PARTNERSHIP FOR LAND USE SCIENCE (Forest-PLUS) QUARTERLY REPORT, OCTOBER 1–DECEMBER 31, Q1/2014

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ACRONYMS AND ABBREVIATIONS

AGB	Above Ground Biomass
AGS	Applied GeoSolutions
CBO	Community-Based Organization
CDM	Clean Development Mechanism
EDC	Eco Development Committee
FDA	Forest Development Agency
FPP	Forest-PLUS Program
FSI	Forest Survey of India
GCC	Global Climate Change
GHG	Greenhouse Gases
GIM	Green India Mission
GIS	Geographic Information System
GOI	Government of India
HPFD	Himachal Pradesh Forest Department
IEC	Information, Education, and Communication
IIFM	Indian Institute of Forest Management
JFM	Joint Forest Management
KFD	Karnataka Forest Department
LiDAR	Light Detection and Ranging
M&E	Monitoring and Evaluation
MPFD	Madhya Pradesh Forest Department
MOEF	Ministry of Environment and Forests
MRV	Measurement, Reporting and Verification
MSU	Michigan State University
NAPCC	National Action Plan on Climate Change
NFI	National Forest Inventory
NTFP	Non-timber Forest Product
PA	Protected Area
PCCF	Principal Chief Conservator of Forests
PFM	Participatory Forest Management
PIP	Program Implementation Plan
PMP	Performance Monitoring Plan
PPP	Public-Private Partnership
Q	(Program) Quarter
REDD	Reduced Emissions from Deforestation and Forest Degradation
RS	Remote Sensing
SAR	Synthetic Aperture Radar
SFD	State Forest Department
STTA	Short-Term Technical Assistance
TBD	To Be Determined
TERI	The Energy Research Institute
USAID	United States Agency for International Development
USFY	United States Fiscal Year

EXECUTIVE SUMMARY

The Partnership for Land Use Science (Forest-PLUS) is a five-year USAID global climate change mitigation project to reduce emissions from deforestation and forest degradation (REDD+) in India's forested landscapes. Forest-PLUS is aligned with the Government of India's (GOI) National Action Plan on Climate Change (NAPCC), Green India Mission (GIM), and REDD+ Cell. In all its activities, Forest-PLUS works closely with the Ministry of Environment and Forests (MOEF), State Forest Departments (SDFs), local governments, and non-governmental organizations (NGOs) to establish REDD+ in forest policies and forest management actions at national, state, and local levels. USAID has procured Forest-PLUS through Contract No. AID-386-C-12-00002 with Tetra Tech ARD as the prime contractor. This document reports the technical activities of Forest-PLUS for Q1 FY 2014.

Forest-PLUS has two interrelated components. Component I develops REDD+ tools, methods and technologies appropriately adapted to India and Component II deploys these methods in four pilot landscapes for empirical testing. Component I and II adaptively and iteratively interact; Component I development conditions deployment and Component II deployment informs development. Forest-PLUS develops carbon and climate mitigation benefits of REDD+, but also gives due weight to biodiversity, environmental, livelihood, and social co-benefits that come with restoring ecological health to India's degraded forests.

In Q1 FY 2014 Forest-PLUS remained largely in the Component I phase: developing the tools, techniques, and methods of REDD+ in India, and in establishing the collaborations with pilot landscape State Forest Departments and other institutions on which testing these tools in field deployment will depend. Pilot landscapes in Karnataka, Madhya Pradesh, and Himachal Pradesh were formally established in mid FY 2013. A fourth, in Sikkim, is identified but has not yet been formally added as a Forest-PLUS landscape.

For Q1 FY 2014 Forest-PLUS reports progress, though no final deliverables, in developing an integrated ecosystem management strategy for REDD+ appropriate for India, and methods in forest management, silviculture, grazing, and NTFP harvesting to deploy beginning in late FY 2014. Similarly, Forest-PLUS reports progress, though again no final deliverables, in developing the key monitoring, reporting, and verification (MRV) tools, adapted to India, that are critically required for REDD+. These methods include estimating and monitoring carbon stocks in India's different forest types, tools and methods to involve communities in carbon stock measurements, methods to receive, handle, analyze, and distribute MRV data, and the techniques to build MRV capacity among the institutions that must cooperate to enable a national MRV system. Finally, Forest-PLUS reports progress in Q1 FY 2014 in developing the methods needed to fit REDD+ forest management into the socio-economic context of India. This includes Forest-PLUS work in analyzing the governance and institutional structures influencing REDD+, assessing the existing capacity that Forest-PLUS must improve to support REDD+, and evaluating the communication about climate change and REDD+ that must occur to establish support for REDD+ to become accepted and widespread in India.

Some notable individual Forest-PLUS successes in Q1 FY 2014 include: 1) a technical study exchange between India and the US involving high-level Indian forestry officials visiting US institutions with cutting edge expertise in REDD+ carbon MRV; 2) consultations and collaborations with the State Forestry Departments of Karnataka and Himachal Pradesh that have laid the foundation for their participation in Forest-PLUS; 3) first draft versions of MRV tools adapted for India; 4) the launch of Forest-PLUS' REDD+ training program and communications campaigns; 5) the establishment of Forest-PLUS staff and offices in Karnataka, Madhya Pradesh, and Himachal Pradesh; and 6) the selection of the fourth Forest-PLUS pilot landscape in the Lower Teesta watershed of the State of Sikkim. These specific accomplishments and other progress Forest-PLUS has made in Q1 FY 2014, has positioned Forest-PLUS to increase the pace of Component I implementation and move into Component II deployment.

1.0   INTRODUCTION

This is a report on the technical activities of the Partnership for Land Use Science (Forest-PLUS) for Q1 FY 2014 (1 October 2013 – 31 December 2013). The report provides a brief introduction, a special section on the status of Forest-PLUS pilot site selection, a description of project activities, a brief discussion of Forest-PLUS technical challenges, a summary of implementation activities planned for Q2 FY 2014, and several annexes including Forest-PLUS deliverables, deliverable schedule, and performance indicators. The function of this report is to communicate to USAID the status of Forest-PLUS technical implementation of USAID Contract No. AID-386-C-12-00002 for which Tetra Tech ARD Inc. is the prime contractor.

Forest-PLUS is a five-year USAID-funded activity that contributes to global climate change mitigation by reducing greenhouse gas (GHG) emissions from India's forested landscapes. Forest-PLUS does this by developing, and demonstrating through field deployment and testing, key REDD+ tools, techniques, and methods adapted to the Indian context. Forest-PLUS contributions to establishing REDD+ in India supports the Government of India's (GOI) National Action Plan on Climate Change (NAPCC), Green India Mission (GIM), and REDD+ Cell. In all its activities, Forest-PLUS works closely with the Ministry of Environment and Forests (MOEF), State Forest Departments (SDFs), local governments, and appropriate non-governmental organizations (NGOs) to establish REDD+ in forest policies and forest management at national, state, and local levels. The expected long-term impact of Forest-PLUS is to help create in India an environment that encourages REDD+ to be adopted widely and thus allow India to make a significant contribution to countering the threats posed by global climate change.

Forest-PLUS has two components:

I.   Development of REDD+ tools, techniques, and methods developed by facilitating scientific exchange and technical cooperation, including between India and the United States.

II.   Deployment of REDD+ tools, techniques, and methods validated and demonstrated in pilot landscapes.

Component I and II activities are interrelated by an adaptive interaction. In Component II, Forest-PLUS deploys the REDD+ tools, techniques, and methods it develops in Component I. Forest-PLUS then uses this empirical field experience to update and improve REDD+ development for India.

Forest-PLUS will help India mitigate climate change by reducing deforestation and forest degradation through improved ecosystem management of forested landscapes. However, because India has 200 million people directly dependent on forest resources for their livelihoods and many more indirectly dependent on ecosystem services, Forest-PLUS gives equal weight to tools, techniques, and methods that safeguard and enhance the biodiversity, environmental, livelihood, and social co-benefits represented by the "+" in REDD+.

The role of Forest-PLUS is to develop enabling conditions and provide technical assistance, but not provide implementation funding for REDD+. Establishing Forest-PLUS results that are independently financially sustainable is a key project concern and objective. In order to achieve this, Forest-PLUS is working to establish REDD+ in funded programs and working plans of the various ministries, departments, institutions, and agencies that manage India's forests, to demonstrate funding from REDD+ carbon markets, and to establish public-private partnerships (PPPs) that bring together public and private sectors to fund REDD+ based on a business incentive.

Forest-PLUS also will also enable REDD+ sustainability by developing REDD+ technical capacity in the responsible forest management institutions through a technical training program that includes workshops, scientific and technical exchanges between the US and India, scientific collaboration

between Indian researchers and RECOFT and CIFOR, and support for Indian researchers to work on REDD+ technical aspects. One Forest-PLUS activity specifically builds institutional capacity to address climate change issues in Forest-PLUS subcontractors and cooperating institutions.

Finally, REDD-PLUS enhances long-term REDD+ sustainability by developing public understanding and knowledge about climate change in general, the role of forest land use in contributing to climate change, the potential of improving forest management to mitigate GHG emissions, and about REDD+ itself as a mechanism to gain carbon, biodiversity, environmental, and socio-economic co-benefits. With better public knowledge, attitudes, and practices related to forests and climate change in India, there will be a stronger, more sustainable foundation for improved REDD+ forest management.

2.0 LANDSCAPE SELECTION

2.1 LANDSCAPE SELECTION PROCESS UPDATE

In Component II, Forest-PLUS deploys, adapts, and demonstrates in pilot landscapes the REDD+ tools, techniques and methods Forest-PLUS has developed in Component I. Discussions and negotiations between USAID, MOEF, and SDFs have set the pace of selecting Forest-PLUS pilot landscapes, with the participation of Forest-PLUS staff. The criteria for selection included representing forests with a majority of forest carbon stocks, a diversity of forests, interested state and local partners, and local conditions in which deforestation and forest degradation were important land use dynamics.

By March 2013 USAID and MOEF had agreed on pilot landscapes in three states: Karnataka, Madhya Pradesh, and Himachal Pradesh. These landscapes represent forest types in three of India's fourteen physiographic zones. A few months later USAID and MOEF decided to add a pilot landscape in the Lower Teesta Watershed of Sikkim (Eastern Himalayas) not contemplated in Forest-PLUS' original implementation plan. On 27 September 2013 USAID issued a Change Order requesting Tetra Tech, as the Forest-PLUS prime contractor, to submit a revised technical Proposal and budget to accommodate a pilot landscape in Sikkim. Tetra Tech, with the participation of its subcontractors, prepared and submitted such a revised proposal, budget, and deliverable schedule on 25 October 2013. Negotiations led to revisions in a 17 December 2014 submissions. By the end of Q1 FY 2014, Tetra Tech and USAID were still in the process of negotiating, but were very close to reaching an agreement.

Spatial Analysis for Site Delineation

In Q1 FY 2014, with the close support of the Remote Sensing and GIS Cell of the Karnataka Forest Department (KFD), Forest-PLUS collated various forest cover and other land use spatial layers for 2001, 2006 and 2012 covering the Shimoga landscape in Karnataka and, using these, developed a spatially referenced land use/forest cover change matrix for the intervals between these years. The change matrix allows land use changes to be mapped which will help Forest-PLUS identify appropriate Forest-PLUS intervention areas within the broader Shimoga landscape.

Also in Q1 FY 2014, Forest-PLUS developed a similar change matrix covering the Rampur Circle pilot landscape in Himachal Pradesh for the years 2003 to 2011. Forest-PLUS did this work in collaboration with the Remote Sensing and GIS Cell of the Himachal Pradesh Forest Department (HPFD). As in Karnataka, Forest-PLUS is using this change matrix to identify smaller intervention areas within the pilot landscape.

3.0 PROGRAM ACTIVITIES

3.1 COMPONENT I, TASK 1: DEVELOP TOOLS, TECHNIQUES, AND METHODS FOR BETTER ECOSYSTEM MANAGEMENT AND INCREASING SEQUESTRATION

3.1.1 ACTIVITY 1.1.1: DEVELOP STRATEGY PAPER ON ECOSYSTEM MANAGEMENT

Forest-PLUS submitted this strategy paper to USAID in Q4 2013 and will revise it in response to USAID comments before circulating more broadly among stakeholders, particularly SFDs, for further comments.

3.1.2 ACTIVITY 1.1.2: DEVELOP/ADAPT MANAGEMENT TECHNIQUES/TOOLS THAT INCREASE CARBON SEQUESTRATION, AND HAVE OTHER ENVIRONMENTAL AND LIVELIHOOD BENEFITS

In Q1 FY 2014, the Forest-PLUS FNRM Advisor prepared a report presenting an analysis of the forests of the Shimoga landscape concluding with recommendations for REDD+ forest management techniques that Forest-PLUS could develop further in field deployment. This report is currently being reviewed and revised within Forest-PLUS.

The Forest-PLUS FNRM Advisor and the COP visited FRI and FSI in Dehradun in Q1. The purpose of the visit was to discuss with both institutions their potential roles in Activity 1.1.2. As a result of the visit, FRI proposed a program of activities to develop four REDD+ forest management techniques and four silvicultural techniques (Activity 1.1.4) in FY 2014. Forest-PLUS is discussing this proposal with FRI and expects these discussions to lead to a fully developed contract including forest management and silvicultural techniques as deliverables. Another deliverable will be to digitize historical inventory data from permanent plots. These data will allow Forest-PLUS to estimate the natural level of carbon stocks in undisturbed, old growth forests for each forest type in India. This would be used as a reference baseline against which current carbon stock degradation could be measured and the carbon sequestration potential in tons of carbon and in market value could be calculated and mapped. Both measures would be useful in REDD+ forest management. Finally, the Forest-PLUS FNRM Advisor has, based on volume growth rates in different forest types derived from the limited historical data that is available, estimated the pattern of carbon sequestration over time in different forest types. One result is that, although evergreen forests reach a higher level of carbon stocking, the rate of carbon sequestration has a slow start. By comparison, tropical deciduous forests, despite having less total sequestration potential, fix carbon faster in the earlier stages in forest regrowth and therefore may yield higher short term carbon benefits under REDD+ management.

3.1.3 ACTIVITY 1.1.4: DEVELOP/ADAPT IMPROVED SILVICULTURAL TECHNIQUES

As reported above, in Q1 FY 2014 Forest-PLUS has been developing with FRI a subcontract for which REDD+ silvicultural techniques would be one deliverable. Forest-PLUS is negotiating with FRI the details of such a contract so that the silvicultural techniques will be focused on REDD+, developed through consultation with users and stakeholders in the pilot landscapes, and adapted appropriately to each landscape's specific stakeholder needs and forest characteristics. FRI is a Forest-PLUS on-call partner and brings great experience in forestry research to this activity.

3.1.4 ACTIVITY 1.1.5: DEVELOP SUSTAINABLE HARVESTING METHODOLOGIES FOR NTFPS

In Q1 FY 2014 Mr. Rishu Garg, an InsPIRE consultant, continued to develop a sustainable harvesting method for *Buchnania lanzan* (achar), a NTFP species economically important in the Madhya Pradesh

Hoshangabad landscape. Mr. Garg conducted interviews with NTFP harvesters, community members, and members of eleven JFMCs in two divisions and five ranges. Through these interviews he identified achar as one of the NTFP in Hoshangabad with the greatest scope to improve its sustainable harvesting, and therefore harvester livelihoods, while also promoting better forest biophysical conditions and associated carbon stocks. Mr. Garg has prepared and submitted a draft report to Forest-PLUS in November 2013. The Forest-PLUS NTFP Specialist has reviewed this report, has recommended revisions, and Forest-PLUS will submit a revised report to USAID in Q2 FY 2014.

In Q1 FY 2014 the Forest-PLUS NTFP Specialist started collecting preliminary data for developing sustainable harvesting techniques for NTFP(s) in the Rampur landscape. The Forest-PLUS NTFP Specialist visited the landscape and, through consultations with harvesters, community members, and local SDF foresters, identified some of the economically most important NTFPs collected by residents of forest-fringe communities. These are Dhoop (*Jurinea macrocephela*), Patish (*Aconitum haterophyllum.*), Rewand chini (*Rheum emodi*), Dorigrass (*Potentilla nepalensis*), Salampanja (*Orchis latifolia*), Salam mishri (*Polygenatum vertiuilliem*), Sathjalori (*Ainaliaea aptra*), Karoo (*Picorhiza kurroa*), Bankakri (*Podophyllum hexandrum*, Buransh or brass phool (*Rhododendron campanulatum*), Kuth (*Saussurea lappa*) and Seski (*Artemesia brevifolia*).

3.1.5 ACTIVITY 1.1.6: EXPLORE METHODS TO IMPROVE GRAZING MANAGEMENT AND STALL FEEDING SYSTEMS

Forest-PLUS subcontractor InsPIRE developed an improved grazing management technique for the Shimoga landscape and submitted a draft report. The Forest-PLUS' Institutional Development and Governance Advisor, who is supervising this work, has reviewed the report and is working with InsPIRE to prepare a revision.

3.1.6 ACTIVITY 1.1.7: SUPPORT TO INDIAN RESEARCHERS ON IMPROVED FOREST MANAGEMENT, CLIMATE CHANGE, AND REDD+

Forest-PLUS had no work scheduled for Activity 1.1.7 in Q1 FY 2014.

3.1.7 ACTIVITY 1.1.8: ORGANIZE EXCHANGE VISITS/STUDY TOUR

Forest-PLUS had no work scheduled for Activity 1.1.8 in Q1 FY 2014.

3.2 COMPONENT I, TASK 2: DEVELOP IMPROVED METHODS TO ESTABLISH CARBON INVENTORY AND REFERENCE BASELINES FOR INDIA

3.2.1 ACTIVITY 1.2.1: IMPROVE METHODOLOGIES TO ESTIMATE CARBON CONTENT IN DIFFERENT FOREST TYPES

In Q1 FY 2014, MSU progressed on developing software models to convert remote sensing data to carbon estimates. The five software models include:

1. A forest stratification model that uses India Tier 2 biomass estimates with optical satellite remote sensing land use and land cover stratification to map landscape level carbon stock;

2. A forest fractional cover model that down-calibrates the India Tier 2 biomass estimates to map landscape level carbon stock;

3. A Tier 3 model that integrates field level plots' estimates of carbon stock with optical satellite remote sensing land use and land cover stratification to map landscape level carbon stock;

4. A Tier 3 model the integrates field level plots estimates of carbon stock with a forest fractional cover model to map landscape level carbon stock; and

5. An algorithm for forest canopy structural stratification using PALSAR or SAR from other platforms.

MSU has acquired multi-temporal remote sensing satellite data for the four case study sites, compiling a data archive of more than 250 scenes that include optical data from Landsat TM, Landsat ETM+, ASTER VNIR, AWiFS, and LISS-3 as well as DEM data from Cartosat. MSU has focused algorithm development on the fractional cover model integrating with Tier 3 level biomass data. The optical data analyses starting from "raw" data through pre-processing, the production of a vegetation index, and resulting in fractional cover is approximately 80 % complete. MSU is developing a spectral end-member library as part of the processing steps to be used in the on-line workflow. A draft methods document is 70 % complete for the fractional cover model.

MSU presented the results of its landscape level carbon mapping using Landsat data and field data collected in April 2013 in Madhya Pradesh and Karnataka to FSI in November 2013, to KFD also in November 2013 and to the delegates on the North American Study Tour in December 2013. Limited field data allowed only for a proof of concept approach to the method.

MSU/IORA team members collected field data in Nov 2013 in Himachal Pradesh to test these methods in a terrain and ecosystem type that differs dramatically from Madhya Pradesh and Karnataka.

MSU has made PowerPoint presentations showing the algorithm development and early results for Madhya Pradesh and Karnataka available on the MSU Forest-PLUS intranet at: http://fplus.carbon2markets.org, as are the GIS data from the Nov. 2013 field work in Himachal Pradesh.

AGS conducted an initial survey of data availability for land cover characterization using PALSAR data, based on inputs on site locations provided by MSU. AGS's SAR expert, Nate Torbick, started standard data pre-processing steps to develop a proposed workflow and to document possible approaches to map forest cover.

AGS has mined the ALOS-1 archives from 2006-2011 for fine-beam single, dual, and quad pol stamp imagery for the Forest-PLUS pilot landscapes. In addition, AGS has assessed the spatial coverage of JERS-1 25m mosaics and ALOS-1 ScanSAR 50m multi-temporal observations and examined the polarization, season (phenology), spatial coverage, and temporal overpass dates. The results show a wealth of archived data that can contribute to forest carbon and activity mapping. This data can assist in formulating a solid foundation for the next decade as planned launches for L-band satellites are scheduled in early 2014. As part of the initial PALSAR development, AGS has generated a high - level suite of example routines and products useful for forest stratification. These include preprocessing routines, analytical approaches, and strategies for integrating cost effective SAR mapping into decision supports systems.

As part of Forest-PLUS development of sampling methodologies to conduct forest carbon inventories, Dr. Mark Ducey initiated stakeholder discussions on sampling needs, completed a draft literature review on alternative sampling methods, identified where improvements may be needed in techniques to sample the most important tree and non-tree carbon pools in India and has identified an initial menu of forest carbon inventory options.

AGS has identified, through stakeholder engagement with FSI and the SFDs, five protocols to predict, estimate, and document carbon stock changes:

1. Deforestation and degradation baseline and *ex ante* protocol,

2. Deforestation and degradation monitoring protocol,

3. Enhancement baseline and *ex ante* protocol,

4. Enhancement monitoring protocol, and

5. Trees outside forest/agroforestry monitoring protocol.

3.2.2 ACTIVITY 1.2.2: FACILITATE COMMUNITY PARTICIPATION DEVELOPING LOW COST TOOLS FOR COMMUNITY-LEVEL DATA COLLECTION AND MONITORING

During Q1 FY 2014 AGS with MSU and IORA identified key covariates of forest area and carbon that can be collected using widely available and low-cost technology, with the goal of incorporating these into technology-enabled community data collection tools during FY2014.

AGS has developed an initial working prototype of a mobile field data collection application for community use. This is an Android application able to run on smartphones that allows users to: 1) navigate to field sites defined with geospatial data objects called projects, parcels, and plots; 2) log data of tree measurements and species within plots; and 3) collect field photos according to a protocol that defines multiple view direction in three dimensions. The application back-end also contains an interface to the MSU-developed MRV software system using client-server protocols. This will allow communication of field assignments to the community members doing the data collection in the field.

3.2.3 ACTIVITY 1.2.3: IMPROVE DATA MANAGEMENT AND AVAILABILITY

In Q1 FY 2014 MSU has made substantial progress towards developing MRV system tools and methods to improve data management and availability for REDD+, GHG Inventory and India's NFI. MSU and IORA led a demonstration of the current version of this MRV system for review by FSI and KFD in November 2013 and MSU demonstrated a beta version to the Indian participants of the US Study Tour in December 2013. MSU will incorporate feedback on the system from these stakeholder demonstrations in the development of the next version. The latest version of the data management tool is coded in bootstrap, a front-end framework for web-development, and also in Django, a python web framework.

MSU installed a computer at the IORA Delhi office which Forest-PLUS will use to test speed and performance of the system through remote desktop access from MSU.

Forest-PLUS reports progress on developing a platform for research and technology linkages and exchanges. MSU has conducted a review of potential learning management systems (LMS) and web development/content management (CMS) software. These include Desire to Learn (D2L) and Blackboard (LMS); Wordpress, LiveWhale and Drupal (CMS).

3.2.4 ACTIVITY 1.2.4: CAPACITY BUILDING

AGS organized a half-day workshop with SFD staff to identify immediate training needs and audiences for REDD+ and related forest carbon monitoring, carbon inventory, and sustainable forest management. AGS has documented the results of this workshop and other training consultations in two working memoranda, for sampling and training needs, respectively. These memoranda identify the broad topics of four planned training curricula.

Forest-PLUS conducted the first of six planned US-India Study Tours 1 – 15 December 2013. MSU, with help from IIE, organized the tour in the US for ten Indian participants from MOEF, SFDs and FSI. The tour focused on forest inventory measurement and monitoring techniques (including ground based inventories and remote sensing methods) and also forest carbon project development and markets. The participants spent time in Michigan, Washington DC and northern California. The tour included presentations and discussions on forest carbon measurement and monitoring with remote sensing satellite data at the Global Observatory for Ecosystem Services, Forestry Department, Michigan State University, Tetra Tech Forest Carbon Markets Communities (FCMC) USAID project office and at the Department of Geography, University of Maryland. Delegation participants met with US Forestry Service agencies at the state (Michigan – Department of Natural Resources), regional (Pacific Southwest Regional), and national levels learning about USFS efforts for forest inventory and carbon quantification as well as forest management for improved carbon sequestration and forest certification.

The delegates also visited NASA headquarters in Washington DC where program managers in three of NASA's Earth Sciences Division programs (Land Cover Land Use Change, Biodiversity and Ecosystem Modeling, and Data and Information Systems) gave talks regarding programmatic efforts supporting the United States Global Change Research Program (USGCRP) and forestry/climate research activities. The delegates met with the California Air Resources Board (CA ARB) to learn about the California Cap and Trade program for greenhouse gas emissions and the opportunities for forestry offsets. Coupled with the CA ARB was a discussion with the AFOLU director for the Verified Carbon Standard (VCS) which provided information on forestry offsets in the voluntary market. Two additional meetings in California gave the delegation a complete picture of carbon markets and forestry offset projects. The first was a discussion with Wildlife Works, a for-profit company, which has developed a number of International REDD+ projects and is interested in developing forestry projects in India. The other was a visit to a forest management carbon project in the Garcia River Forest which was developed by the NGO, The Conservation Fund.

The tour was successful in achieving its objectives according to the post-tour feedback forms completed by the delegation (a final tour report which will include a summary of the feedback form information will be filed in January 2014) and the delegations provided MSU a list of topics from which more in-depth training could be provided in the future US study tours under Forest-PLUS.

A website with information about the tour including the presentations from the various agencies and groups we visited as well as pictures is on-line at: http://usstudy.goes.msu.edu/.

3.3 COMPONENT 1, TASK 3: ANALYZE SOCIAL AND ECONOMIC INCENTIVES FOR REDD+ POLICY AND PRACTICE

3.3.1 ACTIVITY 1.3.1: IDENTIFY SUITABLE INSTITUTIONAL MODELS AND COMMUNITY GOVERNANCE STRUCTURES FOR SCALING UP REDD+ ACTIVITIES

Forest-PLUS Institutions and Governance Advisor continued work on this activity in Q1 FY 2014 by undertaking a review of documents available on websites of key international agencies involved in REDD+ issues. This exercise helped develop a better understanding of institutional and governance issues related to REDD+. Based on this exercise, a draft chapter outline has been prepared for internal discussion. As the Guide is meant for scaling up REDD+ in India, the core learning will be derived from the Forest-PLUS landscapes. This landscape-level assessment will involve discussions with community stakeholders from community-based institutions (e.g., Joint Forest Management (JFM) Committees, Eco-development Committees and Gram Panchayats), government officials from the State Forest Departments and other relevant departments and agencies (e.g., Rural Development, Agriculture, Water Resources, Panchayati Raj and Tribal Affairs) and other relevant stakeholders such as locally active NGOs. Participatory gender analysis will be an integral part of this assessment and will seek to understand gender relationships, power dynamics, constraints, and opportunities that affect women and men differently and their ability to engage with REDD+ activities.

Forest-PLUS initiated this assessment through field work in the Himachal Pradesh landscape. A field visit was undertaken along with gender and land tenure experts from the USAID-supported Tenure and Global Climate Change (TGCC) project and discussions were held with senior and field-level Forest Department officials, JFM Committees and other community members, members of women's groups, panchayat leaders and NGOs/ activists working on forest issues to develop an institutional and governance map of the landscape.

3.3.2 ACTIVITY 1.3.2: DESIGN CAPACITY BUILDING PROGRAM FOR LOCAL COMMUNITIES

During the quarter IORA conducted a consultation of stakeholders at the SFD level and with other experts to develop a strategy for development of these Multi-Faceted Programs. The strategy was presented and discussed with other members of the Forest-PLUS team. IORA will design these tools for the Shimoga Landscape in the next quarter.

3.3.3 ACTIVITY 1.3.3: DOCUMENT AND DISSEMINATE SUCCESS STORIES

During the previous quarter, "a document on potential opportunities for communities to benefit sustainable forest management, with particular emphasis on benefits from the economic value of NTFPs, such as through the development of new value chains" was completed and submitted. This document is based on review of national literature and case studies of successful interventions from across the country.

As a supplement to this national document, work was initiated on documenting case studies ('success stories') in the FPP landscapes highlighting different benefits to local communities from sustainable forest management. It was decided to document two case studies in each landscape. During the previous quarter, case studies from the Karnataka landscape were completed and the case studies in the Himachal Pradesh and Madhya Pradesh landscapes were reviewed and revised.[1] The following case studies have been prepared:

- Himachal Pradesh: Kanda and Zarol (Tannu Jhhubad Van Vihar)
- Madhya Pradesh: Hiranchapra and Jalikheda
- Karnataka: K. Hunsavalli and Baniga

3.3.4 ACTIVITY 1.3.4: DESIGN PILOT PROGRAMS TO RATIONALIZE HARVESTING, PROCESSING, TRANSPORTING AND MARKETING REGULATIONS ON FOREST PRODUCTS

Issues related to forest-based livelihoods are addressed throughout the FPP, but this activity has a specific focus on direct benefits to local people through harvesting and marketing of forest produce. NTFP collection and farm-/agro-forestry operate on a massive scale in India and these have considerable potential for livelihood enhancement that is compatible with REDD+ objectives. However, increasing benefits from these activities faces policy and regulatory barriers that could be rationalized if properly managed for the benefit of forest-dependent communities.

The FPP aims to design four pilot programs to rationalize harvesting and marketing restrictions on forest products to enable communities to have greater incentives to sustainably manage forest resources, and reap livelihood benefits from processing and selling forest products such as NTFPs.

Work on this deliverable was initiated during the quarter by undertaking a review of key national documents such as the report of the committee on regulatory regime regarding felling and transit regulations for trees grown on non-forest lands and policy documents related to fair returns to primary NTFP collectors.

At the state level, work was initiated in the Himachal Pradesh landscape during this quarter. A review of documents available on the website of the Himachal Pradesh Forest Department was undertaken and relevant policies such as the Himachal Pradesh Forest Produce Transit (Land Routes) Rules, 1978 and the Himachal Pradesh Land Preservation Act, 1978 were studied. Discussions regarding policy constraints faced by communities and farmers were discussed with Forest Department officials at different levels, community and panchayat members, and NGOs such as the Himalayan Research Group located in Shimla. Detailed discussion on constraints faced by local community members and farmers was held during a stakeholder consultation organized at Kumarsen Range, Kotgarh Forest Division on 7th December, 2013. An open house session was held to get views of JFM Committee members and panchayat representatives on key policy bottlenecks for NTFP collection/ value addition and farm forestry during the training program held in the Rampur Circle on 17th and 18th December, 2013.

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[1]   Drafts of these case studies were prepared in the previous quarter.

3.3.5 ACTIVITY 1.3.5: SUPPORT EXCHANGES/ STUDY TOURS WITH RECOFTC AND/OR CIFOR

Forest-PLUS had no work scheduled for Activity 1.3.5 in Q1 FY 2014.

3.3.6 ACTIVITY 1.3.6: ORGANIZE AN INTERNATIONAL CONFERENCE TO SHARE BEST PRACTICES

Forest-PLUS had no work scheduled for Activity 1.3.6 in Q1 FY 2014.

3.4 COMPONENT II, TASK 1: ESTABLISH GOVERNMENT AND STAKEHOLDER DIALOGUE AND COMMUNICATION PROCESSES

3.4.1 ACTIVITY 2.1.1: FACILITATE STAKEHOLDERS MEETING AND DIALOGUE

During Q1 FY 2014, Forest-PLUS organized two stakeholder consultations in Shimla, Himachal Pradesh. The first one was held on October 22, 2013 with the Himachal Pradesh State Forest Department with the objective of facilitating a dialogue and raising awareness on REDD+ issues, sharing the Forest-PLUS program with the Forest Department, and consulting with them on how to make Forest-PLUS responsive to their needs and perspectives. This state-level consultation succeeded in creating a precedent that will facilitate future dialogues between Forest-PLUS and HPFD, in establishing a better understanding of REDD+ and related international issues as they apply to the circumstances and concerns specific to HP, and in building a broader understanding on the architecture of Forest-PLUS and its implementation plan. The consultation concluded with recognition of the need for Forest-PLUS to converge with the interests of various stakeholders and to emphasize inter-sectoral participation.

The second consultation was organized on October 23, 2013 in collaboration with MOEF, GOI in the form of a workshop involving different stakeholder groups on "Emerging issues in REDD+". The specific objectives of the workshop were to: 1) facilitate a dialogue and raise awareness about REDD+ issues among key stakeholders; 2) share the current international and national thinking on REDD+ and related issues and seek feedback that could be incorporated into Forest-PLUS; and 3) solicit inputs for the proposed/planned national REDD+ strategy/architecture. The participants of the consultation included representatives from the Himachal Pradesh Forest Department (HPFD), NGOs, academic institutions, media and the Forest-PLUS team and representatives from USAID/India. The outcomes of the consultation were: 1) a facilitated dialogue between GOI and HP stakeholders on climate change and REDD+ issues; 2) participants gained insight into the status of REDD+ and related issues from the national and international perspectives which will be of great help to build REDD+ initiatives in HP; and 3) a broader understanding among participants about climate change and REDD+ related issues, specifically on REDD+ forest management.

3.4.2 ACTIVITY 2.1.2: DISSEMINATE INFORMATION

One of the Forest-PLUS information dissemination approaches is through a project website. In Q1 FY 2014 Forest-PLUS contracted a web site design firm, Crystal Hues, to design, host, and maintain the website, which Forest-PLUS has now registered as www.forestplus.org. Forest-PLUS worked with Crystal Hues throughout Q1 FT 2014 to draft layouts to efficiently and attractively communicate the website's content. The Forest-PLUS website's initial page will include links to Forest-PLUS, Resources, REDD+ and Events and Campaigns (Figure 1). The website will also have a secretariat feature to allow all Forest- PLUS partners to share documents.

FIGURE 1. SCREENSHOT OF THE FOREST-PLUS WEBSITE MOCKUP

3.4.3 ACTIVITY 2.1.3: DESIGN AND CONDUCT AN OUTREACH, COMMUNICATION AND EDUCATION PROGRAM

In Q1 FY 2014 Forest-PLUS initiated surveys in Karnataka, Madhya Pradesh, and Himachal Pradesh landscapes to collect information needed to design outreach, communication and education programs on REDD+ efficiently matching the communications characteristics of the individual landscapes. The Community Outreach and Communications Specialists of the Forest-PLUS Regional Teams, which were put in place during Q1 FY 2014, are leading the surveys after being introduced to the Forest-PLUS communication strategy during their orientation training. For example, the regional teams are identifying each landscape's existing communications platforms: radio, TV, newspaper, magazines, internet, mobile phone, advertising display boards. For each platform, the regional teams are collecting details that will be useful for designing and implementing outreach, education, and communications programs tailored to these landscape characteristics. Teams will collect data on what radio/TV channels, programs, languages, mobile service provider, SMS usage is optimal for Forest-PLUS communications.. In addition, the regional teams are collecting information on the community dependency on forest resources in the landscapes.

3.4.4 ACTIVITY 2.1.4: PROVIDE SUPPORT TO MOEF REDD+ CELL

During Q1 FY 2014, Forest-PLUS discussed providing REDD+ technical support to the REDD+ Cell or the GIM with MOEF in two meetings with MOEF's Director General and Deputy Director General, and USAID. Forest-PLUS informally presented several suggestions, but the conclusions of these talks were that 1) MOEF would hold internal discussions to identify a specific technical support need that could be met through a senior technical consultancy, 2) Forest-PLUS would recruit that consultant based on an agreed Scope of Work, and 3) the deliverable would be the time spent by the consultant spent at MOEF working on the technical assignment and preparing a report of findings.

3.5 COMPONENT II, TASK 2: ENGAGE STAKEHOLDERS CONSTRUCTIVELY IN REDD+ IMPLEMENTATION

3.5.1 ACTIVITY 2.2.1: BUILD CAPACITY THROUGH TRAINING

During Q1 FY 2014 Forest-PLUS organized five training programs on 'Global Climate Change, Greenhouse Gas Inventories, Vulnerability, Mitigation and Adaptation' (Table 1). Three of these programs were for frontline officials of Karnataka and Himachal Pradesh Forest Departments; two training programs were for VFC, EDC, PRI and SHG members in Shimoga and Rampur landscapes. Altogether Forest-PLUS trained 180 people, of whom 32 were women and 148 were men (Table 1).

The two Forest-PLUS trainings for community members used simple resource material and participatory techniques with locally relevant examples to enhance learning of the participants.

Karnataka and Himachal Pradesh Forest Department officials provided good support and cooperation, which was a key factor in making these Forest-PLUS training events successful. In all trainings Forest-PLUS asked participants to write down two climate change or REDD+ actions they will undertake in their working area. After six months, Forest-PLUS will contact participants to review whether they are actually performing such actions. This will be used as a measure of the impact of Forest-PLUS' training.

TABLE 1. LIST OF TRAINING PROGRAMS (OCT – DEC 2013)

Tr. No.	Landscape	Level of training	Date	Number of participants	Female	Male
	Rampur, Himachal Pradesh	Frontline officials of HPFD	October 25-26, 2013	32	3	29
	Shimoga, Karnataka	Frontline officials of KFD	November 26-27, 2013	43	0	43
	Shimoga, Karnataka	CBOs	November 28-29, 2013	44	18	26
	Rampur, Himachal Pradesh	CBOs	December 17-18, 2013	31	11	20
	Rampur, Himachal Pradesh	Frontline officials of HPFD	December 19-20, 2013	30	0	30
Total				**180**	**32**	**148**

FIGURE 2. PARTICIPANTS OF VFC, PRI, AND SHG TRAINING PROGRAM IN BHADARAS, RAMPUR, HIMACHAL PRADESH

The training programs targeted at different stakeholder groups helped in understanding the broader field issues, the community's dependence on forests, assessing the understanding of forest officials on global climate change and identifying what needs to be done to reduce the greenhouse gas effect, improve forest management etc. Forest-PLUS will use this information to develop training modules and tools for REDD+ better tailored to the training audience.

3.5.2 ACTIVITY 2.2.2: FIELD TEST/PILOT VARIOUS METHODOLOGIES RESEARCH RESULTS

Forest-PLUS is developing REDD+ tools, techniques, and methods in Component I for deployment through Activity 2.2.2, but had scheduled no Activity 2.2.2 deployment of these in Q1 FY 2014.

3.5.3 ACTIVITY 2.2.3: DEVELOP PUBLIC-PRIVATE PARTNERSHIPS AND LEVERAGE FUNDS FROM PRIVATE SECTOR AND GOI INITIATIVES

Landscape mapping was done across the four pilot sites to prepare a framework for the PPP approach. Under this activity, potential corporate and NGO partners were identified at both national and regional level. A database of all land use related Government Schemes (central and state) for each of the four Forest-PLUS landscapes for PPP was created. Further, potential intervention activities were identified for each of the sites, that can be developed as PPP projects under forest PLUS. Two PPP proposals related to community based MRV and awareness campaigns are under preparation and will be completed within the next quarter.

3.5.4 ACTIVITY 2.2.4: ORGANIZE AN INTERNATIONAL CONFERENCE ON FORESTRY, CLIMATE CHANGE AND REDD+

Forest-PLUS had no work scheduled for Activity 2.2.4 in Q1 FY 2014.

3.6 COMPONENT II, TASK 3: HUMAN AND INSTITUTIONAL CAPACITY DEVELOPMENT AND STRENGTHENING OF ENABLING ENVIRONMENT

3.6.1 ACTIVITY 2.3.1: PROPOSE TWO LAWS, POLICIES, AGREEMENT OR REGULATIONS ADDRESSING CLIMATE CHANGE

Forest-PLUS had no work scheduled for Activity 2.3.1 in Q1 FY 2014.

3.6.2 ACTIVITY 2.3.2: ORGANIZE TRAINING PROGRAMS AND BUILD CAPACITY

Forest-PLUS development of tools, techniques, and methods for REDD+ training and capacity-building activities in Q1 FY 2014 are reported in Activities 1.2.4 and 2.2.1. Forest-PLUS has not yet begun full deployment under Activity 2.3.2 in Q1 FY 2014.

3.6.3 ACTIVITY 2.3.3: DESIGN AWARENESS CAMPAIGNS FOR UNDERSTANDING FOREST RIGHTS ACT

Forest-PLUS had no work scheduled for Activity 2.3.3 in Q1 FY 2014.

3.6.4 ACTIVITY 2.3.4: CREATE DATA SYSTEMS TO MANAGE GREENHOUSE GAS INVENTORY DATA, ESPECIALLY RELATED TO FORESTS

Forest-PLUS is developing data systems to manage greenhouse gas inventory data through Activity 1.2.3, but has not begun to deploy such systems through Activity 2.3.3 in Q1 FY 2014.

3.7 COMPONENT III, TASK 1: BASELINE ESTABLISHMENT

Baseline forest carbon stocks were estimated for the four Forest-PLUS project sites using FSI data published in the Forest Survey of India publications, "Carbon Stocks in India's Forest" (http://www.fsi.org.in/carbon_reports.htm) and "State of the Forest Report" (http://www.fsi.org.in/sfr_2011.htm). The calculations use the forest type and density classes area strata for each district and the estimated tons of carbon per hectare in these strata. *[The forest carbon baseline details have been submitted to the Forest-PLUS office (also attached here for reference).]*

As plot level inventory data become available from FSI and the SFDs to the Forest-PLUS team partners, the forest carbon baselines for each project area will be recalculated and reported with Tier 3 data using methods developed under Forest-PLUS that integrate field plot inventory data with remote sensing data analyses. Stock changes will be reported using calibrated time series remote sensing data to estimate the reference emission levels (RELs).

4.0 PROGRAM MANAGEMENT

4.1 PLANNING, MONITORING, AND EVALUATION

The PMP revision was undertaken during the quarter with a focus on refining the indicators and segregating them into output and outcome level indicators to better assess the program's progress. The proposal for additional activities along with a budget for Sikkim was submitted to USAID for their approval in response to the change order. The deliverables schedule was also revised to make it more realistic and reflective of the program's approach and strategy and the same was submitted to USAID along with the proposal for Sikkim. Discussions were held internally as well as with USAID on the Annual Work Plan for FY 2014.

4.2 RECRUITMENT, STAFFING, ORIENTATION, AND TRAINING

Recruitment, Staffing, and Orientation

Dr. Christopher Niles Kernan joined the Forest-PLUS Program as Chief of Party during this Quarter. There was a modification in the service terms of Dr. R. D. Jakati, FNRM Technical Advisor, whereby his services would be availed on a part-time basis and he would be based at Nagpur, India.

Madhya Pradesh: Mr. Arun Poojary was selected as the Regional Coordinator and will be issued the offer letter in January 2014.

Himachal Pradesh: The recruitment of the Regional Coordinator and that of the Regional Community Outreach & Communications Specialist was completed with Dr. Poonam Sharma joining as Regional Coordinator on 20th November 2103.

Mr. Navneet Yadav was selected as the Regional Community Outreach & Communications Specialist and will join in January 2014.

Forest-PLUS conducted a three day orientation for regional staff 20-22 November 2013 at the Forest-PLUS Delhi office. The purpose of the orientation was to help the regional staff understand Forest-PLUS, understand REDD+ and sustainable forest management, and to develop clarity on their roles and responsibilities as the field representatives of Forest-PLUS. Two days of the orientation were focused on technical aspects of the Forest-PLUS and the last day was devoted to administrative and financial norms and procedures. Sessions were taken by Forest-PLUS team members including the COP, FNRMTA, and IDGA.

4.3 ADMINISTRATION

Regional Offices:

The office premises at Rampur, Himachal Pradesh and Hoshangabad, Madhya Pradesh have been selected and are in the process of setting up.

The office furniture has been purchased for the office premises at Shimoga, Karnataka and is in the process of setting up telephone and internet connections.

Procurement:

Office furniture was purchased for the Shimoga office, a room heater was purchased for the Rampur office, and four laptop computers were purchased for the regional staff.

4.4 KEY PROGRAM MANAGEMENT OBJECTIVES FOR NEXT QUARTER

1. Submission of revised PMP and Log Frame: The PMP and log frame will be finalized in the next quarter and will be submitted to USAID.

2. Finalization of Action Plans for the four landscapes: the detailed action plans will be finalized and shared with the respective State Forest Departments.

3. Submission of revised deliverable schedule to USAID.

4. Recruitment for regional positions - Regional Coordinator and Regional Community Outreach & Communications Specialist – Final negotiations were conducted with the selected candidates for Hoshangabad, interviews of shortlisted candidates were conducted for Sikkim.

5. Field orientation of Regional Coordinators and Regional Community Outreach & Communications Specialists

6. Increased Subcontractor coordination on financial reporting and follow-up on the capacity building sessions held.

5.0 KEY CHALLENGES

Forest-PLUS is ambitious in its outcomes and impacts. It expects to change to a REDD+ approach forest management in a country with significant forest cover in contact with a large dispersed population. Forest-PLUS will do this not with the brute force of massive funding, but through strategic, technical interventions to catalyze change with inherent incentives to expand. Identifying and deploying the key technical interventions that will catalyze widespread REDD+ adoption is the key challenge for REDD+. It requires developing tools and methods in Component I that forest resource managers and users immediately recognize as needed and useful. This requires constant, close, meticulous contact and consultation with those target groups. Forest-PLUS and its subcontractors must spend a substantial amount of time in the field to establish and maintain strong collaborative relationships. The demands of maintaining such contact effectively in four widely separated landscapes is, perhaps, the most important Forest-PLUS challenge and one that will persist throughout the life of Forest-PLUS.

In Q1 FY 2014 there was a transition of COPs inevitably this caused some disruptions that affected Forest-PLUS implementation, however, USAID working together with Tetra Tech has overcome this challenge by placing an individual with significant USAID project management, forestry, and climate change experience to accomplish the project objectives .

6.0 PLANS/ACTIVITIES FOR Q2 FY 2014

6.1 COMPONENT I, TASK 1: DEVELOP TOOLS, TECHNIQUES, AND METHODS FOR BETTER ECOSYSTEM MANAGEMENT AND INCREASING SEQUESTRATION

Forest-PLUS plans to:

1. Develop a more precise and clearly articulated concept of a REDD+ ecosystem management strategy appropriately applied to the Indian context and specifically to the Forest-PLUS landscapes.

2. Begin developing an integrated ecosystem management/planning tool, probably based on a risk analysis model.

3. Contract FRI to develop four REDD+ forest management and four REDD+ silvicultural techniques.

4. Continue developing REDD+ grazing techniques appropriate for each landscape.

5. Continue developing REDD+ sustainable NTFP harvesting techniques including by recruiting Indian master's student researchers.

6.2 COMPONENT I, TASK 2: DEVELOP IMPROVED METHODS TO ESTABLISH CARBON INVENTORY AND REFERENCE BASELINES FOR INDIA

Forest-PLUS plans to:

1. Complete a carbon inventory training workshop.

2. Visit by AGS and Dr. Paul Siquiera to discuss SAR data (including a possible PPP) with FSI.

3. Develop mobile data collection mobile application.

4. Field demonstrates the MSU developed on-line MRV system.

5. Field test draft carbon inventory protocols.

6. Develop sub-pixel carbon mapping techniques.

7. Continue developing a pre-processing workflow for PALSAR data.

8. Complete a field visit by Dr. Mark Ducey to work on carbon inventory protocols and mobile applications.

9. Conduct a stakeholder feedback process for learning management systems (LMS) and web development/content management (CMS) software.

6.3 COMPONENT I, TASK 3: ANALYZE SOCIAL AND ECONOMIC INCENTIVES FOR REDD+ POLICY AND PRACTICE

Forest-PLUS plans to:

1. Conduct the field work and stakeholder consultations to develop a REDD+ governance and institutional analysis for each Forest-PLUS landscape.

2. Begin a REDD+ and gender analysis for each of the Forest-PLUS landscapes.

3. Begin analyses of economic incentive contexts for REDD+ in each of the Forest-PLUS landscapes.

4. Develop Forest-PLUS tools and methods for REDD+ and climate change training based on feedback from participants and to adapt them to individual landscapes.

5. Develop Forest-PLUS tools and methods for its REDD+ communications campaigns and to adapt them to individual landscapes.

6. Submit at least one success story.

6.4 COMPONENT II, TASK 1: ESTABLISH GOVERNMENT AND STAKEHOLDER DIALOGUE AND COMMUNICATION PROCESSES

Forest-PLUS plans to:

1. Conduct at least one national consultation.

2. Conduct at least one state consultation.

3. Conduct at least one local consultation.

4. Conduct at least three training program events.

5. Conduct at least three communication campaign events.

6. Complete at least one visit to Sikkim to visit the landscape and consult with the SFD.

6.5 COMPONENT II, TASK 2: ENGAGE STAKEHOLDERS CONSTRUCTIVELY IN REDD+ IMPLEMENTATION

Forest-PLUS plans to:

1. Continue developing one PDD in Shimoga landscape.

2. Start developing a PDD in the Hoshangabad landscape.

3. Develop a clearer the concept of a multi-faceted program to ensure it is based on REDD+ and demand from landscape stakeholders.

4. Continue developing PPPs to provide sustainable financing to REDD+ in India.

6.6 COMPONENT II, TASK 3: HUMAN AND INSTITUTIONAL CAPACITY DEVELOPMENT AND STRENGTHENING OF ENABLING ENVIRONMENT

Forest-PLUS plans to:

1. Start recruiting Indian research interns to work with RECOFTC and CIFOR.

2. Provide support to at least 5 Indian researchers to work on aspects of REDD+ deployment in India.

3. Complete an initial baseline of institutional capacity for IORA, InsPIRE and prepare an institutional development plan.

6.7 PROGRAM MANAGEMENT

Forest-PLUS plans to:

1. Establish and staff a regional office in Sikkim.

2. Recruit a new FNRM Advisor.

3. Review the InsPIRE SOW.

4. Complete an internal Tetra Tech compliance audit.

5. Prepare an updated activity-based project management budget.

6. Revise the FY 2014 AWP to be compatible with a fourth landscape.

7. Revise the Forest-PLUS PMP.

8. Revise the Forest-PLUS PIP.

9. Prepare a Forest-PLUS log-frame.

10. Revise the Forest-PLUS brochure.

ANNEX 1: FOREST-PLUS DELIVERABLES

Please note that Annex 1: Forest-PLUS Deliverables were submitted to USAID and we are awaiting approval.

DELIVERABLES	DRAFT DELIVERABLES	FINAL DELIVERABLES
CLIN 001 : Component 1 : Sustainable Landscapes – Development : Scientific Exchange/ Technical Cooperation Facilitated		
Task : 1 Develop Tools, Techniques, and Methods for Better Ecosystem Management and Increasing Sequestration		
Strategy paper on integrated forest/ecosystem management : improved silviculture, sustainable grazing, carbon sequestration, and other environment and livelihood benefits	Q3 FY2013	
Integrated forest management planning model and training manuals	Model: Q4 FY 2014 Training manuals: Q4 FY 2014	Q4 FY 2016
Four silviculture techniques developed/adapted to Indian context	1 – Q3 FY 2014 2 – Q3 FY 2014 3 – Q3 FY 2014 4 – Q3 FY 2014	1 – Q3 FY 2016 2 – Q3 FY 2016 3 – Q3 FY 2016 4 – Q3 FY 2016
Four management strategies that increase carbon and other environment services documented in success stories	1 – Q3 FY 2014 2 – Q3 FY 2014 3 – Q4 FY 2014 4 – Q4 FY 2014 Success stories disseminated by Q3 FY 2014 and thereafter.	1 – Q1 FY 2017 2 – Q1 FY 2017 3 – Q1 FY 2017 4 – Q1 FY 2017
Four sustainable harvest methodologies for NTFPs developed	1 – Q4 FY 2013 2 – Q2 FY 2014 3 – Q3 FY 2014 4 – Q3 FY 2014 Training manuals: Q3 FY 2015	1 – Q2 FY 2016 2 – Q4 FY 2016 3 – Q1 FY 2017 4 – Q1 FY 2017
Four techniques developed/adapted to the Indian context to improve grazing management which takes into account equity, productivity and sustainability	1 – Q4 FY 2013 2 – Q2 FY 2014 3 – Q3 FY 2014 4 – Q3 FY 2014 Training manuals: Q3 FY 2015	1 – Q2 FY 2016 2 – Q4 FY 2016 3 – Q1 FY 2017 4 – Q1 FY 2017
20 Indian researchers supported	10 selected by Q4 FY 2014 10 selected by Q4 FY 2015 Research duration approximately 3 months Results reported after 3-6 months	
Three exchange visits/ study tours with 30 participants (ten participants in each study tour) organized between US and India	1 – Q3 FY 2014 1 – Q2 FY 2015 1 – Q1 FY 2016	

DELIVERABLES	DRAFT DELIVERABLES	FINAL DELIVERABLES
Task 2 : Develop improved Methods of Establish Carbon Inventory and Reference Baselines for India		
Five software models developed/adapted to convert remote sensing data to carbon estimates	1 – Q3 FY 2014 2 – Q3 FY 2014 3 – Q3 FY 2014 4 – Q4 FY 2014 5 – Q4 FY 2014	1 – Q3 FY 2016 2 – Q3 FY 2016 3 – Q4 FY 2016 4 – Q4 FY 2016 5 – Q4 FY 2016
Three sampling methodologies to conduct forest carbon inventories	1 – Q3 FY 2014 2 – Q3 FY 2014 3 – Q3 FY 2014	1 – Q4 FY 2016 2 – Q4 FY 2016 3 – Q4 FY 2016
Five protocols to help predict, estimate, and document carbon stock changes	1 – Q4 FY 2014 2 – Q4 FY 2014 3 – Q4 FY 2014 4 – Q4 FY 2014 5 – Q4 FY 2014	1 – Q1 FY 2017 2 – Q1 FY 2017 3 – Q1 FY 2017 4 – Q1 FY 2017 5 – Q1 FY 2017
Two community – level protocols for involvement in forest inventories	1 – Q3 FY 2014 2 – Q3 FY 2014	1 – Q4 FY 2015 2 – Q4 FY 2015
Four cost-effective tools and data management system to gather data at the community level	1 – Q3 FY 2014 2 – Q3 FY 2014 3 – Q4 FY 2014 4 – Q4 FY 2014	1 – Q4 FY 2015 2 – Q4 FY 2015 3 – Q4 FY 2015 4 – Q4 FY 2015
Improve data management data management and availability for REDD, GHG inventory, and India's NFI	Q4 FY 2014	Q1 FY 2017
Platform for research and technology linkages and exchanges	Launched: Q1 FY 2015	
Series of 12 training courses for State-level Forest Department staff designed for inventorying forest resources	4 – FY 2014 4 – FY 2015 4 – FY 2016	
Curricula and modules developed in integrated forest management (including NRM, REDD+ issues, economics, and social sciences)	Q2 FY 2014	
Three exchange visits/ study tours with 30 participants (ten participants in each study tour) organized between US and India	1 – Q1 FY 2014 1 – Q1 FY 2015 1 – Q3 FY 2015	
Task 3 : Analyze Social and Economic Incentives for REDD + policy and practice		
Guide produced for development of institutional and community governance models for scaling REDD+	National: Q2 FY 2014 Karnataka: Q3 FY 2014 Madhya Pradesh: Q4 FY 2014 Himachal Pradesh: Q3 FY 2014 Sikkim: Q2 FY 2015	National: Q1 FY 2017 Karnataka: Q1 FY 2017 Madhya Pradesh: Q1 FY 2017 Himachal Pradesh: Q1 FY 2017 Sikkim: Q1 FY 2017
Four multi-faceted programs to build local capacity in forest management, enabling communities to take greater responsibilities over their forest and degradable lands (including 2 pilots)	Designed by: 4 – Q4 FY 2014 2 pilots – Q4 FY 2014	Implemented from Q4 FY 2014 – Q4 FY 2016 Final reports: 1 – Q1 FY 2017

DELIVERABLES	DRAFT DELIVERABLES	FINAL DELIVERABLES
		2 – Q1 FY 2017 3 – Q1 FY 2017 4 – Q1 FY 2017
Document on potential opportunities for communities to benefit from sustainable forest management, with particular emphasis on benefits from the economic value of NTFPs, (e.g., through the development of new value chains)	Q2 FY 2014	Q1 FY 2017
Four pilot programs designed in collaboration with state forest departments to test the impact of easing out marketing and permitting (harvest and transit) restrictions of forest products on the livelihood of forest dependent communities	1 - Q4 FY 2014 2 - Q4 FY 2015 3 - Q4 FY 2015 4 - Q4 FY 2015	1 - Q4 FY 2016 2 - Q4 FY 2016 3 - Q4 FY 2016 4 - Q4 FY 2016
Eight internship exchanges with RECOFTC and CIFOR	4 – Q3 FY 2014 4 – Q3 FY 2015	
International conference on results of Component 1	Q4 FY 2016	
CLIN 002 : Component 2 : Sustainable Landscape – Deployment : Scientific and Technical Results Piloted at scale		
Task 1: Establish Government and Stakeholder Dialogue and Communication Processes		
Minimum 15 stakeholder meetings and dialogues hosted at the national, state and local levels	National (= 4): 1 – Q2 FY 2014 1 – Q4 FY 2015 1 – Q4 FY 2016 1 – Q1 FY 2017 State (= 8): 2 – Q3 FY 2013 1 – Q1 FY 2014 1 – Q3 FY 2014 1 – Q2 FY 2015 2 – Q3 FY 2015 1 – Q1 FY 2016 Local (= 8): 2 – Q4 FY 2014 2 – Q3 FY 2015 2 – Q1 FY 2016 2 – Q4 FY 2016	
20 outreach, communication campaigns and education programs completed to raise levels of understanding about REDD+ and carbon markets	Communication strategy: Q3 FY 2013 Communication campaigns: 6 – Q4 FY 2014 6 – Q4 FY 2015 6 – Q3 FY 2016 2 – Q1 FY 2017	
800+ people receiving scientific and technical results through at least 5 platforms, with more than 400 people providing feedback to improve research design and pilot projects	5 platforms developed – Q2 FY 2015 800 people receiving results - through LOP 400 people's feedback - through LOP	

DELIVERABLES	DRAFT DELIVERABLES	FINAL DELIVERABLES
50%+ of the cost of the communications campaigns captured through PPPs	through LOP	
Three recurrent Senior Science Advisors, STTA, and stakeholder workshops support provided to the REDD+ Cell	As requested by MOEF	
Task 2: Engage Stakeholders Constructively in REDD+ Implementation		
Six + PPPs leverage more than $1M from private sector and $2M from GOI initiatives benefitting over 500 people, of which 40% are women	1 - Q4 FY 2014 1 - Q4 FY 2015 2 - Q1 FY 2016 2 - Q3 FY 2016 LOP total = US$3 million	
More than 450 people trained in forest and carbon monitoring tools and methodologies	200 - Q2 FY 2015 200 - Q4 FY 2015 50 - Q2 FY 2016	
More than 450 FD staff trained in integrated approaches to forest management, which includes a specific module on social sciences	200 - Q3 FY 2015 200 - Q1 FY 2016 50 - Q3 FY 2016	
Four REDD+ pilot sites established and pre-selected tools, methods and approaches developed in component 1 piloted/demonstrated, with over 150 stakeholders participating	1 - Q4 FY 2014 1 - Q4 FY 2015 2 - Q4 FY 2016	
1 international conference on forestry, climate change and REDD+ organized	Q2 FY 2015	
Task 3: Human and Institutional Capacity Development and Strengthening of Enabling Environment		
Two laws, policies, or regulations addressing climate change proposed, adopted, or implemented	1 - Q4 FY 2015 1 - Q4 FY 2016	
16 training programs/hands on activities (800 participants) conducted in collaboration with forest departments and NGOs to build capacity of local communities to manage forest resources	Training programs: 2 - Q4 FY 2014 2 - Q2 FY 2015 2 - Q4 FY 2015 2 - Q1 FY 2016 2 - Q2 FY 2016 2 - Q3 FY 2016 2 - Q4 FY 2016 2 - Q1 FY 2017	
Five public awareness campaigns developed to improve understanding of the FRA	Campaigns: 1 - Q1 FY 2015 1 - Q3 FY 2015 1 - Q4 FY 2015 1 - Q2 FY 2016 1 - Q4 FY 2016	
550 people trained in GCC, GHG inventories, mitigation and vulnerability, and adaption analysis	Trainings: 1 - Q3 FY 2014 1 - Q4 FY 2014 3 - Q1 FY 2015	

DELIVERABLES	DRAFT DELIVERABLES	FINAL DELIVERABLES
	3 - Q2 FY 2015	
	4 - Q3 FY 2015	
	4 - Q4 FY 2015	
	2 - Q1 FY 2016	
2 data systems on GHG inventory related to forest created	1 - Q4 FY 2014	
	1 - Q4 FY 2014	
CLIN 3 : Other activities and management Support		
Task 1 : Establish Baselines		
· Baseline strategy	Q2 FY 2014	
· Baselines established	GHG baseline 2 landscapes - Q3 FY 2014	
	GHG baseline remaining 2 landscape – Q4 FY 2014	
	Institutional capacity baselines – Q4 FY 2014	
	All other required baselines – Q3 FY 2014	
Task 2 : Maximize the use of local partners and enhance their capabilities		
Capacity of two local partners enhanced	LOP	

ANNEX 2: DELIVERABLES TIMELINE

Please note that Annex 2: Forest-PLUS Deliverables Timeline was submitted to USAID and we are awaiting approval.

Deliverables - Outputs/Outcomes	USFY 2013				USFY 2014				USFY 2015				USFY 2016				USFY 2017			
	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
CLIN 001 : Component 1 : Sustainable Landscapes – Development: Scientific Exchange/Technical Cooperation Facilitated																				
Task 1: Develop Tools, Techniques, and Methods for Better Ecosystem Management and Increasing Sequestration																				
– Strategy paper on integrated forest/ecosystem management : improved silviculture, sustainable grazing, carbon sequestration, and other environment and livelihood benefits			1																	
– Integrated forest management planning model								1							1					
– Integrated forest management planning model training manuals								1												
– Four silviculture techniques developed/adapted to Indian context							4								4					
– Four management strategies that increase carbon and other environment services							4									4				
– Management strategies that increase carbon and other environment services documented in success stories									████	████	████	████	████	████	████	████				
– Four sustainable harvest methodologies for NTFPs developed					1		3								4					
– Four techniques developed/adapted to the Indian context to improve grazing management which takes into account equity, productivity and sustainability					1	1	2							1		1	2			
– Grazing management training manuals											1									
– 20 Indian researchers supported								10				10								
– Three exchange visits/ study tours with 30 participants (10 in each study tour) organized between US and India							1			1			1							
Task 2 : Develop improved Methods of Establish Carbon Inventory and Reference Baselines for India																				
– Five software models developed/adapted to convert remote sensing data to carbon estimates							3	2							3	2				

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Deliverables - Outputs/Outcomes	USFY 2013				USFY 2014				USFY 2015				USFY 2016				USFY 2017			
	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
– Three sampling methodologies to conduct forest carbon inventories							3									3				
– Five protocols to help predict, estimate, and document carbon stock changes								5									5			
– Two community–level protocols for involvement in forest inventories							2					2								
– Four cost-effective tools and data management system to gather data at the community level							2	2				4								
– Improve data management and availability for REDD, GHG inventory, and India's NFI								1									1			
– Platform for research and technology linkages and exchanges									1											
– Series of 12 training courses for State-level Forest Department staff designed for inventorying forest resources					4				4				4							
– Curricula and modules developed in integrated forest management (including NRM, REDD+ issues, economics, and social sciences)						1														
– Three exchange visits/study tours with 30 participants (10 in each study tour) organized between US and India					1				1		1									
Task 3 : Analyze Social and Economic Incentives for REDD + policy and practice																				
– Guide produced for development of institutional and community governance models for scaling REDD+																				
National						1											1			
Karnataka							1										1			
Madhya Pradesh								1									1			
Himachal Pradesh							1										1			
Sikkim										1							1			
– Four multifaceted programs to build local capacity in forest management, enabling communities to take greater responsibilities over their forest and degradable lands (including 2 pilots) designed																				
programs								4												
pilots								2												
implementation									███	███	███	███	███	███	███	███				
reports																	4			
– Document on potential opportunities for communities to benefit from sustainable forest management, with particular						1											1			

Deliverables - Outputs/Outcomes	USFY 2013				USFY 2014				USFY 2015				USFY 2016				USFY 2017			
	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
– emphasis on benefits from the economic value of NTFPs, (e.g., through the development of new value chains)																				
– Four pilot programs designed in collaboration with state forest departments to test the impact of easing out marketing and permitting (harvest and transit) restrictions of forest products on the livelihood of forest dependent communities								**1**				**3**				4				
– Eight internship exchanges with RECOFTC and CIFOR							4				4									
– International conference on results of Component 1														1						
CLIN 002: Component 2: Sustainable Landscape– Deployment: Scientific and Technical Results Piloted at scale																				
Task 1: Establish Government and Stakeholder Dialogue and Communication Processes																				
– Minimum 15 stakeholder meetings and dialogues hosted at the national, state and local levels																				
National						1						1				1	1			
State		2			1		1		1	2				1						
Local							2				2			2		2				
– 20 outreach, communication campaigns and education programs completed to raise levels of understanding about REDD+ and carbon markets																				
communications strategy			1																	
communications campaigns							6				6				6		2			
– 800+ people receiving scientific and technical results through at least 5 platforms, with more than 400 people providing feedback to improve research design and pilot projects																				
5 platforms											5									
– 50%+ of the cost of the communications campaigns captured through PPPs			███																	
– Three recurrent Senior Science Advisors, STTA, and stakeholder workshops support provided to the REDD+ Cell						██														
Task 2: Engage Stakeholders Constructively in REDD+ Implementation																				
– Six + PPPs leverage more than $1M from private sector and $2M from GOI initiatives benefitting over 500 people, of which 40% are women								1				1	2		2					

Deliverables - Outputs/Outcomes	USFY 2013				USFY 2014				USFY 2015				USFY 2016				USFY 2017			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
– More than 450 people trained in forest and carbon monitoring tools and methodologies										200		200		50						
– More than 450 FD staff trained in integrated approaches to forest management, which includes a specific module on social sciences											200		200		50					
– Four REDD+ pilot sites established and pre-selected tools, methods and approaches developed in component 1 piloted/demonstrated, with over 150 stakeholders participating								1				1				2				
– 1 international conference on forestry, climate change and REDD+ organized										1										
Task 3: Human and Institutional Capacity Development and Strengthening of Enabling Environment																				
– Two laws, policies, or regulations addressing climate change proposed, adopted, or implemented												1				1				
– 16 training programs/hands on activities (800 participants) conducted in collaboration with forest departments and NGOs to build capacity of local communities to manage forest resources								2		2		2	2		2	2	2			
– Five public awareness campaigns developed to improve understanding of the FRA									1		1	1		1		1				
– 550 people trained in GCC, GHG inventories, mitigation and vulnerability, and adaption analysis							1	1	3	3	4	4	2							
– 2 data systems on GHG inventory related to forest created							**2**									2				
CLIN 3 : Other activities and management Support																				
Task 1 : Establish Baselines																				
– Draft baseline strategy						1														
GHG baseline 2 landscapes - Q3 FY 2014							2													
GHG baseline remaining 2 landscapes – Q4 FY 2014								2												
Institutional capacity baselines – Q4 FY 2014								2												
All other required baselines – Q3 FY 2014							5													
Task 2 : Maximize the use of local partners and enhance their capabilities																				
– Capacity of two local partners enhanced				███															

ANNEX 3: FOREST-PLUS INDICATORS

Indicator Type	Indicator	Output/ Outcome		Baseline	FY 13	FY 14	FY 15	FY 16	FY 17	LOP	Activity
F standard indicator 4.8.1-1	Number of hectares of biological significance and/or natural resources showing improved biophysical conditions as a result of USG assistance	Outcome		0	0	0	0	10,000	20,000	350,000	cross-cutting
F standard indicator 4.8.1-26	Number of hectares of biological significance and/or natural resources under improved natural resource management as a result of USG assistance	Outcome		0	0	20,000	30,000	100,000	200,000	350,000	cross-cutting
F standard indicator 4.8-7	Greenhouse gas (GHG) emissions, estimated in metric tons of CO2e, reduced, sequestered, and/or avoided as a result of USG assistance	Outcome		0	13	7	5	0	0	25	cross-cutting
F standard indicator 4.8.1-27	Number of days of USG funded technical assistance in natural resources management and/or biodiversity provided to counterparts or stakeholders	Output		0	0	100	150	150	150	550	2.1.4
F standard indicator 4.8.2-6	Number of people receiving training in global climate change as a result of USG assistance	Output	M[2]	0	294	535	734	1,027	400	2990	1.1.8, 1.2.4, 1.3.5, 2.2.1 2.2.2, 2.3.2, 2.3.3, 2.3.4
			F[3]	0	114	188	232	339	135	1008	
F standard indicator 4.8.2-10	Amount of investment leveraged in U.S. dollars, from private and public sources, for climate change as a result of USG assistance	Output		0	$0	$0	$250,000	$500,000	$0	$750,000	2.2.3
F standard	Number of institutions with improved	Output	A[4]	0	0	2	2	0	0	4	cross-cutting

[2] M= Male

[3] F = Female

[4] A = Assessment completed

Indicator Type	Indicator	Output/ Outcome		Baseline	FY 13	FY 14	FY 15	FY 16	FY 17	LOP	Activity
indicator 4.8.2-14	capacity to address climate change issues as a result of USG assistance		P[5]	0	0	2	2	0	0	4	
			I[6]	0	0	2	4	0	0	6	
		Outcome	C[7]	0	0	0	0	1	5	6	
F standard indicator 4.8.2-28	Number of laws, policies, strategies, plans, or regulations addressing climate change (mitigation or adaptation) and/or biodiversity conservation officially proposed, adopted, or implemented as a result of USG assistance	Output		0	0	0	0	1	1	2	1.3.4, 2.2.1, 2.3.1
F standard indicator 4.8.2-29	Number of person hours of training completed in climate change as a result of USG assistance	Output	M	0	2.21	4,208	5,816	8,216	3,200	21,442	1.1.8, 1.2.4, 1.3.5, 2.2.1 2.2.2, 2.3.2, 2.3.3, 2.3.4
			F	0	864	1,464	1,832	2,712	1,080	7,952	
GCC standard custom indicator (GCC SCI 1)	Number of climate mitigation and/or adaptation tools, technologies, and methodologies developed, tested and/or adopted as a result of USG assistance	Total		**0**	**9**	**21**	**16**	**6**	**1**	**53**	1.1.1, 1.1.2, 1.1.3, 1.1.4 1.1.5, 1.1.6, 1.2.1, 1.2.2 1.2.3, 1.2.4, 1.3.1, 2.2.1 2.3.4
		Output	D[8]	**0**	**0**	**10**	**30**	**10**	**3**	**53**	
		Output	T[9]	**0**	**0**	**1**	**20**	**20**	**12**	**53**	
		Outcome	A[10]	**0**	**0**	**0**	**0**	**1**	**10**	**11**	
	Integrated forest ecosystem strategy			0	0	4	0	0	0	1	1.1.2, 1.1.3, 2.3.4
	Integrated forest ecosystem management planning tool			0	0	1	0	0	0	1	1.1.2, 1.1.3, 2.2.1,, 2.3.4
	Integrated forest ecosystem management planning tool manuals			0	0	0	1	0	0	1	1.1.2, 1.1.3, 2.2.1
	REDD+ institutional and community governance guide			0	0	1	3	0	0	4	1.1.1, 1.1.2, 1.3.1, 2.2.1
	Sampling methodologies to conduct forest carbon inventories			0	0	3	0	0	0	3	1.2.1, 2.2.1, 2.3.4
	Protocols to help predict, estimate, and document			0	0	0	5	0	0	5	1.2.1, 2.2.1, 2.3.4

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[5]   P = Institutional development plan prepared

[6]   I = Institutional development plan being implemented

[7]   Institutional capacity to address climate change issues demonstrated

[8]   D= Developed

[9]   T = Tested

[10]   A = Adopted

Indicator Type	Indicator	Output/ Outcome		Baseline	FY 13	FY 14	FY 15	FY 16	FY 17	LOP	Activity
	carbon stock changes										
	Community-level protocols for involvement in forest inventories			0	0	2	0	0	0	2	1.2.2, 2.2.1, 2.3.4
	Cost-effective tools and data management systems to gather data at the community level			0	4	0	0	0	0	4	1.2.2, 2.2.1, 2.3.4
	Data systems on GHG inventory (contributes to Component 2 - Task 3)			0	4	0	0	0	0	4	1.2.3, 2.2.1, 2.3.4
	Silvicultural techniques developed/adapted to Indian context			0	0	4	0	0	0	4	1.1.4, 2.2.1
	Sustainable harvest methodologies for NTFPs adapted to Indian context			0	0	3	0	0	0	3	1.1.5, 2.2.1
	Improved animal husbandry techniques to reduce overgrazing developed/adapted to Indian context			0	0	2	2	0	0	2	1.1.6, 2.2.1
	Curricula and modules in integrated forest management available for transfer			0	0	0	2	2	0	4	1.2.4, 2.2.1
	Number of climate mitigation and/or adaptation tools, technologies, and methodologies specifically targeted to benefit women developed, tested and/or adopted as a result of USG assistance through Forest-PLUS			0	1	1	2	3	0	8	cross-cutting
	Other (TBD)			0	0	0	1	1	1	3	TBD
GCC standard custom indicator (GCC SCI 2)	Number of stakeholders requesting and accessing climate information and predictions, analysis, and decision support tools as a result of USG assistance	Output		0	0	100	200	200	300	800	2.1.3, 2.1.4
Forest-PLUS (FP PI 1)	Percentage of Forest-PLUS trained state-level forest department staff demonstrating increased capacity in REDD+ as a result of USG assistance through Forest-PLUS.	Outcome	M	0%	0%	60%	70%	70%	80%	80%	1.2.1
			F	0%	0%	60%	70%	70%	80%	80%	

Indicator Type	Indicator	Output/ Outcome		Baseline	FY 13	FY 14	FY 15	FY 16	FY 17	LOP	Activity
Forest-PLUS (FP PI 2)	Percentage of the cost (in US$) of Forest-PLUS communications campaigns financed by PPPs	Outcome		0	0	20%	30%	40%	50%	50%	2.1.2
Forest-PLUS (FP PI 3)	Percentage of females in Forest-PLUS intervention areas who report a personal benefit from any aspect of the REDD+ approach to climate change mitigation as a result of USG assistance through Forest-PLUS	Outcome			25%	40%	60%	75%	80%	80%	cross-cutting
Forest-PLUS (FP PI 4)	Number of individuals trained in some technical aspect of REDD+ as a result of USG assistance through Forest-PLUS	Output	**M**	**0**	**294**	**535**	**734**	**1027**	**400**	**2990**	1.1.8, 1.2.4, 1.3.5, 2.2.1 2.2.2, 2.3.2, 2.3.3, 2.3.4
			F	**0**	**114**	**188**	**232**	**339**	**135**	**1008**	
	Number of state-level forest department staff trained in REDD+ as a result of USG assistance through Forest-PLUS		M	0	76	76	77	77	0	306	1.2.4, 2.2.1, 2.3.2
			F	0	13	13	14	14	0	54	
	Number of individuals who have participated in study tours as a result of USG assistance through Forest-PLUS		M	0	15	7	7	0	0	29	1.1.8
			F	0	5	3	3	0	0	11	
	Number of internships with RECOFTC and CIFOR completed as a result of USG assistance through Forest-PLUS		M	0	3	2	0	0	0	5	1.3.5
			F	0	1	2	0	0	0	3	
	Number of people trained in forest and carbon monitoring and integrated ecosystem management as a result of USG assistance through Forest-PLUS		M	0	100	200	300	300	100	1000	2.2.2, 2.2.1, 2.3.2, 2.3.4
			F	0	50	50	75	75	10	260	
	Number of individuals trained on GCC, GHG inventories, mitigating and vulnerability and adaptation analysis as a result of USG assistance through Forest-PLUS		M	0	50	100	100	150	100	500	2.3.2, 2.2.1, 2.3.2, 2.3.4
			F	0	20	40	40	50	50	200	
	Number of NGO/SFD staff trained in improved forest landscape management as a result of USG assistance through Forest-PLUS		M	0	50	150	250	500	200	1150	2.3.3, 2.2.1, 2.3.2
			F	0	25	80	100	200	75	480	
Forest-PLUS (FP PI 5)	Number of Indian researchers studying some aspect of REDD+ as a result of USG assistance through Forest-PLUS	Output	M	0	0	3	5	5	0	13	1.1.7
			F	0	0	1	3	3	0	7	
Forest-PLUS (FP PI 6)	Number of public communication campaigns completed as a result of USG assistance through Forest-PLUS	Output		**0**	**0**	**6**	**2**	**3**	**0**	**11**	3.2, 1.3.3, 2.1.1 2.1.2, 2.1.3, 2.3.3
	Number of programs implemented to build local			0	0	3	0	0	0	3	1.3.2, 2.1.1

Indicator Type	Indicator	Output/ Outcome	Baseline	FY 13	FY 14	FY 15	FY 16	FY 17	LOP	Activity
	capacity in REDD+ forest management as a result of USG assistance through Forest-PLUS									
	Number of public communication campaigns on REDD+ and climate change completed as a result of USG assistance through Forest-PLUS		0	0	3	0	0	0	3	1.3.2, 2.1.3
	Number of public awareness campaigns to improve understanding of the FRA as a result of USG assistance through Forest-PLUS		0	0	0	2	3	0	5	2.1.3, 2.3.3
	Number of REDD+ success stories documented and disseminated as a result of USG assistance through Forest-PLUS		0	0	5	5	5	5	20	1.3.3, 2.1.2, 2.1.3
Forest-PLUS (FP PI 7)	Number of stakeholder consultations as a result of USG assistance through Forest-PLUS	Output	**0**	**4**	**17**	**17**	**17**	**17**	**72**	2.1.1
	Number of national level stakeholder consultations		0	0	1	1	1	1	4	2.1.1
	Number of state level stakeholder consultations		0	1	4	4	4	4	17	2.1.1
	Number of local level stakeholder consultations		0	3	12	12	12	12	51	2.1.1
	Number of women stakeholder consultations		0	0	2	2	2	2	8	2.1.1

Indicator Type	Indicator	Output/ Outcome		Baseline	FY 13	FY 14	FY 15	FY 16	FY 17	LOP	Activity
Forest-PLUS (FP PI 8)	Number of stakeholders requesting and accessing climate information and predictions, analysis, and decision support tools as a result of USG assistance through Forest-PLUS	Output		0	0	100	200	200	300	800	2.1.3, 2.1.4
Forest-PLUS (FP PI 9)	Number of pilot programs implemented with the state forest department to test the impact of easing out marketing and permitting on forest products as a result of USG assistance through Forest-PLUS	Output		0	0	0	2	0	0	2	1.3.4, 2.2.1
Forest-PLUS (FP PI 10)	Number of Forest-PLUS stakeholder consultations held to improve research design and pilot projects as a result of USG assistance through Forest-PLUS	Output		0	10	20	30	30	30	120	2.1.4
Forest-PLUS (FP PI 11)	Number of days of technical assistance in REDD+ provided to MOEF as a result of USG assistance through Forest-PLUS	Output		0	0	100	150	150	150	550	2.1.4
Forest-PLUS (FP PI 12)	Number of climate mitigation and/or adaptation tools, technologies, and methodologies specifically targeted to benefit women developed, tested and/or adopted as a result of USG assistance through Forest-PLUS	Output		0	2	3	2	1	0	8	cross-cutting, , 2.2.1
Forest-PLUS (FP PI 13)	Number of institutions with improved capacity to address climate change issues as a result of USG assistance through Forest-PLUS	Output	A	0	0	2	2	0	0	4	cross-cutting
			P	0	0	2	2	0	0	4	
			I	0	0	2	4	0	0	6	
		Outcome	C	0	0	0	0	1	5	6	
Forest-PLUS (FP PI 14)	Number of international conferences on REDD+ practices as a result of USG assistance through Forest-PLUS	Output		0	0	0	1	1	0	2	1.3.6

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