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

Country submitting the R-PIN: GHANA
Date submitted: 06 MAY 2008

1. General description:
   a) Name of submitting person or institution: Mr. Robert K. Bamfo
   b) List authors of and contributors to the R-PIN, and their organizations:
      • Robert K. Bamfo, Head of Climate Change, Forestry Commission
      • K. Affum-Baffoe, Head of Inventory and Mensuration Unit of Resource Management Support Centre of the Forestry Commission.
      • Foster Mensah, Principal Applications Specialist, Centre for Remote Sensing and Geographic Information Services, University of Ghana, Legon
      • Adekele Adewale, Country Representative, IUCN
c) Who was consulted in the process of R-PIN preparation, and their affiliation?

- Foster Mensah - The Centre for Remote Sensing and Geographic Information Services, University of Ghana, Legon
- Adekele Adewale - International Union for the Conservation of Nature (IUCN)
- K. Affum-Baffoe - Resource Management Support Centre of the Forestry Commission
- Oheneba Amponsah - Forest Management Information Systems within the Resource Management Support Centre of the Forestry Commission
- Oppon Sasu and Joseph Osiakwan of the Natural Resources and Environmental Governance (NREG) Dialogue Platform
- Alex Asare - Collaborative Forest Management Unit of the Forestry Commission
- Dr. Victor Agyeman - Forestry Research Institute of Ghana (FORIG)
- Centre for International Forestry Research (CIFOR)

The Forestry Commission and the Ministry of Lands, Forestry and Mines under the Natural Resources and Environmental Governance (NREG) program covering Environmental Protection Agency (UNFCCC Focal Point), Minerals Commission, the Forestry Commission, Forest Watch Ghana (a coalition of 23 NGOs), Traditional Authorities, Ministry of Local Government, Rural Development and Environment, Ministry of Finance and Economic Planning, IUCN, WWF, and Development Partners have begun a dialogue on forest resources and REDD.

The Forestry Commission intends to expand this consultation process on REDD through workshops to include all the other key stakeholder institutions such as the Parliamentary Select Committee on Lands and Forestry, Ministry of Food and Agriculture, Traditional Authorities, Private sector, Local communities, Civil society, District Assemblies, National Development and Planning Commission, National Committee on Sustainable Development, Universities and Research Institutions etc. This workshop will build understanding about REDD and solicit high level political support.

2. Which institutions are responsible in your country for:

a) forest monitoring and forest inventories:

- Forestry Commission (FC): The Resource Information System (RIS) within the Resource Management Support Centre (RMSC) of the Commission is responsible for monitoring and mapping of forest resources. The RMSC also has an inventory and mensuration unit that is in charge of forest inventory and measurement of the forest resources.

- Centre for Remote Sensing and Geographic Information Systems (CERSGIS) - Has a GIS unit that stores geographic location and descriptive attributes (e.g. Size, species, composition, vertical structure, volume, site index etc.) of the forests being managed. The Forestry Commission has entered into a memorandum of understanding with CERSGIS to provide GIS services that will meet the spatial data and information needs of the Commission. Currently, time series of satellite data are being processed into forest image maps for the Commission to assess trends of changes in forest cover.

- The Wildlife Division of the Forestry Commission is responsible for managing all wildlife protected areas and wetlands and has the capacity to undertake monitoring and inventory within its protected areas.

- Conservational International, an NGO is responsible for monitoring the impact of hunting and other human disturbances on the forest ecosystems, biodiversity conservation etc.

- Forest Watch Ghana is a coalition of 23 NGOs which involves civil society in forest issues ranging from collaboration to advocacy.

- Community Resource Management Committees established in forest districts.

b) forest law enforcement:

- The Ministry of Lands and Forestry in collaboration with the Forestry Commission organised a National Forest Law Enforcement and Governance Initiative (FLEG) of 2003 to consult with stakeholders and confirm their
commitment to good governance and law enforcement, and identify ways in which programmes can be developed to move these intentions forward. The "Stakeholder Declaration of Commitment" that emerged from this national consultation was the basis for Ghana's Ministerial Declaration, which was presented at the AFLEG Conference in Cameroon at the 16th of October, 2003.

- The Ministry of Lands and Forestry in collaboration with the Forestry Commission invited representatives from a broad range of stakeholder groups to the National AFLEG Consultation Workshop. Stakeholder representatives included members of the Ministry of Finance and Economic Planning, the Forestry Commission, the Environmental Protection Agency, the Police Service, the Customs and Excise Prevention Service (CEPS), the Office of the Attorney General and Chief Justice, the House of Parliament, Local Government, Traditional Authorities, Community-based Organizations, Timber Industry and Trade Associations, the Institute of Professional Foresters, ECOWAS (the Government of Liberia and the Government of Ivory Coast), NGOs, Civil Society and Donors.

- Forestry Commission has been actively involved in the national forest law enforcement and governance (FLEG) programme. This initiative seeks to educate public sector agencies, traditional and local authorities, and other stakeholders on sector laws and regulations and improve their capacity to jointly enforce sector laws and regulations.

- Civil society organizations that are actively engaged in forest law enforcement are the Forest Watch Ghana (a coalition of 23 NGOs), CARE International, Friends of the Earth, R&C, Conservation International etc.

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c) forestry and forest conservation:

- The Forestry Commission is responsible for the management and utilization of the nation's forest and wildlife resources. The Commission has three Divisions namely:
  - Forest Services is responsible for management, development and utilization of the nation's forest resources.
  - Wildlife Division is responsible for wildlife conservation, management and protection of wildlife reserves, as well as conservation of wetlands.
  - Timber Industry Development Division is responsible for tracking the movement of wood products, certifying product standards in the timber industry; compiling timber marketing intelligence and promoting approved industrial processing.

- Conservation International promotes conservation of biodiversity and the restoration of the rainforest by supporting training, community development, education and research and empowering local people to preserve their natural heritage for all present and future generations.

- Plant Genetic Resources Centre is responsible for collecting and conserving germplasm of plant genetic resources of Ghana to forestall genetic erosion in them.

- Forestry Research Institute of Ghana is responsible for undertaking forest and forest products research to ensure sustainable management and utilization of Ghana's forest resources and to engage in the commercialization of research results and services.

- The Ministry of Lands, Forestry and Mines exists to ensure the sustainable management and utilization of the nation's lands, forests, wildlife and efficient management of mineral resources for the country's socio-economic growth and development.

- The Soil Research Institute is to carry out research and provide advice on maintaining soil fertility for agricultural
production and sustainability of the environment.

<table>
<thead>
<tr>
<th>d) coordination across forest and agriculture sectors, and rural development:</th>
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<td>The National Development Planning Commission is a body created by Articles 86 and 87 of the Constitution of the Republic of Ghana and established by Acts 479 and 480 (1994) of Parliament with the mandate to advise the President on development planning policy and strategy by making proposals for the protection of the natural and physical environment with a view to ensuring that development strategies and programmes are in conformity with sound environmental principles;</td>
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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.))

- Mainly in the off-reserve areas (70%) and also within forest reserves in the high forest zone (30%) particularly in the transitional zone between the savanna and the high forest.

- In 1990, the total forest cover was 7.45 million ha and in 2000 was reduced to 6.09 million ha. This corresponds to a deforestation rate of 1.8% per annum. In 2005, the forest cover reduced further to 5.51 million ha. Between 2000 and 2005, the deforestation rate was 1.9% per annum.

- Forest reserve encroachment was on the ascendancy in the 1960s and again in the 1990s to 2005 when high incomes could be earned from cash crops such as cocoa, oil palm etc.

- Forest reserves have been encroached by cocoa farmers and illegal chainsaw operators.

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

- In 1994, the total carbon emissions from deforestation was 5738 Gg CO2 constituting 40% of the total CO2 emissions in the country.

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.).


- Vegetation attributes measured include species name, diameter at breast height, stem form class, canopy cover, degree of strangulation by climbers (lianas), natural regeneration potential, terrain condition, degree of stem damage etc.

- In 2001-02 national inventory, satellite imagery was used to (a), classify the forest into three, namely degraded areas, semi-degraded areas and intact forest cover. The categorization of the various forest reserves into these classes speeded up the inventory process. All areas with a similar vegetation cover within a particular population (Forest Reserve) were put under one class before sampling. It reduced intensity of sampling and volume of work.
for the various field teams.

- Accurate inventory results of the 2001-02 can be provided by RMSC.

- Available data include:
  - Land cover. Source - CERSGIS; Resolution - 1:250000; Data - 2000; Coverage - National
  - Vegetation properties are available (see Appendix 4)
  - Soil types / properties are available. Source - CERSGIS; Resolution - 1:250000; Data - 2000; Coverage - National
  - Climate / meteorology is available. Source - CERSGIS; Resolution - 1:250000; Data - 2000; Coverage - National
  - Hydrology / river gauges are available. Source - CERSGIS; Resolution - 1:250000; Data - 2000; Coverage - National
  - Transportation / road network is available. Source - CERSGIS; Resolution - 1:250000; Data - 2000; Coverage - National
  - Demography / population density is available. Source - CERSGIS; Resolution - 1:250000; Data - 2000; Coverage - National

- Data published on FC website

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

- Agricultural expansion (permanent cultivation, cattle ranching, shifting cultivation/traditional slash and burn) - about 50%
- Harvesting for fuelwood and charcoal, illegal logging, wildfires and biomass burning - about 35%
- Population pressure, development pressure, such as expanding urbanization, settlements and new infrastructure (e.g. electricity lines, roads) - about 10%
- Exploitation of mineral resources and mining - about 5%.

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

- Review of Forest Development Master Plan which is the de facto national forest program
- Consolidation of all forest laws
- Finding possible solutions to problems related to illegal extraction of forest resources and governance in the management of forest ecosystems
- Different land tenure systems and land holding rights
- Bringing all the land sector organizations under one organization i.e. Lands Commission which institution will negotiate with the landowners to bring together all lands.
- More involvement of stakeholders in the protection of forest resources, sharing of responsibilities and benefit sharing with forest fringe communities, as well as the involvement of civil society in monitoring forest operations would further contribute to forest law compliance.

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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.):

- GIS database on the forest reserves are available in the Forestry Commission which includes data on forest fringe communities, resource owners, farmers, land tenure, land classification, management plans, role of local communities in forest management, socio-economic surveys of forest fringe communities with data on number of
inhabitants, a register of farmers engaged in plantation development within the forest reserves and lands outside forest reserves.

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?

   - Ban on log exports since 1995 to reduce the pressure on the forest resources and add value to the resource through processing.
   - The 1994 Forest and Wildlife policy was formulated through a multi-stakeholder consultative process and adopted with the aim of:
     “conservation and sustainable development of forest and wildlife resources for maintenance of environmental quality and the perpetual flow of optimum benefits to all segment of society.”
   - Three broad areas emphasized in the 1994 forest and wildlife policy are:
     - Community involvement
     - Benefit sharing
     - Development of forest resource
   - Timber Resources Management Act, 1997 (Act 547) as amended by
   - Timber Resources Management (Amendment) Act, 2002 (Act 617):
     - This Act repealed the concessions Act, 1962 (Act 124) and provided for the grant of timber rights in a manner that secures the sustainable management and utilization of timber resources. The amendment Act seeks to exclude from its application, land with private forest plantation, to provide for maximum duration, and maximum area limit for timber rights, and to provide for incentives and benefits for investors in the forestry and wildlife sector.
   - Timber Resources Management Regulations 1998, (L.I.1649) as amended by
   - Timber Resources Management (Amendment) Regulations, 2003 (L.I.1721)
     - This LI prescribed the procedures for the grant of timber rights through a competitive process based on a set of criteria. The amendment seeks to explicitly provide for the grant of timber rights through competitive bidding on the basis of price.
   - Grant of timber rights by competitive bidding process.
     - The old practice of awarding timber rights was in the form of concession leaseholds.
     - Award was done administratively. Current legislation has led to the award of timber rights through a competitive bidding process. This has introduced transparency, and also increased revenue through the payment of timber rights fee (TRF) which is the bid price.
   - Current legislation allows for the involvement of resource owners in determining forest areas suitable for grant as timber rights, some limited increase in participation. Even though this grants limited participation, it nevertheless constitutes an improvement in the right direction.
   - Social Responsibility Agreement (SRA): Current legislation has given say to the traditional stools to negotiate benefits for their communities through the SRA. This introduces the element of a signed agreement (contract), hence more transparency in the kind of benefits that may go to the community.
   - Forest Plantation Development Fund Act, 2000 (Act 583) as amended by
   - Forest Plantation Development Fund (Amendment) Act, 2002 (Act 623)
The Act provided for the establishment of a fund to provide financial assistance and the management of such funds for the development of private commercial forest plantations. The amendment provided for the participation of the public sector also in forest plantation development.

This Act repealed the Forest Improvement Fund Act, 1960 (Act 12) and the Forest Improvement Fund (Amendment) Act, 1962 (Act 144). A national forest plantation development programme to increase the nation’s forest cover by 20,000 hectares per year was launched in 2002.

Under the Voluntary Partnership Agreement (VPA) with the European Union, a forest law enforcement, governance and trade system of credible legal and administrative structures is being put in place to verify that timber is produced in accordance with existing forestry laws and policies to eliminate or minimize illegally produced timber on the EU markets. This process will work to ensure that our forests will continue to be there for us and our children to come.

Negotiations are ongoing between Ghana Government and EU concerning Forest Law Enforcement and Governance to eliminate or minimize illegal logging and illegal chainsaw operations through a Voluntary Partnership Agreement. The elements of the agreement such as chain of custody, traceability of wood products to source and the exclusion of illegally logged timber products from EU markets have been clearly defined. Ghana and the EU will sign up to this agreement by September, 2008 to combat illegal logging.

Joint Economic and Sector Work (ESW) by the World Bank and DFID on Cost of Environmental Degradation (Forest, Water, Soils, Fisheries) and later another joint ESW, the Ghana Country Environmental Analysis has been completed following in-depth consultation with stakeholders. These ESW formed the basis for a three-year series of sector budget support under the Natural Resources and Environmental Governance (NREG) Program which is financed with about $30 per year.

Cost-Efficient Collaborative Systems - Through the learning process, systems have been developed to involve communities in execution of operational activities. These range from the gathering of information for the purposes of reserve management planning, maintenance of forest reserve boundaries, rehabilitation of degraded forests and involvement in resource exploitation and utilisation. Some of these systems are described forthwith.

- Collaborative Forest Management Planning - At the forest reserve management planning level, socio-economic surveys using participatory rural appraisal methods are conducted by the FSD to ascertain the social indicators of forest fringe communities, their impacts on forest resources and vice versa. This study serves as input to management plan preparation. The outcomes of these studies serve as basis for renegotiation of domestic use rights on NTFPs and also provide indications on access to fetish sites and other services enshrined in reserve judgements. The draft plans are discussed at a reserve-planning workshop during which representative stakeholders are to present their views and comments. The plan has to be subjected to the scrutiny of the general public for final approval before being ratified.

- Protecting Forest Reserves - Systems are now being implemented under which forest fringe communities enter into contracts to clean forest reserve boundaries in return for cash payments. Additionally some are also contracted to establish green-fire breaks to prevent wildfires from entering into forest reserves. The possibility of involving communities in patrolling is under investigation and if proved positive that system would also be adopted.

- Rehabilitation & Plantation Development - The FC now routinely contract communities to produce seedlings from their own managed nurseries for self planting and sale. Apart from supporting such nurseries through the supply of inputs and offer of technical advice, the FC has been promoting the sale of seedlings from the community nurseries either through their own purchases or linking them up with tree growers to ensure profitability. Some communities have been realizing as much as about two hundred million Cedis per annum from such sales. It is anticipated that more of such nurseries would be
set up to supply seedlings to the FC and others for planting.

- As already mentioned the FC has adopted a modified taungya system under which partnership agreements are entered into with farmers to plant forest trees on contract basis while the farmers cultivate agricultural crops at the early stages of the plantations. Systems for contracting out maintenance and protection of the plantations as obtains in Ivory Coast are being implemented and billions of Cedis are being paid to taungya farmers this year in connection with the governments 20,000 ha a year plantation programme.

- Community Forest (Dedicated) Reserves - In the high forest zone the estimated forest coverage outside forest reserves is placed at 300,000 hectares. These are in the form of patches of forests, sacred groves and secondary forests. To offer encouragement to communities to conserve these resources as enshrined in the 1994 Policy, a dedicated forest management scheme was initiated in 1994. Under it, surveys, studies and pilot activities were carried out in the Fosu district to determine the feasibility of communities managing their own forest ‘reserves’ based on approved management plans. The results proved so positive that draft legislation and a programme to promote dedicated forests were formulated in 1997. Unfortunately the legislation has not been passed yet thus it is difficult for the programme to be advanced. Meanwhile a new approach of collaborating with district assemblies to use bye-laws to give backing to dedicated forests is being pursued with the hope that a nation-wide programme of community managed forests will become a reality soon.

- Trees on Farms & Fallows - More than 75% of the annual allowable cut (AAC) is supposed to be harvested from off-reserve forest areas, which are under the de facto care and management of landowners and farmers. Although they nurture the timber trees to maturity they are not offered any form of incentives to retain such trees during cultivation. The only cash payments received are compensation payments for crops destroyed in the course of timber harvesting. Farmers have therefore been destroying such trees on their farms thus contributing to the decline of timber availability in the country. Studies have therefore been conducted to determine the possibility of paying some form of timber tending tolls (TTT) to farmers. Very soon policy guidelines shall be instituted to ensure equity to farmers in this regard.

- Resource Utilisation & Livelihoods - Although access to NTFPs for domestic use had been enshrined in reserve settlement judgements, foresters had over the years not been honouring these rights to landowners. All current management plans reassert the rights of communities to harvest NTFPs for domestic use, to have access to fetish sites and other rights as enshrined in original agreements.

- Apart from domestic access to NTFPs the FC is seriously promoting initiatives to assist forest fringe communities to add value to harvested products through processing and market promotion. The initiative, known as Marketing Analysis and Development (MA&D) which is being pursued under a collaborative programme with the FAO is being piloted in the three districts of Cape Coast (Pra Suhien FR), Goaso (Bia Tano FR) and Mpreaso (Esukawkaw FR). The ultimate aim is to organise forest fringe communities to form co-operatives to produce items for the export market.

- Under integrated forest management plans, commercial NTFP gatherers would also be allocated zones within forest reserves for NTFP cultivation. Piloting at Afram Headwaters and Esuboni FRs has proved that the system is feasible and quite positive in terms of increased incomes to the cultivators.

- Current Initiatives
  - The CRMU is currently engaged in leading or providing support towards the implementation of initiatives to resolve various problems confronting the forest sector as listed in Table1. These embrace the building of capacity on participatory techniques for staff of both the FC and other decentralised organisations. The testing of the use of portable mills in timber conversion is ongoing
and the ultimate outcome will inform policy makers on whether to legalise use of chain-saw making in timber conversion or not. An FAO sponsored project is supporting the development of the first ever national forest forum in Ghana. Approval has been given for rolling out the long awaited farmers’ share-holding scheme under the modified taungya system. Overall, the collaborative resource management project has made considerable progress in ensuring equity and efficiency in forest management.

- Progress made in development of management plans and socio-economic survey of forest fringe communities for selected priority 12 forest reserves to address impact of forest communities on the forest resources since 2002 under the Forest Management Strategy.

- Progress made in establishing Globally Significant Biodiversity Areas (GSBAs) and Provenance Protected Reserves (PRR) since 1998 and their boundaries properly surveyed, demarcated and mapped for the protection of these forest areas. The areas are yet to be gazetted. (Forest Protection Strategy and National Biodiversity Strategy)

- Since 2005, progress has been made in developing alternative livelihoods for communities living close to the GSBAs in order to relieve the pressure on these protected areas. (High Forest Biodiversity Conservation Programme)

- The Wildlife Division of the Forestry Commission is increasingly entering into partnerships with private organizations to promote ecotourism in forest conservation areas since 2005 to generate revenue.

- Progress made on currently adopted Forest Management Certification and computerized log tracking system to minimize illegal logging since 2004.

- Progress made in initiating collaborative Savannah Resources Management/Biodiversity involving communities, and local groups and associations since 2005.

- The National Forest Plantation Development Programme (NFPDP) was launched by His Excellency President J.A. Kuffuor in September 2001 at Ayigbe in the Wenchi district of the Brong-Ahafo region. The Plantations Department (PD) of the Forest Services Division (FSD) of the Forestry Commission (FC) is responsible for the implementation, coordination and management of the NFPDP. The programme is currently being implemented under three main strategies and four components.

  - The first strategy, the Modified Taungya System (MTS) involves the establishment of plantations by the FSD in partnership with peasant farmers. The FSD provides technical direction, surveys and demarcates degraded forest reserve lands and supplies pegs and seedlings while the farmers provide all the labour inputs in the form of site clearing, pegging, planting, maintenance and fire protection. The farmers are permitted to cultivate their food crops which are inter-planted with the tree crops on the same piece of land. The farmers, in addition to the food crops they harvest, have a 40% share in the returns from the investment. The FC also has a 40% share while the landowner and community will have a 15% and 5% share respectively.

  - The second strategy utilizes hired labour and contract supervisors to establish industrial plantations. Plantation workers are hired and paid a monthly wage to establish and maintain plantations while plantation supervisors are given one year renewable contract employment to supervise and offer technical direction. The PD exercises general oversight and monitors field activities to ensure compliance with quality standards for plantation establishment. This strategy is employed by the Government Plantation Development Programme which is funded through the Highly Indebted Poor Countries (HIPC) benefits.

  - The third strategy involves the release of degraded forest reserve lands by the FC to private entities after vetting and endorsing their reforestation and business plans. The operations of these private developers are then monitored through periodic field visits by the PD to ensure compliance with the approved reforestation plans.
At the end of 2007 an estimated **123,061** ha of forest plantation has been established under the NFPDP.

Under the programme both indigenous and exotic economic tree species have been planted at the various sites across all ten regions in the country. The indigenous species include mainly *Mansonia altissima* (Oprono), *Terminalia superba* (Ofram), *T. ivorensis* (Emire), Mahogany spp, *Ceiba pentandra* (Onyina), *Heritiera utilis* (Nyankom), *Entandrophragma angolense* (Edinam), and *Triplochiton scleroxylon* (Wawa). The exotic species are predominantly *Tectona grandis* (Teak), *Cedrela odorata* (Cedrela) and *Eucalyptus spp*.

Presidential Special Initiatives on Plantation (PSI) development to date include massive afforestation and reforestation projects since 2002. A total of 123,061 hectares of degraded land within forest reserves have been replanted.

Initiatives have been made since 2003 to ensure that there will be adequate forests which will serve multi-purpose environmental, communal, ecological and economic roles for future generations.

The role of forests as carbon sinks to mitigate global climate change processes is being disseminated to key stakeholders in the forestry sector currently.

A forestry fora network made up of district fora, regional fora and 1 national forest forum was used to ensure sound policy-making, better service delivery and good governance. The forestry fora provided the platform for interaction, discussion and debate and provide opportunities for the voice of different stakeholders among public sector agencies, traditional authorities, farmers, forest dwellers or indigenous people present in the forest, civil society, the industry, local authorities, NGOs, private sector, academic community, development partners, research institutions, international actors, external stakeholders on forest, agriculture, mining to be heard and incorporated into the decision-making and policy process since 2003.

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

- The Local Governance Poverty Reduction Support Programme (LGPRSP) to support the implementation and monitoring of the Ghana Poverty Reduction Strategy (GPRS I) in its target districts through the strengthening of the capacity of district structures to design and implement target-group specific and gender sensitive programmes. The thrust of the Programme was to work with the political and administrative structures of the district as well as private sector actors and Civil Society Organisations (CSOs) to prepare district level poverty profiles and maps that would give indications of how poverty manifests itself among different socio-economic groups. The poverty maps would also indicate how poverty presents itself in spatial terms in the district.

- The AFLEG (African Forest Law Enforcement and Governance) and EU FLEGT programs that were initiated in October 2003 formed the basis for the Ghana-EU Voluntary Partnership Agreement. Ghana is very likely to sign a Voluntary Partnership Agreement with the European Commission by September, 2008. Although designed primarily to eliminate illegal timber from export supply chains, the VPA will include a number of far-reaching institutional and policy reforms for the forest sector that will have a direct impact on the country's REDD related activities. Given the successful experience from the VPA preparatory process it is also desirable that any REDD readiness activities includes a participatory and bottom-up consultation and review process. Fortunately Ghana has a number of interrelated multi-stakeholder processes such as the Ghana’s VPA Steering Committee and the Forest Governance Learning Group that could be easily deployed to this end.

- Collaborative Resource (Forest) Systems - Participatory methodologies of the Forestry Commission are aimed at achieving the two broad aims of equitable sharing of benefits and improved efficiency in management of forest resources. Policies, programmes and practices therefore lead to either one or both of these aims using the learning process approach to determine viable collaborative systems.

- The forest policy formulation process is now enriched through the participation of key stakeholders, public sector
professionals, the academia and traditional authorities through workshops and consultations. The 1994 Forest and Wildlife Policy, for example, was developed through a series of workshops prior to promulgation. As a practice, projects and programme proposals are subjected to public hearings as part of mandatory Environmental Impact Assessments (EIA). As expressed by participants at a Collaborative Resource Management workshop (Workshop Report 2002), improvements should be made to adopt stakeholder consultative mechanisms as part of policy formulation process. Over the programme period, some of the viable systems that have successfully been developed and internalised in the operations of the Forestry Commission are described forthwith.

- To ensure equitable sharing of benefits, royalty disbursement procedures were revised to reduce associated bureaucracy. Whereas previously, twenty three steps had to be followed before timber royalties reach the recipients (landowners) thus delaying disbursements for years, the process has been shortened to only four steps and disbursements are made every quarter of the year at regional offices. Timber pricing reforms have been made thus stumpage rates are now supposedly pegged to the fob which require revision three months. The advent of the new stumpage rate determination has substantially increased the amount of royalties paid to landowners thus there has been a sudden interest in timber as source of revenue for social development amongst rural communities. Although SRAs are yet to be fully implemented due to the hiccups associated with the award of Timber Utilisation Contracts (TUC), most timber concessionaires and permit holders are implementing the tenets of it in their transactions with traditional authorities and forest fringe communities. A far-reaching policy initiative is in connection with community involvement in plantation development. Under the government’s plantation development programme, ‘taungya’ farmers are to be granted a share in the mature plantations. Approval has now been granted to start registering tree growers participating in establishment of modified taungya plantations.

- Under the FSDP II and the HFBP, the FC has been providing support towards forest-based livelihood schemes such as grass rearing, seedling production and snail farming. An evaluation study revealed that the communities regarded this kind of support as the single most plausible benefit ever to have been obtained from their forests thus signifying the dearth of benefits to the communities.

- Impacts of Benefit Reforms - The cumulative impacts of these measures have engendered goodwill amongst a large section of forest fringe communities, traditional authorities and allied stakeholders. It is quite obvious that steady progress is being made in providing increased benefits to communities thus there are prospects of alleviating poverty in rural areas through such initiatives.

- Community Forest Resource Management Programme (CFRM) was piloted in 2002 and launched in five (5) pilot districts as a means of reducing poverty. The programme has been expanded to cover a large number of districts. It includes the following components:
  - Participatory Forest Management Planning Component. This involves socio-economic surveys and the preparation of management plans. 26 districts are currently engaged in this programme.
  - Creation of Community Resource Management Committees (CRMCs) and the preparation of MoUs on roles and responsibilities between Forestry Commission, local authorities and other stakeholders. Operations focus on monitoring and forest protection from wildfires and illegal operations including community education and commercial seedling production by farmers. The Community Resource Management Committees were developed and supported by the Community Resource Management Unit within the RMSC of the Forestry Commission. They were established to liaise with FC on forest management issues and piloted in 1999 – 2000 and operationalized under FSDP II in 25 districts by several projects. Over 1000 CRMCs have been established countrywide. There is no assured funding nor legal recognition provided thus the need for policy level support required to make CRMC fully functional.
  - Equitable Benefit Sharing Component including strengthening communities in the negotiation of social responsibility agreements with timber contractors.
  - Forestry-based Livelihoods Support Component
  - Public Education and Awareness Component
• **Forestry Fora Component**

  - **FAO sponsored National Forest Programme - Implementation** is by the Forestry Commission and led by the Collaborative Resource Management Unit (CRMU) as Focal Point. For Ghana the first year programme is aimed at strengthening civil society role in good forest governance. Project being directed by a Multi-Stakeholder Steering Group of key forest stakeholders. Seven (7) regional forest forums established with the Northern Ghana yet to be completed.

  - **Modified Taungya System** for forest plantation development was conceptualized and piloted by the CRMU. This is a new partnership based system in which farmers/growers have equity shares in plantations and/or forest fringe communities contracted to undertake forest plantation operations are paid based on performance. CRMU is leading in the registration of the farmers.

  - **Netherlands government supported Wildfire Management Project in the Transitional Zone of Ghana. Leading Output III on Establishment of Innovative Incentive Schemes on Wildfire Management.** CRMU participated in evaluation of Incentive Scheme Output under Wildfire Management Project. CRMU participated in evaluation of Incentive Scheme Output under Wildfire Management Project Coordinator in October. Successfully led selection of five NGOs to undertake studies on legislation to support incentive scheme at five pilot sites. Also ensuring delivery of quality outputs from NGOs.

  - **Conservation of five Southern Dry Forest Reserves in the Winneba district under the GEF sponsored High Forest Biodiversity Project.** Supported establishment of Green Fire Breaks around the perimeter of the Southern Dry Forests. Introduced innovation by persuading communities to construct a multi-purpose eco-tourism/community/biodiversity centre which is at the roofing stage and to be commissioned upon completion as the first in Ghana.

  - **Community-based Natural Resources Management Component under the Community-Based Rural Development Project (CBRDP) Implementation on behalf of Ministry of Rural Development and Local Government.** Training of District Planning Coordinating Units (DPCUs) to enable them formulate and support implementation of integrated participatory natural resources management plans at the watershed level. Training of District Planning...
Coordinating Units (DPCUs) to enable them formulate and support implementation of integrated participatory natural resources management plans at the watershed level. CRMU to train two additional district DPCUs and support plan formulation of integrated natural resource management plans for four southern and two northern districts.

- Use of Portable Mills for Timber Conversion by Community Groups. The trial is based at the Namtee Community (Dedicated) Forest Reserve in Fosu district. The main aim of the trial is to determine the suitability of using portable mills (LOGOSOL) in timber conversion with a view to coming out with policy recommendations to help resolve the illegal chain-sawing menace. About ten trees converted so far and there are encouraging results on improved conversion rates.

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):

- The Voluntary Partnership Agreement with the European Commission will eliminate illegal logging and have a direct impact on the country’s REDD related activities.
- Strengthening of law enforcement under the FLEGT programme
- Government initiative to negotiate with landowners to bring lands together within land banks (Land Administration Project within the Ministry of Lands, Forestry and Mines).
- Need for a clear-cut Land use policy, land tenure and tree tenurial rights
- Update land use regulations
- Building institutional capacity at national and sub-national levels for the equitable, effective and sustainable implementation of REDD in the area of establishing monitoring, reporting and verification systems, collecting data, transferring financial benefits, ensuring accountability and transparency, compatibility with international and national financial and regulatory systems
- Overcoming methodological challenges that could compromise the sound design of REDD scheme such as establishing meaningful baselines/reference scenarios, addressing permanence (e.g. Risk of forest fires), integrating national and sub-national activities and addressing both deforestation and degradation.
- Establishing a legal basis for an equitable distribution of benefits to address issues such as what liability arrangements, how to manage risk, how to resolve disputes and allocating carbon rights within an existing property rights regime.
- Avoiding negative social implications that might arise due to issues such as limited market access for rural poor, effects on food prices/security, instability of benefit flows, availability of information, risk of elite capture.

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

- FLEGT will strengthen the law enforcement and governance system in the forestry sector to combat issues of illegal logging, illegal chainsaw lumbering and encroachment by farmers.
- The VPA through its wood tracking system will trace all wood products to the stump to ensure that they are sourced from legal sources and issue licenses for export to the EU market which is the main market for wood products from Ghana. It will establish a clear chain of custody and validate the legality of timber as important
steps towards good forest governance, especially as the EU is in the process of obliging importers to provide a certificate of legal origin to enter EU markets.

- The Forestry Commission coordinated the establishment of a Forest Forum Network (FFN) in Ghana with funding and technical support of the FAO under the National Forest Programme Facility. Under the initiative Regional Forest Forums (RFF) were first established in the ten regions of Ghana and delegates selected to constitute the National Forest Forum (NFF).

- The aim of the National Forest Forum was to bring together all the regional delegates as well as national level stakeholders to discuss and devise solutions to prioritized national and regional forestry issues on a neutral platform together with technocrats and policy makers. The launching ceremony also served as opportunity to concretize the establishment of the FFN as an integral part of forest governance and management in Ghana.

- The NFF took place in Accra from the 28th to 30th November 2007. Apart from the Regional delegates, other invitees such as the Deputy Minister for Lands, Forestry and Mines, representatives of the National House of Chiefs, Forestry Commission Executives, Development Partners, and Civil Society Organizations attended the meeting.

- The NFF established a common platform, to tackle the numerous forestry issues at both the national and local levels with clear-cut work programmes, responsible parties and the requisite monitoring mechanisms. Additionally, the institutional set-up of the FFN and the NFF together with funding mechanism were agreed upon. Since the forum was participatory in nature, sensitive issues on forestry were discussed in a transparent and consensus building manner to ensure collective ownership of solutions thus preventing current and potential conflicts during implementation.

- The forestry fora network will involve multi-stakeholder consultation and sensitization process aiming to build consensus on the concept and approach to addressing the main drivers of deforestation. The forestry fora will meet quarterly with at least two group meetings between fora meetings to process outcomes and prepare for the
next meeting.

- Stakeholders representation on the forums include Stool Lands, District Assemblies, Community Forest Committees (CFCs), Community Business Groups, Timber Contractors, Tree Growers Associations, Environmental Protection Agency, Tourist Board, Ministry of Food and Agriculture, Police Service, Judiciary, Education Service, Media, NGOs, Charcoal Producers and Chainsaw Operators.

- Issues towards strengthening forest governance through the forest forum initiatives are highlighted at such forum meetings. The forestry forum is a platform for civil society organizations to exert pressure for transparency in allocation of resources and accountability to resource owners enabling stakeholders to:
  - share and exchange ideas and proposals for inclusion in policy analysis;
  - exchange ideas and proposals for inclusion in policy implementation;
  - monitor and evaluate progress and impacts of policy implementation.

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.)?

- The following cross-sectoral programs and policies will play significant roles in the REDD strategy:

  - Millennium Development Goals (MDGs) will ensure environmental sustainability by integrating the principles of sustainable development into REDD strategy and programmes and reverse the loss of environmental resources by improving the land area covered by forest i.e. protected forests to reduce carbon emissions.

  - Ghana Poverty Reduction Strategy (GRPS I) and Growth and Poverty Reduction Strategy (GPRS II) 2006-2009: GPRS I reflects a policy framework that was directed towards the attainment of anti-poverty objectives of the MDGs. GPRS II is to accelerate the growth of the economy to achieve middle-income status within a measurable planning period.

  - National Strategy for Sustainable Development (NSSD) focuses on agriculture, rural development, land, drought, desertification which are interlinked and should be addressed in an integrated manner with REDD strategy.

  - The Land Administration Project (LAP) is the Ministry of Lands, Forestry and Mines initiative to implement the policy actions recommended in the National Land Policy document launched in June 1999. The key issues identified in the policy document include inadequate policy and regulatory framework, weak land administrative regime both public and customary, indeterminate boundaries of customary lands, multiplicity of land dispute which has clogged the court system, and general indiscipline in land use development and disposition. The mechanism for addressing these issues is the Land Administration Programme, the first five years of which is the Land Administration Project.

    The Land Administration Project (LAP-1) is the first phase of a commitment by the Government of Ghana to use the Land Administration Programme to reduce poverty and enhance economic/social growth by improving security of tenure, simplifying the process of acquiring land by the populace, developing the land market and fostering prudent land management by establishing an efficient system of land administration, both state and customary based on clear, coherent polices and laws supported by appropriate institutional structures.

    The project has multi-donor support with development partners including the International Development Association, Nordic Development Fund (NDF), Canadian International Development Agency (CIDA) and the UK
Department for International Development (DFID). The rest are German Bank for Reconstruction (KFW).

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.

- REDD will complement Ghana’s forest development master plan which is the de facto national forest program to ensure sustainable development, management and protection of forest resources and optimise their contribution to national socio-economic development.

- REDD is a crosscutting issue among the agriculture, water, energy, transportation, health, education, rural development sectors etc. and its activities will have to be integrated with other sector REDD-related activities in order to achieve its success. Agriculture is a main driver of deforestation and should be a major partner in the implementation of REDD. Conflicting laws and policies among these sectors will affect the implementation of REDD.

- The linkages between forest sector policies on REDD and other relevant sectors will be addressed in multi-stakeholder consultative meetings, workshops and seminars to provide a platform for interaction, discussion and debate and provide opportunities for the voice of different stakeholders to be heard and incorporated into the decision-making and policy process to coherently optimise socio-economic development and environmental quality.

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):

- Technical assistance is being sought from the International Union for Conservation of Nature (IUCN) on REDD particularly with respect to awareness creation at national, regional and local levels.

- Technical assistance has been considered for the NREG program mentioned above, but no firm commitment for such financing has been achieved as of yet.
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?

- Multi-stakeholder consultative workshops, seminars, conferences and meetings will be organized among public sector agencies, traditional authorities, civil society, the industry, local authorities, NGOs, private sector, academic community, development partners, research institutions, international actors, external stakeholders on forest, agriculture, mining. The national forest forum, community forestry committees (CFCs), district and regional forest fora involving local authorities, private sector, NGOs, Forestry Commission and other stakeholders will also provide the platforms for broad consultations on the REDD process.

- At such workshops, working groups will be set up to address specific issues related to REDD and evaluate the inputs from the group work to ascertain the various roles various stakeholders can play in developing and implementing strategies or programs under FCPF support.

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

- Through a multi-stakeholder consultative process by way of meetings, workshops, durbars, symposia to generate considerable engagement with the issues involved in the new program or policies.

- The use of working groups made up of consultants to undertake surveys by interacting with various stakeholders to assess and evaluate specific issues and submission of findings and recommendations that will be disseminated to stakeholders for review and comments and further discussions in meetings, durbars, workshops, conferences etc.

- Develop and implement a communication strategy that includes a better information system, better communication and better public relation management to improve the policy process, policy outcomes, organisational performance, service delivery and governance among the agricultural, logging and other sectors that could be affected by REDD policies. This will include the media, information materials and dissemination, TV documentaries and flash messages. Discussion of REDD issues will be done in weekly news programmes on three selected radio stations for three months.

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?:

- Fortunately Ghana has a number of inter-related multi-stakeholder processes such as the Ghana’s VPA Steering Committee and the Forest Governance Learning Group. The Ministry of Finance and Economic Planning, Civil Society, Customs, Excise and Preventive Services, Forestry Research Institute, Parliamentary Select Committee on Lands and Forestry, Ghana Timber Millers Organization, Attorney General’s Department, Timber Industry, IUCN, Forest Watch Ghana, Ministry of Trade and Industry constitute the VPA Steering Committee.

- With the technical support of IUCN we intend to start the stakeholder consultations on REDD in August, 2008.

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

- Ghana intends to constitute a Forest Carbon Working Group to start a REDD consultation process that would include focus group discussions with Development Partners (donors), Timber Industry representatives, National and Local Government officials, Law enforcement officials, Forestry Commission, most importantly Chainsaw operators and local communities.

d) Across state or other subnational governments or institutions?
The Forestry Commission national forest forum, the 10 regional forest fora and district forest fora meetings provide a comprehensive platform for stakeholder consultations at both the national, regional and local levels on forest management issues which will include on REDD.

The Ghana Institute of Foresters and their regional chapters organize annual and monthly meetings respectively to debate forestry issues which will include REDD to help decision making process at the regional and national levels.

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

The over 1000 Community Resource Management Committees which include farmers, private sector, NGOs, District Assemblies, Traditional landowners etc. will be used for stakeholder consultations.

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

Durbars will be held with the forest-dependent peoples and other dwellers together with the resource owners and local communities to address REDD issues.

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.):

- Lack of capacity to monitor forest degradation and carbon stock changes
- Lack of a comprehensive land use plan
- Need for a clearly defined land and tree tenure system since ownership is key for a successful implementation of REDD.
- Lack of technical capacity to assess and verify remotely sensed data and update forest inventory data to assure quality.
- Lack of financing to purchase satellite images and to undertake analysis of images for decision making And forest management and planning using GIS applications-----------------------------------------------

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

- These challenges would emerge following the consultation processes mentioned above.
9. REDD strategy monitoring and implementation:

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

The following government institutions or organizations will be responsible for monitoring and verifying land use/land cover change and will be coordinated by the Head of the Climate Change Unit of the Forestry Commission.

- The Resource Management and Support Centre (RMSC) which is the research and monitoring division of the Forestry Commission is responsible for forest inventories and tree measurements in the country.

- Centre for Remote Sensing and Geographic Information Systems (CERSGIS) of the University of Ghana, Legon is a non-governmental organization to execute land cover/land use projects. The Forestry Commission has entered into a Memorandum of Understanding with CERSGIS to provide services to the Commission with respect to satellite maps of all forest areas as well as remotely sensed data.

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.):

- There has not been a forest resource inventory for several years (over 10 years). The interval between the two major inventories is eleven years (11yrs). There is the need to undertake frequent national forest inventories to develop national baselines and to monitor carbon stock changes for the implementation of REDD.

- Lack of credible remotely sensed data and forest inventory data to monitor changes in forest and the corresponding carbon stock changes.

- Inadequate data about the state of the forest, trends, and its multiple uses and functions.

- Need for capacity building to develop the national REDD baseline and to make projections in forest cover changes and carbon stocks using spatial modeling.

- Downloading of satellite images from the internet takes days due to limited broadband network.

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.):

- Assessments of changes in forest cover and associated carbon stocks and greenhouse gas emissions will be done on a national scale.

- When assessing changes in forest cover and associated forest carbon stocks, the methodological process regarded as the most appropriate to ensure transparency, completeness and consistency of estimates would combine the Intergovernmental Panel on Climate Change (IPCC) 2003 Land Use Land Use Change Forestry (LULUCF) Guidance, and/or the IPCC 2006 Guidelines, when relevant, together with a UNFCCC sectoral review.

- Estimations of annual changes in forest cover analyzed from remote sensing data and satellite data associated with deforestation and forest degradation trends will be done using GIS technology. Estimations and quantifications of carbon stock changes of all carbon pools using IPCC Good Practice Guidance will be done.

- A combination of the above estimates will be used to monitor, assess and report emissions and emission reductions from deforestation and degradation.
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?
   
   • The REDD strategy can promote co-benefits such as biodiversity conservation, poverty reduction, economic and social development in the communities fringing the forest areas through access to resources that will enable the communities undertake economic activities resulting in significant increase in income levels and subsequently lead to improvement in the standard of living in the communities.

   b) Is biodiversity conservation being monitored at present? If so, what kind, where, and how?
   
   • By assessment of Species Star rating, Genetic Heat Index and conservation priority when there is a disturbance in the forest ecology.

   c) Under your early ideas on introducing REDD, would biodiversity conservation also be monitored? How?
   
   • Biodiversity conservation is one of the main indicators of REDD and would have to be monitored to assess the impact of REDD in terms of its Genetic Heat Index.

   d) Are rural livelihood benefits currently monitored? If so, what benefits, where, and how?
   
   • The annual average income level per person is quantified over a period to evaluate the trend in income particularly for the communities within and fringing the Globally Significant Biodiversity Areas (GSBAs). This monitoring and evaluation process is expected to go on for up to 5 years.

   e) Under your early ideas on introducing REDD, would rural livelihood benefits also be monitored? How?
This will be done by quantifying the annual average income level per person to ensure sound, proper and efficient administration of REDD fund. The disbursement of the REDD fund will be made in such a way as to ensure that the main objectives of the Fund such as reduction of emissions from deforestation and degradation, sustainable management of the forest resources and reduction of poverty within the forest area are attained.

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.):

      **REDD Readiness Plan**

      • A policy/stakeholder consultative process among all stakeholders including forest-dependent, local communities and resource owners involving series of workshops, meetings and seminars will be initiated to discuss the R-PIN and formulate a REDD readiness plan.

      • A forestry fora network made up of district fora, regional fora and a national forest forum will be used to ensure sound policy-making, better service delivery and good governance. The forestry fora will provide the platform for interaction, discussion and debate and provide opportunities for the voice of different stakeholders including indigenous people, local communities and resource owners to be heard and incorporated into the decision-making and REDD process.

      • Publication and dissemination of workshop proceedings on REDD and readiness plan

      **Budget** – US$500,000

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

      **REDD reference emission level**

      • A REDD reference emission level will be established based on historic emissions and modeling of future emissions by estimating activity data utilizing the freely available Landsat satellite global data sets for 1990, 2000, 2005, provided by NASA, and estimating carbon stocks changes using IPCC default value tables following guidance from UNFCCC.

      **Budget** – US$ 500,000

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

      **National REDD Strategy**
Multi-stakeholder consultation process to formulate an economically effective, efficient and socially equitable REDD strategy and institutional frameworks to reward indigenous people, local communities and other stakeholders for their contributions to REDD

- Establishment of payment for environmental services to finance REDD
- Establishment of Community REDD Investment Fund to provide seed capital for the voluntary economic/social groups or eligible business enterprises within the various communities in the REDD project areas to establish alternative businesses/enterprises for sustainable livelihoods since they would no longer have access to the timber resources within these highly significant REDD areas once they are finally gazetted
- Establishment of a governance structure to distribute REDD funds/benefits to stakeholders to address poverty reduction
- Design contracts or agreements with stakeholders to implement REDD activities
- Recognition of the historical forest management role of indigenous and local communities and their full involvement in decision-making regarding REDD

Appendix 1 - A System for Providing Targeted Financial Incentives for REDD

National REDD Fund Management Committee
(Location: FC) made up of representatives from Traditional Authorities/Landowners, NGOs, Forestry Commission, Ministry of Lands, Forestry and Mines, Ministry of Food and Agriculture, Rural Banks etc. to disburse financial incentives for REDD

Community REDD Fund Management Committee
(Community Level) made up of representatives from District Assembly, Traditional Authority/Landowner, Forestry Commission, Civil Society, Bank (disbursing fund) etc. to assess performance of stakeholders to protect the forest resource and reduce emissions from deforestation/degradation

Community-based organizations e.g. Community Forest Committees, Community Business Groups, Community Resource Management Groups, Resource Owners, Farmers, Traditional Authorities, Forest dwellers or Indigenous people present in the forest

Communities fringing the Globally Significant Biodiversity Areas (GSBAs) and other Protected Areas (PAs)

Civil society, NGOs, IGOs, Vulnerable groups, Youth groups, Tree growers, other service providers etc.

STAKEHOLDERS
Budget: US$ 3,500,000

ReDD Monitoring and Verification System

A ReDD monitoring and verification system will be designed, investment needs identified and the system implemented.

Appendix 2 - A System to Monitor Emissions and Emission Reductions from Deforestation and Degradation

- Ground-based Forest Inventory Data Generation
  - growth rate
  - growing stock per ha
  - species name & composition
  - stem form class
  - age
  - dbh
  - volume
  - basal area
  - canopy cover
  - tree height
  - degree of strangulation by climbers (lianas)
  - natural regeneration potential
  - terrain condition
  - degree of stem damage

- GIS and Remote Sensing Data and Analysis
  - high resolution imagery on an annual basis to monitor forest changes
  - gather historical data as input to establishment of baseline
  - gather historic images
  - define forest boundaries
  - standardize forest categories
  - capture changes in forest area (deforestation)
  - capture changes in forest areas remaining as forests (degradation)

- Monitoring, assessment and reporting of forest cover changes, carbon stocks and GHG emissions on annual basis

- Use GIS to integrate and analyze relationships between forest cover changes, socio-economic and environmental variables to facilitate the identification of possible options for ReDD.

- Use GIS to estimate deforestation and degradation rates per annum and trends at national level, reference scenarios, monitoring over a period

- Assess recent historical emission levels in relation to drivers of deforestation and degradation

- Use GIS to identify areas for ReDD programs to reduce deforestation and degradation

- GIS mapping of all forest reserves with compartment overlays and land cover/land use maps

- Estimate and quantify aboveground forest biomass carbon emitted from forest conversion using allometric equations

- Estimate and quantify carbon stock changes in all carbon pools using IPCC Good Practice Guidance Tier 3 approach depending on the quality of data gathered.
Budget: US$ 1,200,000

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e) Other?: COMMUNICATION STRATEGY FOR REDD

- Develop and implement a Communication Strategy for REDD to facilitate communication between stakeholders that includes a better information system, better communication and better public relation management to improve the policy process, policy outcomes, organisational performance, service delivery and governance among the agricultural, logging and other sectors that could be affected by REDD policies. This will include the media, information materials and dissemination, TV documentaries and flash messages. Discussion of REDD issues will be done in weekly news programmes on three selected radio stations for three months.

- Deliverables will include:
  - media and awareness campaigns
  - dissemination of collected and analyzed data and information on practical REDD actions, measures, strategies, indigenous knowledge etc.
  - improved information sharing, outreach, exchange of views on REDD activities, education and training of stakeholders

Budget: US$ 320,000

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

- International Union for Conservation of Nature (IUCN) to provide technical assistance on REDD-related awareness creation.

- The partners (donors and Government of the Natural Resources and Environmental Governance (NREG) program Development Policy Lending (DPL) are the key partners working on REDD related issues.

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?

Awareness creation on REDD through workshops, conferences, meetings, durbars etc.

- national level – Parliamentary Select Committee on Lands and Forestry, Policy makers, Law enforcement agencies, National House of Chiefs, Ministries, Departments and Agencies, Environmental Protection Agency, Tourist Board, Ministry of Food and Agriculture, Police Service, Judiciary, Education Service, Media etc. (May 20 – July 30)

- regional level – Regional Forestry Forums (Aug. 15 – Oct. 20)

- local level – District Assemblies, Community-based organizations, NGOs, Youth, Stool Lands, District Assemblies, Community Forest Committees (CFCs), Community Business Groups, timber contractors, tree growers associations (Oct. 30 – Dec. 22)
### Appendix 4 - General characteristics of the major vegetation types within Ghana high forest zone

<table>
<thead>
<tr>
<th>Vegetation Type</th>
<th>Forest Reserve area (km²)</th>
<th>Mean annual rainfall (mm)</th>
<th>General characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wet Evergreen (WE)</td>
<td>1219.7</td>
<td>&gt; 1750</td>
<td>Vertical structure compressed. Trees rarely exceeding 40 m. Mean basal area of 25.5 m² ha⁻¹ of all trees ≥10 cm dbh. It can rain throughout the year. Scarcity of deciduous trees (20%), Very rich in species diversity, about 200 tree species found in this zone. No fire damage effects of leaching. Soil pH ranges from 3.8-4.3</td>
</tr>
<tr>
<td>Moist Evergreen (ME)</td>
<td>4361.17</td>
<td>1500-1750</td>
<td>Sandwiched between WE and moist semi-deciduous, less great floristic diversity, about 3 species much higher than we, about 43 m. Deciduous canopy trees account for less than 20% at 23.5 m² ha⁻¹ and stem density is about 505 trees ha⁻¹. Much richer in economic species. Poorer in nutrients compared with drier forests.</td>
</tr>
<tr>
<td>Moist Semi-deciduous South East (MSSE)</td>
<td>2289.89</td>
<td>1250-1750</td>
<td>Is the wet part of the semi-deciduous forest. A mixture of evergreen and deciduous species among the forest zones. Few tree species (about 100) but majority of commonest species greatest frequency here. It has the most tallest trees, heights often exceeding 50-60 m. Less than 5% deciduous canopy trees account for less than 20% of all trees ≥10 cm dbh. Vertical structure compressed. Soil pH ranges from 3.8-4.3</td>
</tr>
<tr>
<td>Moist Semi-deciduous North West (MSNW)</td>
<td>4601.50</td>
<td>1250-1500</td>
<td>The drier part of the moist semi-deciduous, contains several rare species in Ghana. Also a deciduous species. Most of the country’s forest reserves are concentrated here. Vertical structure compressed. Frequent annual bush fires have caused some damage to forest reserves in the northern parts. Basal area estimated at 22.6 m² ha⁻¹</td>
</tr>
<tr>
<td>Dry Semi-deciduous (DS)</td>
<td>1991.00</td>
<td>1000-1500</td>
<td>Formerly sub-divided to inner and outer (fire) zones. Has a wide range of annual rainfall. About 40% of forest reserves is concentrated here. The drier part of the semi-deciduous zone with high vertical structure (30-45 m) though not as high as moist semi-deciduous. Heavier fires which have led to frequent salvage logging of its economic species. Vertical structure compressed. Basal area estimated at 22.6 m² ha⁻¹</td>
</tr>
<tr>
<td>Others</td>
<td>2091.13</td>
<td>-----</td>
<td>Includes Upland Evergreen, a mixture of wet and moist forest species, Southern Marginal and other types</td>
</tr>
</tbody>
</table>

**Total** 16 341.00

Source: Affum-Baffoe K, 1999 Forest dynamics along an environmental gradient in Ghana M.Phil Thesis. University of Aberdeen UK.