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Forest Carbon Partnership Facility (FCPF) Readiness Mechanism Readiness Preparation Proposal (R-PP) External Review Template

(interim, April 20, 2012, from Program Document FMT 2009-1, Rev. 5)

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Guidelines for Reviewers:

1) FCPF REDD Country Participant R-PPs will be reviewed and assessed by the FCPF Participants Committee, the FCPF's governing body, taking TAP comments into account. External (Technical Advisory Panel or other) and Bank reviewers may provide recommendations on how a draft R-PP could be enhanced, using this template on a pilot basis until a process is approved by the PC.

2) One set of criteria should be used for review: specific standards each of the current 6 components of an R-PP should be met.

3) Your comments will be merged with other reviewer comments (without individual attribution) into a synthesis document that will be made public, in general, so bear this in mind when commenting.

4) Please provide thoughtful, fair assessment of the draft R-PP, in the form of actionable recommendations for the potential enhancement of the R-PP by the submitting country. A REDD Country Participant would be allowed three submissions of an R-PP to the PC for consideration.

Objectives of a Readiness Preparation Proposal (condensed directly from Program Document FMT 2009-1, Rev. 3)

*The **purpose of the R-PP** is to build and elaborate on the previous Readiness Plan Idea Note (R-PIN) or a country's relevant comparable work, to assist a country in laying out and organizing the steps needed to achieve 'Readiness' to undertake activities to reduce emissions from deforestation and forest degradation (REDD), in the specific country context. The R-PP provides a framework for a country to set a clear roadmap, budget, and schedule to achieve REDD Readiness. The FCPF does not expect that the activities identified in the R-PP and its Terms of Reference (ToR) would actually occur at the R-PP stage, although countries may decide to begin pilot activities for which they have capacity and stakeholder support. Instead, the R-PP consists of a summary of the current policy and governance context, what study and other preparatory activities would occur under each major R-PP component, how they would be undertaken in the R-PP execution phase, and then a ToR or work plan for each component. The activities would generally be performed in the next, R-PP execution phase, not as part of the R-PP formulation process.*

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Summary Review of R-PP of Bhutan

Reviewer (fill in): Jayant Sathaye Co-leading Five TAP Experts

Date of review (fill in): 8 Dec. 2013

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Standards to be Met by R-PP Components

(From Program Document FMT 2009-1, Rev. 6)

Second TAP Review (10 November 2013):

Overview and TAP General Comments:

This Second TAP Review focused on Bhutan Second revised R-PP submission (8 November 2013) that was submitted in November. It was designed to address the TAP First Review comments. The submitted draft addressed almost all the comments on each of the components with some minor items that need further attention. The text and inclusion of tables and figures in the overall document is now significantly improved. It is much easier now to read and understand the text.

A larger list of Components reached the Met criteria except Components 1a, 1c, 2a, 4a, 4b, and 6.

A major challenge in the responses to the Synthesis Review was no information about the Items that had been responded to by Bhutan. Since these responses were not sent, we had to take a best estimate of the revisions included in the Second R-PP version.

We have noted the items that we were not able to locate in each sub-component implying that these may not have been addressed by Bhutan colleagues. In each component text, we note the Items that were not found in the R-PP Standard text. Would appreciate your response to these comments by noting the ones you have addressed and we did not find them or others that you did not address. For the latter ones, please provide another set of comments.

The table below shows whether each sub-component meets R-PP standard.

Components	R-PP Submitted for assessment in PC 16, Geneva – First Review	R-PP Submitted for assessment in PC 16, Geneva – Third Review	
1a	Partially met	Met	
1b	Largely met	Met	
1c	Partially met	Largely met	
2a	Partially met	Met	
2b	Partially met	Met	
2c	Largely met	Met	
2d	Largely met	Met	
3	Partially met	Met	
4a	Partially met	Met	
4b	Largely met	Met	
5	Partially met	Met	
6	Largely met	Met	

First TAP Review (3 October 2013):

Background:

Bhutan submitted a first draft R-PP in Sept. 2013 for consideration at PC 17 (Dec. 2013). A TAP Team consisting of six members reviewed the draft R-PP. Members submitted their drafts that were assembled to establish a synthesized review on 4 October, which is reported below with a summary of the issues that were described for each component.

Overview:

Strengths of the RPP:

Six TAP reviewers have studied this version, offered extensive comments and improvements, and their general impression is as follows:

1. The current version of the R-PP is very well written fine component and the ideas are presented in a comprehensive manner and the content under each component and respective sub-component have responded to the terms of reference set out in the R-PP Template.

2. The executive summary has provided a concise overview of the entire R-PP, in which the types of consultations and information sharing during the preparation of the R-PP are highlighted, as is a summary of the key drivers of deforestation and forest degradation and associated strategy options. It initiated its R-PP activity in 2010 with UNREDD support in 2011. It noted that the Constitution of Bhutan mandates to maintain 60% forest cover for all the times and will rely on its Five Year plans, Aug. 2013 start for 11th plan, to retain it.

3. It is evident from the R-PP that the rate of deforestation still needs to be further analyzed during the implementation of the R-PP and will certainly be needed in the construction of reference levels. In addition more systematic and precise data on carbon stocks in the chosen pools and forest definitions are required.

4. The proposed MRV system, including a system for monitoring of multiple benefits and safeguards seem sufficient, even though experience in the aspect of safeguards is still limited. What is unfortunate is that Bhutan does not have a long history of forest resource mapping and other forms of assessment, which it hopes to build upon.

5. The proposed SESA and EIA frameworks are relevant and generally demonstrate an admirable understanding of the subject matter. However, there is very little work done on this topic and is going to require considerable inputs from various staff and local communities.
6. We have concluded that Components 1b, 2c, 2d, 4b, and 6 largely meet the standard while rest of the components partially meet the standards and will require more assessment and analysis

to resolve the issues.

Key Recommendations:

Despite the general observation that the treatment of the various components are quite complete there are still some items and issues that need to be addressed in order to meet the standards set for them. These are noted below, and their inclusion would assist in meeting each component standard.

1. Under sub-component 1a, Cabinet level interaction and participation is critical for successful operation of REDD+ programs since sources of D&D are often promoted by non-forestry ministries such as agriculture, mining, land use, power sector, etc. Please consider additional government and non-government entities and a REDD+ Information Center. Capacity building and training needs could be supported by Community Forest User Groups.

2. Although Bhutan already has an extensive process for local engagement there is little mention of the use of FPIC guidelines. These guidelines need to be met as part of the R-PP process. Bhutan should show how existing consultation processes meet or go beyond these requirements. Also, the consultation and participation process must continue through year 2-4 to ensure that pilot programs are continually discussed with all relevant stakeholders.

3. The current policies and institutions need to create a mechanism to compensate the loss of biodiversity and forest cover by development activities or create market for biodiversity offset programs, through integration of offsets programs into the Environmental Assessment process in order to generate the payment for conservation from the biodiversity loss. Would also be useful to consider more studies of Bhutan's frequent use of forest fire and failure of regeneration of forests.

4. Component 2b refers to the SNV that applied to Cost-Benefit Analysis (CBA). A full monetary CBA would help particularly since throughout the R-PP missing is the estimation of jobs of the emerging REDD+. More jobs would provide higher credits for R-PP programs.

5. The REL/RL modeling will be a brand new activity in Bhutan. Many additional items to cover are noted in the Component 3 Recommendations that will strengthen the proposed programs.

6. R-PP can reduce funds from some Components such as 1 and increase the allocation to Comps. 4b and 6. It would also be important to separate the fund allocation to Components 4a and 4b.

7. An important element would be to provide information about the goals for accomplishment of Bhutan's R-PP plans each year from 2014 to 2017 with their funded activities. It would be helpful to describe this in each Component Activities and Budget Summary Table. Each Table should also indicate the how the government and FCPF funds are to be used for the listed activities.

8. Capacity building is an important topic for every component with particular needs in

Components 2a, 2b, and 2d that has no allocated funds.

9. In Component 5, please include this Table – Schedule and Budget R-PP Template Version 6. It would report on each sub-component costs for four years from 2013 to 2106, and a total amount. It should also include the total costs for each of the six Components.

B. TAP Recommendations and questions that focus broadly on the R-P presentation are noted under each Sub-component. It has two items – Key Recommendations and Additional Recommendations. Key items refer to the important comments that will require more effort to address the requested changes. Additional items are simpler comments that may be addressed with less effort.

C. The TAP assessment of the standards for each section is summarized in the table below.   (Provide inputs)

Component 1. Organize and Consult

Standard 1a: National Readiness Management Arrangements:

The cross-cutting nature of the design and workings of the national readiness management arrangements on REDD, in terms of including relevant stakeholders and key government agencies beyond the forestry department, commitment of other sectors in planning and implementation of REDD readiness. Capacity building activities are included in the work plan for each component where significant external technical expertise has been used in the R-PP development process, and mechanisms for addressing grievances regarding consultation and participation in the REDD-plus process, and for conflict resolution and redress of grievances.

Reviewer's assessment of how well R-PP meets this standard, and recommendations:

Third TAP Review (10 December 2013):

Revised R-PP has made further progress in addressing the recommendations that were noted in the First TAP Review. It has provided additional information on various items. It includes a very good response to Key Recommendation 4 about including information about yearly targets. It is included in all the other components as well.

Additional Recommendations:

1. Item 16 will require more work to be done during the implementation of the project.

Component 1a meets the standard.

First TAP Review (21 September 2013):

This section provides information on the arrangements for management of national readiness. Bhutan set up a series of strong laws to protect and manage the use of forests in 1999. It has focused primarily on maximizing Gross National Happiness (GNH) in its Bhutan Vision 2020 document. It implements policies and legislations through its Five-Year Plans (FYP).

Current 11th plan was set in Sept. 2013. The Plan emphasizes biodiversity conservation and the maintenance of ecosystem services through protected area management, watershed management and

wildlife management. Increasing community participation in natural resources management and sharing of associated benefits is also one of the focal areas of the 11th FYP. The empowerment of the rural communities to manage forests sustainably for socio-economic benefits and to contribute to sustainable management of forest landscapes at the national level has been emphasized in all the three programs.

Bhutan has 10 Protected Areas that cover 51% of the total country area that would be easier to maintain and implement REDD+ programs. Its community forests are growing rapidly covering 57,825 hectares.

It has established a National Climate Change Committee (NCCC) which is led by the Prime Minister and includes four other ministers. Component 1 provides good information about the inclusion of all the key REDD+ entities in Bhutan. Roles they would play, the activities they would focus on and their engagement in the REDD+ processes.

Recommendations and Questions:

Overall it is a good plan that will be implemented over the next five years. Some questions and comments are noted below.

Key Recommendations:

1. How well have plans been implemented in prior FYPs? Was it effective for 10th FYP? If there were challenges how would the 11th FYP address them?

2. I noticed that information from and about Bhutan is noted in UN-REDD. Did Bhutan receive support from UN-REDD? If so, it would be useful for you to cite the UN-REDD activities and how they would connect with this R-PP.

3. Table 1a-5 -- Committees relevant to REDD+ with stakeholder representatives. How would local communities be engaged in such committees? None are explicitly listed in the table.

4. How many of the staff of will be fully occupied with the project both at the national level and sub-national levels. What will be the institutional linkages at the district level?

5. Capacity building and training needs are a big constraint. How do we ensure continuity of the project while ensuring staff capacity building? Would be useful to encourage the growing number of Community Forest User Groups to federate (at Dzongkhag level and possibly at national level) so that they can be meaningfully involved in the REDD+ steering mechanisms.

6. We also recommend the inclusion of these four government and two non-government entities – (1) Druk Green Power Corporation (DGPC), (2) Bhutan Power Corporation (BPC), (3) Department of Road (DoR/Ministry of Works and Human settlements), and (4) Tourism Council of Bhutan, and (1) World Wildlife Fund (WWF-Bhutan) and (2)Association of Bhutan Tour Operator. Each would provide significant inputs and assistance to putting together various related alternative programs.

7. It is recommended to brainstorm among the stakeholders, government and non--- government agencies on what information attributes to be collected from the different perspectives, how these information will be stored and shared, how these information attributes will be related and how to generate the new knowledge and information based on these known knowledge and information through integration.

Additional Recommendations:

8. Does it also explicitly cover the goal to achieve CO_2 reduction?

9. It would seem that there is substantial overlap in the 1c meetings at the 20 Dzonkhags and the same capacity building efforts in 1b. Totaled together they will cost 500k. Is it possible to do both things at the same time, and use the balance for something else?

10. When was the NCCC established and how active has it been to date?

11. Would it be possible to include a university that could conduct Components 3 and 4 researches? In other countries, these groups provide strong technical support. Would RUB or others engage a Forest School?

12. Many Acronyms are missing on pages 8 and 9. Please check them again. The once we noticed are LCMP,DT,CA,FPED,GRF,ACC, LDC, CCBA, NRED, RNR-RDC, UWICE, WCD, WS, GRF, IEDMP, NTFP, SNV, AAC, etc.

13. A number of PhD's have been proposed. How will this affect the staff pool? What are the costs and benefits of a PhD versus short term training given the four year term of project

14. The proposed REDD+ specific page 22 grievance system should include special provisions for vulnerable groups like the poor, the elderly, women, and youth to adequately voice their concerns and get (assistance to) their complaints treated fairly and adequately.

15. It is recommended to facilitate the REDD+ Information Center as the common platform for communication and reporting among the technical working groups in relation to regular meeting minutes, preparation and dissemination of reports.

16. Building capacity of local staff could be done significantly providing an array of following courses: Spatial and Non--- Spatial Database Management Systems, Information System Science, Environmental Statistics, Regression Modeling of Natural Resources, Forestry and Ecological Data, Sampling Statistics for Natural Resources, Forestry and Ecological Data, Hydrological Modeling and Watershed Management, Computer Programming, Forest Biometrics, Forest Inventory, Ecology, Global Resources and Environment, Forest Resources Management, Forest Ecology, Forest Botany, Social Ecology, Silviculture as the Applied Science of Ecology, Geo--- informatics, Atmospheric Chemistry, Atmospheric Physics, Soil Chemistry, Soil Physics and Mathematics.

Component 1a partially meets the standard.

Standard 1b: Information Sharing and Early Dialogue with Key Stakeholder Groups:

The R-PP presents evidence of the government having undertaken an exercise to identify key stakeholders for REDD-plus, and commenced a credible national-scale information sharing and awareness raising campaign for key relevant stakeholders. The campaign's major objective is to establish an early dialogue on the REDD-plus concept and R-PP development process that sets the stage for the later consultation process during the implementation of the R-PP work plan. This effort needs to reach out, to the extent feasible at this stage, to networks and representatives of forest-dependent indigenous peoples and other forest dwellers and forest dependent communities, both at national and local level. The R-PP contains evidence that a reasonably broad range of key stakeholders has been identified, voices of vulnerable groups are beginning to be heard, and that a reasonable amount of time and effort has been invested to raise general awareness of the basic concepts and process of REDD-plus including the SESA.

Reviewer's assessment of how well R-PP meets this standard, and recommendations:

Third TAP Review (10 December 2013):

Revised R-PP has made further progress in addressing the recommendations that were noted in the First TAP Review. It has provided additional information on various items. It is included in all the other components as well.

Component 1b meets the standard.

First TAP Review (21 September2013):

REDD+ was formally introduced to Bhutan through a two-day seminar in Thimphu in June 2010. The seminar was also used as a platform to raise awareness of all relevant stakeholders. As a follow up to the seminar, DoFPS hired a consultant to carry out a REDD+ feasibility study (van Noord, 2010). During the feasibility study, the consultant held a series of consultations with various stakeholders, which helped in enhancing knowledge on REDD+ concepts.

With financial support from UN REDD, the Ministry implemented awareness workshops at national (see http://www.moaf.gov.bt/moaf/?p=7895) and sub-national levels, targeting a diverse range of government and civil society organizations, along with local communities living in and around forest areas. The summary of workshops carried out on REDD+ is given in the Table 1b-3.

The stakeholder consultation meeting had more than 1,200 people, including 150 women from 13 Dzongkhags who learned new subjects and issues about REDD+ activities, including drivers and impacts of climate change, adaptation measures, PES, R-PP and roles and responsibilities, challenges, risks and benefits of REDD+:

It proposed to continue similar activities for the FCPF program during the next 5 years.

Recommendations and Questions:

Key Recommendations:

1. It would be good to prepare a table with information about the stakeholders that attended the national workshops and awareness programs (to determine if any stakeholders had not participated in the process, how many of the participants were from non-governmental organizations, sectors other than the forestry sector, private and also how many participants were women). The stakeholder consultation had 150 women but the number of women in national workshops is unclear. Also, it would be good to know how many local and non-governmental participants attended the district consultations. Also, were there any local government participants in the national level workshops?

Additional Recommendations:

2. It is recommended to conduct the awareness workshops/dialogs at the village level by the department of local governance to be ready at the end of 11th 5 year plan. The Tarayana foundation, RSPN and member of the technical working groups should involve for the Strategic Environmental and Social Assessment during the readiness phase of 11th 5 year plan.
3. It is recommended to achieve and disseminate the materials for the workshop and dialogs though the REDD+ Information center.

4. A record of discussions put forward by the communities has been presented which may be expanded to distinguish what perspectives, concerns/issues, suggestions and recommendations were raised by what group of participants (user groups/NGO/local government/other sectors) so that targeted measures/responses can be taken into consideration during the design and implementation of the program.

5. On p.29 table 1b1: Stakeholders map- The different types of local groups like forest user groups, community forestry groups, NTFP collectors' groups (distinguishing the poor, the elderly, women, youth) and their specific concerns could be mentioned specifically in this table.

6. In addition to the national level REDD+ workshops, WMD also initiated awareness workshops at District level (p.31 Table 1b-3) with 1500 elected leaders, Local Government Administration Officers and local Extension Agents (Agriculture, Forest and Livestock)were entrusted to carry out similar workshops at the village level, directly involving a larger number of forest users and potential beneficiaries. The list of issues raised on p.32 was presumably summarizing discussions with these intermediaries. What do we know about the results and feedbacks of these local level workshops? How many women attended these workshops? A summary of the points raised there would enrich the text.

Component 1b partially largely meets the standard

Standard 1c: Consultation and Participation Process
Ownership, transparency, and dissemination of the R-PP by the government and relevant stakeholders, and

inclusiveness of effective and informed consultation and participation by relevant stakeholders, will be assessed by whether proposals and/ or documentation on the following are included in the R-PP   (i) the consultation and participation process for R-PP development thus far[1] (ii) the extent of ownership within government and national stakeholder community; (iii) the Consultation and Participation Plan for the R-PP implementation phase   (iv) and concerns expressed and recommendations of relevant stakeholders, and a process for their consideration, and/or expressions of their support for the R-PP.

Reviewer's assessment of how well R-PP meets this standard, and recommendations:

Third TAP Review (10 December 2013):

Revised R-PP has made further progress in addressing the recommendations that were noted in the First TAP Review. It has provided additional information on various items.

Main Recommendations:

1.   Where in Component 4 would Item 6 be addressed? Please explain your response.

Additional Recommendations:

2.   Response noted for Items 12 through 17 were not found in the R-PP Standard 1c text. Only Items 12 and 17 were addressed. There were no responses for items 13, 14, 15 and 16. Please explain your response.

Component 1c largely meets the standard.

First TAP Review (21 September 2013):

The overall goal of the consultation and participation of stakeholders within REDD+ programs will be to increase awareness through wholesome participation of stakeholders when taking decisions on and implementing REDD+ activities.

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[1] Did the R-PP development, in particular the development of the ToR for the strategic environmental and social assessment and the Consultation and Participation Plan, include civil society, including forest dwellers and Indigenous Peoples representation? In this context the representative(s) will be determined in one of the following ways: (i) self-determined representative(s) meeting the following requirements: (a) selected through a participatory, consultative process; (b) having national coverage or networks; (c) previous experience working with the Government and UN system; (d) demonstrated experience serving as a representative, receiving input from, consulting with, and providing feedback to, a wide scope of civil society including Indigenous Peoples organizations; or (ii) Individual(s) recognized as legitimate representative(s) of a national network of civil society and/or Indigenous Peoples organizations (e.g., the GEF Small Grants National Steering Committee or National Forest Program Steering Committee).

Since 2010 Bhutan has engaged in the consultation and participation process. It would continue to do the same for the FCPF activity and address the seven key topics noted in Table 1c-1.

Recommendations and Questions:

Key Recommendations:

1. Table 1c-1: Participation of key stakeholders in REDD+ activities notes very completely the roles played by six different entities. Private sector is not engaged in three of the seven activities. It would normally be good to engage them in the carbon and socio-economic inventory activity. Would it be possible to accomplish this? And do you consider f.ex. local SMEs collecting NTFPs as part of the private sector?

2. It would seem that there is substantial overlap in the 1c meetings at the 20 Dzonkhags and the same capacity building efforts in 1b. Totaled together they will cost $500k. Is it possible to do both things at the same time, and use the balance for something else?

3. The sub-component needs a brief synthesis on the level of ownership the R-PP has generated in Bhutan and whether there are any dissenting opinions and the reasons for that.

4. It is recommended to measure or inventory the resources in term of area (net production area, net protection area), timber volume, biomass weight or carbon, and numbers of individuals (trees) by per hectare basis, at the acceptable % margin of error for estimates, which could be reported, verified and monitor the changes.

5. It is also recommended to measure the indicator of the ecosystem functions such as biodiversity index measurements and seasonal flow out of the watershed or catchment or basin at which the REDD+ activities are implementing.

6. It is recommended to archive, share, and synthesize the new knowledge or information based on the aforementioned measurements through transparent, equitable, accountable National Forest Monitoring System.

7. RGoB has carried out a good number of awareness raising and consultation activities in the preparatory process. The format stipulates that the issues raised, concerns expressed and possible recommendations of all relevant stakeholder groups at the different levels should be summarized here. This information is certainly available and would greatly enrich the text. It would also give a better idea of ownership and potential support of the different stakeholders for REDD+.

8. Although Bhutan already has an extensive process for local engagement there is little mention of the use of FPIC guidelines. These guidelines need to be met as part of the RPP process. Bhutan should show how existing consultation processes meet or go beyond these requirements.

9. For each step in the consultation process (pg 37) the consultation or outreach method could be identified so that the best approach can be used to ensure that stakeholders have the capacity to engage fully in consultations.

10. Figure 1c-1 indicates that under implementation of pilot projects and programs is the ACM (Anti-corruption measures), but there is no write up. Can this be detailed/clarified upon?

11. Figure 1c-1. The Consultation and participation process must continue through year 2-4, with constant feedback loops to ensure that the pilot programs selection and implementation process are being continually discussed with all relevant stakeholders. Implementation of pilot programs includes determining the institutional and functional linkages and responsibilities for implementing program. Year 4 states final evaluation but it might be that the pilot project will be in its infancy stage in year 4. A feedback loop for findings of the evaluation to improve/modify the programs would be useful.

Additional Recommendations:

12. It is recommended to measure the environmental impacts and social impacts of REDD+ activities by the RSPN and Tarayana Foundation.

13. It is recommended to field tests through the pilot projects and programs during the readiness phase for the confidence and experience on measurements, synthesis, reporting to the local community and international community, analyses of risk, benefits and tradeoff sharing, developing manuals, coaching stakeholders, to be ready implementing the REDD+ activities at the beginning of 12th 5 years plan.

14. Discuss how the proposed consultations will be broadened during the implementation phase, and how new concerns and recommendations will be incorporated as the project develops.

15. To what extent have potential donors like BTF been consulted?

16. How will the process ensure that vulnerable groups and other private stakeholders will be involved in the process?

17. With respect to setting up pilot projects. The criteria for selection of project may include a) existence of current projects, b) willingness of local community.

Component 1c partially meets the standard

Component 2. Prepare the REDD-plus Strategy

Standard 2a: Assessment of Land Use, Forest Law, Policy, and Governance:

A completed assessment is presented that: identifies major land use trends; assesses direct and indirect deforestation and degradation drivers in the most relevant sectors in the context of REDD-plus; recognizes major land tenure and natural resource rights and relevant governance issues; documents past successes

and failures in implementing policies or measures for addressing drivers of deforestation and forest degradation; identifies significant gaps, challenges, and opportunities to address REDD; and sets the stage for development of the country's REDD strategy to directly address key land use change drivers.

Reviewer's assessment of how well R-PP meets this standard, and recommendations:

Third TAP Review (10 December 2013):

Revised R-PP has made further progress in addressing the recommendations that were noted in the First TAP Review. It has provided additional information on various items.

Additional Recommendations:

1. Responses to Items 7, 17, 19 and 20 were addressed. Please include the response to 19 in your text.

Component 2a meets the standard.

First TAP Review (21 September 2013):

This section provides good analysis on key issues such as identifying major land use trends, assessing direct and indirect deforestation and degradation drivers. It also provides sufficient information on previous policies and relevant governance issues.

Bhutan had passed a Forest Act in 1969 that stipulated that at least 60% of the country should remain forested at all time. The act also provided, for the first time, strong penalties for forest offences. Bhutan has passed several other related acts – The Land Act (1979 and 2007), Forest and Nature Conservation (1995), National Environmental Strategy Middle Path (1998) and Environmental Assessment Act (2000).

The overall contribution of the forest sector to the GDP stood at 3.18% (2.7 billion Nu) in 2011. The percentage share will decline in the future. The country's economy is based on hydropower and about 80% of the water comes from watersheds. With the country's goal to harness 10,000 MW of hydropower by 2020, the dependency on forests for continuous supply of clean water will further increase, while development activities would likely result in reduced forest cover.

Recommendations and Questions:

Key Recommendations:

1. The forest cover showed slight increase during the period 1995 to 2010 and therefore deforestation is not considered to be a major problem. Is there an estimate of how much future hydropower projects would add to this problem?

2. Pg. 47 fifth para. "a thorough assessment of drivers will be carried out during Readiness Phase" and the key processes are outlined. INDIRECT drivers must also be assessed including existing government policies, governance, institutional shortages etc.

3. At the same time, when assessing past scenarios or the impact of different drivers on DD, the magnitude (%) of impact of each driver could be assessed/gauged to determine where priority needs to be focused.

4. It is possible that ethnic communities in Bhutan use fire too frequently and without clear objectives, however, fire is a pervasive ecological influence in many drier parts of the country and it can't be ignored - it must be used wisely. Joint silvicultural and fire ecology studies should be considered under REDD+ to determine possible approaches to holistic ecosystem management and measures to improve the resiliency and adaptation to climate change in dry forest formations. The intent of these studies would be to develop, in consultation with local communities, ecosystem-specific "prescribed fire" codes of practice to guide fire use.

5. It is recommended the current policies and institutions need to create a mechanism (For example – Bhutan Sustainable Hydropower Development Policy 2008) to compensate the loss of biodiversity and forest cover by development activities or create market for biodiversity offset programs, through integration of offsets programs into the Environmental Assessment process in order to generate the payment for conservation from the biodiversity loss.

6. p50-51 – does the tourist industry/trekking contribute to over consumption of fuel wood in particular localities?

Additional Recommendations:

7. Establishment of infrastructure like schools, hospitals, transmission power lines and the road network came at the cost of clearing thousands of acres of forest land. Are these located primarily in low altitudes?

8. Climate change scenarios predict more climatic extremes in the years ahead, which could have serious implications for the severity, frequency, extent and number of forest fires. This seems like a declining component (Fig. 2a-7). What type of analysis will be conducted to estimate climate extremes? Part of Comp. 3?

9. Activity 1.1 lists deforestation and degradation drivers. Please also cite and/or include estimation of poaching and illegal lodging and firewood collection, which are critical components.

10. The forest cover showed slight increase during the period 1995 to 2010. Can we find out why there was an increase in this? Was it because the size of the country decreased? Among the list of key processes affecting forest cover changes, what about encroachment of government land by private individuals/urbanization/settlements, replacement of indigenous species by invasive or pest species, outbreak of epidemic diseases and changes in forest cover due to natural disasters such as GLOFs (Glacial lake Outburst Floods) and Landslides caused by

heavy rains.

11. Under the list of Activities under Activity 1.1. pg 55, No. 4. "Assess drivers in terms of their contributions to overall emissions' should be the first activity and then based on the findings of the assessment other studies such as Tseri, FMU, Community Forests that have been proposed could be developed. This is because focusing on drivers like tseri (which is already being phased out) could preempt the findings of the assessment which may point to other potential drivers like infrastructure development/hydropower or fires.

12. It needs to be clear which organization/institution is going to do these assessments, and who the collaborating partners will be.

13. If possible the qualitative description of the direct drivers of DD could be enhanced to "quantitative direct and indirect drivers of DD, as well as look at the indirect/underlying causes of these, their manifestations and their future trends, given the 11th FYPlan. Can we link degradation patterns with socioeconomic variables in order to understand better the process and to facilitate its prediction?

14. A short summary and discussion of the Integrated Energy Development Master Plan of the Department of Energy would also be useful. Another policy documents that should be discussed here at least briefly is the Draft Access and Benefit Sharing Policy (2012).

15. p.56 summary Table 2a: The table refers to a PhD study to be carried out to "assess drivers and update the current drivers". It is debatable whether this is the best way to finalize the analysis of the drivers because this analysis is needed early on in the R-PP process to discuss strategy options; a PhD study will take too long to produce the results needed to take action. Also, a short term input from a consultant to the TWG, followed by feedback from the major stakeholders could provide the same result, more timely.

16. 20 year failure of regeneration is seriously eroding plant biodiversity and destroying the structure of these forests, impairing their value to both humans and wildlife in one of the world's major biodiversity "hot-spots". Possible solutions, which will have to be developed with the World Bank's O.P. 4.12 in mind, could include: 1) voluntary herd reduction by grazers (possibly supported by monetary incentives) to reduce cattle stocking rates to sustainable levels; 2) development of improved community pastures in non-forest areas; 3) introduction of improved, more-efficient cattle breeds; 4) forage resources for increased stall-feeding; and 5) with appropriate cultural sensitivity, development of cattle sales to markets in northern India.

17. It is recommended integrated active management of landscape in order to balance the forest stand structure and important land use such as agriculture, horticulture and pastures.

18. It is recommended to develop the strategy on how to establish forest stands with the Tseri farmers at the private register lands in order to enhance the carbon stock.
Many comments related to the operation of various activities. One example ……..

19. It is recommended - the growing stocks of existing forest management units, working scheme and community forests should be reviewed when the management plans are revised in order to manage the production forests from the more realistic annual allowable cut in order to balance between sustainable removal and sustainable creation of the forest biomass or volume.

20. It is recommended to revalidate the existing volume equations of Bhutan and to further develop the Biomass equations for minimum 50 major species of Bhutan in order to meet the reporting standards of REDD+.

21. The R-PP (p43 & 47) states that the area of forest has increased between 1995-2011. It will be worth critically appraising the original datasets to make sure this is not an artifact of different resolutions and classification criteria. This is quite a common conclusion from comparing coverages of this type – for example, more recent higher resolution studies pick up small areas of forest that WERE present previously, but which were not detected in lower resolution assessment.

22.   Assessing Drivers of Deforestation and Degradation is vital and a core need. It must be detailed how this is going to be done. In the budget is allocates 150K for a PHD scholarship to do this? Can FCPF money be used for scholarships? What if this does not work out. It may be better (less risk) to have it done thoroughly as a consultancy with TOR specified in this document, rather than wait for a student to write it up. I would be more comfortable if there was some consideration as to how this study will occur? Desk-top review? Combining change analysis from later components of the project with site based studies? There are multiple possible approaches to this.

Component 2a provided considerable information about land use change but would benefit from additional inputs suggested above. The standard is thus partially met.

Standard 2.b: REDD-plus strategy Options:

The R-PP should include: an alignment of the proposed REDD-plus strategy with the identified drivers of deforestation and forest degradation, and with existing national and sectoral strategies, and a summary of the emerging REDD-plus strategy to the extent known presently, and of proposed analytic work (and, optionally, ToR) for assessment of the various REDD-plus strategy options. This summary should state: how the country proposes to address deforestation and degradation drivers in the design of its REDD-plus strategy; a plan of how to estimate cost and benefits of the emerging REDD-plus strategy, including benefits in terms of rural livelihoods, biodiversity conservation and other developmental aspects; socioeconomic, political and institutional feasibility of the emerging REDD-plus strategy; consideration of environmental and social issues; major potential synergies or inconsistencies of country sector strategies in the forest, agriculture, transport, or other sectors with the envisioned REDD-plus strategy; and a plan of how to assess the risk of domestic leakage of greenhouse benefits. The assessments included in the R-PP eventually should result in an elaboration of a fuller, more complete and adequately vetted REDD-plus strategy over time.

Reviewer's assessment of how well R-PP meets this standard, and recommendations:

Third TAP Review (10 December 2013):

Revised R-PP has made further progress in addressing the recommendations that were noted in the First TAP Review. It

has provided additional information on various items.

Component 2b meets the standard.

First TAP Review (21 September 2013):

This sub-component proposes a preliminary set of strategies to reduce deforestation and forest degradation and to enhance and conserve carbon stocks, thereby directly addressing the key drivers of deforestation and degradation identified in sub-component 2a. A number of potential strategy options were identified through analysis of existing policies, legal frameworks and plans, as well as stakeholder consultations. The study was undertaken by SNV (van Noord, 2010). The proposed key strategy options and activities to address direct and indirect causes of deforestation and degradation and to promote conservation, sustainable management of forests, and enhancement of forest carbon stocks are provided in Table 2b-1. These strategy options are consistent with the country's 11th FYP, which lays out the strategy for managing natural resources and the environment to achieve sustainability.

This section is a good preparation particularly on a preliminary set of strategies in addressing drivers of deforestation and forest degradation identified in Table 2b-1.

Recommendations and Questions:

Key Recommendations:

1. The R-PP document refers to the SNV that applied to a Cost-Benefit Analysis. It is reported as being extremely speculative and will require more work during implementation. What is missing is that there is no reference to estimation of jobs of the emerging REDD-plus strategies, including benefits in terms of rural livelihoods, biodiversity conservation and other developmental aspects. Please indicate how these options will be addressed.

2. p.64 Table 2b:-SA7 what is exactly meant by: "Good governance in REDD+activities", and why will it only start in 2016 and not earlier?
   -SA 6 "Economic valuation to assess the value of the forest at the national level (PhD)". A PhD study to assess the value of the forests does not seem to be the most cost effective and practical way to gather this information. A process approach in which several staff members of the Ministry of Agriculture and Forests will receive hands on capacity building seems a more cost effective and sustainable option.

3. A full monetary Cost-benefit Analysis (CBA) has not been conducted as the financial details of the finding mechanism are still unclear and evolving. Conducting a full monetary CBA will help in formulating accurate and quantifiable plans (including opportunity costs, investment

costs, transaction costs, abatement costs).

4. It is recommended to study the fire ecology at different forest types as the natural succession process to the ecosystems. Anthropogenic forest fire in pine forests is disastrous, awareness campaign and improved capacity building for fire management is important. Natural season fire is beneficial to the ecosystem.

5. I understand that it is not necessary to actually embark on actual projects within this readiness phase, but it would be nice if they were to commence – as a way of informing policy, learning-by-doing etc.

6. It would be nice if Table 2b-1 could be better rationalized and further developed into commitments for activity.

7. p60. Given the importance of fuel wood in degradation, promotion of 'high density fuel wood lots', particularly in Community Forests, should be further developed and discussed.

Additional Recommendations:

8. p.57 REDD strategy options: The REDD+ feasibility study (van Noord SNV 2010) was rather less optimistic, especially about the quantitative cost benefit analysis than the text suggests. In the CBA to be carried out on the different strategy options RGoB should include an option "without REDD+ but with additional efforts to ensure sound sustainable forest management, including community forestry and a plough back of a share of the funds coming in from hydropower generation (in the medium and long term) into sustainable farming systems and income generation opportunities in the rural economy".

9. Given the fact that watershed protection and biodiversity may well provide more significant economic values to the country, there should be efforts to align and possible 'bundle' with ongoing initiatives in these areas. This could provide further financing for better forest management.

10. Given the strategy options in Table 2b-2, pg 61; we can see that all the strategy options are priority. A ranking of some of the priorities will allow focus on the more immediate/urgent strategy options, so that their cost and relative benefits can then be assessed.

Component 2b partially meets the standard.

Standard 2.c: REDD-plus implementation framework:

Describes activities (and optionally provides ToR in an annex) and a work plan to further elaborate institutional arrangements and issues relevant to REDD-plus in the country setting. Identifies key issues involved in REDD-plus implementation, and explores potential arrangements to address them; offers a work plan that seems likely to allow their full evaluation and adequate incorporation into the eventual Readiness Package. Key issues are likely to include: assessing land ownership and carbon rights for potential REDD-plus strategy activities and lands; addressing key governance concerns related to REDD-plus; and institutional arrangements needed to engage in and track REDD-plus activities and transactions.

Reviewer's assessment of how well R-PP meets this standard, and recommendations:

Revised R-PP has made further progress in addressing the recommendations that were noted in the First TAP Review. It has provided additional information on various items.

Additional Recommendations:

1. Responses to Items 6 and 9 were included. Please note these responses also in the Component 2c text.

Component 2c meets the standard.

First TAP Review (21 September 2013):

Very promising array of ideas is recommended in this category. The proposal has given substantial clear detail and discussion to meet the R-PP standard and convinced enough for a well development of Implementation Framework for R-PP. This section is well described in particular on key instruments used for REDD+ implementation - institutional arrangements, financial arrangements and regulatory framework. In addition, it also addressed key activities to be undertaken in the readiness phase such as benefit sharing, land tenure and capacity building with concrete ideas on how to implement it based on existing knowledge and experiences. These are designed to use current ongoing schemes and then check their performance in the REDD+ program to decide the ones that would be best to implement at the end of the R-PP program.

Bhutan has a long-standing and very successful trust fund, the Bhutan Trust Fund for Environmental Conservation (BTFEC; http://www.bhutantrustfund.bt/). One option for management of REDD+ finance would therefore be to establish a REDD+ sub-fund under BTFEC. Alternatively, a new REDD+ fund could be established. These and other options will be examined during R-PP implementation.

Recommendations and Questions:

Key Recommendations:

1. Carbon ownership and registry is not adequately addressed in the document. It should be

explicitly explained about how carbon related activities would be undertaken and its implications on multiple issues in reducing and maintaining the reduction of carbon emissions.

2. Recognizing that there are key issues that need to be resolved during the readiness phase, these are not reflected in the Table 2c. Activities to be implemented. For instance the table focuses mainly on training of stakeholders but should also focus on review of institutional arrangements, government reforms, review of capacity building needs, review financing mechanism along with benefit sharing mechanism.

3. There is a mention of registry but it is not clear how this will be established and there is not much funding set aside for this purpose.

4. p70 – More detail is needed on the demonstration activities. They seem to be really important.

Additional Recommendations:

5. How will the performance of the implementation framework be monitored and reported? Will this be incorporated under Component 6?

6. Section contains a large component on training. Some of this could fit under other components, e.g., capacity with RELs, basic capacity building.

7. p.66: UWICE (it is not included in the list of Abbreviations) is mentioned here as the responsible institution for capacity building of forestry personnel and basic academic research on natural resources management. So is the RNR Information and Communication Services (ICS) that provides extension services and carries out farmer training. What are THEIR capacities to provide the needed capacity building activities?

8. 2. p.73, table 2c: on what numbers of people to be trained on the various subjects are these cost figures based? The funding request here for the different capacity building activities at all levels seems rather conservative. Will this amount also include ToT and capacity building of the agencies that will be responsible for the various capacity building activities?

9. Activities on building the capacity for development of system and ability to use the system in relation to national forest monitoring, GHG database system, forest management, forest inventory, social impact assessment, environmental impact assessment, information and knowledge management, monitoring of carbon stocks, benefits and management to the national agencies, local governments, Non-Government organizations, private sectors, developers and communities based on the pilot study areas are recommended.

Component 2c largely meets the standard.

Standard 2.d: Social and Environmental Impacts during Readiness Preparation and REDD-plus Implementation:

The proposal includes a program of work for due diligence in the form of an assessment of environmental and social risks and impacts as part of the SESA process. It also provides a description of safeguard issues that are relevant to the country's readiness preparation efforts. For FCPF countries, a simple work plan is presented for conducting the SESA process, cross referencing other components of the R-PP as appropriate, and for preparing the ESMF.

Reviewer's assessment of how well R-PP meets this standard, and recommendations:

Third TAP Review (10 December 2013):

Revised R-PP has made further progress in addressing the recommendations that were noted in the First TAP Review. It has provided additional information on various items.

Additional Recommendations:

1. Items 5 and 10 comments were addressed. Please include the text in the Component 2d text.

Component 2d meets the standard.

First TAP Review (21 September 2013):

The SESA process may be undertaken in the implementation phase as Bhutan is considering the social and environmental impacts of forest development activities, as specified in the National Environmental Protection Act (1996) and Environmental Protection Regulation 1999. As per the National Environmental Protection Act, clear felling of forest area, change in species composition, use of forest land in other land use systems, introduction of exotic species and implementation of management plan require IEE or EIA.

Potential social and environmental impacts of REDD+ strategy options will be assessed according to the identified concerns, such as, dilemma of local communities living in or near the forests regarding rights under the REDD+ mechanism, land tenure, potential conflicts between government agencies and local communities.

It was stressed in the proposal that the SESA process in Bhutan required a multidisciplinary team of experts from various fields of specialization, i.e. land use expert, lawyers (human rights), social and environmental assessment, policy and public participation. If the implementation is according to the objectives and work plan, this would appear to meet the standards.

Recommendations and Questions:

Key Recommendations:

1. These tools (SESA and EIA) are difficult to understand and use by other stakeholders in particular indigenous and local communities. There should be a simplified tool kit jointly developed with experts and involved stakeholders so that these tools can be effectively used to prevent negative impacts to villagers.

2. In addition, FPIC (free, prior and informed consent) should also be used as a tool and process to protect the rights of indigenous and local communities. There are a number of FPIC guides which can be adjusted and used in this REDD+ project activity.

3. The funds allocated for this work seem rather limited at $50K. Please explain why the funds would be enough to conduct the SESA activities.

4. Identify who will conduct the SESA. Will this be conducted by an independent entity or by the REDD+ program office. How do we ensure that there are no biases during the assessment? Page 76, "foreseeable tasks to be conducted during the readiness phase" could be included as the 'scope of study' for the SESA.

Additional Recommendations:

5. p.74/75 provide a good overview of potential problems and negative impacts of REDD+ implementation. Has this list been compiled from the results of the stakeholder consultations? If so, this should be highlighted here.

6. p.75: Institutions that can play a role in SESA and ESMF: -which institutions are currently envisaged as the possible lead agencies and what is their the levels of capacity to steer the monitoring process?

7. -In the list of institutions, the first item reads: "National governments such as MoAF, Ministries of Economic Affairs, Finance,…". This should probably mean "national government agencies…".

8. Institutions that can play a role in SESA and ESMF should include

   1. GNH secretariat

   2. Donors like BTF

   3. Private sector like construction, (Construction association)

   4. Sub national government and local government

9. 'ESMF is an output of the SESA process and thus the "Description of activities to be implemented "should include 'Conduct SESA as the primary activity and followed by development of ESMF as the second activity.

10. It is recommended to include in the team in addition to the experts identified by R-PP, forest ecologist, hydrologist, geologist, Community based natural resource management (CBNRM) specialist, forest biometrics expert, environmental statistician, forest management specialist, silviculturist who practice the silviculture as the applied ecology, forest stand dynamic specialist, cartographers and geo-informatics scientist, in order to document, present, analyze and visualize - where, what, spatial relationship, why, how and process - on topographical social and environmental impacts throughout the landscapes where REDD+ activities are to

be implemented in order to fully understand and comprehend the impacts. The multidisciplinary team knowledge should be integrated into monitoring system.

Component 2d largely meets the standard.

Component 3. Develop a National Forest Reference Emission Level and/or a Forest Reference Level

Standard 3: a National Forest Reference Emission Level and/or a Forest Reference Level

Present work plan for how the reference level for deforestation, forest degradation (if desired), conservation, sustainable management of forest, and enhancement of carbon stocks will be developed. Include early ideas on a process for determining which approach and methods to use (e.g., forest cover change and GHG emissions based on historical trends, and/or projections into the future of historical trend data; combination of inventory and/or remote sensing, and/or GIS or modeling), major data requirements, and current capacity and capacity requirements. Assess linkages to components 2a (assessment of deforestation drivers), 2b (REDD-plus strategy activities), and 4 (monitoring system design).

(FCPF and UN-REDD recognize that key international policy decisions may affect this component, so a stepwise approach may be useful. This component states what early activities are proposed.)

Reviewer's assessment of how well R-PP meets this standard, and recommendations:

Third TAP Review (10 December 2013):

Revised R-PP has made further progress in addressing the recommendations that were noted in the First TAP Review. It has provided additional information on various items.

Additional Recommendations:

1. Items 6 and 11 were addressed. Partial list (a through g) of Item 12 were noted as having been included in the Component 3 text. It is not clear where these were included and also several of these (h through k) are yet to be addressed. Please explain your response.

Component 3 meets the standard.

First TAP Review (21 September 2013):
This section is very technical and provides comprehensive information on how forest reference emission level should be undertaken using available technology and technique. This captures all aspects required for developing national forest reference emission level.

It relies on the three UNFCCC decisions that provide guidance on forest RELs and RLs for REDD+ activities. This section will have strong links to Component 2 (covering the assessment of drivers of deforestation and forest degradation and the identification and assessment of REDD+ Strategies) and Component 4 (on the design of a national forest monitoring system).

The large estimated costs are justified on the above basis to initiate these two activities and continue the work to support Components 2 and 4 activities.

Recommendations and Questions:

Key Recommendations:

1. It states that Bhutan will focus on GHG emissions from deforestation. Please ensure that degradation and other components will be covered in the analysis as well.

2. p81. I do think that the first step should be to thoroughly assess the utility of existing datasets before embarking upon a BIG assessment of 1990,2000, 2005 and 2010 wall-to-wall coverages. It seems from van Noord (2010) that there are extant datasets from 1989, 1990 and 2010. Using these, at least at the outset, to 1) look at historical trends, and 2) inform on the best approaches to obtain complementary (or more accurate) seems sensible.

3. p82. Is it possible to have more detail on the scales and origins of these GIS datasets – they may be REALLY useful – or not at all, depending on these parameters.

4. p85. I would have thought that the best data Bhutan is likely to get as a baseline forest map is going to come from the TCC. It would be great to have more input from the USFS TCC team on this, especially as their project still seems to be in progress. Small changes now to what they are doing (if necessary) may dramatically increase the use of their data for REDD+ purposes.

5. p89 – Once again I wonder about the allocation of K150 to a PhD scholarship, and the topic does sound rather thin?

Additional Recommendations:

6. Only once institutional arrangements have been discussed, consulted upon and agreed by all relevant stakeholders. Will RGoB be in a position to proceed with the methodological development of its RELs/RLs. (Based on page 81 query)

7. Figure 3-3 – please can a subsample of this be provided, covering a whole page so we can see what it looks like at REDD-relevant scale?

8. The Activity 1.1 notes that Current knowledge of RELs/RLs is limited in Bhutan. In addition, little guidance currently exists on methodologies to establish national and/or sub-national RELs/RLs etc. This indicates that a variety of folks will need to be engaged to do the analysis of Component 3. It would be good to establish this effort within a university or RCB so that RELs/RL work may be continued in the future.

9. There is clearly lack of adequate technical staff as well as capacity. Therefore there is a need

to enhance capacity, staffing and technological capabilities.

10. How can the selected institution/organization collaborate with other research institutions such as UWICE, CNR (College of Natural Resources)

11. p.89 Budget table 3: Will there be a need to recruit extra staff to carry out the necessary data collection, analysis and management? Even if it is recruited by the government with government funding it should also be mentioned in the budget here. And what are the costs for necessary extra equipment likely to be required?

12. The following thirteen steps are recommended to improve the REL/RL modeling:

   (a) The 2010 Land use and forest cover information (10 meter resolution) could be used as the baseline reference in order to derive the land use changes, forest cover changes and deforestation or afforestation level in comparison with future derived datasets.
   (b) Generate the systematic sampling points (polygons) and estimates the forest area based on the satellite data visual interpretation of forests at different time intervals of satellite data.
   (c) Capacity building on digital image processing of remotely sensed data, image segmentation, classification, change detection and logistics regression on change analyses techniques to the staffs of institutes is very significant and highly recommended.
   (d) Develop biomass and/or forest carbon equations for 50 key species during the REDD+ readiness phase in order to derive carbon stock per hectare or per total area from NFI data.
   (e) Establish hydrological monitoring stations at the outlet of catchments where FMU, WS and CF are operating in order to develop reference level on seasonal water flow, which is an excellent indicator of ecosystem functioning, due to the timber harvesting, silviculture, reforestation, afforestation activities in the catchment.
   (f) Derive Bhutan forest specific wood basic density, national biomass expansion factor; roots to shoot ratio, biomass conversion factor, carbon content in forest litter and carbon content in soil based on NFI, Soil Carbon and Biomass Activities.
   (g) Multi-temporal, multi-satellites data, time series normalized difference vegetation indexes (NDVI) using the historical archive data and newly acquired data could be applied for monitoring the forest cover changes.
   (h) Monitor or estimate the forest area and forest cover change based on the visual interpretation (forest/none forest) of same sets of densely created systematic sample points or square area which meet the minimum area of forest using multi-temporal multi-satellite data to statistically estimate the forest cover changes throughout the defined time frame.
   (i) Methodology and sampling strategies with acceptable sampling errors for GHG inventory and estimates should be improved and developed the GHG database.
   (j) Spatial based system dynamic scenario modeling approach should be developed through integrating GIS, system dynamic modeling (Stella, Vensim or historical DYNAMO system from MIT) with different scenarios. Capacity building on GIS based System Dynamic Modeling, linear and non-linear regression modeling, and sharing scientific methodology and results are important during the REDD+ readiness phase.
   (k) ArcSWAT/SWAT or similar hydrological modeling could be applied to project the seasonality of water flow – out from ecosystem – through out the selected period in order to project and evaluate the function of ecosystem where REDD+ activities and other conservation activities are executing.

     (l) Apply - integration with GIS/RS, Forest Inventory, System Dynamic Scenario Modeling and regression modeling, - national forest reference emission level and/or forest reference level could be estimated, projected and monitored scientifically and effectively.

     (m) Existing available data (page 32-33) would be organized to multiuser access centralized Geodatabase such as ArcSDE/SQL or ArcSDE/Oracle servers at FRMD.

Component 3: The standard has been partially met.

Component 4. Design Systems for National Forest Monitoring and Information on Safeguards

Standard 4a: National Forest Monitoring System:

The R-PP provides a proposal and workplan for the initial design, on a stepwise basis, of an integrated monitoring system of measurement, reporting and verification of changes in deforestation and/or forest degradation, and forest enhancement activities. The system design should include early ideas on enhancing country capability (either within an integrated system, or in coordinated activities) to monitor emissions reductions and enhancement of forest carbon stocks, and to assess the impacts of the REDD-plus strategy in the forest sector.

The R-PP should describe major data requirements, capacity requirements, how transparency of the monitoring system and data will be addressed, early ideas on which methods to use, and how the system would engage participatory approaches to monitoring by forest–dependent indigenous peoples and other forest dwellers. The R-PP should also address the potential for independent monitoring and review, involving civil society and other stakeholders, and how findings would be fed back to improve REDD-plus implementation. The proposal should present early ideas on how the system could evolve into a mature REDD-plus monitoring system with the full set of capabilities.

(FCPF and UN-REDD recognize that key international policy decisions may affect this component, so a staged approach may be useful. The R-PP states what early activities are proposed.)

Reviewer's assessment of how well R-Plan meets this standard, and recommendations:

Third TAP Review (10 December 2013):

Revised R-PP has made further progress in addressing the recommendations that were noted in the First TAP Review. It has provided additional information on various items.

Additional Recommendations:

1. Items 8, 11, 12, 13 and 15 were addressed. Please include the response to Item 11 in the text.

Component 4a meets the standard.

First TAP Review (21 September 2013):

The primary focus of this Component is based on UNFCCC COP Decision 4/CP.15 which establishes the REDD+ MRV requirement by requesting Parties establish, according to national circumstances

and capabilities, robust and transparent national forest monitoring systems and, if appropriate, sub-national systems as part of national monitoring systems.

Like Component 3 this section presents a technically reasonable design. The R-PP points out the current status of forest monitoring and includes shortcomings regarding data and methodology. Existing monitoring methods and standards vary across the related agencies, data on carbon stocks is not available on a national basis although can be derived from data with a different focus than carbon.

Involvement of stakeholders including participation of NGOs, local communities and private sector are emphasized in the document. This way the document currently suggests participation around the MRV system is monitoring and an integrated and fundamental principle. Meaningful participation will also favor a sound reporting and verification element and is an essential aspect with respect to transparency so that stakeholders are able to fully comprehend and reproduce the methodologies for MRV/REL development and implementation.

Recommendations and Questions:

Key Recommendations:

1. Given that SLMS is a crucial element of NFMS, output 1 and 2 may be combined rather than focus on preparation of the NFMS action Plan. Here concrete steps/activities to develop the NFMS might be proposed e.g. consultations with relevant stakeholders, determine criteria for selection of appropriate design for the NFMS, determine scales, training needs, capacity building, hardware requirements etc. These will all be tied to the Objective of the NFMS which will also include obtaining more information on the spatial distribution and rate of change of drivers of Deforestation and degradation.

2. There are still 1586 cluster plots covering ¾ of the country for which data collection under the National Forest Inventory (NFI) is to be completed. Since funds from the REDD+ for the next four year will only be adequate to complete a portion of the clusters, how much can be expected to be completed with REDD+ funding in the next four years and how can we prioritize/ensure data collection so that regions selected correspond with REDD+ project sites.

3. National Forest Inventory (NFI) - I would have thought analyzing data from part of this ASAP would be a priority – especially before committing more money to it. Who has paid for this and why as the commitment finished after it was 25% completed? Prior to committing funds out of the REDD project, it would be good to have the 25% of the country that has been done, finished so as to determine the efficacy of its use for REDD+ programs. Why was the NFI started if its funding from Government was not guaranteed. It needs to be determined IF is going to be of use in developing a carbon map before committing a million dollars to it.

4. p100 Activity 2.3 – surely studies like the TCC have already worked out what imagery is available for Bhutan? I suspect they are using Landsat 8 that is now generating globally, huge quantities of new data.

5. p101 web-based map systems are really enticing, and if designed correctly, can be a great way of ensuring transparency and getting feedback – however they are expensive and hard to start without a critical mass of highly trained people, who have done it before. While it is a noble endpoint, I suspect that it should not be a core focus – especially as I am assuming most rural people do not have internet access. May be better to focus at first, on printable maps that can be easily incorporated into all the outreach that will be taking place.

6. p104 – as previously discussed, there needs to be a SWOT analysis on the utility of the NFI data to REDD+ before this sort of money is allocated to its continuation.

Additional Recommendations:

7. Multi-country regional monitoring is not considered in the R-PP and would be a worthwhile approach in the light of the transboundary nature of major drivers (illegal logging), monitoring of displacement on regional level and experience from an already existing biodiversity initiative.

8. Given the existing situation (lack of technical capacity, data, funds, lack of awareness), it is impressive that many Outputs and associated activities are being proposed. However, it may be better to focus on prioritizing the most important ones to begin with after determining which institution/organization will take the lead role in establishing the NFMS. One concern is that the identified agency maybe overloaded with the number of outputs and activities to be achieved within the next few years.

9. p.94: The NFI. What is the relationship between the NFI and the ongoing Tree Canopy Cover Study (started in 2012 and mentioned on p.84) supported by the US Forest Service? Will this study also produce REDD+ relevant information/ training/ capacity building?

10. It may be useful to include a quick scan of all the DoFPS and NEC's current staff levels and capacities to estimate the likely support they need to carry out the tasks assigned to them. Certainly, these figures should be readily available.

11. p.96: Capacity building needs for GHG: again a quick scan of available staff levels, capacities and capacity building needs would be useful here.

12. It is recommended that the user consultation workshop (minimum 5 working days) involving subject specialists, technical experts who knows how to customize and implement the system practically, policy makers, decision makers, private sectors, NGOs, civil society, multi-users and multi-stakeholders is essential in order defines the user requirements and designs the system specification for monitoring, measurement, reporting and verification - in addition to (1) reference level on deforestation and degradation (2) reference level on conservation (3) reference level on conservation sustainable forest management (4) reference level on enhancement of carbon stock (5) methods and approach on forest cover changes (6) methods and approach on GHG emission Trend (7) method and approach on projection of future (8) method and approach on Inventory/GIS/RS modeling.

13. Satellite remote sensing, field sampling, mapping infrastructure development activities,

mapping REDD+ activities, active and passive management of forest for conservation, hydrological modeling for monitoring the seasonal water flow, monitoring biodiversity indices, integration of rural community and local government such as Gup office for monitoring of community forest and REDD+ project areas through web enable interface, repeated measurements of field sample plots especially at alarming areas and development of database as the backbone of monitoring system will enhance the country capability in monitoring emission reductions and enhancement of forest carbon stock.

14. Several indicators (Biodiversity, environmental, rural livelihood, development, cultural, gender, governance and financial) should be included in the monitoring system in order to monitor and evaluate the multiple benefits, other impacts, governance and safeguards.

15. Much more thought should be given to the forest monitoring work (p94). I suggest that it should be built upon existing efforts like TCC, rather than hoping a trip to Brazil to look at TerrAmazon will provide better guidance? TerrAmazon works great in flat tropical rainforest, but I have not seen it applied to mountainous terrain – and Bhutan has some of the most difficult terrain in which to be doing forest classifications. I would have thought that it would be far better to spend time at ICIMOD, where there are people that have done this work in similar environments.

Component 4a: At this time, the 4a standard is partially met.

Standard 4b: Designing an Information System for Multiple Benefits, Other Impacts, Governance, and Safeguards :

The R-PP provides a proposal for the initial design and a workplan, including early ideas on capability (either within an integrated system, or in coordinated activities) for an integrated monitoring system that includes addressing other multiple benefits, impacts, and governance. Such benefits may include, rural livelihoods enhancement, conservation of biodiversity, and/or key governance factors directly pertinent to REDD-plus implementation in the country.

(The FCPF and UN-REDD recognize that key international policy decisions may affect this component, so a staged approach may be useful. The R-PP states what early activities are proposed.)

Reviewer's assessment of how well R-Plan meets this standard, and recommendations:

Third TAP Review (10 December 2013):

Revised R-PP has made further progress in addressing the recommendations that were noted in the First TAP Review. It has provided additional information on various items.

Additional Recommendations:

1. Items 5, 6, 7 and 8 were addressed. Please include the responses to Items 5, 6, and 7 in the text.

Component 4b meets the standard.

First TAP Review (21 September 2013):

This section is designed to focus on multiple benefits that may be derived from reduced environmental emissions and other impacts, governance and safeguards. Poverty development trends in Bhutan have been every effective and by 2012 in both Bhutan and rural areas income poverty incidence had significantly declined.

Given some capacity constraints, public resources are managed reasonably well in Bhutan, although significant issues need to be addressed. Ensuring the maximum development impact of expenditures from increasing revenues from hydropower exports will require enhanced fiscal discipline. RGoB needs to improve accuracy and consistency of macroeconomic forecasting to help underpin sound revenue projections and inform policymaking. It intends to make use of successful low cost community monitoring of stream flow and water quality has been developed in the Philippines (Deutsch et al., 2001) and of biodiversity in Australia (Carlton, 2001) and similar methods based on international experience would be piloted in Bhutan.

The overall aim is to have a unified monitoring system that covers changes in forest composition and carbon stocks as well as co-benefits and social and environmental impacts to ensure compliance with safeguards. Several of these efforts will focus jointly in proposed Component 4a activities.

Recommendations and Questions:

Key Recommendations:

1. Because of the combination of 4a and 4b topics, the Summary of Monitoring Activities and Budget reports are placed under a single sheet on page 116. It would be more helpful to indicate the extent to which 4b activities will be included in the listed 4a components. Currently, 4b is assigned only $25K for 2014-15 compared to $1,810K for 4a. 4b should receive additional funds hopefully from 4a funds. Also, there may be a problem of timing for the necessary data availability as the NFI data collection may only be finalised in 2016 and data may only be analysed and available well after this date, while many of the data would be needed before that.

2. A possible alternative strategy may be to estimate the specific funding needs for the REDD+ relevant data collection, storage and management plus required capacity building, for example for one District and concentrate the needed baseline data collection and monitoring efforts on the potential pilot areas during the Readiness Phase.

3. In regard to the Satellite Monitoring system – before committing 160k, there really is the need to assess what has been done, what is work in progress and what one will get for this. No mention is made of the LIDAR work in Nepal that could be great use in this; the many ICIMOD studies, or papers of independent academics. There are now off-the-shelf solutions

to this work – it is not necessary to invent the wheel.

Additional Recommendations:

4. p.111 bottom: reference is made here to the role of private companies in monitoring of co-benefits. The text refers to section 2a for a description of those companies (and the ongoing monitoring of their own activities). However, there is no reference to private companies in 2a (except for the state owned Logging Corporation mentioned on p.46). What are the private sector companies referred to here and what are their prospective roles in monitoring co-benefits?

5. Pg 113 under 'social and environmental safeguards' it says that a Safeguards Information System (SIS) will be designed, developed and tested, subject to available financial support. Since this is the only output under Component 4b, it should be integrated into the NFMS timeline. As it is understood that monitoring of co-benefits will be at the sub-national level and tied to pilot sites, willingness and capacities of implementers need to be assessed as well.

6. What is capacity building on image processing? Do people in the forestry department not have these skills from existing projects – so I guess I question the 140k that could be better used elsewhere. If after the TCC project, there is insufficient capacity, 140k will not fix it.

7. You will not get much of a web-GIS for 70k. Licensing along for ESRI solution is about 50-100k.

8. There needs to be a hard discussion about 1million to the NFI. Would rather see this spent on woodlots…or at least piloting them, especially until what has been done is analyzed for its use in REDD, or intrinsic value.

Component 4b: The 4b standard is largely met.

Component 5. Schedule and Budget

Standard 5: Completeness of information and resource requirements

The R-PP proposes a full suite of activities to achieve REDD-plus readiness, and identifies capacity building and financial resources needed to accomplish these activities. A budget and schedule for funding and technical support requested from the FCPF and/or UN-REDD, as well as from other international sources (e.g., bilateral assistance), are summarized by year and by potential donor. The information presented reflects the priorities in the R-PP, and is sufficient to meet the costs associated with REDD-plus readiness activities identified in the R-PP. Any gaps in funding, or sources of funding, are clearly noted.

Reviewer's assessment of how well R-PP meets this standard, and recommendations:

Third TAP Review (10 December 2013):

Revised R-PP has made further progress in addressing the recommendations that were noted in the First TAP Review. It has provided additional information on various items.

Component 5 meets the standard.

First TAP Review (21 September 2013):

Schedule and budget in this section is well presented in matrix. It's also clear on how much budget is needed and from which source for implementation of the proposed activities.

Recommendations and Questions:

Key Recommendations:

(1) The total funding sought from all sources is US$ 5,377,000 with $3.8 million from FCPF and $0.562 from RGoB. . Additional funding to be sought as mentioned in budget plan is US$ 1,015,000. The table should identify and document the potential sources of funding; otherwise it may affect the planned activities.

(2) Can you also provide some discussion on the budget, including the list of the other donors, the funding levels and the levels of commitment? Is there a strategy in case this funding will out materialize?

(3) The total budget required for each component should be tabulated and presented as below

Component	Yr1	Y2	Y3	Y4		Total
Component 1(1a+1b+1c)						
Component 2 (2a+2b+2c+2d)						
Component 3						
Component 4 (4a+ 4b)						
Component 6						
TOTAL						
Royal government of Bhutan						
FCPF						
UN-REDD programme (if applicable)						
Other Dev.partners (GCCA,BTFEC,BMF,UNDP,FAO,Gov.of Austria						

Component 5: Noting this deficiency, the standard is partially met

Component 6. Design a Program Monitoring and Evaluation Framework

Standard 6:

The R-PP adequately describes the indicators that will be used to monitor program performance of the Readiness process and R-PP activities, and to identify in a timely manner any shortfalls in performance timing or quality. The R-PP demonstrates that the framework will assist in transparent management of financial and other resources, to meet the activity schedule.

Reviewer's assessment of how well R-PP meets this standard, and recommendations:

Revised R-PP has made further progress in addressing the recommendations that were noted in the First TAP Review. It has provided additional information on various items.

Additional Recommendations:

1. Items 3, 4, 5 and 6 were addressed. Please include responses to Items 4, 5, and 6 in the chapter text.

Component 6 meets the standard.

First TAP Review (21 September 2013):

The document provides useful and relatively complete information on most of the Components. It provides good description of major activities with clear indicators

Recommendations and Questions:

Key Recommendations:

1. The program monitoring and evaluation framework would benefit by presentation in a World Bank's log frame format. For example, this was adopted by Thailand in its submission to FCPF.

2. The funds allocated for this effort are limited to $2,000 per year. The effort will require much more than that. Allocation of $20K per year for a total of $80K would be a minimum amount.

Additional Recommendations:

3. Also Component1a should be monitored over a 5 year period. Currently it refers to only 2014 but should go up to 2018.

4. The assumptions and risks have been outlined in Table 6-2. However, some initial thought on the Mitigation measures need to be defined, e.g. insufficient qualified staff available may be one of the biggest risks given the number of outputs to be achieved under each component. Early thoughts on these risks may motivate the government to either reduce the number of outputs or strategize on how to mitigate these. Table 6-2 could include a column on mitigation measures/options

5. As the components outputs may change with each revision of the RPP, the Monitoring activities may include

    a. Designing a M& E plan based on consultations and review of the RPP, including assigning roles and responsibilities in addition to the frequency/timeframe

    b. Implementing the M & E plan

    c. Mid-term review of the M& E plan

    d.   Final review and evaluation

6. The ToR of the Taskforce (Annex 1a-3), Point 6 states 'Monitor and evaluate REDD activities as and when required". This might need to be reviewed given that the Purpose of the Task force is that 'it is a national forum for discussion and coordination of matters and to decide and recommend actions to MOAF".

Component 6: The standard is largely met.