1.3% during the previous decade (Annex 2.3).

In addition, there have been several sub-national studies done on forest cover change in eastern Nepal. A study using sample plot data taken over a four year period (1994–98) showed a 51% increase in stem number and 29% increase in basal area for the most degraded forests once they are handed over to community control (Branney and Yadav, 1998). Another study, based on forest inventory data from forest management operational plans for two consecutive periods, used five major indicators related to forest condition including: change in basal area per ha; change in biodiversity index; change in forest structure; change in forest composition within CF; and contribution to carbon sequestration. This study found that the basal area had increased remarkably from 60m² /ha to 156.7 m² /ha (i.e. 160%) over a 7-year period (equivalent to an increase of 13.8 m² /ha per year, LFP 2007) although this was based on a small data set.

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

One of the prominent causes of deforestation and degradation in the Terai and the high altitude forests is the lack of clarity in the tenurial system. The nationalization of private forest by the government (HMGN, 1957) was one of the key factors that accelerated deforestation throughout Nepal. In the Terai and Siwaliks, deforestation is widespread due to government resettlement programme, unsettled settlements and illegal clearing of forest for agriculture and illicit felling of timber for smuggling across the border. Other causes of deforestation and degradation in the country are expansion of agricultural land for food production, extraction of firewood for cooking and domestic heating, forage gathering for livestock and forest grazing, inadequate management of public forests and restrictive forest management regulations. The current political instability and lack of land use plans has also exacerbated deforestation. Forest fire is another important factor. However, the rate of deforestation and degradation is lower in the Middle-hills where the community forestry programme has been more successful.

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.?)

There are five main forestry sector policy instruments that the Government of Nepal (GoN) aims to use to address the key cause-effect aspects of deforestation and forest degradation, poverty alleviation and restoration of the environment. These are i) the Master Plan for the Forestry Sector (MPFS 1988), ii) Forest Act, 1993, iii) the Agricultural Perspective Plan (APP 1995), iv) the Tenth Five Year Plan (2002-2007) and v) Three Year Interim Plan (2007-2010). Those policies and strategies reflect the high priority accorded by the GoN to sustainable management of natural resources, with emphasis on forest resources. They reveal a high degree of Government commitment to implement a forestry sector programme in a manner that is user-based, gender sensitive and poverty focused. A common feature of these policies relates to the importance given to non-governmental organizations (NGOs) and the private sector as potential service providers. In 2006, GoN constituted a multi-stakeholder taskforce to propose approaches for democratic and sustainable management of forests. The recommendations submitted were on i) policy, legal, institutional and procedural reforms for the democratization of forest management in Nepal, ii) the management of community and collaborative forest based on an assessment of their successes, problems and failures, and iii) to suggest other recommendations for the overall sustainable development of forest areas in the country.

Political instability and inadequate enforcement capacity within the forest sector have inhibited the speed and effectiveness of reform in the Forest Law Enforcement, Governance and Trade (FLEGT) especially when compared to the successes of the community forestry programme. This has especially affected the Terai region where deforestation and forest degradation are a major concern. Forest governance modalities in the Terai such as community forestry, national forest management and collaborative forest management have, so far, not been able to provide sufficient incentives for countering deforestation and degradation of public forests and protected areas. The restrictive use of public forest with very limited development and no innovation in establishing value-chains for forest products has not brought about new local economic options for communities. Currently, the enabling framework for in-country timber processing and the high export taxes on timber provide limited scope for:

- improved governance and capacity building in timber production
- the private/illegal sector to adopt purchasing policies to exclude illegal timber from their supply chains
- promotion of public/private procurement policies
- avoiding investment in activities that encourage illegal logging and,
- supporting the state in ensuring that illegally-harvested timber from its territory is not admitted to trans-boundary markets.

The key issues to be addressed can therefore be summarized as: 1) Further development of sustainable forest management to meet the increasing demand for forest products with a focus on poverty reduction and social inclusion; 2) adoption of principles of green accounting and forest sector contribution to environmental services including carbon sequestration; 3) Equitable benefit sharing mechanisms for grassroots beneficiaries; 4) Linking forest development and management with livelihoods promotion and markets; 5) Improved mechanisms to tackle timber smuggling and poaching; 6) Operationalization of good governance principles in the forest sector including monitoring and evaluation systems; 7) Restructuring the forest sector to devolve powers and sectoral resources local government bodies; and 8) Capacity building of multiple stakeholders across vertical/horizontal levels of governance.

REDD readiness will not only help to create attractive incentives for local communities (e.g. encroachers) in addressing these problems, but will also help to create a major source of income (apart from the supply of timber and other forest products) for public forests.

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 is a source of subsistence livelihoods for many communities in Nepal especially those living below the poverty line. Of a national average of 31% people living below the poverty line, more than 72% are forest dwellers (DFID, 2005). Most of these are indigenous minority communities. The forests these people use have the most potential for targeted REDD activities.

The GoN has provided recognition to many forest dependent communities in the form of Community Forest Users Groups (CFUG), Leasehold Forest Users Group (LFUG) and Buffer Zone Community Forest Users Group (BZCFUG). More than 14,500 CFUGs have been formed and are managing nearly 1.24 million ha of forest (about 25% of the total land area of the country). Similarly more than 950 LFUGs have been formed and are managing 3,700 ha of forest land.

5. Summarize key elements of the *current* strategy or programmes 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 programmes?

Nepal has developed a series of policies and programmes to combat deforestation. These have been developed through a variety of processes initiated by government and other stakeholders. These processes operate at local, national, and international levels and involve government (both national and local), civil society, professional groups, international actors, and market players. A few notable processes that have driven forest policies in Nepal are summarized below (Annex 3 provides a diagrammatic overview of policy processes and outcomes).

- Current community-based forest management approaches have evolved through experiential learning since the late 1970's, using "learning through mistakes" and "piloting first, policy second" strategies. For instance, while initially forests were handed over to local government bodies (called Panchayats) with limited involvement of grassroots forest users, after ten years (1978-88) without much success, the concept of CFUGs was developed to recognize user groups as the managers of forests and limiting the role of local government to coordination and monitoring. Institutional modalities of CFUGs were piloted in the field for seven years (1988-95) before the Forest Regulation was enacted in 1995.
- Civil society activity proliferated after the advent of multi-party democracy in 1990. As a result, demand-driven policy processes started with the active involvement of civil society organizations and networks, of which policy advocacy campaigns of Federation of Community Forestry Users, Nepal (FECOFUN) are notable.
- Ratification and compliance with international conventions and covenants relating to environment, forestry and biodiversity have led to the National Conservation Strategy (1987) and the Nepal Biodiversity Strategy (2002) for being developed in response to these UN-led international policy processes.
- Mainstreaming of environmental issues in political discourse and processes, including election manifestos, and inter-party parliamentary committees on forests and natural resources. This has occurred after radical Maoist groups fought a civil war against the state starting from 1996. The agenda of environmental governance has now been mainstreamed into the discourse of state restructuring ever since the peace process began in 2005.
- Multi-stakeholder coordination mechanisms at various levels-examples include village forest coordination committees, district forest coordination committees, and national level forest sector coordination committee.
- Programme and project focused processes for coordination, learning, planning and management involving government, non-government and aid agency representatives. Examples include national and district level project coordination committees.
- Thematic task-forces constituted by the Ministry and its departments. Examples include the high level task force on democratization of the forestry sector (in 2006), and the task force on revising the community forestry guidelines (2007).
- Informal learning and lobbying groups such as Nepal Forest Policy Learning Group, Community Forestry Interaction and Learning Group, and Nepal Forest Carbon Action Group (NFCAG, Annex 4).
- Periodic and annual planning processes facilitated by National Planning Commission encompassing various sectors of development.

On-going democratization processes have led GoN to make commitments towards enabling civil society participation in environmental policy processes and to encourage the private sector to develop a sense of corporate social responsibility. While the government has a commitment, at least in principle, to use bottom-up policy making and planning processes, there is still a need to transform the top-down organizational culture of government institutions in order to allow forest dependent citizens to participate effectively in policy processes. In addition, there is also a need to forge effective inter-sectoral coordination among government agencies while making forest policies in Nepal.

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

Nepal has intensified its attempt to combat deforestation at both policy and practice levels especially after the projection of Himalayan degradation in the late seventies. A number of policies and programmes (Annex 5) have been developed to address various causes and to devise diverse institutional strategies for combating deforestation in different physiographic regions.

At the national level, major policies include:

- The Master Plan for the Forestry Sector (MPFS 1988) - the first comprehensive policy document emphasizing participation and rights of local people in different regimes of forest governance
- National Biodiversity Strategy (2002) and Nepal Biodiversity Strategy Implementation Plan (2007) – conservation of biodiversity and promotion of environmental services
- Local Self Governance Act, 1999 – establishes linkages between local government and local communities in the

management of forest areas in line with the principles of decentralization and local self-governance

- Forestry Sector Policy 2000 – redefines the roles and power of key stakeholders of Terai forests – mainly local communities, central government and local government in the
- Herbs and NTFP Development Policy 2004 – sustainable management of non-timber resources, including commercialisation
- The Agricultural Perspective Plan (APP 1995): stipulates strategies for effective interaction among agriculture, livestock and forestry for enhancing livelihoods and sustainable natural resource management
- The 3-year Interim Plan (2007-2010) – stipulates transitional strategies for relief, reconstruction and reintegration in the post conflict situation. It specifically recognizes the role of forestry in contributing to forest based economic growth, social development, good governance, and environmental services including low carbon development
- PRSP (2002) – enhances the potential of the forestry sector in poverty alleviation and providing environmental services

These policies have allowed various government and non-government agencies to design and implement a number of programmes covering different aspects of forest conservation (Annex 6). Programmes envisioned in MPFS (and later supported by other policies as well) include six “major” and six “supportive” programmes. Major programmes include:

- community and private forestry,
- national and leasehold forestry,
- biodiversity conservation,
- medicinal and aromatic plants,
- soil conservation and watershed management, and
- forest based industries development.

Supporting programmes include: forestry and legal reform programme, institutional reform programme, human resource development, research and extension, information and planning, monitoring and evaluation. These programmes are coordinated by five departments, three divisions and three parastatals.

These programmes reveal a high degree of government commitment to implement a forestry sector programme in a manner that is user-based, gender sensitive and poverty focused. A common feature of these policies relates to the importance given to non-government organizations (NGOs) and the private sector as potential service providers.

Within these programmes, several projects have been implemented encompassing different aspects of forest conservation that have been funded by various donor agencies (such as DFID, SDC, DANNIDA, EU, AusAid, IFAD, Dutch Government, German Government, USAID, UNDP, JICA) and implemented by I/NGOs, GoN, or through bilateral modalities. None of these funding agencies has yet directly addressed the issue of institutional capacity building and the necessary policy and programme development in relation to carbon trading as a means of creating added incentives to deforestation forest degradation control activities.

Implementation of these national and sub-national programmes has led to the evolution of a number of local level policies and institutional innovations to address issues of deforestation. These include – Community Forestry Management Plans for each patch of community forest, watershed management plans, buffer zone management plans around protected areas, collaborative forest management agreements in Terai (among local communities, local government and central government), degraded forest land rehabilitation plans through leasehold contracts, community based biodiversity registration schemes, and registered private forestry schemes. Despite these innovations, there is still limited tenurial security as the government still controls decision-making over forest resources and there is still limited institutional capacity within government organizations and local communities for targeted policy instruments that harness the potential of emerging carbon market opportunities. With devolution of sectoral resources to local bodies, successful programme of community-based forestry are set to be anchored in decentralized governance within an envisaged federal Nepal.

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

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

One or two notable programme to address the main elements of the causes of deforestation such as poverty, inappropriate policy, political instability, lack of appropriate management institutions, inadequate incentives for managing forest, and lack of clearly defined tenure structure are considered here.

Community-based forest management as the mainstream forest policy for almost two decades, is the key strategy to involve local communities in forest protection, management and resource utilization. Community forestry is intricately linked with other natural resource management sectors mainly agriculture, livestock rearing, water and environment. At least 20% of forest land is under community management with a significant degree of tenure security over forest resources (they have legal rights to 100% of benefits and laws have guaranteed their rights to self-governance and autonomy). Evidence (as indicated in section 3) shows that both deforestation and forest degradation have been retarded in the one million ha of forest managed by local communities throughout the country (especially in the middle hills). However, the emission reduction from this activity and the carbon sequestered by these forests remains outside the purview of the CDM mechanism and hence compensation has not yet been sought.

Nevertheless, studies have shown that communities are managing their forests in a sustainable way and are able to meet their fuelwood and fodder needs, and generate other tangible benefits and yet still achieve net biomass growth and promotion of biodiversity. The tangible benefits have been utilized for productive investments such as construction (or maintenance) of school or other village infrastructure (drinking water, trails), forest management and protection, or even to provide scholarships to children of ultra poor families (ICIMOD 2007). A rough estimate of the monetary value of timber and non-timber forest products extracted by communities is put at US\$ 18 million (of which US\$ 5.5 million is fuelwood) thus signifying the economic value of community forestry. This is certain to further facilitate Nepal's efforts to decentralize forest governance. Community based forestry institutions (such as CFUGs, Leasehold forestry groups) have been recognized by different development agencies as vehicles for not only resource conservation but also for wider community development and social empowerment. As a result, poor and the marginalized groups have an added incentive to engage in forest conservation practices.

Since the centrally designed policies of the past (with a command and control perspective) have been the key drivers of deforestation in Nepal, the rich participatory experience gained through community based forest management in Nepal has generated concrete lessons on how policy-making and programme-planning can and should be done with full ownership of local communities. This lesson is being transmitted and applied in various sectors of environmental conservation and development beyond forestry.

While small-scale forests are often managed sustainably, two key challenges remain with regard to managing the larger block forests of the Terai: (i) defining the roles and powers of communities, local government and central government, and (ii) ensuring conservation of those aspects of ecosystems that are not of direct and immediate value to local people. While exploring and building the National REDD strategy, the knowledge and experiences gained through participatory forestry in general and community forestry in particular form an edifice for evolving carbon-saving models. The current PRSP, 3 Year Interim Plan and Forest Sector Policy could all be customized accordingly to make the REDD strategy operational and with ensured sustainable stewardship of forests.

The benefits from carbon sales would be incremental and will promote sustainable development and encourage more forests to be conserved. Community forestry has already raised second generation issues related to inadequate incentives for protecting forests, income and benefit distribution, and also more effective help for poor and marginalised households. All these increased benefits, both tangible (e.g. income increases) and intangible (e.g. social inclusion and equity in benefit distribution) and empowered, devolved and decentralized institutions, will motivate communities to manage their forests better and hence delay and ultimately halt, forest degradation.

b) Would any cross-sectoral programmes or policies also play a role in your REDD strategy (e.g., rural development policies, transportation or land use planning programmes, etc.)?

Relevant cross-sectoral programmes that play a role include those related to agriculture and livestock, water bodies and watersheds, tourism, energy such as biogas and hydro-power, transport (green roads, ropeways, bio-engineering etc.), business and trade, labour migration and employment, education, and health. These policies and programmes can potentially play either positive or negative roles in combating deforestation/forest degradation. Specific examples include:

- When non-forestry agencies work with CFUGs for local community development activities, CFUGs feel added incentives for forest conservation.
- When civil society organizations empower disadvantaged groups, they can claim a fairer share of benefits from the forest and thus engage more pro-actively in forest conservation and management.
- Some programmes such as those promoting ecotourism and business help to harness additional benefits of natural resources for local people (but may involve additional use of carbon). Policy and policy management of existing protected areas provides 30 to 50% of revenue income to local people

In the post conflict era through which Nepal is now rapidly moving, reintegration and reconciliation initiatives can help build resilient local institutions through:

- Programmes that promote alternative energy may help reduce pressure on forests (e.g. reduction in grazing, forest product use, reduced land encroachment etc.)
- Programmes such as those related to migration and remittances can promote non-forest based livelihoods opportunities (but may involve greater carbon emissions)

While adopting inclusive development processes, participation of excluded groups in development investment and outcomes will be ensured and geographical, economic, social, and gender equity and re-integration will be emphasized. This approach seeks to make special efforts to end all forms of discrimination and to promote multiculturalism and peace. In order to ensure a basis for inclusive macroeconomic development, social and political development processes will gradually be implemented. For instance, in order to make a significant contribution towards the national goal of poverty alleviation, and to achieve sustainable tourism, the Tourism for Rural Poverty Alleviation Programme (TRPAP) has been successfully completed as a pilot project in 6 districts. This programme targets the poor, socially excluded groups and women. Design of an Integrated Tourism Master Plan (with natural resource management linkages inbuilt) has identified directions for the tourism sector, and the task of making timely improvements and modification in tourism policy. To further the decentralization agenda, from 2001-02 implementation of an action plan (as a pilot) was done through local bodies in three sectors namely, agriculture, extension and livestock service, primary education and basic health services. Initiatives have also been tested in the watershed management sector on "Payment for Environmental Services" (Winrock, 2007) and this also forms a credible input for developing a REDD National Strategy.

Another cross-sectoral programme has been the Biogas Support Programme. Studies implemented by Winrock International. This has shown that the Ring Road Trolley Bus Project can save 547,000 tons of CO₂ or 149,000 tons of carbon over the lifetime of the project. Similarly, Winrock has also shown that an 8 m³ biogas plant can save about 6 to 7 tons of CO₂ per year. Although, there are over 111,395 biogas plants in Nepal, this number is still less than 10% of the potential number. The Alternative Energy Promotion Centre therefore aims to sell biogas digesters (biogas plants) to households located primarily in rural areas of Nepal. Although this proposed activity reduces CH₄ and N₂O emissions by introducing proper disposal of animal waste and by producing bio-slurry for replacing household consumption of chemical fertilizers, these emission reductions are not counted for carbon credits.

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.

Yes. The proposed REDD strategy will be linked with Nepal's current Interim Plan (2008-2011) which itself is linked with to Nepal's PRSP. The six components of the Plan and possible linkages with REDD are:

- Relief, reconstruction and reintegration - no direct links to REDD
- Employment-oriented, pro-poor and broad-based economic growth – REDD can promote additional employment and economic opportunities
- Good-governance and effective service delivery – REDD strategies will be linked to the processes of good forest sector governance initiatives (accountability, transparency, efficiency etc)
- Physical infrastructure and community development – REDD initiatives can generate additional financing for local level community development
- Human and social development – REDD strategy can enhance human capital

- Inclusive development process and targeted programmes for poverty reduction - REDD strategy can create additional funds for community based poverty reduction initiatives

Nevertheless, REDD strategy has to pay special attention to empowering excluded groups, addressing discriminatory practices in society and tackling weaknesses in state structures so that opportunities from global carbon-sequestration business can reach the poorest sections of society.

With the completion of the election of a Constituent Assembly in April 2008, a major thrust is expected to be on synergizing the knowledge and lessons learnt in the decentralized forest sector with the broader development agenda. The current focus of several programmes on a value-chain approach to developing the forest sector is in alignment with national development strategy based on the premise that deforestation and forest degradation is a complex problem, which cannot be addressed only through reforms in forest sector but needs a multi-level and multi-sectoral approach. This is especially important since federalism in Nepal will create new institutional structures and regional development needs thus putting pressure on existing forest resources. Additionally, the new government will have to face strong challenges on socio-economic front as the current GDP is at an all time low and unemployment is increasingly becoming a problem. Hence one of the key objectives in the national REDD strategy and a major task for National Forest Carbon Action Group (NFCAG) will be to facilitate the development of multi-sectoral package of policy and programmes adjusted to the national development agenda whilst achieving a perceptible reduction in green house gases.

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, however some of initiatives have been carried out by the GoN on general climate change issues. The Ministry of Environment, Science and Technology (MoEST) is the focal ministry for climate change issues and under its leadership some initiatives had been conducted such as submission of the First Initial National Communication report to UNFCCC. Similarly, the National Adaptation Programme of Action (NAPA), National Climate Change Policy, Second National Communication Report and National Self Capacity Assessment Project are in-process, also led by this Ministry. GoN has also nominated MoEST as the Designated National Authority (DNA) for screening and approval of carbon credit projects.

The first major initiative on scoping in a national multi-stakeholder REDD forum was organized by the I/NGO sector including WWF. Some of the key technical challenges were summarized as: a) methodology for carbon stock monitoring and capacity development needs; b) Accounting and record keeping (database management; and c) benefit sharing mechanisms ensuring that local communities get benefits, and d) Identification of key stakeholders as long term REDD strategy contributors. It is clear that Nepal needs immediate technical assistance for: a) the preparation of baseline/reference scenario for degradation (could be in terms of carbon MT/ha/annum) and deforestation (ha/annum) b) Baseline assessment methodology, and c) rewarding sustainable forest management. In addition to a lack of information and data, public awareness is low and there is shortage of human resources in this rather new field. However policy-makers attention to expected climate change impacts and opportunities to meet the challenges (including access to REDD initiative) has started to grow. Inter-ministerial and departmental coordination, cooperation and action have yet to be forged.

Technical consulting could be, inter alia, provided by ICIMOD which has been conducting action research projects in partnership with NTNC and local community groups for the last few years to address methodological issues related to REDD. Based on the guidelines provided by IPCC, it is working with national partners and local communities to measure carbon in their forests. Results so far indicate that: communities are able to measure carbon growth in a cost effective manner; community forests are net sequesters of carbon; and benefits from community forests do promote sustainable development, besides promoting biodiversity conservation and environmental services (ICIMOD 2007). Several planning and technical issues are emerging. Under the umbrella of inter-disciplinary cooperation NFCAG, comprising of GOs, NGOs, INGOs and donor groups, will plan for REDD.

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 programmes under FCPF support?

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

Stakeholder consultations normally take place through three parallel and sometimes intersecting arenas:

- Political representation: this takes place mainly through interactions between political party organizations and their members, parliamentary deliberations, and issue based inter-party coalitions. Despite the presence of these mechanisms and forums, the actual functioning is often mechanistic and target-driven.
- Consultations by forest officials with local communities and relevant sections of civil society: this takes place mainly through multi-stakeholder meetings, task forces, panel discussions, joint working papers, and periodic workshops. These processes have at times provided opportunities to share experiences and knowledge but the actual pathways of decision-making are often top-down and technocratic in nature.
- Civil society led policy deliberations and advocacy: these range from spontaneous issue based movements and advocacy campaigns, policy analyses by professional NGOs to service delivery functions sponsored by donors. Civil society activities have yet to augment the voice of poor and marginalized groups and at times face difficulty in balancing the advocacy and service-providing roles.

Out the three scenarios, most of the consultation processes are sponsored or initiated by forest officials of the Ministry of Forest and Soil conservation. Specific modalities of consultations are as follows:

- VDC (Beat) level planning: here beat level officials (beat is the grass-roots level in the forest bureaucracy) consult with the grass-root level population about what they want to have in their programme for the following year
- Sub-district (Range) level planning: here the information from the beats is collated and synchronised.
- District level planning: here the information from range level planning is further collated and harmonized with the wider developmental strategy of the districts based on their financial ceilings
- Regional planning: here the regional offices compile the information from each of the districts in the region
- National level planning: information coming from the regional planning process comes to the ministry through respective departments and ultimately reaches the planning commission which endorses the plans and thus qualifies them for financial resource allocation from the finance ministry.

Forums for policy consultation exist at village (Village Forest Coordination Committee), district (District Forest Co-ordination Committee) and national level (Forest Sector Co-ordination Committee). All of these forums have representation from diverse stakeholders. But they are not as functional as anticipated. These forums are expected to plan, co-ordinate and help implement forestry programmers in their respective niches. Since these forums are working sub-optimally at present due to a number of reasons including the current period of transition, there is real scope to make these bodies more active towards better forest conservation.

There are several task forces (e.g. on forest certification, community forest management), working committees at national level, which use inter alia, collaborative public hearing mechanisms, workshops, seminars, public relations material and e-discussions with national, regional and district level multi-stakeholders (e.g. local communities, private sector, civil society, cross-sectoral agencies) leading to policy and programme influencing. Newsletters such as “Kalpavriksha, Van ko Jankari, Journal for Forestry and Livelihood and CF-Newsletter” are some of the more effective initiatives for responsive two-way information, education and communication systems, which help to seek, distil and incorporate feedback on the policy and programme of the state. In the context of REDD, existing systems of information and communication in local language can be utilised to build wider awareness and response on the subject.

There is a parliamentary natural resources committee at apex level, which is specially mandated to explore all necessary ways and means to promote the natural resource management sector. The committee has recently become more active and has been making field visits for spot-checking and trying to avoid deforestation through unlawful means. There is growing optimism about the role this committee could play towards forging better forest management, provided that it receives adequate level of support.

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?:

Stakeholder consultation on REDD is a recent phenomenon in Nepal. However, there are a number of initiatives in relation to reducing deforestation. Some of the most notable consultations are as follows:

- FSCC and its six working groups: This comprises of central government, local government, forest user federation,

professional organizations, private sector, donor/programme, and I/NGOs. It meet every two years. It provides recommendations for policy reform.

- Forestry sector reform task force (2006-7). This was constituted immediately after the new government assumed power following the April 2006 people’s movement. It aims to resolve issues related to designing institutions, power and benefit sharing among local communities, local government and central government in relation Terai forest. It has representatives from local communities. It also received a mandate to look at broader governance issues related to deforestation. Currently, the final report is under preparation.
- Programme specific periodic/annual national workshops. National level community forestry workshops have been held every 5-years since 1985 where representatives from government, local communities, NGOs, professional groups, donor projects and political leaders discuss progress, issues and identify directions for future policy programme. The next is planned for 2008
- Land and forest related national commissions. Several land and forest commissions were constituted at national and district levels by the government to identify and address causes of landlessness of local people and encroachment of forests. These attempts have met with only limited success.

Some of the emerging small initiatives indirectly related to REDD need to be recognized. A multi-stakeholder forum “Sustainable Development Agenda for Nepal (SDAN)” was the first to recognise Nepal’s vulnerability to climate change and the constraints facing Nepal’s sustainable development. It devoted a separate section to climate change, which lists the potentially serious consequences for infrastructure, agriculture, drinking water, irrigation, hydropower, and biodiversity, and mentions the risk of glacial lake outburst floods (OECD, 2003). With the proactive role of community forestry federations, local communities are not only articulating their issues at national and regional level stakeholder forums and taskforces but they also participate in policy-decision making when it comes to community managed forests and protected areas. Such stakeholder-forums are potential arenas for incorporating and establishing REDD elements in planning, implementation and M&E systems. The first ever multi-stakeholder initiative between GoN and I/NGOs (including MFSC and WWF-Nepal) to discuss and debate REDD at the national level indicated that capacity development, institutional adjustment, establishment of a REDD customized methodology, monitoring systems and national baseline preparation are some of the immediate priority areas.

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

To ensure a positive outcome, exploring and accessing REDD for Nepal demands that many actors (e.g. NGOs, INGOs, multilateral donors, bilateral Agencies etc.) led by GoN must engage with forest dependent communities, civil society and local organizations to incorporate their views and promote transparency, people’s participation and equity in national delivery systems. Nepal has participatory mechanisms in place from micro to macro level, which allow for two-way communication, flow of information and action areas and facilitating judicious decision-making. Inter-ministerial and sectoral working groups and task forces across vertical governance levels provide a potential structure for thematic deliberation and decision-making.

GoN has nominated MoEST as the focal point for climate change, and MFSC has taken a lead on forest carbon issues. In consultation with regional, national and international partnerships (e.g. donors) and bilateral and multilateral projects, this group is poised to influence GoN’s future policy and roadmap on REDD. Some of the other key ministries expected to formally join NFCAG are the ministries for Agriculture, Lands, Water, Local Development and Finance. However, in the longer run, grassroots community-forestry group representatives, private sector and disadvantaged group representatives need also to be part of the national group. ICIMOD, as a key mountain research and development institute for the Hindu Kush Himalayas, has been participating from the beginning. Its pioneering work on REDD can be used to leverage a national focus on REDD. It is also proposed that a steering committee for NFCAG within GoN comprising of NPC, MoEST, MFSC and MoF could provide a direct link to the design of National Policy Framework for REDD.

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

MFSC as the lead agency for REDD has the opportunity to engage in dialogue with local government especially during district and village level planning processes so that REDD issues are incorporated in the resulting plans. Likewise, MFSC will request MOEST, MLD, MOF, and NPC to constitute a steering mechanism for cross-sectoral coordination. In addition, MFSC will instruct its departments to work in coordination with other relevant departments of the government.

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

Current policy on community involvement in forest management has recognized that involving NGOs and the private sector is inevitable for stimulating innovations, not only in policy-making process, but also for the many second and third

generation issues (including REDD) that are emerging in community forestry. FSCC, FNCCI (Agro Enterprise Centre) and NARC at the national level provide a few institutionalized examples of the firm basis for consultation with NGOs and with the private sector and how their role and contribution to national level policy and programme-formulation can be made effective. The value chain approach of the forest sector provides a systematic opportunity to explore broader consultation areas with other actors. The above initiatives are backed-up by inputs from INGOs and donor-assisted consultative processes and forums.

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

In Nepal, around 70% of the population depend on farming systems of which forest is a key element. These people have varied livelihood strategies, including as herders, transhumants, fuelwood sellers, squatters, farmers, and rural artisans. Many of these people have already been organized into various resource user groups and federations. There are also federations of indigenous peoples and marginalized groups. Notable examples are FECOFUN, NEFUG, ACOFUN, Janajiti federation, Dalit federation, NGO federation and the like. MFSC will invite representatives of these diverse associations to participate in the REDD processes.

One of the key examples of consultation with indigenous people and forest dwellers is the formation, review and amendment of management plans prepared by these various community groups together with local government and the forest department which follow the spirit of a rights-based approach.

8. Implementing REDD strategies:

a) What are the potential challenges to introducing effective REDD strategies or programmes, 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 programmes, etc.):

The potential challenges to implementing REDD strategies in Nepal can be categorized into three major categories:

- Policy and institutional challenges
- Financial challenges
- Capacity development challenges.

Forest policy and programmes and the broad-based national action plans (e.g. 3 Year Interim Plan, Biodiversity Action Plan) were prepared earlier and now need reconfiguration for facilitating REDD at national-level. Similarly the existing forest act and bylaws need calibration with the new strategy. Existing institutional structures are geared towards policing and salvage management of forests. Degradation and deforestation are treated only as outcomes of rampant poverty and mismanagement. This needs to be reviewed in the changed context of ownership, tenurial rights and management responsibility.

Forestry sector institutions are under-financed. The global reduction in financing for the environment sector is also prevalent in Nepal. This will continue to remain so until the nation attains a minimum level of financial stability. The focal institution for monitoring of national forests, the Department of Forest Resources and Survey (DFRS) is in a position of collapse. It is essential to rebuild sustainable financial mechanisms to sustain the Department.

On the other hand, technological and methodological constraints, equity and inclusiveness issues, and related capacity development needs are all challenges as well as opportunities for accessing REDD. Forest sector reform needs to provide a catalytic role through settling benefit-sharing and other third generation issues in community forestry. The enforcement mechanisms of the forestry sector are extremely inadequate. Government forestry structures having now been in place for more than six decades have lost their zest and effectiveness for being innovative and progressive. A massive restructuring

of DoF, reorientation of staff and implementation of innovative programme are now required for effective implementation of the strategies.

Formalization and inter-ministerial ownership of the National Forest Carbon Action group (NFCAG) will have to be pursued to ensure its key role as a national level facilitator for cross-sectoral/stakeholder synergy on REDD readiness plan (i.e. preparation, implementation and monitoring and its institutionalization in broader planning and development frameworks).

The following are some of the measures that might help overcome these challenges for the implementation of REDD in Nepal:

- Forestry sector is not a priority sector in the national development agenda. Infrastructure development sector is a priority sector and larger resources are allocated to this than forestry. It is essential that the REDD strategy should focus on making the forestry sector one of the priority sectors of the nation.
- A mass awareness campaign is essential for effective implementation of the REDD measures
- Sectoral reform is extremely essential
- Regional coordination (with India) is an essential element
- REDD measures should be mainstreamed in the development agenda of future federal governance structures. The major political parties have a vision of managing forest through federal structures. The emerging challenge will therefore be how to mainstream policy interventions in a consistent manner and in line with the evolving REDD strategy.

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):

Performance-based payments through REDD offer a potential additionality for the already established community forestry network. This complements the system of direct revenues user groups receive from revenues generated out of the network of protected areas (e.g. Chitwan National Park). If the protected area network can be boosted, it could lead to innovations in the forestry sector especially in terms of reaching the poor and disadvantaged (women, socially excluded and ethnic groups etc). The existing approach and technical capacity of DoF for monitoring a national-level carbon accounting system is supported, in practice, by GIS and a network of inventory plots. Nevertheless a systematic capacity development package for all levels and innovative monitoring systems all need substantial financial resources and can be addressed by the readiness-plan preparation

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.):

Forest cover and forest land use change have been assessed since the early 1960's. In the past, mapping was been done using aerial photographs. Forest cover maps were developed by superimposing inventory data on these. Nepal entered the era of satellite imagery in early 1980's. Forest inventory as such was not done during this period, but a separate interpretation of forest cover was done using the new sets of aerial photographs that were taken during a mission in 1978 (LRMP, 1984).

The second national forest inventory was conducted in the 1990's. During this a hybrid method of aerial photographs and satellite imagery were used to produce forest cover maps. The Department of Forest Research and Survey (DFRS) is mandated to conduct national and other forest inventories.

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.):

In theory National Forest Inventory (NFI) is carried out at 10-year intervals. However it has not been conducted since 1994-96 because of resource constraints and insurgency in the country.

Carbon-accounting is an emerging field and would require a specific monitoring system. Dead wood lying on the forest floor, carbon-leakage (e.g. through extraction of unaccounted fuel wood from forest) and below-ground biomass data are hardly available at present. Additionally, the conventional survey methods do not measure diameter below 10 cm and hence such biomass is not accounted for.

Similarly, forest management operational plans are not ideally suited to the study of forest degradation and must be merged with an overall monitoring system to do this. The system needs to establish a baseline of vegetation types, area, status of forest, plant physiological parameters and soil and water resources. As a norm, these limitations will have to be overcome through the REDD carbon monitoring system. As adopted by other carbon-trading countries the standardized format of IPCC will find its application in Nepal. Community-based carbon monitoring approaches are already being implemented and an adapted model in Nepal is possible. Nevertheless, a harmonized concept for monitoring will need a REDD customized design and capacity-development system which then needs financial resources during the preparation of the readiness-plan.

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

Although the historical trends of deforestation and forest degradation in Nepal are incontestable, the conclusions drawn are not characterized by standard methodologies. A wide range of inventories using different methodologies (e.g. design, timings, technical process etc.) are a common feature. Hence, the definition of a baseline or reference-scenario including future trends and using previous databases would be a priority. The current use of “modelling” as tool for measuring greenhouse gases resulting from deforestation and forest degradation can be developed and customized to suit the geography and ecology of Nepal. As a universal guideline, the GPG of IPCC will form the basis for establishing a network of forest type-based models in which biomass measurements can be differentiated according to above and below ground parameters (e.g. protected public forests such as in national parks, reserved forest and community managed forest). Indian (Institute of Science) or Brazilian approaches can be explored and adapted for the conditions typical in Nepal.

With the substantial extent and outreach of community forestry (e.g. in area, population, coverage of disadvantaged groups), it would be ideal to use this as a model, customized according to the principle guidelines of the IPCC (GPG). A socio-technical approach allowing an adjustment of the already developed methodology at community level is crucial.

The previous NFI did not follow a system of permanent forest inventory plots. A new NFI should establish these in future to reduce the time and cost of inventories and to increase the reliability of data.

In the context of REDD, practices and packages for forest certification need to be adopted to ensure sustainable forest management and efficient carbon accounting. The Department of Forest (DOF) should ensure this as a means for controlling carbon leakages for a successful implementation of REDD.

A system will be created under REDD for effective accounting and monitoring of carbon using appropriate systems and techniques. In addition to DFRS's regular monitoring system, a separate cell will be established to monitor carbon stocks. A system will be devised to do this.

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?**

In Nepal there are many environmental benefits resulting from intact and extensive forest cover in a fragile mountain ecosystem that have both national and trans-boundary consequences. Hence reinforcement of the forestry sector's engagement in the climate change debate for delivering a range of goods and services is justified. The design of national incentive systems is central to the REDD mechanism. Preserving biodiversity and safeguarding fragile mountain and hill ecosystems stands out as one of the most prominent co-benefits from a well considered REDD programme. Preservation of key species, maintaining viable populations (especially through regional and trans-boundary corridors), and protecting unique natural areas can all be expected to result from a functional REDD strategy. Since Nepal is a hotspot of biodiversity (3a) an immediate impact of such a programme will be to increase the resilience of forest and other ecosystems. Thus preserving biodiversity increases the long term mitigation effect of REDD, in addition to sustainable supply of natural products indispensable for the livelihoods of forest dependent communities. 19% of Nepal's land area is covered by protected areas (e.g. national parks, conservation areas, buffer zones etc.) and is managed under a National Biodiversity Action Plan. It is expected that the management costs of protected areas are taken care of if biodiversity is preserved. Improved forest management can contribute to biodiversity conservation. Emerging value chain development of forest products (e.g. enterprise development on timber products and NTFPs) promises economic gains especially for poor and disadvantaged groups. Community forestry and its user-federations have created a niche in decentralized forest governance that can influence local development bodies as good governance institutions (e.g. by being participative, accountable, and equitable, less corrupt etc.).

Similarly, ecosystems and the services they provide would be safeguarded by REDD including maintaining populations of natural crop pest predators, and of pollinators, water regulation (e.g. downstream ecosystem services such as regulated water supply and soil conservation), timber and food provision as well as other benefits to agriculture and rural communities. Tourism is the second most important source of foreign exchange for Nepal, after agriculture, and approximately 45% of tourists coming to Nepal visit protected areas, generating substantial revenue (8% of GDP). An integrated tourism sector will therefore remain central to the economic sustainability of the protected area system and the protection of biodiversity. With an expected value-addition (e.g. monetary benefits) for community forestry through REDD, social collectivism and the resultant motivation for sustainable forest management could also figure as added benefits.

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

Ministry of Forests and Soil Conservation under the Biodiversity Profile Project has developed and documented the database on species level diversity of the country. Similarly, the Department of Forests has documented the forest types of Nepal. Forest cover change dynamics are monitored largely at district level and at community forest levels. Biodiversity monitoring by local communities is effective but needs scaling up.

The Department of National Parks and Wildlife Conservation in cooperation with partner organizations including WWF, is monitoring the ecosystem, prey and predator relationships. This is limited to assessment of the ecology and population of flagship species like tiger, rhino, alligator and snow leopard in and around protected areas. The rhino count has been done at 5-year intervals since 1994. The tiger population is estimated during winter seasons. The government has also approved the protocols for monitoring of flagship species like tiger, snow leopard and rhino.

Ecosystem and prey base assessment is done using internationally agreed standards. Permanent transects are maintained across the landscape in the Terai for regular updating habitat, density and ecology. WWF has established permanent sample plots in the grasslands of protected areas for long term monitoring of invasive species and succession. Animals like rhinos, alligators and elephants are monitored using direct sighting methods. Tigers are monitored using capture recapture method using camera traps. Proxy methods of population estimation are used for the estimation of species like snow leopard across the Himalayan regions. The scientific community is looking for an opportunity to use genetic analysis techniques for the assessment of population diversity. These efforts are being supplemented by a number of monitoring methodologies being tested on ground (inventory studies, community based participatory biodiversity monitoring, project-based studies of LI-BIRD, GTZ and BCN monitoring manual tools).

MFSC has developed a framework for the registration of biodiversity in the country. A local level institutional framework called the District Biodiversity Coordination Committee is formed in all districts and piloting of community biodiversity registration is being done in 20 village development committees of Kaski and Bara districts.

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

Despite a NBAP, there is inadequate biodiversity related information available. Besides, as indicated (10b) biodiversity

has not been comprehensively studied across Nepal and investigation within faunal and floral taxa are severely lacking. The biggest achievement in collecting biodiversity related information was commissioned under the Biodiversity Profiles Project, jointly executed by the Department of National Parks and Wildlife Conservation (under MFSC) and the Dutch Government. All information gathered has been entered in a Biodiversity Database System. Given the expected major impact of climate change on biodiversity hotspots including Nepal, it is proposed to make biodiversity monitoring an integral part of the REDD action plan. An operational programme of WTLCP, RCNP and ACA can provide a basis for updating the indicators and methodology to monitor these. For preparation of baselines and indicators, the National Biodiversity Co-ordination Committee (NBCC) and several cross-sectoral thematic sub-committees can be the key actors.

Community forestry groups provide an excellent opportunity for monitoring biodiversity and adding value to the REDD information. In the same way as forest inventory strategy, participatory assessment, monitoring and evaluation of biodiversity (PAMEB) by CFUGs can complement detailed assessments done by government staff and research bodies. User friendly monitoring tools such as timed species counts, NTFP inventories and 'hotspot' monitoring can be linked with existing forest management duties such as forest patrols and regular inventory. The wide extent of such information would offset the relative inaccuracy of data compared with orthodox scientific studies and deliver reliable illustrations of trends of change in biodiversity, which would also further verify REDD results. BCN (with GTZ, FECOFUN and LFP) introduced a pilot methodology for PAMEB through CFUGs which could be taken up on a larger scale with some funds to develop the necessary information channels (10b).

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

Traditionally, monitoring of development activities in Nepal has focused on expenditure monitoring only. Accordingly, the Tenth Plan lays strong emphasis on implementation, monitoring progress towards the attainment of key poverty reduction goals, especially those in the context of Millennium Development Goals, and ensuring that the feedback received from intended beneficiaries and target groups is effectively utilized for improving poverty interventions. Accordingly, primary responsibility lies with ministries (including forest) which have established monitoring and evaluation divisions, and programme indicators customized to monitor benefits for rural and forest dependent poor and disadvantaged groups. However in the government sector, rural livelihoods benefits are not yet being systematically and adequately monitored (e.g. disaggregated data is seldom available, as is micro-macro linkage of data). There is a clear need for strengthening the MIS at the national level, and defining an integrated frame for monitoring the progress of development programmes, linking them with resources spent, and evaluating them for their effectiveness in reducing poverty and promoting human development (e.g. budget outlay against outcomes and impacts achieved). On the other hand, donor-aided programmes adopt a comprehensive participatory implementation, monitoring and evaluation strategy. Some programmes are providing technical support in processing of data and incrementally feeding it to MEDs (e.g. BISEP-ST through joint monitoring and public audits, CARE/LFP through participatory well-being ranking, WWF through conservation based SL initiatives). Similarly, PRSP has indicators in place to measure impacts on poverty reduction that can be customized to meet REDD requirements.

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

Nepal has a significant population living below the poverty line and the majority of the rural population depend on forest for their subsistence. It is therefore inevitable that monitoring the impact of the programme on rural livelihoods will be required. Similarly, the establishment of a monitoring system within the REDD methodology must also answer the question of the impacts of REDD on rural livelihoods. Though a number of participatory approaches to monitoring rural livelihoods (10d) have been tried and tested, there is a much scope for orientating the current MIS system to REDD. Similarly, since several cross-sectoral programmes aim to improve livelihoods, the methodology adopted will have to be tested and evaluated. The readiness plan for REDD will be used to adjust participatory approaches to a REDD-customized list of indicators and methodology. There is reasonable experience available with ministries to do this, and the donor-supported livelihood development programmes are ideally suited to be testing grounds for calibrating the emerging monitoring system. The challenge however, will be to prepare a national level database from regional and micro-level monitoring systems. Currently the quality and type of data available are inadequate. Capacity-development is required, and financial resources are needed to make livelihoods monitoring systems functional and systematic.

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.):

GoN envisages that FCPF funding be used to define the baseline of deforestation and degradation and to increase in-country capacity for monitoring deforestation, degradation and the carbon stocks in forests. Under this fund it is expected that US \$ 1 million would be required from the World Bank to prepare the REDD Readiness Plan. This includes:

Main Components**Expected Areas of Work**1) Scoping Study-REDD

ToR, status of REDD potential, identification of key areas of support, identification of key stakeholders and partnerships for REDD, draft proposal for a road map on REDD and support for the NFCAG establishment

2) REDD Planning/Strategy

Process steps, multi-stakeholder workshops, formalization of NFCAG and learning networks

3) Capacity Development System

Institutions, human resources, M&E, quality management systems, forest carbon inventory, awareness-building material etc.

4) Governance

Convergence/cross-sectoral coordination and cooperation, micro-macro linkages, financial/accounting systems, benefit sharing

5) Grassroots Models

Community forestry, protection/conservation areas, public forests

6) Documentation and dissemination

Best practices, key lessons, key publications

The programme structure will be anchored within the GoN (Annex 7). GoN will mobilize participatory inter-ministerial budgets to match with FCPF's initial financial contribution for establishing comprehensive NFCAG, which facilitates the formation of thematic groups according to main components and elaborates the expected areas of work and the operational approach to fit the expected outcomes of REDD governance needs.

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

The practice of compensating reductions in emissions may seem simple, but in practice methodological issues are unresolved. As indicated (3c), none of the national forest inventories used same methodology and quality data, especially on forest degradation is deficient. Regional forest cover maps made through different forest inventories may be useful but the absence of national historical maps means that reasonably accurate deforestation trends cannot be provided. Nepal could build on the existing inventory material and forest cover maps could be produced quickly and efficiently with rather small investments. Similarly, an accurate spatial analysis of carbon density is still lacking. In combination with terrestrial assessments, new radar sensor data can be used to develop forest density maps.

Establishment of reference or 'baseline' scenarios from which reductions in emissions from deforestation would be calculated requires both within-country assessment and some level of international standard development. Therefore, priority would be given to the preparation of a reference case of deforestation trends and on projections for the future. The latter is of great significance since now Nepal is expected to be on the threshold of new development initiatives that can be expected to put forests under increasing pressure. Piloting of community based deforestation monitoring through transfer of appropriate survey skills and technology will be conducted.

c) Developing a national REDD Strategy: Identification of programmes 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.):

Nepal would use the knowledge and experience of 'first generation' REDD pilot projects, especially in the context of effectiveness to combat forest degradation and their implications for social justice. The efforts to slow deforestation through incentive payments or institutional changes could provide valuable insights for the design of REDD mechanisms. If possible, such an analysis should include 'natural experiments' (e.g. Winrock's Kulekhani experiment on PES) in order to draw robust conclusions about what works and why, with a clear focus on governance and livelihoods issues. Policy options for national implementation of REDD that capture potential co-benefits related to biodiversity conservation, local community development and social justice will have to be analysed. Institutional structures within government to deal with the financial arrangements, implementation of REDD strategies and their monitoring and evaluation will to be designed. Good governance and service delivery will be the key for ensuring equitable and inclusive benefits. Similarly, since Nepal has historically had a low deforestation rate, the potential economic benefits of REDD also needs analysis. A review of current programmes and their impacts on deforestation and forest degradation will form an integral part of the design of the national REDD strategy. In turn, existing programmes can be customized to deliver mechanisms for equitable benefit-sharing.

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

In cooperation with GoN, bilateral and multilateral donors will be primarily used to source/explore additional funds towards the establishment of monitoring systems and a national baseline. The long-term prospects for creation of a REDD mechanism will be strongly linked to transparency of implementation. The comprehensive monitoring system envisages an independent deforestation and forest degradation monitoring system relying on publicly available remote sensing data. Experiences and methodologies adopted by other countries (e.g. Brazil) can be used (e.g. independent and government based systems). Similarly, independent evaluation of REDD pilot projects will have to be ensured. The outcome of project and policy interventions will be specifically monitored.

e) Other?:

As indicated (11a) the expected budget needed to prepare R-PIN Readiness Plan is approximately US\$ 1 million. The amount is allocated to components (11a) as: 1) 20%; 2) 35%; 3) 20% 4) 10%; 5) 10% and 6) 5%. NFCAG with the cooperation of prominent research and development institutions involved in REDD issues (national/international) will be consulted. The study proposed (11a) is largely a desk study with limited field appraisal.

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?:

All the key donors, partners and resource persons, who contributed comprehensively to preparing the R-PIN document and were responsible for jointly initiating REDD-Forum in Nepal (NFCAG), have affirmed their support for developing a National REDD Strategy (Annex 7). All these partners in Nepal have been involved in the forest sector and other cross-sectoral themes for more than two decades. GoN through its ministries and key partners, was part of Bali CoP 13. Some of the key partners including SNV, WWF, DFID, Winrock and CARE International already have national, regional and global level forest-sector programmes in place, the experience of which can be used to develop REDD-Nepal. NFCAG will have inter-ministerial participation (MoEST as DNA). WWF has already started a national level multi-stakeholder forum through several workshops. SNV will provide funds and advisory support. SNV has a regional cooperation on REDD with RECOFTC, which can add value for REDD-Nepal. ICIMOD as the key regional institution on mountain development issues will play the key role of guide the Readiness-Plan preparation process and give long-term support in implementation and monitoring.

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?

Since Nepal is on threshold of exploring REDD, the tentative next steps with components merged (11a) for logistical grounds and timeframe for an approximate 3-year period is given below. There are 3 main steps, but work in each of them will be done simultaneously (Annex 8):

STEP 1 Scoping Study-REDD (Expected Budget US \$ 500,000)	Year	Year	Year
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FCPF R-PIN Template

	1	2	3
<ul style="list-style-type: none"> • Establishment of short-term inter-ministerial institutional arrangement (including DNA) • ToR-Scoping Study REDD-NEPAL with expected outputs: <ul style="list-style-type: none"> Proposed methodology and Policy Research National forest and carbon mapping Methods for baseline/reference scenarios Economic research Policy analysis for REDD Design Policy Analysis for National Strategies • <u>REDD Planning/Strategy (e.g. Process steps, Multi-stakeholder forum/groups, Formalization of NFCAG, Learning networks etc.)</u> • <u>REDD Models (e.g. community forestry, conservation areas etc.)</u> 	x x x x x x x x x x	x x x x x x x x x x	x x x x x x x x x x
STEP 2 Capacity Development System (Expected Budget US \$ 400,000)			
<ul style="list-style-type: none"> • REDD Strategy design • Monitoring and Evaluation • REDD Enabling framework • REDD pilots • Information Education and Communication Material 	x x x x x	x x x x x	x x x x x
STEP 3 Governance (Expected Budget US \$ 100,000)			
<ul style="list-style-type: none"> • <u>Financial/Accounting systems (e.g. with transparent and accountable benefit sharing)</u> • <u>Rights/benefits for indigenous and forest dependent communities</u> • <u>Modelling and establishing convergence (MoEST, MFSC, MLD, MoF, NPC)</u> • <u>Capacity development plan</u> • Micro-macro institutional framework • Documentation and dissemination 	x x x x x x	x x x x x x	x x x x x x
14. List any Attachments included			
<ol style="list-style-type: none"> 1. Country Profile-geography, Government and Economy 2. Maps of Nepal 3. Forest Sector Policies and Processes 4. Community Forest Management Model 5. Key Policies, Plans and Programme of Forestry Sector, Nepal 6. National Forest Carbon Action Group 7. Proposed Governance Structure of REDD-NEPAL 8. Readiness Timeline 9. Bibliography 10. Abbreviations and Acronyms 			