

Supplement to Expression of Interest in Joining the Forest Carbon Partnership Facility (FCPF)

December 6, 2011

Guidelines:

1. The information requested in this form is to follow up on your expression of interest in the FCPF and assess your country's interest in relation to the importance of REDD+ (reducing emissions from deforestation and forest degradation, conservation of forest carbon stocks, sustainable management of forests and enhancement of forest carbon stocks in developing countries) for the country. The governing body of the FCPF, the Participants Committee (PC), requested the Facility Management Team to solicit additional information from countries having expressed interest in the FCPF, propose criteria and a process for the possible selection of more countries into the FCPF, and analyze the cost implications of such a selection, given that the participation of new countries is subject to available resources (see paragraph 11 of Resolution PC/10/2011/1 available at <http://www.forestcarbonpartnership.org/fcp/sites/forestcarbonpartnership.org/files/Documents/PDF/Oct2011/Final%20PC10%20Resolution%201%20-%20strategic%20direction.pdf>).
2. Please keep the length of your response to 5 pages, as this is not meant to be a national Readiness Preparation Proposal (R-PP).
3. Please forward the completed form to the FCPF Facility Management Team by email at fcpsecretariat@worldbank.org no later than January 31, 2012.
4. Additional information about the FCPF is available at <http://www.forestcarbonpartnership.org/fcp/>.

1. General information

Country submitting the form: BHUTAN

Date submitted: 26 January 2012

Name of submitting person and institution: Mr. Chado Tshering

Title: Chief of Division

Address: Watershed Management Division, Department of Forest & Parks Services, Ministry of Agriculture & Forests, Royal Government of Bhutan

Telephone: 00975-2-23568

Email: chado_tshering@yahoo.com

Website: www.dofps.gov.bt

2. Background

2.1 In what capacity would your country participate in the FCPF? Choose one of the five categories of participation below and briefly explain. Participation in the FCPF could be in different capacities, ranging from no support to full support and to be determined by PC subject to available resources, as listed below:

- i. Observer to the FCPF: The intended purpose is to draw upon the experiences of other FCPF REDD Country Participants. No financial support to attend FCPF meetings and/or for REDD+ readiness is provided.
- ii. Participation without financial support for REDD+ Readiness: The financial support in this category is limited to support for participation for one representative from country to attend FCPF meetings, subject to available resources. There is no financial support for REDD+ readiness but the country could potentially be a member of the Participants Committee.
- iii. Participation with support only for formulation of Readiness Preparation Proposal (R-PP): Participation at this level would entail financial support for R-PP formulation (\$200,000), and for participation of one country representative in FCPF meetings, subject to available resources.
- iv. Participation with full financial support for REDD+ Readiness preparation: As full member of the FCPF, participation would include financial and technical support for REDD+ readiness (total financial support is \$3.6 million in two stages: \$200,000 grant to help formulate a Readiness Preparation Proposal (R-PP), and \$3.4 million preparation grant to implement the R-PP), and for one country representative to attend FCPF meetings, subject to available resources.
- v. Other: You may wish to consider another role that best describes your interest in the FCPF, such as contributor of expertise, experience and technology.

Bhutan will participate under category (iv).

2.2 Should your country preference be category (iii) or (iv) above, have you already identified or had discussion with a potential Delivery Partner for channeling FCPF resources and providing REDD+ readiness Services? If so, which one (Food and Agriculture Organization of the United Nations, Inter-American Development Bank, United Nations Development Programme or World Bank)?

The Watershed Management Division, Department of Forest & Parks Services is responsible for developing plans and programs related to climate change in the forestry sector including REDD+ and PES. With regard to Bhutan getting on board for REDD+ programs, the Division is in communication with the UNDP Country Office to initiate REDD+ “start-up program”. This start-up program will help the Division in initiating ground work for the development of a REDD+ Strategy for Bhutan and pave directions for the REDD+ readiness in the near future. Towards this end, the UNDP Country Office has allocated USD 60,000 for the calendar year 2012 for initiating REDD+ Working Group who would be responsible for spearheading the Bhutan REDD+ Strategy.

Since the Division has already started collaboration with UNDP Country Office, it might be more appropriate to strengthen ties with UNDP and appoint UNDP as the Delivery Partner for channeling FCPF resources and support the Division in providing REDD+ readiness services.

2.3 Does the World Bank have an active portfolio on forests and natural resource management in your country? If so, briefly explain.

Not currently, but yes in the past. The World Bank was engaged in three phases of Forestry Development Project in Eastern Bhutan in the 1990s.

2.4 Have you received, or are you expecting to receive in the near future, technical or financial support for REDD+ from the UN-REDD Programme or any other multilateral or bilateral assistance program for REDD+? If yes, provide the details and also mention for what areas of REDD+ Readiness would you request the FCPF support?

For the year 2012, the United Nations Development Programme (UNDP) Country Office in Bhutan has committed to provide USD 60,000 to the Watershed Management Division, Department of Forests and Park Services to initiate preparation of a National REDD+ Strategy for Bhutan to be lead by a REDD+ Technical Working Group.

From FCPF, the Watershed Management Division would like to receive assistance both technically and financially for REDD+ Readiness preparation. Specifically the Division would like to seek FCPF support in the following areas.

- Build technical capacity and competence of a core pool of expertise within the Department of Forests & Parks Services. This pool of professional staff must be trained both in theory and on-the –ground to assess both above and below ground carbon in different forest types in the country to be able to fully assess, analyze and provide a complete picture of carbon stock in Bhutan’s forests.
- A national REDD+ Readiness Strategy for Bhutan shall be prepared keeping in mind the national commitment to remain carbon neutral.
- The above pool of trained manpower shall then conduct training on carbon stock assessment for other forest inventory groups, protected areas staff, and the field divisions who shall then lead carbon stock assessment in Bhutan at the national level.
- Procurement of relevant equipment and gadgets. Under the overall supervision of the Watershed Management Division, Department of Forests & Parks Services, instruments, equipment and gadgets required for carbon stock assessment will be procured.
- In order for the country to be able to periodically assess and report changes of carbon stock, the Department of Forests & Parks Services in collaboration with the Department of Survey and Land Records strengthen remote sensing and GIS capabilities in the country through professional development of the capacity of the remote sensing and GIS staffs in these two departments. Periodic assessment and reporting of changes in land cover, changes in carbon stock, emission from various sectors need to be periodically assessed particularly in view of Bhutan’s policy commitment to remain carbon neutral.

3. REDD+ and National Development

(Please answer each question in ½ page maximum. If accepted into the FCPF, under categories (iii) or (iv) above in 2.1, the country will be expected to provide further information and analysis in the Readiness Preparation Proposal).

3.1 How important are forests in your country, including for poverty reduction, the well-being of forest-dependent Indigenous Peoples and other forest dwellers, and biological diversity? Please use quantitative data, if available.

Bhutan has been endowed with a rich heritage of renewable natural resources. Past policies and practices of the Government have successfully protected this heritage. Rural people in Bhutan, who currently make up about 69% of the population (PHCB, 2005), depend heavily on forests for subsistence goods and services (fuel-wood, non-wood forest products, construction timber, leaf litter for animal bedding, forest food, medicines and agriculture). However, pressures are mounting on the forests to provide an increasing range of goods and services from the ever increasing pace of development.

Bhutan straddles two major biogeographic realms, the Indo-Malayan and Palearctic and is part of the Eastern Himalayan region which contains parts of three global biodiversity hotspots, 60 ecoregions, 330 important Bird Areas, 53 Important Plant Areas, and a large number of wetlands and 29 Ramsar sites (ICIMOD, 2010). Bhutan is home to a diverse array of flora and fauna including 5603 species of vascular plants, 400 lichens, 200 mammals and about 700 birds. In addition to the currently known 105 endemic plant species, Bhutan also hosts a number of globally threatened species including 27 mammals and 18 birds.

The country has 70.46 percent of the total area under forest cover and 51.32 percent, secured as protected areas and biological corridors. These serve not only as rich reservoirs of biodiversity but indirectly serve as long-term stores of carbon which mitigate the adverse impacts of climate change. The protected areas system of Bhutan is regarded as one of the most comprehensive in the world. It encompasses a continuum of representational samples of all major ecosystems found in the country, ranging from the tropical/sub-tropical grasslands and forests in the southern foothills through temperate forests in the central mountains and valleys to alpine meadows in the northern mountains (NEC, 2009). Bhutan also has an extensive network of rivers due to the high level of precipitation, numerous glaciers and glacial lakes and well-preserved forests resulting in upstream and downstream benefits such as water and other ecosystem services (BAP, 2009).

Bhutan emits approximately 1.5 million tonnes of carbon annually, and its forests absorb approximately 6.3 million tonnes, leaving it with a carbon emission of -4.7 million tonnes, distinguishing it as one of the few countries in the world with negative carbon emissions. Ironically Bhutan's status as a negative carbon emitter does not make it immune to the impacts of climate change. In fact, its location in the Himalayas renders it more vulnerable to the impacts of climate change because warming trends are higher and the impacts are magnified by the extreme changes in altitude over small distances (Shrestha & Eriksson, 2009). In addition, it has become increasingly evident that those likely to bear the greatest brunt of climate change are the world's poorest countries and in particular the poor and marginalized communities and people who depend almost exclusively on natural resources and have reduced capacity to adapt due to their vulnerable situation (Tse-ring et al, 2010). These raise concerns for the persistence of our biodiversity and the livelihood of 69 percent of our rural population who depend directly on agriculture and natural resources.

3.2 What are the current situation and trends in deforestation and forest degradation? What are the main causes of deforestation and forest degradation?

Bhutan has a unique position, as a developing country with very high forest cover and a history of very limited deforestation and forest degradation. Trends in forest cover seem to indicate an environment in

which most drivers of forest degradation and even deforestation are becoming less important. Grazing pressure is slowly reducing because of falling livestock population, cattles and yaks, linked to government policy to promote improved breeds and socio-economic changes within the pastoralist communities. Tseri (shifting cultivation) ban has resulted in a marked drop in tseri practice and a considerable area of tseri land will slowly turn into forests. Following of agricultural land is clearly on the rise due to a complex of factors linked to livelihood strategies, off-farm employment opportunities, rural urban migration, wildlife pressure and irrigation etc.

Main drivers of forest degradation in Bhutan today are infrastructure development, land-use change and the booming construction industry. Currently there are over 5000 kms of national and feeder roads, 4200 kms of farm roads (as of June 2011), another 1500 km of farm road yet to be constructed within the 10th FYP (ending June 2013). The government has pledged to connect all the gewog centres (lowest level local government centre) with road access and it would be inevitable that another 2000-3000 kms of roads would be constructed in the 11th FYP period (2013-2018). Therefore, virgin forests which were earlier inaccessible are becoming easily accessible and this open access has gradually deteriorated the quality of forests in the country. The increasing demand for construction timber and fuel-wood both show an imbalance in the supply/demand balance, leading to unsustainable management and forest degradation, and with the supply side having only limited growth potential to match and increasing market demand. This imbalance is threatening to become more explicit and having negative impact on forest cover and forest quality.

Forest fires are considered to be one of the key threats to coniferous forests in the country with 526 incidents of forest fire, affecting over 70,000 ha of forest between 1999/2000 to 2007/2008 (BAP, 2009). While most fires in Bhutan are caused by human activity, the rising temperature and long spells of drought due to climate change are likely to increase the risk of forest fires resulting in further reduction and degradation of forest resources. Such examples include the fires in the winter of 1998/99 which was characterized by a prolonged spell of dry (snow-less) weather with forest fire incidents even in places without a known history of forest fires (BAP, 2009). However, forest fires are also an essential part of the natural process in the functioning of many ecosystems. Fire suppression in fire-adapted ecosystems or ecosystems that depend on fire often results in reduced biodiversity and increased vegetation and fuel density, often amplifying risks of catastrophic fire over time. Furthermore, the fire-ecosystem relationship is also being altered by climate change, with significant consequences for ecological processes and biodiversity. Effective biodiversity conservation therefore requires allowing fire to play their role in maintaining ecosystem functioning, without posing a threat to biodiversity or human well-being through excessive occurrence (CBD, 2009). The likelihood of more frequent climate extremes would lead to higher risk of forest fires and requires a close monitoring and prevention strategy.

3.3 Does your country currently have a forest monitoring system, including estimates of greenhouse gas emissions from deforestation and forest degradation?

Forest management and monitoring is the responsibility of the Department of Forests and Park Services (DOFPS). While there is no high tech forest monitoring system developed in the country, the DOFPS manages and monitors the forest in the country through a network of field offices for issuance of forest clearance for any change in land-use, tree cutting permits, harvesting of non-wood forest products etc. The National Environment Commission (NEC) is the focal agency for Bhutan for the UNFCCC and is responsible for the National Communication on GHG emissions. Bhutan has recently completed the Second National Communication to the UNFCCC and reported on the GHG emissions. Total greenhouse

gas (GHG) emissions, excluding Landuse Change and Forestry (LUCF), in 2000 were 1,559.56 Gg CO₂-equivalent, which includes 270.23 Gg CO₂-equivalent from energy; 237.76 Gg CO₂-equivalent from industrial processes; 1,005.30 Gg CO₂-equivalent from agriculture, and 46.27 Gg CO₂-equivalent from waste. CO₂ sequestration by the forestry and land use sector in 2000 amounted to 6,309.6 Gg. Total GHG emissions, including LUCF, are estimated to be -4,750.04 Gg CO₂-equivalent, indicating that Bhutan is a net sink for GHG emissions. Emission trends were also estimated for 1994-2009. Emissions have been growing mostly in the energy and industrial sector. Between the first GHG Inventory year of 1994 and the second inventory year of 2000, emissions from energy grew at 21.4% a year mostly due to transport and industry growth. Emissions from industrial processes grew at about 8.7% a year. It should be noted that due to almost 100% use of hydropower for electricity and relatively low industrialization in 2000, emissions were most significant from agriculture sector due to methane and nitrous oxide from livestock management.

The managed forests, forest plantations and the abandonment of managed lands sequestered 6,309.63 Gg CO₂-equivalent and is roughly four times the level of Bhutan's total GHG emissions excluding LUCF. Annual activity data were compiled from national forest reports which used a mixture of sources including annual forest resource and land cover assessments, GIS-based and RS-based land use/land cover mapping using Landsat satellite images from 1999-2000. The prominence of carbon sequestration in the national GHG inventory reflects national policy that regards forests as crucial for the wellbeing of the Bhutanese population through its natural regulation of climatic, water, and flora/fauna resources to furnish essential needs such as wood, food, fodder and traditional remedies. The Constitution of the Kingdom of Bhutan also mandates that 60% of the country remain under forest cover for all times to come.

Too little is known with adequate accuracy about the exact forest cover, the spread and properties of the different forest types and needed local details to assess carbon stock for the forest types of Bhutan, including carbon density, increment rates and below-ground biomass. Bhutan has designed a comprehensive methodology for the national forest inventory (2011) including carbon stock assessment. However, due to lack of adequate funding and inadequate capacity within DOFPS, NFI is yet to take off. Once a comprehensive NFI is conducted, a more realistic carbon sequestration scenario from Bhutan's forest sector would emerge.

3.4 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.)?

Following are some of the plans and programs necessary to execute in order to reduce or arrest forest degradation in Bhutan.

- All forests (Government Reserved Forests) in Bhutan need to be designated and delineated for various management purposes – forest management units (scientific forest management), community forests (managed by local communities), forest areas for lease (commercial/industrial), protection forest (catchment, wetlands, scenic) and biodiversity conservation areas (national parks, wildlife sanctuaries, nature reserves etc.). Such a clear cut designation and delineation can guarantee constitutional mandate of maintaining 60% of the country under forest cover at all times. Currently only about 6.6% of the GRF are under sustainable management in the form of forest management units (scientific management), and

community forests. A large chunk of the forests are unmanaged, and are used for ad-hoc harvesting purposes mostly for rural timber and fuel-wood consumption. In the 11th FYP most of these forests will be brought under management.

- Enhanced participation of local communities in forest management. The National Forest Policy of Bhutan 2011 states that 20% of the GRF will be brought under community management by 2020. Currently there are 356 community forests management groups comprising of 16,360 households and managing roughly 42,000 ha of GRF (SFD, 2011/2). This program is concentrating on the sustainable management of forest areas closer to villages and settlements. Therefore, this program has the potential to regenerate large areas of degraded forest lands GRF and at the same time provide income generating opportunities for the rural population. The CF programs need to be enhanced and expanded in the 11th FYP. The CF is also seen to complement in meeting the urban and rural forest products needs in the near future.
- Private sector investment. Currently 99% of the wood and other forest product needs in the country are met from natural forests. Private sector investments need to be brought in to meet commercial and wood-based industry raw material needs in the future through forest land lease and development. In addition, private forests, agro-forests and homesteads need to be vigorously pursued in the future to supplement wood production for market and home consumption needs. Such a program in combination with the community forestry program will help reduce pressure on natural forests.

3.5 What are the key potential challenges for REDD+ in your country (e.g., lack of financing, lack of technical capacity, governance issues)?

Potential challenges for REDD+ for Bhutan are the following.

- Lack of adequate funds to sustainable forest management. For example, national forest inventory was a long felt need. However, NFI could not be conducted due to lack of funds.
- Lack of technical capacity. For implementation of REDD+, strong technical capacity is required which Bhutan at this stage do not have. We need to start with first building a core team of competent and expertise within the Department of Forests & Parks Services. This pool of professional staff must be trained both in theory and on-the-ground to assess both above and below ground carbon in different forest types in the country to be able to fully assess, analyze and provide a complete picture of carbon stock in Bhutan's forests. This pool of trained manpower shall then conduct training on carbon stock assessment for other forest inventory groups, protected areas staff, and the field divisions who shall then lead carbon stock assessment in Bhutan at the national level.
- Governance. Forest governance as such may not become an issue. However, the governance of plough back financial benefits from REDD+ may become an issue particularly in terms of how the funds are to be used and where to be used. A large portion of REDD+ plough back may justifiably go into sustainable forest management, catchment areas management, and protected areas management. But local communities must also receive a fair share as they would manage

a sizable portion of the GRF under community forests in the future.

3.6 How does REDD+ fit in your country's national low-carbon development strategy/plan, if any, or in the strategy/plan for the forest and other relevant sectors (e.g., agriculture, water, energy, transportation)?

The Royal Government of Bhutan made a strong commitment during COP15 in Copenhagen in December 2009, voiced by the prime minister Jigme Y. Thinley by “ Pledging that for all times to come, Bhutan will remain carbon neutral and that we will continue to follow and be guided by a strong sense of conservation ethics. That we will not produce GHG in excess of what we can sequester but that we will also serve as a carbon sequestration tank for the world in general. And that we would like to be rewarded for this.” In follow up of this remarkable commitment Bhutan has become an observer nation to the UN-REDD program in April 2010, as an expression of its interest in involvement with the REDD+ mechanism development and seeking opportunities to prepare for future opportunities. The legal setting for REDD+ in Bhutan should be described as conducive. Article 5 of the Constitution of the Kingdom of Bhutan makes it clear that: “*Every Bhutanese is a trustee of the Kingdom's natural resources and environment*”. The Royal Government is enjoined in the Constitution to conserve and improve the environment and safeguard the country's biodiversity. It is further directed to secure sustainable development while promoting economic and social development (National Forest Policy 2011). The Constitution charges the Government to ensure that a minimum of 60 % of Bhutan's total land area is maintained under forest cover for all time, a commitment unique in the world and setting an absolutely enabling environment to initiate REDD+ in Bhutan. The Forest and Nature Conservation Act of 1995 recognizes the traditional and cultural rights of the local people to forest use and thereby maintains their legitimate access to forest resources.

Other relevant policy documents are the Integrated Energy Development Master Plan (2010), with clear recommendations for a balanced sustainable firewood supply and an urge for improved energy efficiency, and the Sustainable Hydropower development Policy, Draft, 2008, that stresses the importance of watershed management and conservation of protection forest functions, essential for downstream water quality and quantity. The Hydropower Policy also states that 1% of the hydropower revenues should be ploughed back into watershed management activities, ensuring funding support for key sustainable landscape management interventions

3.7 Please briefly describe the envisaged national management arrangements for REDD+, explaining at what level of government REDD+ would be steered.

Two agencies are pivotal for the development of REDD+ within the Bhutanese government system. The Watershed Management Division (WMD), Department of Forests and Park Services, Ministry of Agriculture and Forests within the renewable natural resource sector at the implementation level. The other is the National Environment Commission Secretariat which is an advisory body at the policy level. (NEC) is the focal agency for Bhutan for the UNFCCC and responsible for the National Communication on GHG emissions. WMD is the focal agency for Bhutan for UN-REDD programme. The WMD intends to initiate setting up of a REDD+ Technical Committee and a National Policy Advisory Committee for implementing the REDD+ programme in Bhutan. The implementation mechanism requirements will be clearly reflected in the National REDD + Strategy.

3.8 Please briefly describe the proposed consultations that would be conducted to design the REDD+ strategy.

In June 2010 a two day seminar was organized on REDD + potential by the Watershed Management Division of the Department of Forest and Park Services, supported by SNV Bhutan. This awareness raising event produced a document containing Bhutan's position statement on REDD+ and a number of recommendations, amongst which to further study REDD+ feasibility in Bhutan. Subsequently, based on the recommendation from the REDD+ seminar, a feasibility study was conducted with the scope to keep momentum in introducing REDD+ in Bhutan and assess the capacity and knowledge base, essential for compliance and voluntary market entrance, combined with an overall analysis if it is worthwhile to commit to the REDD mechanism, weighing its advantages and disadvantages, scoping the potential and possible impact and contribution to the development goals of RGOB. An institutional anchor is envisaged in the creation of a REDD+ policy advisory committee and a technical working group of experts in drawing up a long term National strategy for productive and equitable REDD+ undertakings. Build scientific knowledge base on forest ecosystems and technical and scientific capacity to characterize and quantify forest carbon stock and fluxes through forest type mapping, focused forest type research and carry out a comprehensive nationwide forest inventory applying internationally accepted guidelines and following agreed principles and criteria.

Following are some of the expected steps toward designing and developing a National REDD+ Strategy for Bhutan

I. Institutional Building

Institutionalize development of REDD+ national strategy or action plan and, and if needed, frame separate REDD+ policy or integrate such policy elements into the existing policy frameworks. An institutional anchor is envisaged in the creation of a REDD+ Policy Advisory Committee and a Technical Working Group of experts in drawing up a long-term strategy for productive and equitable REDD+ undertakings.

- Formation of a REDD+ Technical Working Group (to be coordinated by Chief Watershed Management Division)
- Formation of REDD+ Policy Advisory Committee (Chaired by MOAF Secretary)

II. Towards development of National REDD+ Strategy

- Requisition of TA for REDD+ Strategy preparation
- Basic information and data collection required for REDD+ strategy
- Preparation of a REDD+ skeletal framework
- Consultations with stakeholders
- Improvement of the draft strategy and further consultations

III. Finalization of National REDD+ Strategy

- National level stakeholder workshop for finalization of the strategy

IV. Submission of the strategy for financial support to UND REDD Programme

V. Implementation of the Strategy

VI. Identification of pilot project and its preparations

VII. Capacity Building

VIII. National Forest Inventory and Carbon Stock Assessment