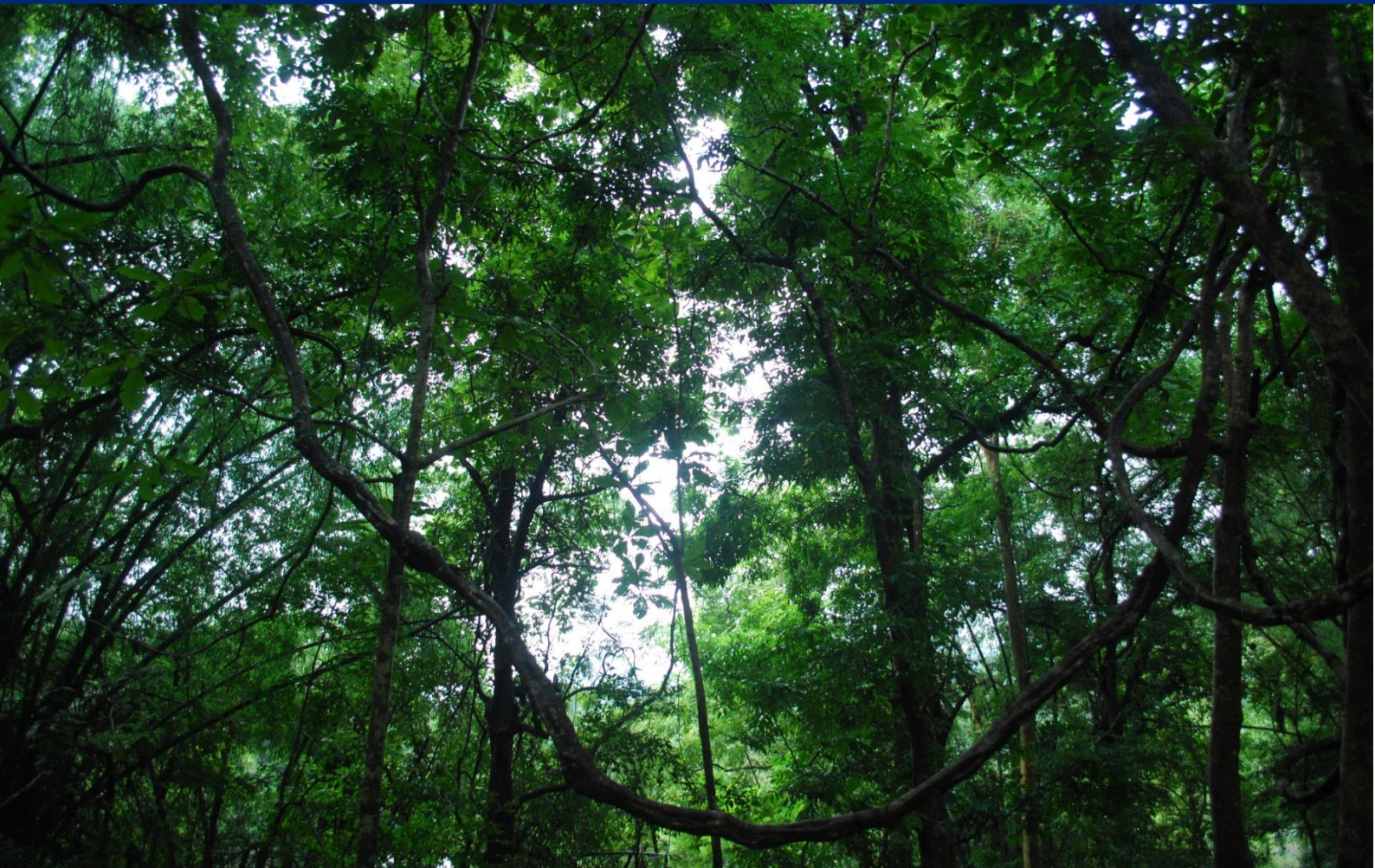




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PARTNERSHIP FOR LAND USE SCIENCE (Forest-PLUS)

QUARTERLY REPORT, OCTOBER 1– DECEMBER 31,
2014



JANUARY 2015

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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
FRI	Forest Research Institute
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&CC	Ministry of Environment, Forests and Climate Change
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 2015.

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 2015 Forest-PLUS shifted its focus from developing tools, techniques, and methods (TTMs) for forest management for REDD+ and climate change mitigation to deploying such TTMs in its demonstration landscapes in collaboration with MoEFCC and SDFs. By the end of FY 2014 Forest-PLUS had developed 61 draft TTMs to: 1) manage forests as an ecosystem providing climate change mitigation benefits; 2) measure, monitor, manage, and report data on forest carbon and forest condition; 3) analyze and improve forest governance and forest management institutional structures; 4) train foresters, SDF technical staff, local communities, and other stakeholders on REDD+ and forest management with climate change benefits; and 5) communicate the issues of climate change, climate change and forests, forest management for climate change mitigation, and REDD+ to various audiences.

Forest-PLUS has made substantial progress deploying silviculture, NTFP, and grazing TTMs in demonstration landscapes. For example, the Himalayan Research Group introduced improved NTFP harvesting techniques in Sarahan village, Himachal Pradesh that are yielding better prices for collectors. HRG has also introduced a method of producing high-protein silage from post-harvest maize stalks as a substitute for forest grazing. Other HGR activities in Sarahan village include solar water and space heaters that greatly reduce the need for women to collect forest firewood.

Similarly, all of the Tier 3 MRV and DMV TTMs developed as drafts are now fully in landscape deployment. Over the past quarter Forest-PLUS has been working closely with the SDFs in all landscapes to apply these advanced tools to estimate forest carbon. In Karnataka these activities have been in the context of the Karnataka FD sponsored landscape carbon project in Shimoga. In Sikkim and MP Forest-PLUS is working with the respective FD in the early stages of jurisdictional REDD+. The initial RS analysis in Sikkim was close to completion by the end of Q1.

The DMS that Forest-PLUS is developing with FSI progressed well in this quarter including the development and demonstration of using mobile technology to streamline how field workers collect and feed Tier 3 field data into the national DMS. Dr David Skole of MSU visited in December in part to work with colleagues at FSI clarified and improved that working relationship. Forest-PLUS and FSI now have a formal MOU (pending final MoEF&CC approval).

Forest-PLUS helped organize and participated in an important state-level consultation in HP to discuss the current functional state of JFMCs. Forest-PLUS' Dr Sushil Saigal was able to bring to the discussion his analysis of forest governance institutions in HP that he completed in FY 2014, which

was much appreciated and useful. As planned, Forest-PLUS began a similar state-level analysis of forest governance and forest governance institutions in Sikkim. Forest-PLUS has begun considering, in consultation with SDFs, potential changes to regulations, laws, and/or policies to improve forest management. These changes will be piloted in the field to demonstrate their efficacy. For example, Forest-PLUS collected information in FY 2014 that state regulations and national policies are a high barrier to private land owners growing timber in plantations even when there is high demand and high prices. In MP there was particular interest among farmers in growing teak, but also great frustration at the onerous regulations. On the government side there was a legitimate concern that legal teak logs from plantations and teak poached from forest lands are indistinguishable. As a solution, Forest-PLUS is developing chain of custody using bluetooth chips and a smartphone app that will allow the MP SFD to track legitimate teak logs in real time from source to sawmill. Logs moving on the roads without a bluetooth chip would be identifiably illegal.

The Forest-PLUS training program was active in Q1, particularly in advancing discussions to institutionalize Forest-PLUS training TTMs (curricula, teaching modules, courses, written teaching material, etc.) at state and national forestry schools. Forest-PLUS has held such discussions with IGNFA, FRI, ICFRE, IIFM, and Amity University with good response. A focus in Q1 has been to develop a curriculum composed of topic modules that cover the key aspects of an integrated ecosystem approach to forest management. The modules will include videotaped lectures and associated written material prepared by international experts. The curriculum will be available to Indian forestry schools and online.

In Q1 The Forest-PLUS has continued designing and implementing communications campaigns that use modes and materials appropriate for each landscape. For example, in Q1 Forest-PLUS designed a new “I Am For Forests” campaign for Shimoga, Karnataka using the local Kannada language, with traditional street theater and music. Similarly, Forest-PLUS is designing communication campaigns, outreach events, and communication materials around local traditions in Sikkim, MP, and HP. Some of the communications TTMs specifically appeal to schoolchildren. For example Forest-PLUS designed a board game in which the winner is the player who best manages the forest, minimizes GHG emissions, and protects biodiversity and livelihoods. Another example is a graphic novel that discusses and explains the issues of climate change and forests through a story about a curious and smart young boy insatiably asking questions and learning from a wise, older mentor.

1.0 INTRODUCTION

This is a report on the technical activities of the Partnership for Land Use Science (Forest-PLUS) for Q1 FY 2015 (1 October 2014 – 31 December 2014). 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 2015, and annexes including progress against 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 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 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 PROGRAM ACTIVITIES

2.1 COMPONENT I, TASK 1: DEVELOP AN ECOSYSTEM APPROACH TO FOREST MANAGEMENT YIELDING CLIMATE CHANGE, BIODIVERSITY, AND LIVELIHOODS BENEFITS

2.1.1 ACTIVITY 1.1.1: DEVELOP A STRATEGY TO PROMOTE AN ECOSYSTEM APPROACH TO INDIAN FOREST MANAGEMENT YIELDING CLIMATE CHANGE, BIODIVERSITY, AND LIVELIHOODS BENEFITS

The deliverable associated with this activity is Deliverable 1: “Strategy paper on integrated forest/ecosystem management: improved silviculture, sustainable grazing, carbon sequestration, and other environment and livelihood benefits”. Forest-PLUS submitted this strategy paper to USAID in Q4 2013 and has not since revised it.

2.1.2 ACTIVITY 1.1.2: DEVELOP TOOLS, TECHNIQUES, AND METHODS FOR AN ECOSYSTEM APPROACH TO ACHIEVING REDD+ GOALS IN INDIAN FOREST MANAGEMENT

The purpose of this activity is to develop TTMs to implement an ecosystem approach to forest management in India that contributes to REDD+ goals. The areas of TTM development are: 1) forest planning; 2) silviculture; 3) NTFP management; 4) and grazing management.

The activity is associated with Deliverables 2, 3, 4, 5, and 6.

Deliverable 2. Integrated forest management planning model and training manuals

In Q1 Forest-PLUS negotiated a sub contract with the Yale School of Forestry and Environmental Studies (FES) to develop an integrated forest land and livelihood planning/modeling system (ILLMS) forest planning/modeling TTM that complements the USFS EDMS, which Forest-PLUS introduced in FY 2014. EDMS uses analytical hierarchical planning (AHP) to optimize ranked management objectives; ILLMS uses a forest growth model to explore the consequences of forest management policy options on future forest carbon, biodiversity, and forest resource livelihoods. Yale FES will work in close consultation with the MP Forest Department to demonstrate ILLMS applied to MP forests and to develop modifications responsive to the interests and needs of MP Forest Department.

Deliverable 3. Four silviculture techniques developed/adapted to Indian context

In FY 2014 Dr. SN Rai developed as a silviculture technique, recommendations for what native forest tree species to plant under what conditions in order to initiate and speed an ecological successional sere back to natural evergreen and semi-evergreen forests in Shimoga. In Q1 FY 2015 Dr. Rai prepared a nursery propagation manual describing techniques to grow planting stocks of these species *ex situ*. Also in Q1 Forest-PLUS secured a PPP agreement with Reliance in which Reliance has agreed to grow in their tree nurseries up to 90,000 tree seedlings of whatever species Forest-PLUS specifies and to transport the seedlings to any of the Forest-PLUS landscapes. The Reliance PPP is an opportunity to deploy Dr Rai’s forest restoration silviculture in Shimoga.

The FRI subcontract with Forest-PLUS includes silvicultural TTMs for MP, HP, and Sikkim. One of the highest priority TTMs is to replicate Dr Rai’s forest restoration techniques for the forests of MP,

HP, and Sikkim. In Q1 FRI has made progress on preparing such recommendations, drawing on the extensive species-specific silvics information held at FRI.

To support enhanced forest restoration as a silviculture TTM leading to forest carbon sequestration, Forest-PLUS began in Q1 to develop a mobile app that uses cell networks to locate a field user on a site in real time, queries cloud-based databases to determine site characteristics such as soil, slope, exposure, climate, etc., and then, given a planting objective (e.g., timber, poles, pulp, firewood, natural forest restoration) and other information from the user, then uses Dr. Rai's and FRI's codified expertise to deliver to the app user what species to plant on the site.

In Q1 Forest-PLUS consultant Dr. R Jakati prepared a silviculture TTM that uses enumeration data from historical linear permanent plots in old-growth, undisturbed forest (or their equivalents) to estimate the original carbon stocks in India's original, old-growth, undisturbed forests to use as a baseline reference for the amount of carbon sequestration possible through forest restoration management. Further, Dr Jakati's silviculture TTM shows how these enumeration data can estimate the rate of forest recovery and therefore the rate of carbon sequestration in different forest types. Also in Q1 Dr Jakati began searching for permanent plot data in archival records, organizing and digitizing them, and doing the calculations to establish old-growth forest carbon baselines in each Forest-PLUS landscape forest type. Where permanent plot data are missing, Dr Jakati has been working with FRI to collect comparable data from surviving examples of old growth forest.

Deliverable 4. Four management strategies that increase carbon and other environment services

Forest management strategies that Forest-PLUS is developing across its many activities include: 1) an ecosystem approach; 2) community participation in forest governance; 3) the use of technology in forest management; 4) improved data generation and management; 5) forest restoration; 6) the involvement of the private sector; 7) improved public awareness of forest benefits; and 8) building capacity in Indian forest management institutions. Forest-PLUS success stories in pursuing these strategies are separately documented.

Deliverable 5. Four sustainable harvest methodologies for NTFPs developed

During Q1 FY 2015, Forest-PLUS sub-contractors in Rampur and Shivamogga continued their work on developing techniques for sustainable management of NTFPs while FRI visited Sikkim to start the field assessments.

In Rampur, Forest-PLUS sub-contractor Himalayan Research Group (HRG) organized the following activities during Q1:

- A 2-days training-cum demonstration was conducted for community, representative of gram Panchayat and frontline staff members of Forest Department for fodder management on 9-19 October 2014 at village Sarhan in Anni Forest Division. Training-cum-demonstration was attended by 95 persons.
- One-day camp was organized on 17 Oct 2014 to discuss NTFP/medicinal plants management strategy at Forest Department Conference Hall of Rampur Forest Circle. Camp was attended by 38 persons include Divisional Forest Officers and Rangers for the Forest-PLUS landscape.
- Organized a one-day awareness program for NTFP harvesting techniques for about 80 residents of Sarahan village. The program was also attended by the HPFD Block Officer, the HPFD Beat Officer, and some local school teachers.
- Organized a Strategy Consultation on NTFPs with 40 field staff of Anni, Kotgarh and Rampur forest divisions including DFO HQ (Rampur Circle) and DFO Rampur.
- Organized a training program on preparation of Maize Silage (fodder management) for group members of Sarahan village on October 9-10, 2014. The programs were attended by about 130 (110 women) members and HPFD Forest Guards were also present. Each group members received two silage making bags with 100 kg capacity. Motor driven chaff cutter has also been provided in the village for the use of group members. Group members have processed fifty 50 kg silage bags of maize straw as improved cattle-feed.

- Organized a training program on agro-technique of selected NTFPs covering 100 members (90 women) on October 16-17, 2014 at Sarahan. Trainees prepared nursery bag (20,000) for winter planting of selected NTFPs for multiplication on farm and forest land.
- Organized four community level campaigns in Nankhari, Chowai, Nither and Kotgarh ranges covering 239 persons (96 female and 145 male). Campaign's objective was to improve community's knowledge of sustainable harvesting of NTFPs and increase their awareness on alternate livelihood options and energy sources. Besides community members, a good number of frontline staff members of Forest Department also participated in the campaigns.



Fig 1: “Plant More Trees Campaign”, Rampur



Fig 2: “NTFP Campaign, Sholi, Nankhari Range



Under Fig 3: Training on agro-technique of selected NTFPs



Fig 4: Forest Officials Camp at Rampur

alternat livelihood activities HRG is promoting mainly three activities - Fabrication of Solar Panel for water heating, NTFP nursery activities and sale of vermicompost and Button Mushroom Cultivation. During November 11-15, 2014 first hand training was imparted to the carpenters in assembling of solar water and space heating panel. 47 solar water heating panels and 3 solar space heating panels have been installed in the village. Selected households are contributing wood frame, labor and wages of carpenter which will be around 20% of the total expenditure of complete unit fabrication. Efficiency of these devices will be monitored on thermal efficiency and people feedback.

In December the field interventions of HRG were reviewed by Mr. Soumitri Das from USAID and Dr. Kit Kernan, COP Forest-PLUS. The team interacted with community members and beneficiaries of vermicomposting, silage preparation, solar water heating system and room water heating system during the visit.

In Shivamogga, Forest-PLUS sub-contractor ITD-HST prepared seven draft study reports during Q1 FY 2015 on their work on NTFPs. The reports were shared with the Karnataka Forest Department for their inputs and comments and the ITD-HST team also discussed their findings with the KFD in person. Copies went to APCCF (Projects), CCF (Monitoring and Evaluation), CCF Shivamogga, DCF, Shivamogga, Sagara, Bhadravathi, and Wildlife divisions, ACF Research. The objectives of

IHST's work for Forest-PLUS are to develop and demonstrate improved techniques of NTFP management and harvesting that result in forests in better ecological condition and greater forest carbon biomass, while still safeguarding or improving livelihoods based on NTFPs and protecting biodiversity. ITD-HST worked closely with harvester communities and consulted frequently with the KFD officials. The ITD-HST Team visited two field sites Hasirumane- Belchikatte VFC in Agumbe range in Shivamogga Forest Division and Sugodu (Yaduru) VFC in Nagara Range of Sagara Forest division for selection of villages for implementation of sustainable harvesting of protocols for selected NTFPs and held discussion with Village forest committee members and front line staff of forest department on resource availability, collection status and trading of selected NTFPs. A one day landscape level stakeholder consultation workshop on Sustainable Management of NTFPs was also organized on 10th December 2014 at Shivamogga, details of which are provided under section 2.4.1.

Deliverable 6: Four techniques developed/adapted to the Indian context to improve grazing management which takes into account equity, productivity and sustainability

During Q1 FY 2015, follow up was done on the grazing management techniques developed during FY 2014. In Rampur, a pastureland management pilot project has been developed as part of the multi-faceted program by the Regional Team and will be implemented over the next three quarters. The pilot project will adopt the silvi-pastoral model which was a recommendation in report prepared by Forest-PLUS consultant. In Sikkim, there were discussions with the Forest Department on carrying out a study to assess the effectiveness of the ban on grazing in Sikkim. The department has expressed interest and preparations are underway to take up the study in Q2 FY 2015.

2.1.3 ACTIVITY 1.1.3: SUPPORT RESEARCH AND INTERNATIONAL CONTACTS FOR AN ECOSYSTEM APPROACH TO ACHIEVING REDD+ GOALS IN INDIAN FOREST MANAGEMENT

The purpose of this Activity is to support technical expertise in India, and contacts between India and the United States, to develop solutions to the technical challenges of achieving REDD+ through an ecosystem approach to forest management. Activity 1.1.3 supports Indian researchers directly through various mechanisms and supports a series of study exchanges between Indian and American researchers.

Through the contract with FRI, Forest-PLUS is supporting 18 scientists to carry out work on developing forest management and silvicultural techniques in the landscapes of Himachal Pradesh, Madhya Pradesh and Sikkim. Four researchers are also being supported as part of the contracts signed with ITD - HST and HRG. Preparatory work was done during Q1 FY 2015 to identify tasks / studies which can be carried out by interns in Q2 and Q3 FY 2015.

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

2.2.1 ACTIVITY 1.2.1: DEVELOP TOOLS, TECHNIQUES, AND METHODS TO USE REMOTE SENSED DATA TO ESTIMATE CARBON STOCKS IN AN ECOSYSTEM APPROACH TO ACHIEVING REDD+ GOALS IN INDIAN FOREST MANAGEMENT

The Forest-PLUS deliverables associated with this activity are Deliverable 9: "Five software models developed/adapted to convert remote sensing data to carbon estimates"; and Deliverable 10: "Five protocols to help predict, estimate, and document carbon stock changes".

Forest-PLUS has completed and submitted a draft for five protocols to help predict, estimate, and document carbon stock changes that accompany changes in land management. These protocols are:

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
5. Trees outside forest/Agroforestry monitoring protocol

Forest-PLUS has completed and submitted a draft of four software models developed/adapted to convert remote sensing data to carbon estimates. The models are:

1. Mean carbon/mean fC – calibrated (Tier 2 Emission Factor)
2. Direct parameterization: field plots with fC (Tier 3 Emission Factor)
3. Degradation analyses (time series fC) (Activity data)
4. Cloud, gap-filling, mosaic and hillshade correction (Improved RS analysis with optical data; overcoming deficiencies)

An MOU between FSI and Forest PLUS was drafted (Dec 2014) by IORA, MSU, and FSI with oversight from the Forest-PLUS COP. This MOU includes a work plan for the continued co-development of the software models and protocols for Activity 1.2.1. The major points discussed were:

- Joint development and pilot implementation of advanced optical remote sensing and SAR protocols in Forest-PLUS landscapes.
- Develop protocol for use of High Resolution Optical Remote Sensing data for forest monitoring, plantation monitoring and trees outside forest.
- Development of Jurisdictional REDD+ Pilots in India.
- Joint Development of the Decision Support System at FSI.

Prior to the FSI – Forest-PLUS draft MOU, a Co-Development Action Plan was written and agreed upon in June 2014. As part of that plan, FSI agreed to share FSI plot level inventory data. Forest-PLUS received excel spreadsheet of FSI plot inventory data in August 2014. These spreadsheets were a data export file of all information collected at plots according to “The Manual of Instructions for Field Inventory” (FSI). The inventory data consists of 888 plots: 469 plots in Karnataka (Shivamogga), 387 plots in Madhya Pradesh (Hoshangabad and Harda), 32 plots in East Sikkim. The MSU team has created GIS files (ESRI/ArcMap shape files) from the latitude and longitude data listed in the Excel files and attached attribute data to the GIS files (See Figure 5). The sample design for the national inventory for India is systematic and therefore not all plots fall within forested landscapes. MSU and IORA are in the process of determining which plots can be used to calculate plot level carbon. These data will then be used with the RS carbon models.

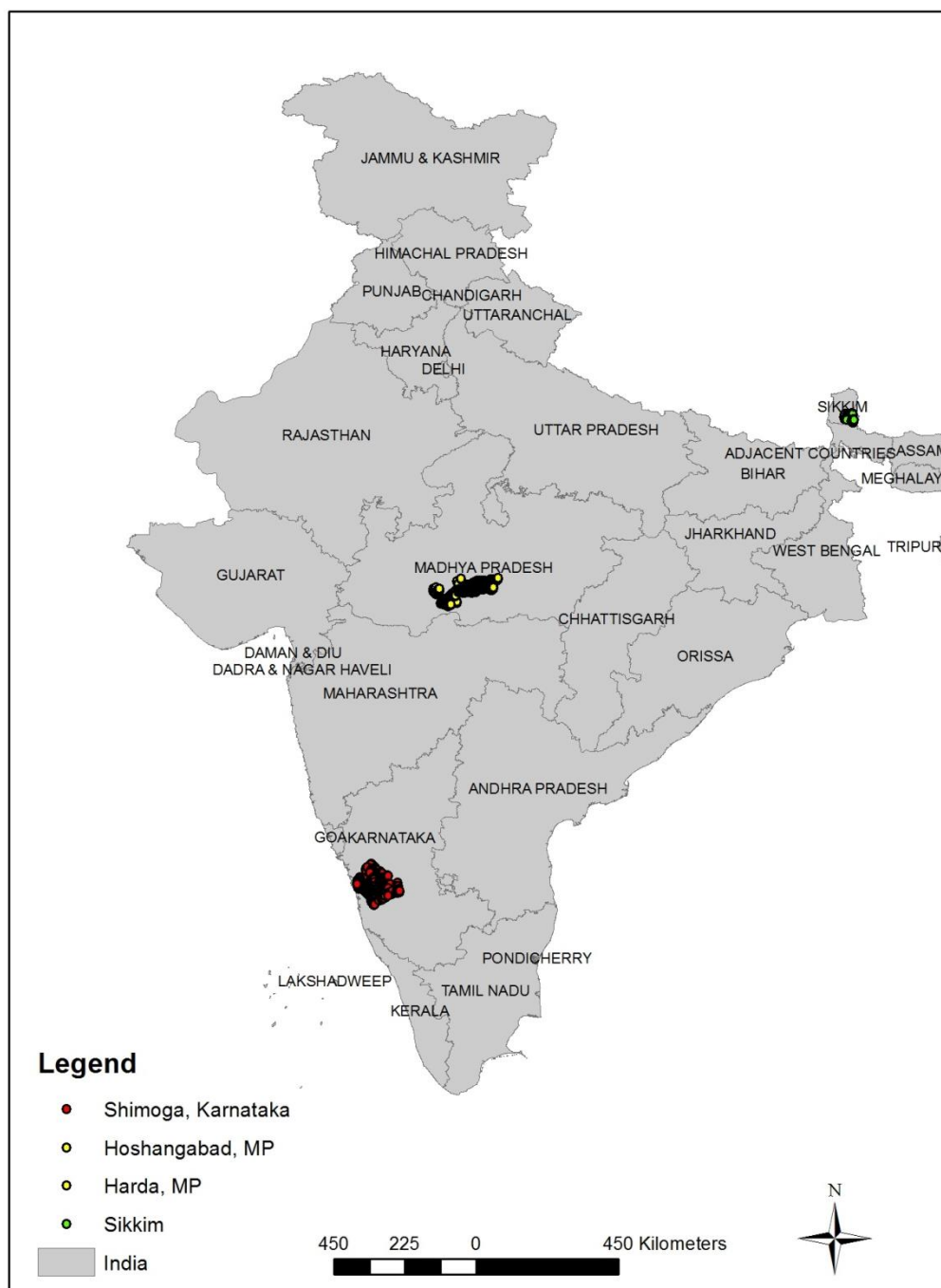


Figure 5: Location of FSI plot inventory data for three states

2.2.2 ACTIVITY 1.2.2: DEVELOP TTMS TO COLLECT AND USE IPCC TIER 3 FIELD DATA IN AN ECOSYSTEM APPROACH TO ACHIEVING REDD+ GOALS IN FOREST MANAGEMENT

The Forest-PLUS deliverables associated with this activity are Deliverable 11: “Three sampling methodologies to conduct forest carbon inventories”; and Deliverable 12: “Two community – level protocols for involvement in forest inventories”.

Forest-PLUS partners IORA and MSU are working to develop the MRV tool which is in its beta version. The tool is being currently tested in the four landscapes, Forest Research Institute (FRI), Forest Survey of India (FSI) and in IORA. The tool is being tested with the data collected from the

biomass assessment exercise in Shivamogga. Further testing will be done using the data collected from FSI and FRI. The process has begun for the recruitment of coders/ programmers for development of the software of the handheld device based application to be used for the MRV system.

A training and implementation plan has been developed this quarter for the Community Carbon Training that centers on the Activity 1.2.2 efforts. Training material will be developed and these materials will be translated into Hindi, Nepali and Kannada languages. Training of trainers will be done for all four states (landscapes) over five-day training periods that will include field practicum days. The training is scheduled tentatively for July 2015.

2.2.3 ACTIVITY 1.2.3: DEVELOP TTMS TO IMPROVE THE QUALITY AND AVAILABILITY OF DATA FOR AN ECOSYSTEM APPROACH TO ACHIEVING REDD+ GOALS IN FOREST MANAGEMENT

The Forest-PLUS deliverables associated with this activity are Deliverable 13: "Four cost-effective tools and data management system to gather data at the community level", and Deliverable 14: "Improvements in data management and availability for REDD, GHG inventory, and India's NFI"

The co-development of the DMS is on-going. Forest-PLUS has implemented the full FSI allometric equation catalog into the DMS. The FSI allometric equation catalog is both tree species specific and region specific (see Figure 6). Each tree species within a region includes five equations that are used to calculate biomass. These equations include one volume equation for the tree stem and four biomass equations: two each for trees greater than 10 cm DBH and trees less than 10 cm DBH that calculate biomass for (a) small wood (branches) and (b) foliage. The DMS system now will calculate the mean carbon in terms of tons of carbon per hectare for the plot with these species specific calculations.

The DMS system now has an integrated parcel (strata) mapping and sample design tool set. All parcels (strata) placed on the map (or uploaded) are linked to the sample design tool which allows user input for mean carbon, variance in carbon and plot size to calculate the necessary number of plots required per strata to meet specific confidence and error levels. The sample design tool also allows for simple random or systematic sample plot placement. These plot locations, once generated, are then stored with the other geographic data and displayed on the mapping tool area.

Integration of the mapping tools with ArcMap Server is near completion. This advance will enable the DMS to scale effectively and efficiently through the utilization of pyramid layers and tiling that are standard with ArcMap Server and are not with Google Maps.

A roll-out of the next version of the DMS is expected in late Q2 FY2015 or early Q3 FY2015.

The co-development of the DMS is also an integral component of the new FSI – Forest-PLUS MOU.

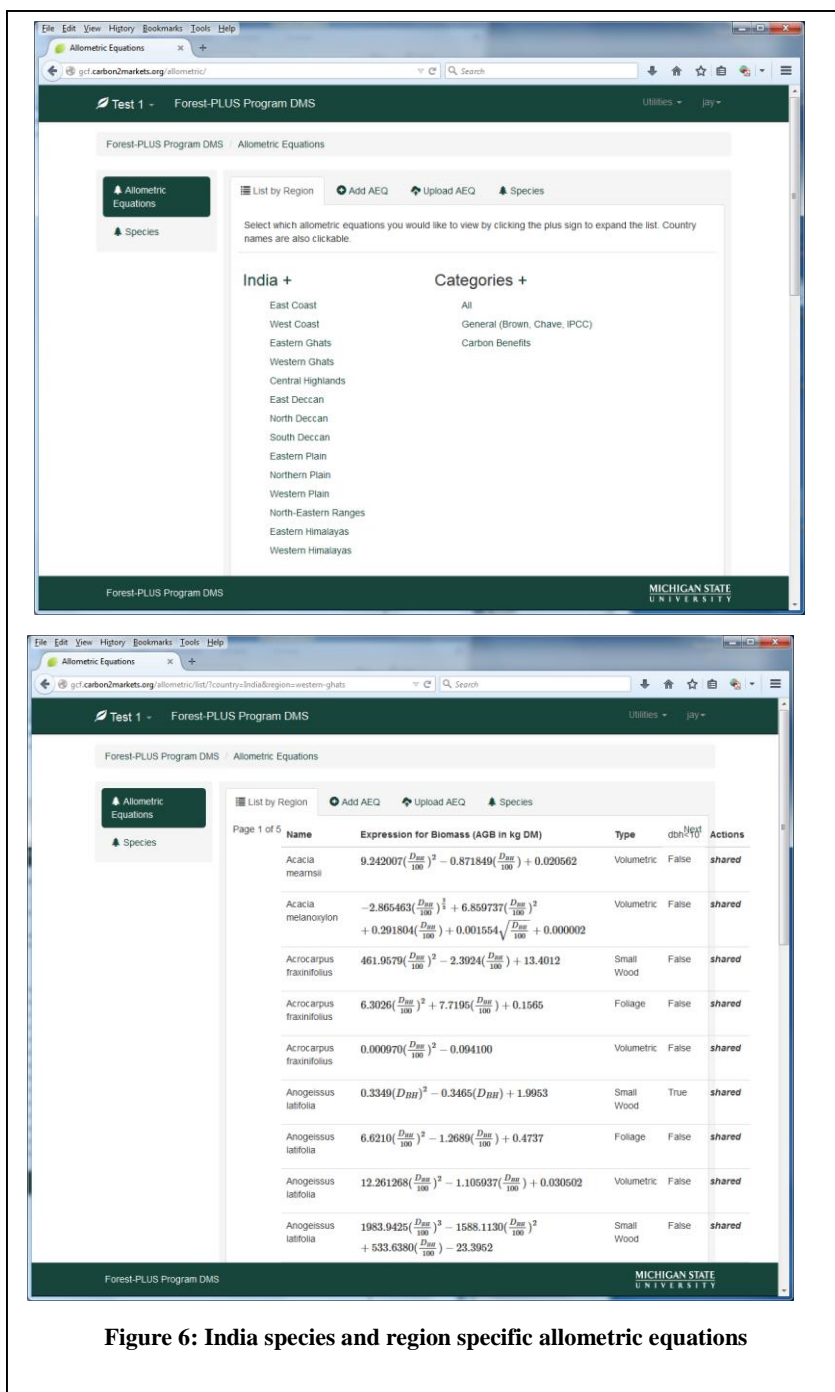


Figure 6: India species and region specific allometric equations

2.2.4 ACTIVITY 1.2.4: DEVELOP TTMS TO IMPROVE INDIVIDUAL CAPACITY TO COLLECT, ANALYZE AND USE REMOTE SENSED AND IPCC TIER 3 DATA IN AN ECOSYSTEM APPROACH TO ACHIEVING REDD+ GOALS IN INDIAN FOREST MANAGEMENT

The Forest-PLUS deliverables associated with this activity are Deliverable 15: “Series of 12 training courses for State-level Forest Department staff designed for inventorying forest resources”, Deliverable 16: “Curricula and modules developed in integrated forest management (including NRM, REDD+ issues, economics, and social sciences)” and Deliverable 17: Three exchange visits/ study tours with 30 participants (ten participants in each study tour) organized between US and India

An implementation plan is in progress for two exchange tours that will take place in 2015. The first tour will be a US Tour for high-level MoEF&CC/FSI personnel. It will include modules on REDD+ Protocols, Ecosystem Restoration, Governance, and Forest and Climate Policy Dialog. The tentative schedule for this tour is June/July 2015. A second study tour will be a “reverse” study tour. This will bring US and /or International-based experts to India. The tour will include workshops in Delhi for a potentially large audience and in-depth training and discussion for a smaller group of Indian participants in either Karnataka or Madhya Pradesh. The thematic focus of the “reverse” study tour will be on REDD+ Protocols and Remote Sensing Technologies for Forest Carbon Mapping. The tentative timeframe for this tour is September/October 2015.

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

2.3.1 ACTIVITY 1.3.1: IDENTIFY INSTITUTIONAL MODELS AND GOVERNANCE STRUCTURES FOR AN ECOSYSTEM APPROACH TO ACHIEVING REDD+ GOALS IN FOREST MANAGEMENT

The Forest-PLUS deliverable associated with this activity is Deliverable 19: “Guide produced for development of institutional and community governance models for scaling REDD+” (Annex 1).

Forest-PLUS has initiated a collaborative study with IUCN that supports both REDD+ and the Bonn Challenge target of restoring 150 million hectares of deforested and degraded lands by 2020. The primary objective of this collaboration is to develop knowledge products focusing on review of existing policies and regulations, institutional arrangements, cross-sectorial concerns, and opportunities and constraints for implementing restoration activities on the ground. It also aims to distil practical lessons to strengthen governance to implement and monitor forest landscape restoration.

As part of this collaborative study, an assessment of governance and institutional scenario for forest landscape restoration at the state level was initiated during this quarter. The focus of this assessment is on identifying the key concerns, opportunities and constraints for forest landscape restoration through a cross-sectorial analysis of relevant policies, plans, and programs. This is relevant for three reasons. One, the landscape approach emphasizes not only forests but also their interface with other land uses such as agriculture, mining, irrigation, power, industrial development, and so on. Policy and operational convergence at the interface is expected to result in positive outcomes for restoration whereas gaps and conflicts may constrain such outcomes. Assessing the existing policy situation is therefore a necessary first step towards achieving harmonization in interface management. Two, while the forest policy in India is mainly formulated at the national level, it is operationalized and implemented at the state level. Further, many land and land use policies are formulated at the state level. The assessment can provide valuable insights into the multi-scale dynamic related to competing interests of environment and development. These interests must be adequately reconciled within policy if forest landscape restoration objectives are to be achieved. Three, the landscape approach relies on a range of stakeholders and institutions. A cross-sectorial policy analysis can reveal the institutionalized spaces available for stakeholder participation as well as the nature of incentives that might influence stakeholder behavior. Such an analysis is therefore important for understanding the opportunities and constraints for forest landscape restoration.

In addition to the state-level assessments, landscape-level assessments of Joint Forest Management Committees (JFMCs) and other relevant local institutions are also planned under the collaborative study. The data collection instruments for these assessments were prepared during the quarter and the fieldwork is planned to be undertaken in the next quarter. It is planned to cover at least 80 villages/JFMCs across the four Forest-PLUS landscapes under these assessments.

REDD+ Resource Book

During the previous year, Forest-PLUS carried out assessment of forestry governance and institutional framework at the national and state levels. This work is being continued and expanded this year. This multi-level analysis will yield core learning that could be used for scaling up REDD+.

In order to supplement and complement this learning, a Resource Book on REDD+ has been planned, which will fill a critical gap in India-specific REDD+ literature. This resource book will have invited papers as chapters and will be of publishable quality. It is envisaged that this book will serve as a reference manual for a range of stakeholder groups from policy-makers to field practitioners.

During Q1 FY 2015, a concept note on the Resource Book was submitted to USAID. The following is the *tentative* chapter outline for the Resource Book.

Chapters
Foreword
Introduction
Forests and climate change – historical perspective (Rio, Kyoto, etc.)
REDD+: origin, evolution, and current status
International Law and REDD+
India's position in climate change negotiations
India's position on REDD+
Overview of India's forests and forest carbon
India's forests and climate change (current situation, trends etc.)
India's policy framework and REDD+
Legal issues related to REDD+ implementation in India
Sustainable forest ecosystem management: concepts and overview
Sustainable forest ecosystem management: issues and challenges in India
Role of NTFPs in REDD+ in the Indian context
REDD+ and biodiversity conservation: scope for synergy
Landscape forest restoration: a potential approach for REDD+ in India
High-yielding tree plantations and their potential for REDD+
MRV Issues in REDD+ with a particular focus on India (including issue related to national reference level)
Good Forest Governance and REDD+
Social safeguards in REDD+
Carbon markets & forests
Voluntary carbon markets and their potential for REDD+ in India
Review of CDM experience in India
Green India Mission & REDD+
Integration of REDD+ issues in national training and capacity building effort
Forest-PLUS experience in REDD+ training
Communication strategy for REDD+
Gender and REDD+
Valuing forest ecosystem services
Panchayati Raj Institutions and REDD+
Climate Change Action Plans and REDD+
The Finance Commission grants and REDD+
Conclusion

The work on some chapters was initiated during the quarter and it is planned to bring out the Resource Book by the end of FY 2015.

2.3.2 ACTIVITY 1.3.2: DEVELOP TTMS TO BUILD THE CAPACITY OF LOCAL COMMUNITIES TO PARTICIPATE IN AN ECOSYSTEM APPROACH TO ACHIEVING REDD+ GOALS IN FOREST MANAGEMENT

The Forest-PLUS deliverable associated with this activity is Deliverable 20: “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)”.

In Q1 FY 2015, the Forest-PLUS regional teams in all four landscapes developed multi-faceted programs in close consultation with the respective State Forest Departments. The programs have been designed mainly with the following objectives:

- Sensitizing and equipping the local community with information on forest management and climate change
- To facilitate dialogue and build synergy among local communities and Forest Department
- To disseminate information and train the local people on the use of REDD+ tools, techniques and methods developed by Forest-PLUS for better ecosystem management, carbon MRV and institutional strengthening.

The activities include training and education programs, which will be organized at the village/cluster level, awareness generation programs with special focus on children and women and landscape specific activities decided in consultation with the forest officials and local communities. The programs have clear outcomes and all activities under these multi-faceted programs will be led by the regional teams with required support from team members based at Delhi. The activities will be implemented over the period January – September 2015.

2.3.3 ACTIVITY 1.3.3: DEVELOP TTMS TO IMPROVE THE REGULATIONS ON HARVESTING, PROCESSING, TRANSPORTING AND MARKETING FOREST PRODUCTS AS PART OF AN ECOSYSTEM APPROACH TO ACHIEVING REDD+ GOALS IN FOREST MANAGEMENT

The Forest-PLUS deliverable associated with this activity is Deliverable 22: “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”.

Pilot Programs

The outline of a field pilot program focused on farm-/agro-forestry in the Hoshangabad landscape was developed during Q4 FY 2014. The objective of the pilot is to demonstrate carbon and livelihoods benefits of farm-/agro-forestry at the landscape level. The idea of the pilot program was discussed with the Madhya Pradesh Government and the Forest Department at different levels – Principal Secretary (Forests), Additional Principal Chief Conservator of Forests and Chief Conservator of Forests.

It is planned to implement the pilot program in a phased manner during this fiscal year. As a first step, a short booklet mentioning all rules and regulations covering farm-/agro-forestry is being prepared for distribution among farmers in the landscape. Subsequently, farmers’ access to quality planting stock will be enhanced by strengthening existing supply networks. Initial discussion has been held with a leading national expert on improved planting stock in this regard. This will be followed by practical demonstration at a site within the landscape (the exact location will be decided in consultation with the Forest Department). Simultaneously, efforts will be made at different levels to get the major policy bottlenecks removed. Keeping the landscape approach in mind, it is planned to subsequently increase the scope of the pilot to private forests (*Lok Vaniki*) and ‘Orange Areas’ as well.

2.3.4 ACTIVITY 1.3.4: SUPPORT EXCHANGES/ STUDY TOURS WITH RECOFTC AND/OR CIFOR

The Forest-PLUS deliverable associated with this activity is Deliverable 22: “Eight internship exchanges with RECOFTC and CIFOR”.

In Q1 FY 2015, efforts were made to two participants to a RECOFTC training program titled “Enhancing livelihoods through community forestry” but things didn’t work out due to the non-availability of seats. RECOFTC has shared its training calendar with Forest-PLUS and in accordance with the relevance of the training programs for Forest-PLUS the possibility of supporting candidates from India will be explored.

2.3.5 ACTIVITY 1.3.5: ORGANIZE AN INTERNATIONAL CONFERENCE TO SHARE BEST PRACTICES OF AN ECOSYSTEM APPROACH TO ACHIEVING REDD+ GOALS IN FOREST MANAGEMENT

Forest-PLUS had no work scheduled for Activity 1.3.5 in Q1 FY 2015.

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

2.4.1 ACTIVITY 2.1.1: CREATE A DIALOG WITH STAKEHOLDERS AT LOCAL STATE, AND NATIONAL LEVELS ON CLIMATE CHANGE, REDD+, AND FOREST MANAGEMENT ISSUES

The Forest-PLUS deliverable associated with this activity is Deliverable 24: “Minimum 15 stakeholder meetings and dialogues hosted at the national, state and local levels”.

During Q1 FY2015, Forest-PLUS reached out to the different stakeholder groups and consulted them on various occasions, for different issues and at different levels.

A national level stakeholder consultation titled “Forest-PLUS Developing Silvicultural Responses to REDD+” was organized as part of the FRI Silvicultural Conference on 25 November, 2014 at FRI Dehradun. Forest-PLUS sponsored a session on REDD+ and silviculture in the conference. Forest-PLUS’ session included presentations by Mr. Varghese Paul of USAID, and Dr. Christopher Kernan, Dr. Ram Jakati, Dr. Sushil Saigal and Mr. Swapan Mehra, all of Forest-PLUS. The theme of the session was an exploration and discussion of how silviculture must change when its objectives include forest carbon, a forest product that remains in the stand, is harvested with data, is greatly dependent on healthy ecological landscapes, and must include safeguards for livelihoods and biodiversity.

In Sikkim, Forest-PLUS organized a state level consultation with the Sikkim Forest, Environment and Wildlife Management Department (SFEWMD) on 18th December with the purpose of sharing Forest-



Figure 7: SFEWMD and Forest-PLUS Meeting at Gangtok

PLUS progress and plan with the new PCCF-cum-Principal Secretary and other senior officials and getting reconfirmation on taking up a Jurisdictional REDD+ project in Sikkim. Some important action points discussed and agreed upon in the meeting were:

- Mr. B. P. Pradhan, CF (Working Plan) will be the nodal officer for the Forest-PLUS program in Sikkim.
- SFEWMD reconfirmed its commitment for a Sikkim jurisdictional REDD+ Carbon project where Forest-PLUS will provide full support in developing the project and SFEWMD will seek as and when appropriate a formal endorsement from MoEF&CC.
- Forest-PLUS will carry out a state wide

communication campaign on Climate Change in Sikkim working in close collaboration with SFEWMD

- Forest-PLUS and SFEWMD will work together to carry out training programs on Climate change and REDD+ in Sikkim

Forest-PLUS organized a state level “Stakeholder Consultation on Joint Forest Management in Himachal Pradesh” in collaboration with the Himachal Pradesh Forest Department on November 19, 2014 at Sundernagar, Himachal Pradesh. The main objective of this consultation was to analyze and document experience with various JFM institutional models implemented in Himachal Pradesh. The Consultation was attended by around 50 participants – different levels of Forest Department officials as well as NGO representatives. There was a fruitful discussion on the JFM experience in the state and key issues and constraints were identified. The deliberations during the Consultation discussions will feed into the revised Participatory Forest Management (PFM) rules that are currently under formulation by the state government.

At the landscape level, Forest-PLUS successfully organized a “Stakeholder Consultation on Sustainable Management of NTFPs” on 10 December in collaboration with the Karnataka Forest Department at Shivamogga. The objectives of the consultation were to obtain the views of relevant



Figure 8: NTFP Consultation, Shivamogga

stakeholders regarding the status of NTFP management in Shivamogga, get feedback on the findings of the field study carried out by ITD-HST and to identify specifically regulatory and other institutional obstacles hampering the development of sustainable harvested NTFPs. The consultation was presided over by Ms. Smita Bijjur, CCF and was attended by 80 persons including KFD officials, NTFP Contractors, VFC members, NGOs representatives and Academicians. There was good exchange of views during the consultation and many issues emerged, which are under discussion with KFD and appropriate follow up strategies will be formulated.

In Sikkim, Forest-PLUS organized a local stakeholder consultation with the representatives of Gram



Figure 9: Local Consultation, Aritar, Sikkim

Panchayats, Joint Forest Management Committees, Eco Development Committees, Self Help Groups and local NGOs on 17th December with the close involvement of Forest Department officials at Aritar, East Sikkim. The objective was to introduce Forest-PLUS program and discuss issues related to forestry and climate change. The consultation was attended by 60 participants and some of the important issues which came up in the discussion included drying up of springs in the region, human-wildlife conflict, lack of knowledge about invasive weeds and its control measures among the local people and the need for promotion of alternative energy sources.

Besides, Forest-PLUS Regional Teams had several rounds of consultation with the respective State Forest Departments, local communities and other stakeholders to plan and implement Forest-PLUS program activities. The important consultations organized during Q1 FY 2015 are summarized below:

- Consultation meetings with Sikkim Forest Department: Forest-PLUS Regional team met Sikkim Forest Department officials on various occasions to discuss interventions under the proposed multi-faceted program of Forest-PLUS. The program design was presented to the concerned SFD officers and proposed activity plan for USFY 2015 was shared. The main objectives of the MFP are to convert waste into energy, reduce fire-wood pressure on the forest and to control growth of invasive plants.
- Consultation with members of Gram Panchayat Units, JFMCs and EDCs in Sikkim: Forest-PLUS Regional Team had consultative meetings with local communities of the following 25 villages of 5 GPUs under Rangli Block of East Sikkim;
 - 1) Regu GPU- President KB Gurung,
 - a) Jalkharka, b) Bimbirang, c) Jaker ward, d) Sisney, e) Dokshin villages
 - 2) Dalapchand GPU: President: Chandra Maya Rai
 - a) Mamkhin, b) Katerbotey, c) Sadhu gaon, d) Mandin gaon, e) Daragaon, f) Sawa ward.
 - 3) Rangli Changeylakha GPU: President: Dawa Tshering Sherpa
 - a) Upper Rengli, b) Lower Rengli, c) Chunbhatti, d) Deoling, e) Middle Rengli..
 - 4) Premlakha- Subaney dara GPU: President: Hima Lhamu Sherpa.
 - a) Subaneydara, b) Signowbas, c) Maney sisney, d) Agamluk, e) Premlankha
 - 5) Chujachen GPU: President: Sarita Gurung
 - a) Sungdung, b) Posakey, c) Lok lungchuk, d) Markang, e) Rew Lakha

The meetings helped in sharing the objectives of the Forest-PLUS program with the villagers, generating awareness on climate change and exploring possible activities which can be taken up in the area.

- Consultation in Shivamogga Circle on KFD carbon project boundary: In Shivamogga Forest-PLUS participated in consultations in November to delineate the boundaries of the Karnataka Forest Department carbon project in the Shivamogga landscape. Staff from the CCF Shivamogga IT cell, CCF Shivamogga, and DCFs, ACFs, Local RFOs and Deputy RFOs representing almost all the ranges of Shivamogga Circle participated in the consultation.
- Local Consultations on NTFPs in Shivamogga: Forest-PLUS partner in Shivamogga, ITD-HST, organized consultations with village forest committee members of Hasirumane- Belchikatte VFC in Agumbe range, Shivamogga Forest Division and Sugodu (Yaduru) VFC in Nagara Range, Sagara Forest Division. In the meetings they discussed with VFC members and front line staff of forest department their plans to demonstrate the implementation of sustainable NTFP harvesting protocols.
- Consultation with MPFD: During Q1 FY 2015, Forest-PLUS organized a no. of meetings with MPFD officials in Hoshangabad. The meetings helped in developing a common understanding of the Forest-PLUS program objectives and explore activities which can be taken up in Hoshangabad landscape.
- Consultation with HPFD: Forest-PLUS regional team in Rampur worked in close consultation with the HPFD in Q1 FY 2015 and had several consultative meetings with officials at different levels to share the landscape progress and plan, identify potential sites for expansion of Forest-PLUS interventions, and formulate strategy for NTFPs and various other program related issues.
- Consultation with Local Communities in Rampur: Forest-PLUS regional team organized several meetings in the landscape and met JFMC and village community of Doi village (Rampur Forest Division) Kiyari, Matiyana villages (Kotgarh Forest Division) and Behna village (Ani Forest Division), Himachal Pradesh Mid-Himalayan Watershed Development Project and Horticulture Department Officials. Rapid rural appraisal was carried out in the villages where potential opportunities and challenges were discussed with village community. The issues discussed

included current natural resource management practices, grassland management possibilities, and community preferences about tree species.



Figure 10 & 11: Interaction with women groups, Rampur

2.4.2 ACTIVITY 2.1.2: CREATE AND IMPLEMENT COMMUNICATIONS CAMPAIGNS TO DISSEMINATE FOREST-PLUS MESSAGES ON CLIMATE CHANGE, REDD+, AND FOREST MANAGEMENT

The Forest-PLUS deliverable associated with this activity is Deliverable 25: “20 outreach, communication campaigns and education programs completed to raise levels of understanding about REDD+ and carbon markets”.

During Q1 FY 2015, Forest-PLUS successfully completed two campaigns, which had started in FY 2014 – the “Plant More Trees” campaign in Rampur and “Campaign to reduce Human-wildlife Conflict” in Hoshangabad. The campaigns were appreciated by the State Forest Departments and well received by the local communities. In Hoshangabad, Forest-PLUS coordinated the performance of *Nukkad Natak* on Human Wildlife Conflict in response to a request from Madhya Pradesh Forest Department at a Krishi Mela held on October 16 & October 17, 2014. The show was sponsored by the department, which was a good indicator of the effectiveness of the whole campaign. It helped Forest-PLUS in moving ahead along its defined path where adoption of tools, techniques and methods by the State Forest Departments is a milestone achievement. Similarly in Himachal Pradesh, a performance



Figure 12: "Plant More Trees" performance at Children Science Congress, Mandi

on “Plant More Trees” was presented in the Children Science Congress in Mandi. The event was attended by 700 students and 150 teachers from all over the state. The Children Science Congress focus was on weather, climate and culture. Dr. Hemant K. Gupta, IFS Chief Scientific Officer-cum-Joint Member Secretary Dept. of Environment, Science & Technology, Govt. of H.P. State Council for Science, Technology & Environment appreciated the performance.

The “Plant More Trees” Campaign in Himachal Pradesh, was conducted from July 14 – Dec 14 where a total of 150 street plays were organized covering a total of around 31,500 persons including a large no. of schoolchildren. Different communication materials were used to convey the message contained in the theme ‘Plant More Trees’. These included education materials such as interactive posters, badges, and banners. The interactive communication method used was based on folk media i.e. local theater which conveyed messages in a playful way on the importance of forests and their relationship with climate change, pollution, and local livelihoods. Three different items; skit (*natak*), group song and a folk song (*nati*) were presented in local dialect mixed with Hindi. The entire event was of 45 minutes duration delivered by 11 professionals of *Vandana Kala Rang Manch*.

The “Campaign to Reduce Human-Wildlife Conflict” in Hoshangabad was conducted from September 14 – October 14 and it successfully reached out to around 50,000 people including 25,000 school children through 101 street theater performances (Nukkad Nataks). The ‘Nukkad Nataks’ were performed in 37 Market Locations, 53 Schools and 11 village locations. The IEC and promotional materials used in the campaign included brochures, T-shirts, caps, badges, posters and stickers, which were strategically distributed. All the leading newspapers in the region covered the campaign thus improving its outreach and taking the messages on human-wildlife conflict related issues to the entire population of Hoshangabad and Harda districts. Few newspaper clippings are pasted below:



Figure 13 & 14: Newspaper coverage of Human-wildlife Conflict Campaign, Hoshangabad

A significant achievement of the campaign was creation of a platform for community and the frontline staff of the MPFD to mutually discuss the issues related to human-wildlife conflict and forest conservation.



Figure 15 & 16: Nukkad Natak performance on Human-wildlife Conflict in Hoshangabad

Forest-PLUS participated in the Pachmarhi Utsav organized by the District Administration in collaboration with the M.P. Tourism Development Corporation from December 26 – 29. A stall was put up to spread out the message of forest conservation, climate change and highlight the activities of Forest-PLUS. The objectives of the campaign through stalls was to raise the awareness of visiting public on the importance of forest conservation, to facilitate dialogue within the different stakeholders

on forests and to highlight the works of Forest-PLUS in the landscape. The communication activities included a Tree poster to express views on forests, Know Your Forests educational game (a variant of Snakes and Ladders game), screening of Forests and Climate change movies, display of big posters and standees of Forest-PLUS work, and displaying and distribution of communication and promotion materials on Forest-PLUS program and Human-wildlife Conflict campaign. Around 5,000 people visited the stall and participated in the abovementioned activities. Around 500 to 800 people expressed their views on paper leaves pasted on the Tree poster, on the importance of forest conservation including the MP PWD minister, Minister of Culture, Member of Parliament from Hoshangabad constituency and the District Commissioner.



Figure 17: Forest-PLUS at Pachmarhi Utsav

Forest-PLUS technology innovations to help manage forests to sequester and protect carbon held in biomass was the theme of the Forest-PLUS booth at the U.S. - India Technology Summit held in New Delhi from November 18 – 21, 2014. The booth included demonstrations of *mForest* and PLAN-IT.



Figure 18: Forest-PLUS Booth at U.S. - India Technology Summit

The first is a mobile app for forest departments and communities to inventory forest carbon and send error-checked field data by cell phone to a central Inventory Data Management System (IDMS). The IDMS automates combining these field data with remote sensed data to report back estimates of carbon stocks, emission fluxes, carbon baselines, and projected and realized carbon benefits for specific areas. PLAN-IT is another mobile app that links forest and rural communities to cloud-based socio-economic and natural resource data through cell phone networks. PLAN-IT improves access to and organizes information for village micro-plans that shape community participation in forest

management and forest resource use.

In Shivamogga, Forest-PLUS is preparing for a “I am for Forest” campaign in consultation with the Karnataka Forest Department, Shivamogga Circle. The campaign will focus on issues related to forests and climate change, forest management, forest carbon, and the many connections between healthy forests and healthy economies. As with the Anti-Forest Fire Campaign, the “I am for Forest” campaign will spread these messages with the help of specially written and choreographed street plays. The details of the campaign were discussed with theater groups and the script is being developed, which will be shared in January 2015 with the Forest Department for their inputs. A pamphlet and a handout on Climate change and forests were developed, which have been shared with the CCF, Shivamogga for comments and inputs.

2.4.3 ACTIVITY 2.1.3: FINANCE FOREST-PLUS COMMUNICATION CAMPAIGNS THROUGH PPPs

During Q1 FY 2015, no financing could be secured through PPP for any of the communication campaigns.

2.4.4 ACTIVITY 2.1.4: DEVELOP PLATFORMS TO DISSEMINATE AND RECEIVE COMMENT ON FOREST-PLUS SCIENTIFIC AND TECHNICAL RESULTS

The Forest-PLUS deliverable associated with this activity is Deliverable 27: “Platform for research and technology linkages and exchanges” and Deliverable 28: “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”.

Website

During Q1 FY 2015, the Forest-PLUS website was modified based on the comments received from USAID and the final website was uploaded for approval. The live site was reviewed by USAID’s office in Washington, there were few issues which were resolved and the website www.forestplus.org has finally been approved and is live in the public domain. Strategies for periodic updating are being worked out.



Figure 19: Screenshot of Forest-PLUS Website

Online platform

Social media has become one of the most important parts of our daily life as it enables us to communicate with a lot of people. Social media such as Facebook and Twitter are being used to initiate online interaction, many of which can be useful for running campaigns. Forest-PLUS intend to use these different platforms to spread awareness about climate change, REDD+, carbon markets and Sustainable Forest Management. These platforms provide an easy way for people to get in contact, follow and support the campaigns. This would allow a broader sector of society to join the debate on the future and shape of REDD+ in India. As a part of testing protocols, an account in Facebook and Twitter is established.



Figure 20: Screenshot of Forest-PLUS Facebook Page



Figure 21: Screenshot of Forest-PLUS Twitter Page

2.4.5 ACTIVITY 2.1.5: PROVIDE TECHNICAL SUPPORT TO MOEF&CC ON CLIMATE CHANGE, REDD+, AND FOREST MANAGEMENT ISSUES AS REQUESTED

There have been regular discussions with MoEF&CC about how to support the REDD+ cell but nothing concrete emerged in Q1 FY 2015.

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

2.5.1 ACTIVITY 2.2.1: SECURE LONG-TERM PRIVATE SECTOR SUPPORT TO SUSTAIN FOREST-PLUS INITIATED ACTIVITIES

The Forest-PLUS deliverable associated with this activity is Deliverable 30: “Six + PPPs leverage more than \$1M from private sector and \$2M from GOI initiatives benefitting over 500 people, of which 40% are women”.

During Q1 FY 2015, Forest-PLUS implementing partner IORA made further progress on securing PPPs as is summarized below:

- Mahindra Sanyo Special Steels Pvt Ltd. (MSSSPL): Forest-PLUS has signed a MoU with MSSSPL creating a partnership in which MSSSPL through their nursery facilities in Maharashtra support the “enhancing forest carbon stock activities” of Forest-PLUS program. They will provide Forest-PLUS assured and timely supply of saplings required for different purposes in its four landscapes.
- Partnership with Madhya Pradesh State Bamboo Mission (MPSBM): Forest-PLUS signed a Letter of Association with MPSBM during Q1 FY 2015. MPSBM has agreed to pay the advance amount to the Bamboo Entrepreneurs/Private firms in case the artisan fails to supply the finished product in stipulated time. Forest-PLUS and MPSBM agrees to contribute their separate and complementary technical skills and capacities as needed to make this common enterprise successful in overcoming the challenges and exploiting the opportunities in the present bamboo markets.
- Ekconnect Knowledge Foundation: Partnership framework initiated between Forest-PLUS and Ekconnect Knowledge Foundation towards launching an online course on "Forestry and Climate Change". An online platform like Ekolearning can help in orienting and training a large audience about the tools to protect, maintain and restore healthy forest ecologies that store carbon through the Forest-PLUS ecosystem management approach.
- Program for Endorsement of Forestry Certification (PEFC): IORA has facilitated in bringing together PEFC, India and Karnataka Forest department (KFD) to discuss the development of sub-national level certification standard for the state of Karnataka.
- Star Paper Mills: A partnership has been initiated with Star Paper Mills for evolution of forest management practices and working on creating a plantation drive in Uttar Pradesh. As a part of this partnership, Star Paper Mills will encourage farmers in their jurisdiction to engage in plantation through innovative incentive mechanisms. Forest-PLUS will provide technical inputs and training on plant selection and help develop a carbon revenue model for Star Paper Mills.
- JCDecaux: Forest-PLUS has initiated the possibilities of partnership with JCDecaux on implementing a communications campaign focused on forestry conservation in India. JCDecaux can become a strong strategic partner to the Forest-PLUS program by hosting awareness campaigns across its different outdoor media outlets in India.
- Selvel Media Services Pvt Ltd: Forest-PLUS has initiated the possibilities of partnership with Selvel on implementing a communications campaign focused on forestry conservation in India. Forest-PLUS propose to join Selvel in its effort – civic messages – and execute a communication campaign project that will not only target climate change mitigation but also upliftment of forest dependent communities in India.
- Welspun Energy Ltd: Welspun Energy Ltd is committed to environment sustainability and advancing action for mitigating climate change. The Grow Forest Mechanism (GFM) initiative by Welspun aims to address the issues of climate change and provide an economically feasible & sustainable strategy through social inclusion and environment sustainability. This initiative seeks a possible solution for the development of the degraded forest lands. The most promising concept of the Grow Forest Mechanism is the involvement of private sector organizations to reforest and maintain degraded forest land patches. These organizations will be rewarded with an economic instrument viz. Grow Forest Certificate (GFC) which is similar to the tradable Certified Emission

Reduction (CER). GFCs shall be awarded by the local Government Forest Ministries after scrutinizing and evaluating the redevelopment of the forest lands over a period of five years, based on the state of the forest. The concept aims towards incentivizing the increase in forest canopy cover through a Public Private Partnership (PPP) model.” To take this initiative forward, Welspun has agreed to partner with Forest-PLUS and sponsor a roundtable on “Innovation Mechanism for Forestry Finance in India”.

2.5.2 ACTIVITY 2.2.2: TRAIN INDIAN FOREST DECISION MAKERS AND MANAGERS IN REDD+ TOOLS, TECHNIQUES, AND METHODS

The Forest-PLUS deliverable associated with this activity is Deliverable 31: “More than 450 people trained in forest and carbon monitoring tools and methodologies” and Deliverable 32: “More than 450 FD staff trained in integrated approaches to forest management, which includes a specific module on social sciences”.

Forest-PLUS organized a seven-day, comprehensive, hands-on, follow-up training to the two-day June 2014 workshop at FSI on “Co-development of Remote Sensing Protocols for Forest Carbon Mapping” for the remote sensing and GIS technicians from the State Forest Departments of Karnataka, Madhya Pradesh and Himachal Pradesh from December 5 – 11, 2014 at Amity University, NOIDA. The technicians from Sikkim were unable to attend. The focus of the training was on running a suite of ERDAS models for optical remote sensing data (Landsat, AWiFS, and LISS-III) to map forest carbon at the pixel (or landscape) level. The training included participation from Dr. Sunil Chandra and Dr. Abhay Saxena from FSI as co-trainers along with Jay Samek (MSU) and Atri Shaw (IORA). A total of nine (9) participants were trained over the seven day period. Participants were given a training manual as well as data sets from each of the four Forest-PLUS case study sites.



Figure 22 - 24: Glimpses of Remote Sensing Training Program, Amity University NOIDA

A total 360 person hours of training were completed with SFD staff under this training.

During Q1 FY 2015, the training module on ecosystem management was shared with the SFDs in the four landscapes for their comments and feedback. Discussions were also held with all four SFDs for the institutionalization of Forest-PLUS training modules in the regular training programs of the SFDs.

2.5.3 ACTIVITY 2.2.3: ESTABLISH FOUR FIELD DEMONSTRATIONS OF REDD+ CARBON PROJECTS

The Forest-PLUS deliverable associated with this activity is Deliverable 34: “Four REDD+ pilot sites established and pre-selected tools, methods and approaches developed in component 1 piloted/demonstrated, with over 150 stakeholders participating”.

MSU is supporting the RL/REL baseline estimates for the JNR projects in Sikkim and in Karnataka. The Sikkim REL will be based on four dates: 2000, 2003, 2009, and 2013 and will use Landsat data. MSU is working directly with IORA and the states to complete the analyses.

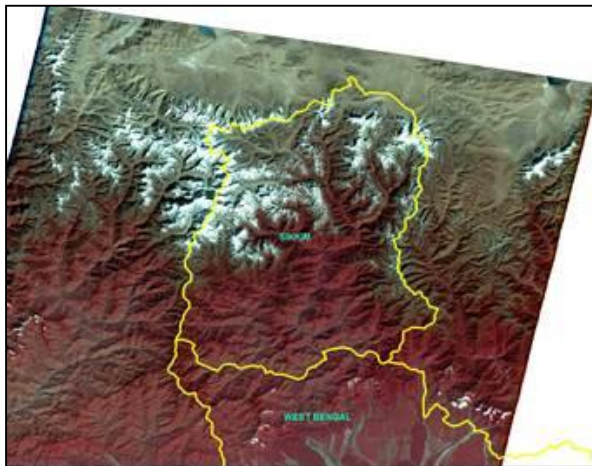


Figure 25: Landsat data for Sikkim - 2000

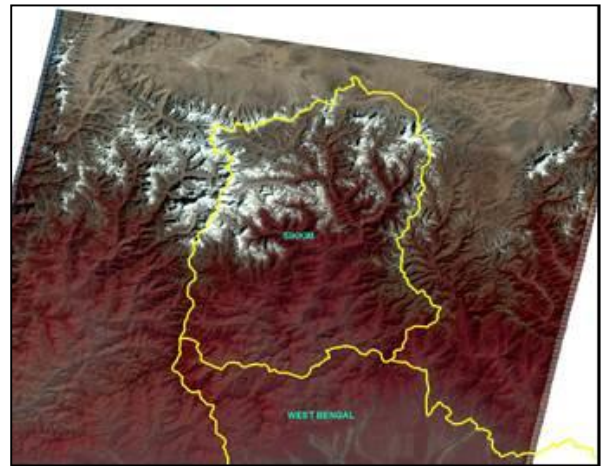


Figure 26: Landsat data for Sikkim - 2009

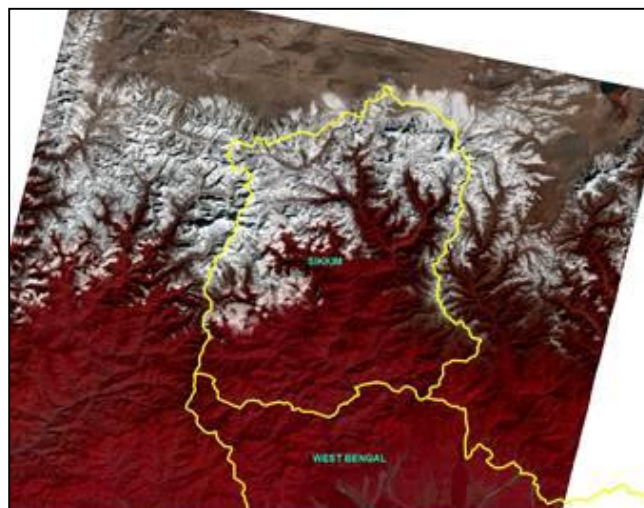


Figure 27: Landsat data for Sikkim - 2013

In Q1 FY 2015 the process of REDD+ PDD preparation continued in Shivamogga in close consultation with the KFD officials. Forest-PLUS held series of meetings with KFD to finalize certain

aspects of Shivamogga REDD+ PDD at KFD HQ in Bengaluru in October and in Shivamogga Circle office in November. The main outcomes are outlined below.

- Karnataka Forest Department (KFD) and Forest-PLUS agreed to consider the complete Shivamogga circle as a REDD+ project Reference Area. After consulting the frontline KFD staff and considering the fieldwork data it was agreed that the final project area shall be carved out of the demarcated 62, 000 ha.
- It was also decided to make boundaries of the REDD+ project to be concurrent with existing forest boundaries. Further it was also decided to integrate information from the working with the PDD.
- In a consultation meeting with foresters and other officials of KFD and chaired by Ms. Smitha Bijjur, CCF Shivamogga, personnel of IORA discussed and explained the basics of REDD+ mechanism, technical definitions and other nitty-gritties of developing and monitoring a REDD+ project. The team also briefed the forest officials' the eligibility and applicability criteria for project area selection.
- Completed process of project parcels delineation and digitization in accordance with inputs from KFD personnel in order to finalize the project parcels, which also had concurrent boundaries with current forest administration boundaries such as Reserve Forest (RF)/State Forest (SF)/ Protected Area (PA) etc. and / or other forest boundaries so that there is no new boundary created for the REDD+ project. According to the Forest-PLUS team and KFD, this will be helpful in the monitoring and quantification process of the project and will abate project risks.
- In total, approximately 66 project parcels within 27 forest ranges of Shivamogga circle were selected, map shown below in figure 28.
 - In this process the team also considered the re-organized boundaries for ranges, beats of Shivamogga circle and stock map, plantation areas etc. in this process which was completed on 25th November 2014.
 - GPS survey in Umblebylu was undertaken in month of November 2014 near Shivamogga city to collect training samples and verification of available Land Use and Land Cover (LULC) strata to initiate supervised classification process. KFD is procuring some RS data for the project.
- Fractional cover downscaling of the RR and PA is progressing; Forest-PLUS is closely working with ICT team from KFD in completing the analysis. RS team from KFD was trained in December by MSU and IORA on fractional cover downscaling analysis.

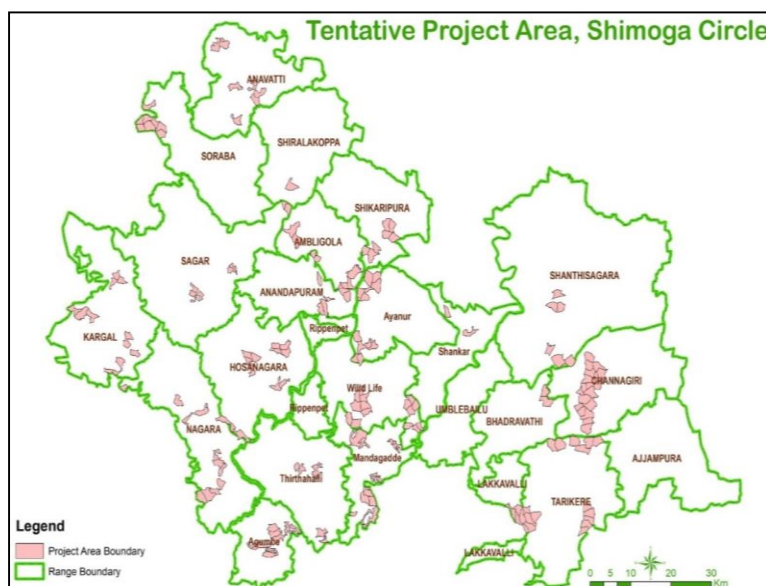


Figure 28: Tentative Project Area of Shivamogga Circle

In Madhya Pradesh (MP), the IORA team had a meeting with Mr. A. K. Singh, APCCF (JFM), MPFD and Mr. Atul Srivastava, APCCF (IT Section), MPFD regarding the Optical Remote Sensing training which was scheduled in December 2014 at Bhopal. The meeting helped in outlining the Remote Sensing (RS) work done till date for the MP landscape and also in making the action plan for RS work in the coming months for MP under the Forest-PLUS program. The fractional cover analysis of the Hoshangabad circle on LISS-III image for 2013 has been done and for the other time points is in process. This work is being done in collaboration with the GIS team of the MPFD.

In Sikkim, during Q1 FY 2015, Sikkim Forest Department agreed to develop a Jurisdictional REDD+ project with the technical support of Forest-PLUS. It was agreed in a meeting in December 2014 that SFEWMD and Forest-PLUS will form a working group to develop a technical document on jurisdictional REDD+ within one year. SFEWMD will obtain data required for jurisdictional REDD+ from FSI and share it with Forest-PLUS for efficient and technical analyses.

2.5.4 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 2015

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

2.6.1 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 2015.

2.6.2 ACTIVITY 2.3.2: BUILD THE CAPACITY OF INDIVIDUALS IN LOCAL COMMUNITIES AND STATE FOREST DEPARTMENTS IN CLIMATE CHANGE, REDD+, AND FOREST MANAGEMENT

The Forest-PLUS deliverable associated with this activity is Deliverable 36: “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” and Deliverable 37: “550 people trained in GCC, GHG inventories, mitigation and vulnerability, and adaption analysis”.

During Q1 FY 2015, HRG organized training programs at the community level to build community capacity to manage forest resources. The training programs covered a total number of 371 participants including school teachers, forest staff, PRI members with 319 women participants.

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

The Forest-PLUS deliverable associated with this activity is Deliverable 38: “Five public awareness campaigns developed to improve understanding of the FRA”.

Forest-PLUS had no work scheduled for Activity 2.3.1 in Q1 FY 2015.

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

The Forest-PLUS deliverable associated with this activity is Deliverable 39: “2 data systems on GHG inventory related to forest created”.

In Q1 FY 2015, work progressed under this activity and has been reported under section 2.2.3 (Activity 1.2.3).

2.7 COMPONENT III, TASK 1: FOREST-PLUS PROJECT MANAGEMENT

2.7.1 ACTIVITY 3.1.1: FOREST-PLUS PROJECT DOCUMENTS

Deliverable 40. Revised and approved Forest-PLUS PIP

The PIP is under revision and will be submitted to USAID by the end of Q2 FY 2015.

Deliverable 41. Revised and approved Forest-PLUS PMP

The revised PMP was submitted to USAID in September 2014, approval is pending.

Deliverable 42. Completed and approved Forest-PLUS log frame

Forest-PLUS revised its log frame in FY 2014 and submitted it as part of the PMP.

Deliverable 43. Review and update as necessary the Environmental Mitigation and Monitoring Plan (EMMP).

Forest-PLUS did not review or revise the EMMP in Q1 FY 2015.

2.7.2 ACTIVITY 3.1.2: FOREST-PLUS PROJECT MANAGEMENT

Deliverable 44. Efficient and accurate Forest-PLUS financial and administrative management

Deliverable 45. Effective and focused Forest-PLUS technical management

There were no issues in financial, administrative and technical management in Q1 FY 2015.

Deliverable 46. Fair and lawful Forest-PLUS staff management

Through discussions with USAID and with their permission to modify the prime contract the key personnel position for a Forestry and Natural Resource management Technical Advisor (FNRMTA) was eliminated. Instead, Forest-PLUS consultants will provide the technical support and contributions of the FNRMTA. In addition, USAID approved a new Senior Forest Policy Advisor (SFPA) position. The shift in emphasis from landscape to jurisdictional REDD+ demand greater technical capacity to analyze the effects of forest and non-forest policy and non-forest economic activities on forests as part of a jurisdictional REDD+ intervention strategy. The SFPA position will fill this need.

Deliverable 47. Quarterly and annual technical reports

6 of 14 [LOP] quarterly technical reports submitted to USAID

Deliverable 48. Forest-PLUS monitoring and evaluation data collection and reporting

During Q1 FY 2015, the Forest-PLUS M&E Specialist visited the villages of Gangur, Belligere Gowli Camp, Ubrani Dobyly, Gubbiga and Bellur school in Shivamogga landscape to collect survey data on the long-term effects of the Anti-Forest Fire Campaign Forest-PLUS conducted in March 2014. It is an important objective of Forest-PLUS to demonstrate that the communications tools, techniques, and methods it develops are actually effective. The data collected will show if the Anti-Forest Fire Campaign changed the knowledge, attitudes, and practices of its target audience – rural residents in Shivamogga Circle – more than temporarily. In Hoshangabad, feedback, collective as well as individual, was collected during the Human-wildlife conflict campaign to capture the reactions and make constant improvements in the street theater performances.

2.8 COMPONENT III, TASK 2: BUILD THE CAPACITY OF INDIAN INSTITUTIONS TO RESPOND TO CLIMATE CHANGE

2.8.1 ACTIVITY 3.2.1: DEVELOP THE ADMINISTRATIVE, FINANCIAL, AND/OR TECHNICAL SYSTEMS OF INDIAN INSTITUTIONS TO ENABLE THEM TO RESPOND TO CLIMATE CHANGE

The Forest-PLUS deliverables associated with this activity are Deliverable 49: “Institutional assessment of at least 7 Indian institutions” and Deliverable 50: “Institutional assessment plans implemented”.

During Q1 FY 2015, progress was made on the institutional development plan prepared for IORA and support was provided to the organization in improving its capacity. Suitable opportunities were provided to IORA to take lead in program activities. A financial review of InSPIRE was conducted in December 2014 as part of Tetra Tech ARD’s exercise to increase Field Office involvement in providing subcontractor oversight

3.0 OTHER ACTIVITIES

3.1 BASELINES

During Q1 FY 2015, Forest-PLUS prepared and submitted the carbon baseline for the four landscapes to USAID.

3.2 PARTNER COORDINATION

During Q1 FY 2015, Forest-PLUS established linkages with a number of governmental and non-governmental organizations working on REDD+ and climate change in India especially in the pilot landscapes. The team members attended different meetings to liaise and coordinate with the other agencies and explored possibilities of collaboration. Some of the important meetings held/workshops attended by Forest-PLUS team members are mentioned below:

- National Workshop on Scaling Up Good Practices for Climate Change Adaptation, New Delhi – Forest-PLUS IGDA attended the above two-day workshop (27-28 October) organized by the Embassy of Switzerland in collaboration with the Watershed Organization Trust.
- NASA-ISRO Synthetic Aperture Radar (NISAR) Science workshop - Remote Sensing experts from IORA, KFD and MPFD participated and contributed in this two day long workshop organized at Space Application Centre (ISRO), Ahmadabad during 17-18th November 2014. The preliminary objective of this workshop were to inform and involve Indian applications community about NISAR mission, exploring new applications of dual frequency SAR data and searching for collaborative opportunities. A team of scientists from Jet Propulsion Laboratory (JPL) also attended this workshop.
- NTFP consultation in Assam - In response to a request from Alka Bhargava, CCF (REWP), Assam, Jogindra Kumar of Forest-PLUS participated in a workshop organized on 20-21 November in Guwahati by the Assam Forest Department to support NTFP-based livelihoods of forest dwellers. Mr. Kumar presented Forest-PLUS’s experience and approaches as contributions to the workshop discussions of effective interventions to improve NTFPs livelihoods.
- Conservation Action and Management Prioritization (CAMP) Workshop, Gangtok: Forest-PLUS regional team participated in a Conservation Action and Management Prioritization (CAMP) workshop for selected species of Medicinal Plants of Sikkim held at Gangtok from 17-19 November 2014, organized by the State Medicinal Plants Board (SMPB), Forest, Environment

and Wildlife Management Department, Government of Sikkim in collaboration with Foundation for Revitalization of Local Health Traditions (F.R.L.H.T.), Bengaluru.

- Consultation with Renewable Energy Mission: Forest-PLUS held a meeting with MP Renewable Energy Corporation office in Hoshangabad on October 29th to learn about improved cook stoves and solar-based electricity schemes for the pilot at landscape. Mr. Ravindra Malaviya, Technical Officer shared the programs and different solar products available with the corporation and explained the operational structure of the corporation.
- The Forest-PLUS regional staff attended a workshop on “Biodiversity concerns and human wellbeing: Towards landscape approach” from November 17 to 19 at Pachmarhi organized by MPFD in association with Wildlife Institute of India. The objective of the workshop was to disseminate the concept of landscape approach to biodiversity conservation, to share experiences of linking biodiversity conservation with local livelihoods and to evolve a plan for implementation of landscape approach in the proposed Satpura- Pench Corridor Development Project.
- Meeting with MP Agro Development Corporation on Biogas: On November 14, 2014, Forest-PLUS held a meeting with Mr. Vijay Dubey of MP Agro Development Corporation to discuss about the biogas development and improved cook-stove initiatives of the agency. He informed that there is a subsidy of INR 13,500 for the plant out of total cost of INR 16,000. The possibility of setting up of few plants in some of the forest villages in the Sukhtawa region through SFD was explored.
- Consultation with PRADAN: Forest-PLUS initiated consultations with PRADAN, a national level development organization, based at Kesla with extensive experience in promoting livelihood interventions. A meeting was held with Mr.Saheb Bhattacharya of PRADAN on 30th October to explore the possibility of some alternative livelihood strategy and clean energy access initiatives with the few communities in the landscape on a pilot scale to reduce forest dependency of the community. The Forest-PLUS regional team visited the forest villages of Daudi and Hiranchapda in November to study the different livelihood interventions promoted by the organization and had consultative meeting on forest conservation and alternative livelihoods with the villagers of Daudi.
- Consultation with CEE: Forest-PLUS had two rounds of meetings with Centre for Environment Education representative to know about their work in the state of Madhya Pradesh and particularly in the Hoshangabad landscape and to explore possible collaborations in the school based climate education through eco-clubs. The possibility of engaging and building on the existing capabilities of CEE in the areas of climate change education and outreach at school levels were discussed during these meetings and would be further explored in the coming days.
- Consultation with Renewable Energy Mission: Forest-PLUS held a meeting with MP Renewable Energy Corporation office in Hoshangabad on October 29th to learn about improved cook stoves and solar-based electricity schemes for the pilot at landscape. Mr. Ravindra Malaviya, Technical Officer shared the programs and different solar products available with the corporation and explained the operational structure of the corporation.

3.3 FINANCIAL

Description	
Local Compensation Plan	Established a clear compensation policy for Forest-PLUS staff

Fixed price sub-contract with Vertiver	Designing of Forest PLUS exhibition booth and brochures for the US – India Technology Summit 2014
Fixed price sub-contract with Forest Research Institute	A special session on ‘Silviculture: Response to REDD+ and Climate Change’ in the XIII Silviculture Conference 2014 at FRI, Dehradun
Fixed price sub-contract with Vandana Kala Rang Manch	Communication campaign in schools and villages in Rampur Landscape, to promote a dialogue on the importance of tree plantation

3.4 ON-SITE SUPPORT BY HOME OFFICE

During Q1 FY 2015, there were no visits by home office to Forest-PLUS program.

4.0 KEY CHALLENGES

Challenge	Consequence/Response
Slow pace of Forest-PLUS implementation	New implementation schedule agreement with USAID that sets more pragmatic deadlines for draft deliverables and final deliverables; new subcontracts with FRI, HRG, IHST brings in more implementation partners; new consultant contracts add to implementation deliverables; contract modifications with MSU, AGS, InsPIRE, IORA that clarify and set deliverable dates consistent with prime contract
Inequitable Forest-PLUS staff compensation	Local Compensation Plan developed and applied
Forest-PLUS under-staffing	All regional staff position now filled; FNRM position in last stages of negotiation and approval
Sustainability of Forest-PLUS results	Institutionalize all TTMs by co-development and partnering with existing Indian organizations
Scaling Forest-PLUS results	Establish contacts with other SFDs (Assam, Gujarat); involve other states in Forest-PLUS events and trainings
Fraught communication with SFDs, MoEF&CC, and other stakeholders about Forest-PLUS activities	More frequent consultations with field stakeholders, particularly higher-level SFD staff; clearer, more consistent message about the subcontractor structure of Forest-PLUS; monthly email summaries of Forest-PLUS activities; share Forest-PLUS quarterly technical reports
Subcontractor management	Hired a contracts manager as part of the Forest-PLUS Delhi administrative staff
Small scale of Forest-PLUS training program	Shift to emphasize partnering with existing Indian institutions with the capacity to reach more training participants
Slow pace of Forest-PLUS spending	Renegotiation with subcontractors; new subcontracts; new consultancy contracts;

5.0 PLANS/ACTIVITIES FOR Q2 FY 2015

5.1 TASK 1.1 DEVELOP AN ECOSYSTEM APPROACH TO FOREST MANAGEMENT YIELDING CLIMATE CHANGE, BIODIVERSITY, AND LIVELIHOODS BENEFITS FROM INDIA'S FORESTS

Activity 1.1.1 Develop a strategy to promote an ecosystem approach to Indian forest management yielding climate change, biodiversity, and livelihoods benefits

Objectives for Q2 FY 2015:

- 1) In Q2 FY 2015 Forest-PLUS will work to apply the strategy Forest-PLUS has proposed to its demonstration landscapes and to institutionalize the strategy within Indian forestry institutions.

Activity 1.1.2 Develop tools, techniques, and methods for an ecosystem approach to achieving REDD+ goals in Indian forest management

Objectives for Q2 FY 2015:

- 1) Institutionalize Activity 1.1.2 deliverables into Indian forestry practice and working plans
- 2) Field test and further develop Activity 1.1.2 TTMs

Activity 1.1.3 Support research and international contacts for an ecosystem approach to achieving REDD+ goals in Indian forest management

Objectives for Q2 FY 2015:

- 1) Maintain support for (22) Indian researchers under continuing IHST, HRG, and FRI subcontracts.
- 2) Design projects and contact IIFM for taking up interns in Q3 FY 2015.
- 3) Plan for US-India study tour focused on ecosystem management.

5.2 TASK 1.2 DEVELOP A TIER 3 MRV SYSTEM FOR INDIA THAT GENERATES DATA FOR FOREST POLICY, FOREST MANAGEMENT, AND FOREST CARBON MONITORING

Activity 1.2.1 Develop TTMs to use remote sensed data to estimate carbon stocks in an ecosystem approach to achieving REDD+ goals in Indian forest management

Objectives for Q2 FY 2015:

- 1) Field-test (12) RS-based carbon estimation TTMs in Forest-PLUS landscapes in support of REDD+ demonstration (PDDs and jurisdictional REDD+)
- 2) Institutionalize (12) RS-based carbon estimation TTMs within IT/RS departments of SFDs, FSI, and Indian forestry training institutions

Activity 1.2.2 Develop TTMs to collect and use IPCC Tier 3 field data in an ecosystem approach to achieving REDD+ goals in forest management

Objectives for Q2 FY 2015:

- 1) Field-test Tier 3 field data collection TTMs in Forest-PLUS landscapes in support of REDD+ demonstration (PDDs and jurisdictional REDD+)

Activity 1.2.3 Develop TTMs to improve the quality and availability of data for an ecosystem approach to achieving REDD+ goals in Indian forest management

Objectives for Q2 FY 2015:

- 1) Further develop draft TTMs to manage and make accessible data for REDD+, GHG inventory, and NFI through deployment and field testing in collaboration and consultation with MoEF&CC, SFDs, and FSI.

Activity 1.2.4 Develop TTMs to improve individual capacity to collect, analyze and use remote sensed and IPCC Tier 3 data in an ecosystem approach to achieving REDD+ goals in Indian forest management

Objectives for Q2 FY 2015:

- 1) Share curricula with the SFDs
- 2) Institutionalize Forest-PLUS developed curricula in appropriate forestry training institutions
- 3) Secure MoUs with appropriate forestry training institutions to formalize the institutionalization of Forest-PLUS training
- 4) Assist forestry training institutions teaching Forest-PLUS developed curricula in forest inventory and integrated forest management

5.3 TASK 1.3 ANALYZE AND RECOMMEND INSTITUTIONAL STRUCTURES FOR FOREST MANAGEMENT YIELDING CLIMATE CHANGE, BIODIVERSITY, AND LIVELIHOODS BENEFITS

Activity 1.3.1 Identify institutional models and governance structures for an ecosystem approach to achieving REDD+ goals in forest management

Objectives for Q2 FY 2015:

- 1) Carry out state-level institutional analysis for Sikkim
- 2) Complete and submit Deliverable 19 to USAID
- 3) Develop TTMs for field analysis of the strengths and weaknesses of existing common pool resources governance structures such as Joint Forest Management Committees (JFMCs)
- 4) Identify ways to institutionalize Forest-PLUS recommendations for institutional models and governance structure for REDD+
- 5) Complete collaborative work with IUCN resulting in recommendation for an analytical framework for assessing and improving forest ecosystem management and landscape restoration across the four Forest-PLUS landscapes
- 6) Design a pilot project that improves forest management by easing regulatory restrictions

Activity 1.3.2 Develop TTMs to build the capacity of local communities to participate in an ecosystem approach to achieving REDD+ goals in forest management

Objectives for Q2 FY 2015:

- 1) Expand multi-faceted program implementation to include all planned aspects with frequent interaction with pilot communities led by Forest-PLUS regional staff

Activity 1.3.3 Develop TTMs to improve the regulations on harvesting, processing, transporting and marketing forest products as part of an ecosystem approach to achieving REDD+ goals in forest management

Objectives for Q2 FY 2015:

- 1) Reach working agreements with Karnataka FD to implement at least (2) regulatory changes that allow shorter NTFP value chains leaving greater value with NTFP harvesters.
- 2) Support Karnataka FD implement regulatory changes
- 3) Support NTFP harvester communities to capture greater market value through shorter chains

Activity 1.3.4 Support technical and scientific exchanges with RECOFTC and/or CIFOR that support an ecosystem approach to achieving REDD+ goals in forest management

Objectives for Q2 FY 2015:

- 1) Complete (2) of 8 intern exchanges with RECOFTC (basic climate change, forest products marketing)

Activity 1.3.5 Organize an international conference to share best practices of an ecosystem approach to achieving REDD+ goals in forest management

No activities associated with Activity 1.3.5 are planned for FY 2015

5.4 TASK 2.1 ESTABLISH A DIALOG WITH STAKEHOLDERS ABOUT AN ECOSYSTEM APPROACH TO FOREST MANAGEMENT YIELDING CLIMATE CHANGE, BIODIVERSITY, AND LIVELIHOOD BENEFITS

Activity 2.1.1 Create a dialog with stakeholders at local state, and national levels on climate change, REDD+, and forest management issues

Objectives for Q2 FY 2015:

- 1) Complete at least (1) additional state, and (2) additional local consultations.
- 2) Use consultations to create a stakeholder constituencies for the deployment and adoption of Forest-PLUS TTMs
- 3) Effectively capture stakeholder consultation advice to improve Forest-PLUS TTMs.

Activity 2.1.2 Create and implement communications campaigns to disseminate Forest-PLUS messages on climate change, REDD+, and forest management

Objectives for Q2 FY 2015:

- 1) (3) Additional communication/education campaigns completed.
- 2) Quantitative measures collected to estimate the effect of Forest-PLUS communications campaigns.

Activity 2.1.3 Finance Forest-PLUS communication campaigns through PPPs

Objectives for Q2 FY 2015:

- 1) Sign at least (1) PPP MoUs with private sector partners to finance Forest-PLUS communications campaigns.

Activity 2.1.4 Develop platforms to disseminate and receive comment on Forest-PLUS scientific and technical results

Objectives for Q2 FY 2015:

- 1) Maintain and constantly update Forest-PLUS website

- 2) Establish at least (1) platforms:
 - a) MSU carbon website
 - b) RS and forest carbon user group platform
 - c) Mobile phones
- 3) Increase the activity and effectiveness of all Forest-PLUS platforms.
- 4) Systematically record the number of people using Forest-PUS platforms.

Activity 2.1.5 Provide technical support to MoEF&CC on climate change, REDD+, and forest management issues as requested

Objectives for Q2 FY 2015:

- 1) To establish a more active, focused, and sustained program of technical support to MoEF&CC

5.5 TASK 2.2 ENGAGE STAKEHOLDERS IN AN ECOSYSTEM APPROACH TO FOREST MANAGEMENT YIELDING CLIMATE CHANGE, BIODIVERSITY, AND LIVELIHOODS BENEFITS

Activity 2.2.1 Secure long-term private sector support to sustain Forest-PLUS initiated activities

Objectives for Q2 FY 2015:

- 1) Secure (2) PPPs through signed MoUs or other written commitments from the private sector
- 2) Secure at least (\$100,000) in additional financial support through signed MoUs or other written commitments from the private sector and \$100,000 from GoI initiatives
- 3) As needed provide technical assistance to implement PPP-financed activities, particularly when they cover Forest-PLUS activities in Forest-PLUS landscapes
- 4) Improve coordination of Forest-PLUS with GoI initiatives supporting REDD+ and an ecosystem approach to forest management

Activity 2.2.2 Train Indian forest decision makers and managers in REDD+ tools, techniques, and methods

Objectives for Q2 FY 2015:

- 1) Train at least (80) FD staff in integrated approaches to forest management
- 2) Institutionalize Forest-PLUS training curricula and modules in Indian forestry training institutions
- 3) Provide technical support to initial training in these topics at Indian forestry institutions
- 4) Recruit international expert participation in teaching these topics at Indian forestry institutions

Activity 2.2.3 Establish four field demonstrations of REDD+ carbon projects

Objectives for Q2 FY 2015:

- 1) Support the implementation of interventions planned in the KFD-sponsored Shivamogga Circle PDD
- 2) Develop a strategy for how Forest-PLUS can demonstrate jurisdictional REDD+ in India
- 3) Begin the technical analysis of data required for (1) jurisdictional REDD+ in Sikkim

Activity 2.2.4 Hold an international conference on forestry, climate change, and REDD+

Objectives for Q2 FY 2015:

- 1) Hold an international conference on forestry, climate change, and REDD+.

5.6 TASK 2.3 DEVELOP HUMAN AND INSTITUTIONAL CAPACITIES TO APPLY AN ECOSYSTEM APPROACH TO

FOREST MANAGEMENT YIELDING CLIMATE CHANGE, BIODIVERSITY, AND LIVELIHOODS BENEFITS

Activity 2.3.1 Propose and support the implementation of changes in law, policy, or regulation that benefit climate change mitigation

Objectives for Q2 FY 2015:

- 1) Analyze where changes in law, policy, or regulations that could substantially benefit REDD+ readiness in India, in part through appropriate stakeholder consultations.

Activity 2.3.2 Build the capacity of individuals in local communities and state forest departments in climate change, REDD+, and forest management

Objectives for Q2 FY 2015:

- 1) One additional training program activities reaching at least 50 additional participants to build capacity of local communities to manage forest resources
- 2) 100 additional people trained in GCC, GHG inventories, mitigation and vulnerability, and adaptation analysis
- 3) Collect quantitative data to measure the increase in individual capacity due to Activity 2.3.2

2.3.3 Improve understanding of the Forest Rights Act within key audiences

Objectives for Q2 FY 2015:

- 1) One public awareness campaigns developed (and implemented subject to MoEF&CC agreement and guidance) to improve understanding of the FRA

2.3.4 Create GHG inventory data systems

Objectives for Q2 FY 2015:

- 1) Demonstrate that the field use of Tier 3 GHG carbon inventory TTMs (e.g., the hand-held app) by local stakeholders can generate high-quality data that feeds into a national Tier 3 data management system.

5.7 TASK 3.1 FOREST-PLUS PROJECT MANAGEMENT

Activity 3.1.1 Update Forest-PLUS project documents

Objectives for Q2 FY 2015:

- 1) Fully achieve Deliverable 40: prepare and submit revised draft of Forest-PLUS PIP to USAID and obtain USAID approval
- 2) Fully achieve Deliverable 41: Obtain USAID approval for PMP
- 3) Fully achieve Deliverable 42: Obtain USAID approval on log frame

Activity 3.1.2 Forest-PLUS project management

Objectives for Q2 FY 2015:

- 1) Maintain high standards for Forest-PLUS financial management
- 2) Fully catch up on the Forest-PLUS implementation schedule
- 3) Maintain Forest-PLUS staffing; prepare FY 2015 landscape work plans; conduct annual employee reviews; support Forest-PLUS staff professional development
- 4) Establish a more concise, effective format for Forest-PLUS quarterly and annual technical reports
- 5) Continue to prepare and submit quarterly and annual technical reports to USAID on schedule
- 6) Maintain Forest-PLUS technical documentation of deliverables and indicators in digital and hard-copy files

7) Perform an internal technical audit of Forest-PLUS M&E documentation

5.8 TASK 3.2 BUILD THE CAPACITY OF INDIAN INSTITUTIONS TO RESPOND TO CLIMATE CHANGE

Activity 3.2.1 Develop the administrative, financial, and/or technical systems of Indian institutions to enable them to respond to climate change

Objectives for Q2 FY 2015:

1) Implement IORA's institutional development plan

ANNEX 1: FOREST-PLUS PERFORMANCE INDICATOR REPORT

Forest-PLUS: Progress against Performance Indicators (As on December 31, 2014)

Indicator Type	Indicator	Baseline	FY 12-14 Achievement	FY 2015						Cumulative Achievement	LOP Target	
				Target	Achievement							
					Q1	Q2	Q3	Q4	Total			
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	0	-	50,000						-	350,000	
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	0	-	-						-	15,000	
F standard indicator 4.8-7	Greenhouse gas (GHG) emissions, estimated in metric tons of CO ₂ e, reduced, sequestered, and/or avoided as a result of USG assistance	TBD	-	1% above baseline						-	2% above baseline	
F standard indicator 4.8.2-27	Number of days of USG funded technical assistance in climate change provided to counterparts or stakeholders	-	-	150						-	550	
F standard indicator 4.8.2-6	Number of people receiving training in global climate change as a result of USG assistance	M	0	475	732	40	-	-	-	40	515	1,797
		F	0	88	318	179	-	-	-	179	267	703
F standard indicator 4.8.2-29	Number of person hours of training completed in climate change as a result of USG assistance	M	0	7,600	19,480	540	-	-	-	640	8,240	43,080
		F	0	1,408	7,720	1,500	-	-	-	2,864	4,272	16,520
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	\$0	\$1,441,448	\$750,000						-	1,441,448	\$3,000,000

F standard indicator 4.8.2-14	Number of institutions with improved capacity to address climate change issues as a result of USG assistance	A	0	1	1	1				1	2	7
		P	0	1	1	1				1	2	7
		I	0	-	1	1				1	1	7
		C	0	-	1					-	-	7
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 or adopted as a result of USG assistance									-	-	2
F standard indicator 4.8.2-30	Number of subnational laws, policies, strategies, plans, agreements or regulations addressing climate change (mitigation or adaptation) and/or biodiversity conservation officially proposed or adopted as a result of USG assistance		0	-	2						-	6
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	61	2	-	-	-	-	-	61	57
	Integrated forest ecosystem strategy		0	1							1	1
	Integrated forest ecosystem management planning tool and manual		0	1							1	1
	REDD+ institutional and community governance guide		0	4	1						4	5
	Sampling methodologies to conduct forest carbon inventories		0	3							3	3
	Software models developed/adapted to convert remote sensing data to carbon estimates		0	7							7	5
	Protocols to help predict, estimate, and document carbon stock changes		0	5							5	5
	Community-level protocols for involvement in forest inventories		0	2							2	2
	Cost-effective tools and data management systems to gather data at the community level		0	4							4	4

	Data systems on GHG inventory		0	1						-	1	1
	Management strategies that increase carbon and other environmental services		0	4						-	4	7
	Silvicultural techniques developed/adapted to Indian context		0	4						-	4	4
	Sustainable harvest methodologies for NTFPs adapted to Indian context		0	9						-	9	8
	Improved animal husbandry techniques to reduce overgrazing developed/adapted to Indian context		0	10						-	10	4
	Curricula and modules in integrated forest management		0	-	1					-	-	1
	Number of multi-faceted programs designed and implemented to build local capacity in REDD+ and forest management		0	4						-	4	4
	Document developed on potential opportunities for communities from CFM		0	2						-	2	2
	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	0						-	-	8
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		0	75	200					-	75	800
Forest-PLUS	Percentage of Forest-PLUS trained state-level forest department staff demonstrating increased capacity in REDD+ as a result of USG assistance through Forest-PLUS.	M	0%	0%	70%					-	-	80%
(FP PI 1)		F	0%	0%	70%					-	-	80%
Forest-PLUS	Percentage of the cost (in US\$) of Forest-PLUS communications campaigns financed by PPPs		0	18.7%	30%					0.0%	18.7%	50%
(FP PI 2)												
Forest-PLUS (FP PI 3)	Percentage of females in Forest-PLUS intervention areas who report a personal benefit from any aspect of the		0%	0%	40%					0%	0%	80%

	REDD+ approach to climate change mitigation as a result of USG assistance through Forest-PLUS											
Forest-PLUS (FP PI 4)	Number of individuals trained in some technical aspect of REDD+ as a result of USG assistance through Forest-PLUS	M	0	475	732	40	-	-	-	40	515	1,797
		F	0	88	318	179	-	-	-	179	267	703
	Number of state forest department staff trained in REDD+ as a result of USG assistance through Forest-PLUS	M	0	356	547	7				7	363	1206
		F	0	44	153	2				2	46	324
	Number of individuals who have participated in study tours as a result of USG assistance through Forest-PLUS	M	0	13	7					-	13	29
		F	0	6	3					-	6	11
	Number of persons involved in exchanges with RECOFTC/CIFOR/Other international agencies completed as a result of USG assistance through Forest-PLUS	M	0	-	5					-	-	30
		F	0	-	3					-	-	15
	Number of SFD staff trained in forest and carbon monitoring as a result of USG assistance through Forest-PLUS	M	0	11	321	7				7	18	361
		F	0	4	79	2				2	6	89
	Number of SFD staff trained in integrated ecosystem management as a result of USG assistance through Forest-PLUS	M	0	-	151					-	-	351
		F	0	-	49					-	-	99
	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	464	140					-	464	585
		F	0	84	110					-	84	215
	Number of persons trained in improved forest landscape management as a result of USG assistance through Forest-PLUS	M	0	-	120	33				33	33	500
		F	0	-	80	177				177	177	300
Forest-PLUS (FP PI 5)	Number of Indian researchers studying some aspect of REDD+ as a result of USG	M	0	19	4				-	19	12	

	assistance through Forest-PLUS	F	0	8	2					-	8	8
Forest-PLUS (FP PI 6)	Number of public communication campaigns completed as a result of USG assistance through Forest-PLUS		0	5	8	2	-	-	-	2	7	25
	Number of public communication campaigns on REDD+ and climate change completed as a result of USG assistance through Forest-PLUS		0	5	6	2				2	7	20
	Number of public awareness campaigns to improve understanding of the FRA as a result of USG assistance through Forest-PLUS		0	0	2					-	-	5
Forest-PLUS (FP PI 7)	Number of stakeholder consultations as a result of USG assistance through Forest-PLUS		0	22	6	5	0	0	0	5	27	20
	Number of national level stakeholder consultations		0	2	1	1				1	3	4
	Number of state level stakeholder consultations		0	12	2	2				2	14	8
	Number of local level stakeholder consultations		0	8	3	2				2	10	8
Forest-PLUS (FP PI 8)	Number of multi-faceted programs designed and implemented to build local capacity in REDD+ and forest management as a result of USG assistance through Forest-PLUS		0	4						-	4	4
(FP PI 9)	Number of pilot programs designed 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		0	1	3					-	1	4
(FP PI 10)	Number of days of technical assistance in REDD+ as a result of USG assistance through Forest-PLUS		0	0	150					-	-	550
(FP PI 11)	No. of REDD+ PDDs (Project Design Documents) developed as a result of USG assistance through Forest-PLUS		0	1	1					-	1	4
Forest-PLUS	Number of international conferences on REDD+ practices as a result of USG assistance through Forest-PLUS		0	0	1					0	-	2

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