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SILVACARBON PERFORMANCE EVALUATION FINAL REPORT

Evaluating Current Results and Future Opportunities for the SilvaCarbon Program in Supporting Capacity Development for Forest and Terrestrial Carbon Monitoring and Management

March 13, 2015

This publication was produced for review by the United States Agency for International Development. It was prepared by Josh Brann, Nils Junge, Svetlana Negroustoueva, Claudia Rossel, and Marc Shapiro of Development & Training Services, Inc. (dTS).

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SILVACARBON PERFORMANCE EVALUATION:

EVALUATING CURRENT RESULTS AND FUTURE OPPORTUNITIES FOR THE SILVACARBON PROGRAM IN SUPPORTING CAPACITY DEVELOPMENT FOR FOREST AND TERRESTRIAL CARBON MONITORING AND MANAGEMENT

March 13, 2015

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CONTENTS

Contents iv

Tables vi

Figures vi

Acronyms vii

Executive Summary ix

1 Evaluation Purpose 1

1.1 Evaluation Purpose and Objectives 1

1.2 Evaluation Questions 1

2 Evaluation Methods and Limitations 2

2.1 Evaluation Data Collection Methods 2

2.2 Evaluation Limitations 3

3 Program Background 4

3.1 SilvaCarbon Initiative Overview 4

3.2 International Context 5

3.3 SilvaCarbon Structure 6

3.3.1 SilvaCarbon Program Objectives 7

3.3.2 SilvaCarbon Approach to Capacity Development 8

3.3.3 Geographic Coverage 8

3.3.4 SilvaCarbon Activity Timeline 9

3.3.5 Key SilvaCarbon Stakeholders 9

4 Findings, Conclusions, & Recommendations 10

4.1 Overall Program Assessment 10

4.2 Evaluation Question 1: Are the stated SilvaCarbon objectives being met? 13

4.2.1 Evaluation Question 1.A. Have forest and terrestrial carbon measurement and monitoring methodologies been demonstrated, reviewed, and compared? 13

4.2.2 Evaluation Question 1.B. Has TA provided by SilvaCarbon built the capacity of key stakeholders in participating developing countries to use forest and terrestrial carbon monitoring & management methodologies & technologies? 16

4.2.3 Evaluation Question 1.C. Has cooperation with CEOS and other partners in GEO GFOI facilitated collection and dissemination of Earth observation data related to forest and terrestrial carbon monitoring and management? 18

4.2.4 Evaluation Question 1.D. Has the community of forest and terrestrial carbon technical experts been strengthened? 21

4.3 Evaluation Question 2: What factors have facilitated or impeded meeting SilvaCarbon objectives and why? Evaluation Question 2.A. In what ways can SilvaCarbon improve its approach? 22

4.3.1 Program-level Factors 23

4.3.2 Factors Related to Objective 1: Demonstrate and compare forest and terrestrial carbon measurement and monitoring methodologies 26

4.3.3 Factors Related to Objective 2: Build capacity of countries to use forest and terrestrial carbon monitoring and management methodologies & technologies 27

4.3.4 Factors Related to Objective 3: Facilitate, in cooperation with CEOS and GEO GFOI, the coordinated collection and dissemination of earth observation data related to forest and terrestrial carbon monitoring and management....29
4.3.5 Factors Related to Objective 4: Strengthen the community of forest and terrestrial carbon technical experts....29
4.4 Evaluation Question 2.B. In what ways can SilvaCarbon improve its approach to promote gender equality in participation in and Benefits From SilvaCarbon?....30
4.5 Evaluation Question 3. How can the existing interagency cooperation and collaboration be improved?....32
4.5.1 3.A. How can the existing interagency cooperation and collaboration be improved in order to: Enhance meeting SilvaCarbon objectives?....32
4.5.2 Evaluation Question 3.B. How can the existing interagency cooperation and collaboration be improved in order to: Enhance sustainable and stable management of the SilvaCarbon program? 34
4.6 Results Monitoring....36

TABLES

Table 1. Breakdown of Key Informant Interviews....3
Table 2. SilvaCarbon Geographic Coverage....8
Table 3. Key Stakeholder Types....9
Table 4. SilvaCarbon Examples of Reviewing, Demonstrating, and Comparing Methods....13
Table 5. Examples of Earth Observation Data Dissemination Activities....19
Table 6. Sex-Disaggregation of Beneficiary Key Informants and Survey Respondents....31

FIGURES

Figure 1. SilvaCarbon's Five Program Objectives....ix
Figure 2. What is GFOI?....5
Figure 3. SilvaCarbon Funding Flows....6
Figure 4. SilvaCarbon Program Objectives....7
Figure 5. Workshops are seen by Recipient as Effective....17
Figure 6. Effectiveness Perceptions of SilvaCarbon Access to Earth Observation Data....19
Figure 7. Satisfaction with SilvaCarbon's Earth Observation Data Capacity Building & TA....20
Figure 8. Satisfaction with Access to Earth Observation Data Facilitated by SilvaCarbon....20
Figure 9. Level of Satisfaction with SilvaCarbon Communication....26
Figure 10. Key Informant Remarks on Interagency Cooperation and Collaboration....33
Figure 11. Remaining Need for Additional Capacity Building Support....35

ACRONYMS

ADS	USAID Automated Directives System
CARPE	Central Africa Regional Program for the Environment
CEOS	Committee on Earth Observation Satellites
COVE	CEOS Visualization Environment tool
DOS	United States Department of State
DOS/OES/EGC	Department of State Bureau of Oceans and International Environmental and Scientific Affairs/Office of Global Change
DRC	Democratic Republic of Congo
dTS	Development and Training Services, Inc.
DOI	Department of Interior
DTIM	Design Tool for Inventory Monitoring
E3	United States Agency for International Development, Bureau for Economic Growth, Education, and Environment
EC-LEDS	Enhancing Capacity for Low-Emissions Development (USG effort)
EPA	United States Environmental Protection Agency
EVI	Enhanced Vegetation Index
GIS	Geographic information system
GIZ	German Agency for International Cooperation
FAO	Food and Agriculture Organization of the United Nations
FCMC	USAID's Forest Carbon, Markets and Communities project
FCPF	Forest Carbon Partnership Facility
FCT	Forest Carbon Tracking
FIPI	Forest Inventory and Planning Institute (Vietnam)
FY	Fiscal Year
GCC M&E	Global Climate Change Monitoring and Evaluation Task Order
GEO	Group on Earth Observations
GFOI	GEO Global Forest Observation Initiative
GHG	Greenhouse gas
GIS	Geographic information systems
GOFC-GOLD	Global Observations of Forest and Land Cover Dynamics
IDEAM	Institute of Hydrology, Meteorology and Environmental Studies (Colombia)
IPCC	Intergovernmental Panel on Climate Change
JICA	Japan International Cooperation Agency
KII	Key informant interview
LANDSAT	Name indicating Land + Satellite (data/imagery)
Lao PDR	Lao People's Democratic Republic
LEAD	Low Emissions Asian Development
LEAF	Lowering Emissions in Asian Forests
LIDAR	Light Detection and Ranging (remote sensing technology)
LULUCF	Land use, land-use change and forestry
NOAA	United States National Oceanic and Atmospheric Administration (Department of Commerce)
MGD	Methods and guidance document

MINAM	Ministerio del Ambiente (Peru)
MODIS	Moderate Resolution Imaging Spectroradiometer
MRV	Measurement, reporting, and verification
MOU	Memorandum of Understanding
NASA	United States National Aeronautics and Space Administration
NFI	National forest inventory
NFMS	National forest monitoring system
ODA	Official development assistance
PPL	Bureau of Policy Planning and Learning
R&D	Research and development
RDMA	USAID Regional Development Mission for Asia
REDD+	Reducing Emissions from Deforestation and Forest Degradation (+ restoration, rehabilitation, sustained management, and enhancement of forest carbon stocks)
ROC	Republic of the Congo
SDCG	CEOS Satellite Data Coordination Group
SI	Smithsonian Institution
SOW	Statement of Work
SPOT	Satellite Pour l'Observation de la Terre, "Satellite for Earth observation"
SWAMP	USFS & USAID's Sustainable Wetlands Adaptation and Mitigation Program
TA	Technical assistance
UAV	Unmanned aerial vehicle
UN-REDD	United Nation's Reducing Emissions from Deforestation and Forest Degradation Programme
REDD+	Reduce emissions from deforestation and forest degradation, and foster conservation, sustainable management of forests, and enhancement of forest carbon stocks
USAID/E3	United States Agency for International Development, Bureau for Economic Growth, Education, and Environment
USAID/GCC	United States Agency for International Development, Bureau for Economic Growth, Education, and Environment, Office of Global Climate Change
USD	United States Dollar
USFS	United States Forest Service (Department of Agriculture)
USG	United States Government
USGS	United States Geological Survey (Department of Interior)
UNFCCC	United Nations Framework Convention on Climate Change
UNFCCC COP15	UNFCCC Conference of the Parties
VCF	Vegetation Continuous Fields
WWF	World Wildlife Fund

EXECUTIVE SUMMARY

EVALUATION PURPOSE AND EVALUATION QUESTIONS

The purpose of the SilvaCarbon Performance Evaluation is to assess the program's effectiveness, relevance, utility, efficiency, results, and sustainability. The evaluation team assessed SilvaCarbon's work from inception through the third quarter of 2014, including a review of the program's operational structure, network of relationships, portfolio of activities, and monitoring and reporting systems. This report also considers the program's challenges and obstacles, and recommends areas for improvement.

The SilvaCarbon Performance Evaluation's objectives are threefold:

1. Determine the extent to which SilvaCarbon is achieving Program Objectives 1–4;
2. Assess SilvaCarbon's model for interagency coordination (Objective 5); and
3. Recommend ways to increase overall program effectiveness, efficiency, and sustainability.

Three multi-part evaluation questions were developed to address the purpose and objectives of the evaluation. The evaluation questions are further discussed in Section 2, in the main report body.

PROGRAM BACKGROUND

SilvaCarbon is a US Government (USG) interagency initiative bringing together technical expertise in forest and terrestrial carbon monitoring and management. SilvaCarbon's main USG funding agencies are United States Agency for International Development (USAID) and Department of State (DOS). USG partners responsible for technical assistance (TA) coordination and delivery are the US Geological Survey (USGS), US Forest Service (USFS), Environmental Protection Agency (EPA), National Aeronautics and Space Administration (NASA), and National Oceanic and Atmospheric Administration (NOAA). Smithsonian Institution (SI) plays an institutional coordination role. The first SilvaCarbon activities were carried out in Fiscal Year (FY) 2011; and USG financial support through the program totals more than $23 million USD.

SilvaCarbon uses targeted, demand-driven TA to build the capacity of partner governments to develop comprehensive and transparent systems for measuring and monitoring carbon stocks in forests and other lands. SilvaCarbon's five program objectives are indicated in Figure 1. Geographically, SilvaCarbon has focused on three priority regions where the most significant tropical forests in the world are found: Andean-Amazon, Congo Basin, and Southeast Asia. In these regions, SilvaCarbon has supported regional-level activities, such as regional workshops, and is working with nine countries on a direct bilateral basis.

FIGURE 1. SILVACARBON'S FIVE PROGRAM OBJECTIVES

1. Demonstrate and compare forest and terrestrial carbon measurement and monitoring methodologies.
2. Build capacity of selected developing countries to use forest and terrestrial carbon monitoring and management methodologies and technologies.
3. Facilitate, in cooperation with Committee on Earth Observation Satellites (CEOS) and Group on Earth Observations (GEO) Global Forest Observation Initiative (GFOI), the coordinated collection and dissemination of Earth observation data related to forest and terrestrial carbon monitoring and management.
4. Strengthen the community of forest and terrestrial carbon technical experts.
5. Interagency cooperation and collaboration.

EVALUATION APPROACH: DESIGN, METHODS AND LIMITATIONS

The SilvaCarbon Performance Evaluation employs a cross-sectional study design and a mixed-methods approach. The major data collection methods used are a literature review, key informant interviews (KIIs), and an online survey.

Evaluation limitations include SilvaCarbon's lack of a results framework and of a systematic monitoring and reporting framework. The absence of these fundamentals for tracking and documenting program results creates major challenges to assessing the program's progress in meeting its own objectives. Also, the evaluation team was only able to visit three of nine bilateral partner countries, and these were in the Andean-Amazon and Southeast Asia regions; thus data collection from the Congo Basin was more limited.

MAIN FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

A distillation of the SilvaCarbon Performance Evaluation's major findings, conclusions, and recommendations are presented below. The evaluation's major findings and conclusions fall within two umbrella categories, of program results and sustainability and of results-based management and program coordination.

Program Results and Sustainability

As discussed later in greater detail, the evaluation cannot directly measure the extent to which program objectives are being met; however, it is clear that SilvaCarbon has generated important results under each of its five program objectives, with notable contributions to partner countries' capacity for assessment and monitoring of forest and terrestrial carbon. The program is found to be effective. It exhibits excellent interagency cooperation and proactive coordination with other donors and related initiatives, such as other USAID programs and United Nation's Reducing Emissions from Deforestation and Forest Degradation Programme (UN-REDD) partners like the Food and Agriculture Organization of the United Nations (FAO). Both internal and external stakeholders consider SilvaCarbon a valuable program.

SilvaCarbon TA is demand-driven and appears responsive to countries' technical needs and priorities. SilvaCarbon is found to successfully support the demonstration, review, and comparison of forest and terrestrial carbon assessment methodologies. The program leverages specialized US technical expertise to make valuable contributions on technical aspects of forest and terrestrial carbon measurement and monitoring systems, an area addressed by few other donors. SilvaCarbon draws on experts within USG SilvaCarbon agencies and university partners to provide access to world-class expertise. Partner country stakeholders indicate they greatly value this uncommon access to high-level TA and consider SilvaCarbon's support critical to achieving their forest and terrestrial carbon measurement and monitoring goals.

Evidence collected indicates that significant contributions have been made to develop partner countries' capacity related to national forest inventories (NFI) and greenhouse gas (GHG) inventories. Program result highlights include contributions to Colombia's documentation of and reporting on change in forest cover from 2000–2012, with ability to report annually in the future. Another is the program's key contributions to the development of Gabon's national forest monitoring system (NFMS). The most substantial contributions have been in the four countries where SilvaCarbon has been working the longest: Colombia, Ecuador, Peru, and Gabon. In Southeast Asia and in other Congo Basin countries, where SilvaCarbon activity is more recent, results are more limited but show promise assuming further time and resources.

The provision, analysis, and processing of remote sensing Earth observation data has been a significant focus of SilvaCarbon's work. The program has supported access to, and in many cases directly provides remote sensing data from a variety of data streams. SilvaCarbon has also played an important role in assisting partner countries in defining their data needs and working with the CEOS Space Data Coordination Group

(SDCG) to address those data needs. SilvaCarbon has supported access to Earth observation data, but equally if not more valuable has been SilvaCarbon's support for data analysis and processing on behalf of partner countries. It would take years for partner countries to develop this type of capacity on their own, and additional support is needed in data management and data sharing to secure recent progress in increasing use of Earth observation data for forest and terrestrial carbon measurement and monitoring.

Other noteworthy activities include the extensive series of knowledge exchange workshops involving the three Andes-Amazon bilateral partner countries, as well as other Latin American countries. These workshop have been a key contribution to the development of a network of forest and terrestrial carbon experts in the region who now collaborate independently of SilvaCarbon. SilvaCarbon's support for South-South technical exchanges has been an important element to overall capacity-development activities.

Though SilvaCarbon has strengthened the capacity of partner countries, there are opportunities for enhancing the relevance and sustainability of results. These opportunities primarily relate to focusing on institutional capacity development through efforts like increasing attention to things like carbon measurement tool and method selection processes, the technical knowledge gap, and knowledge and capacity retention. This can include the development of materials and systems that can be integrated into partner country institutions, and which can contribute beyond the life of the SilvaCarbon program.

Capacity development is a long-term process, and four years is generally considered too short to build and sustain capacity related to the highly technical fields of forest and terrestrial carbon measurement and monitoring. SilvaCarbon is currently funded as a five-year program, through FY2016; at this point the length of SilvaCarbon's bilateral engagements would span two to four years. If SilvaCarbon TA were concluded without the country having completed the key steps to set up its NFMS, it is possible that SilvaCarbon's contributions could be lost. Any disengagement of SilvaCarbon in a bilateral partner country without a well-defined exit strategy could result in the loss of prior progress. At present, results are more likely to be sustained in the Andean-Amazon countries and Gabon (thanks to longer engagement) than in other SilvaCarbon countries and regions.

Results-based Management and Program Coordination

While this evaluation finds that SilvaCarbon is contributing to the program objectives, the program has not established a results framework or defined the specific desired outcome results (e.g., ability of a country to report annually on forest cover change with a certain degree of precision). National partner country baseline capacity information has not been systematically documented. Program results have not been reported or aggregated in a systematic manner with respect to global climate change (GCC) or other indicators at either the output or outcome levels. Therefore the evaluation cannot fully assess the degree to which the objectives are being met. Though capacity is being built, without systematic baselines, expected outcomes, or systematic monitoring and reporting systems, it is impossible to say how much capacity has been built, or how much progress has been made toward achieving the program objectives. Improved monitoring and reporting would improve the ability for the program to externally communicate achievements.

Coordination with other donors and TA development partners is among SilvaCarbon's strengths. Beginning with wide stakeholder consultation during the national start-up scoping missions, SilvaCarbon has established good communication and coordination with other partners to ensure the program is addressing the relevant technical needs of partner countries. Regional and country coordinators play a vital role in successfully coordinating TA with other donors and key national institutional partners. Following start-up in a partner country, the maintenance of communication with national-level stakeholders other than the primary national

institutional partner has sometimes been inconsistent. This is due to the fact that SilvaCarbon maintains direct communication only with a primary partner institution and does not solicit wide stakeholder feedback on work plans after the first year of engagement in a country.

Overall, SilvaCarbon USG interagency cooperation and collaboration is effective and significantly better than other interagency initiatives key informants have been involved in. Almost all agency interviewees spoke highly of this aspect of the program. Agencies feel that the interagency collaboration successfully plays off of the strengths of the individual agencies in such a way that they are able to fulfill their mandates while uniting behind a common goal. The central coordination and communication function of SilvaCarbon is critical to the program's success in cohesively bringing partner countries together and providing them expertise on forest and terrestrial carbon measurement and monitoring.

Attention to gender equality within SilvaCarbon has been weak. The program inconsistently collects gender disaggregated data regarding TA and training participation, which would serve as a starting off point to identify weak areas. SilvaCarbon needs to improve actively promoting equal access to and inclusion of both women and men in capacity development activities, particularly in regions where there is exceptionally unequal gender representation in the technical communities.

Key Recommendations

The SilvaCarbon program should pursue a system for results-based management. It should include an explicitly defined overall strategy, which is currently implicit. The program should create a logic model or theory of change that links program inputs, to expected outputs, to targeted long-term outcomes. Major result areas for capacity building (NFI field work, remote sensing support, data analysis, data integration, etc.) should be clearly identified and defined and ties directly to the stated program objectives.

To improve tracking of GCC results, SilvaCarbon will need to commit additional human and financial resources to develop and implement a basic program monitoring and reporting framework and corresponding reporting tools for systematic reporting. A structured monitoring and reporting framework would include GCC indicators and would be applied systematically in all regions where SilvaCarbon is active. Indicator data should be aggregated at the global level to the extent possible, and should include systematic collection of basic information at the input/output level (e.g., number of workshops, participants, persons trained) to document, track, and share data on SilvaCarbon results. The number of indicators tracked must remain practical and feasible. The ability to deploy at least some quantitative evidence to demonstrate progress would help provide a clear picture of the overall value of the program.

Though SilvaCarbon's needs assessments do a good job of diagnosing country needs in order to target capacity building efforts, they do not sufficiently establish country baselines, which is critical to successful monitoring and reporting systems. The program needs to apply standardized methods for establishing baselines and develop capacity assessment tools in order to be able to measure the success of SilvaCarbon's capacity building efforts over time.

To enhance the likelihood of program sustainability in the near term, SilvaCarbon should improve its external communication of SilvaCarbon's long-term strategy and goals. This is especially critical with the donor groups and beneficiaries governments whose buy-in is necessary in order to build successful, long-term partnerships towards SilvaCarbon goals.

Though SilvaCarbon has been very successful in integrating its TA into existing forest carbon monitoring systems, beneficiaries from across regions are requesting increased assistance in adapting and implementing methods and tools. Beneficiaries report a desire for increased attention to adapting TA to countries"

political, ecological, and practical contexts. Some would like this to occur through longer trainings, others request more follow-up after training or access to technical experts for consultation during the initial implementation stages to help them problem solve and navigate obstacles to implementation.

Recommended areas for further support in TA include effective data management and data sharing at the national and regional levels. This is based on respondents reporting that, by and large, there is more TA available on the basics of NFIs than in the processing and analyzing of data and that there appears to be a greater demand for the program to assist countries to process and analyze satellite data than in helping them acquire it. Some examples of SilvaCarbon TA in high demand include radar and optical data processing, remote sensing and field data integration, carbon calculations, and establishing reference levels.

Along with the review of methods and technologies, SilvaCarbon should also offer partner countries high-level decision-support guidance in selecting tools and methods for adoption and application. This was a frequently cited issue/need in Southeast Asia.

SilvaCarbon should target the length of its engagement an assessed amount of time needed to achieve sustainable results in each partner country. SilvaCarbon should communicate the timeframe and scope of available technical and financial resources to partner countries and define an exit strategy prior to the wrap-up of program activities in a partner country.

SilvaCarbon should also promote equal participation by men and women and marginalized groups in capacity-development TA for forest and terrestrial carbon assessment. Data on gender representation at SilvaCarbon trainings should also be consistently collected and reported for all training and workshop activities, and key program planning documents should be subject to review by USG gender advisors.

1 EVALUATION PURPOSE AND RESEARCH QUESTIONS

1.1 EVALUATION PURPOSE AND OBJECTIVES

The purpose of the SilvaCarbon Performance Evaluation is to assess the effectiveness, relevance, utility, efficiency, results, and sustainability of the program. The SilvaCarbon Performance Evaluation took place while the program was ongoing. The evaluation report assesses the current status of the SilvaCarbon program and provides information for future programmatic and policy-related decision making, as well as contextual learning for USAID and other involved partners and stakeholders. The evaluation's recommendations may be used to modify the program's design or implementation. The evaluation's three objectives are as follows:

First, USAID Bureau for Economic Growth, Education, and Environment's Office of Global Climate Change (USAID/E3/GCC) would like to determine the extent to which SilvaCarbon is achieving the first four of its five core objectives, outlined in Section 3.3.1. An assessment of SilvaCarbon's progress in meeting its objectives will highlight elements of the program and operating structure that have been most successful, factors that positively or negatively affect the achievement of results, and aspects that could be modified to increase program effectiveness.

Second, this evaluation considers the functioning of the SilvaCarbon structure and recommends ways to increase overall program effectiveness, efficiency, and sustainability. These recommendations may be used to modify the program's design, implementation, monitoring framework, funding sources, or institutional partnership structure in the future.

Third, the performance evaluation assesses SilvaCarbon's model for interagency coordination, which addresses the fifth SilvaCarbon programmatic objective. The SilvaCarbon "umbrella" covers many disparate but related activities carried out by a range of partner organizations, including the implementation of a series of international working groups, interagency agreements, and leveraged supporting activities.

1.2 EVALUATION QUESTIONS

The evaluation questions presented in this section reflect the purpose of the evaluation as defined in the previous section. As such, these questions guided the evaluation design, and are addressed and answered within the methodological parameters of a performance evaluation.

The evaluation aims to help SilvaCarbon participants better understand the program's progress towards its objectives and improve the program's effectiveness and sustainability. The USAID/GCC team identified evaluation questions in preliminary discussions and revised them in consultation with the dTS evaluation team, USAID/GCC, and the DOS Bureau of Oceans and International Environmental and Scientific Affairs' Office of Global Change (DOS/OES/EGC). The questions were refined according to information gathered from key evaluation stakeholders.

There are three key evaluation questions, broken into multipart sub-questions. Questions 1 and 2 address the first four of SilvaCarbon's five program objectives. The fifth objective is addressed in Question 3. The sub-questions are intended to further clarify the questions' key learning points. The evaluation questions follow.

1. Are the stated SilvaCarbon Program Objectives being met?
   a. Have forest and terrestrial carbon measurement and monitoring methodologies been demonstrated, reviewed, and compared?
   b. Has the technical assistance provided by SilvaCarbon built the capacity of key stakeholders in participating developing countries to use forest and terrestrial carbon monitoring and management methodologies and technologies?
   c. Has cooperation with CEOS and other partners in GFOI facilitated collection and dissemination of Earth observation data related to forest and terrestrial carbon monitoring and management?
   d. Has the community of forest and terrestrial carbon technical experts been strengthened?
2. What factors have facilitated or impeded meeting SilvaCarbon objectives and why?
   a. In what ways can SilvaCarbon improve its approach?
   b. In what ways can SilvaCarbon improve its approach in order to promote
   c. In what ways can SilvaCarbon promote equality in program activities and program benefits?
3. How can the existing interagency cooperation and collaboration be improved in order to:
   a. Enhance meeting SilvaCarbon objectives?
   b. Enhance sustainable and stable management of the SilvaCarbon program?
   c. Achieve consistent and thorough monitoring of USAID/GCC (standard or custom) results?

SilvaCarbon's approach to gender is covered in Section 4.4 of the report. The gender considerations incorporated into the SilvaCarbon evaluation include: a) the role of women in SilvaCarbon program design and implementation; b) distinguishing opinions and perceptions of SilvaCarbon program female beneficiaries; and c) collection and use of gender-disaggregated data. The evaluation design matrix in Appendix 1[1] provides detail on how gender is incorporated into the evaluation design.

2 EVALUATION METHODS AND LIMITATIONS

2.1 EVALUATION DATA COLLECTION METHODS

The evaluation used a mixed-methods, cross-sectional study design that elicits from respondents any changes in capacity, understanding, perceptions, levels of coordination, and other factors through retrospective questions. The data collection methods selected were those best suited to gather the evidence necessary to answer the evaluation questions. The methods, which are detailed below, were selected to collect both qualitative and quantitative data from the full range of stakeholder types with which SilvaCarbon works. The main data collection methods applied were:

- Document review: The dTS evaluation team reviewed relevant project documentation provided by SilvaCarbon staff and stakeholders in addition to materials that are publicly available. Documents reviewed include: post-workshop assessments, SilvaCarbon Steering Committee and Technical Team meeting notes; interagency and bilateral agreements; regional and bilateral work plans and activity reports; reports on workshops, technical assistance, and other support provided to participating countries; research, manuals, and tools produced under the auspices of SilvaCarbon; and other information deemed necessary to the evaluation.

[1] Report appendices are provided as a separate attachment.

- Semi-structured key informant interviews (KIIs): dTS conducted a total of 69 KIIs in person and by telephone. KIIs targeted USG partner agencies, non-governmental technical partners (e.g., US universities and research organizations), government and non-government country beneficiaries, development partners, and other relevant stakeholders. The full list of individuals interviewed is included in Appendix 3. Table 1 below provides a summary breakdown of the KIIs. KIs were targeted based on their level of engagement with the SilvaCarbon program and offer a broad representation of the types of stakeholders, organizations, and regions with which SilvaCarbon is actively engaged. In-person interviews were conducted in Washington D.C. and during in-country site visits. The former mostly targeted Steering Committee and Technical Team Members. To collect data on SilvaCarbon's in-country TA and capacity-building efforts, the evaluation team conducted country visits to Colombia and Peru (September 2014), and Thailand and Vietnam (November 2014). These countries were strategically selected in consultation with USAID/E3 and SilvaCarbon partners. The goal of the visits was to provide in-depth contextual understanding of SilvaCarbon activities in the regions through the collection of qualitative data. Data was collected through in-person meetings with individuals who have had extensive interaction with SilvaCarbon, either as implementers or beneficiaries.

TABLE 1. BREAKDOWN OF KEY INFORMANT INTERVIEWS

Category	Breakdown
Regional Affiliation	29 Southeast Asia 22 Other 16 Andes-Amazon 2 Congo
Stakeholder Type	28 Beneficiaries 21 USG SilvaCarbon participants 11 Donors (USG) 6 Donors (Non-USG) 3 Research/Academic Organizations
Gender	45 Male (65%) 24 Female (35%)

- Online survey: dTS conducted an online survey to capture quantitative data from a large pool of SilvaCarbon capacity building and TA beneficiaries and other KIs. The online survey was administered in three languages (English, French, and Spanish) to capture maximum information from SilvaCarbon participants in various regions of the world. A total of 479 SilvaCarbon stakeholders (beneficiaries, service providers, and development partners) were invited to take the online survey.[2] Of these, 113 responded and 97 answered at least one question, for a response rate of approximately 20 percent.

The evaluation design matrix provided in Appendix 1 aligns evaluation questions with indicators and measures, data sources, and data collection methods. Data sources are identified for specific data needs (i.e., measures or indicators) to address each evaluation question.

2.2 EVALUATION LIMITATIONS

The SilvaCarbon Performance Evaluation, like all evaluations, faced certain limitations with respect to time, resources, and technical practicalities. These are described below. On the whole, these limitations were not substantial, and the authors believe the evaluation represents a fair and accurate assessment of the program.

[2] A total of 503 unique invitations were sent out; of these, 24 were duplicate or non-functioning email addresses.

SilvaCarbon's network structure and existence as an interagency initiative rather than a single cohesive official development assistance (ODA) project or program provides a variety of benefits. It also presents challenges in documenting results in an aggregated manner, as the SilvaCarbon has not developed a single, unified SilvaCarbon monitoring and reporting system. This is particularly the case with financial aspects; the evaluation team was not able to refer to one single set of financial records or books. In addition, as discussed further throughout the report, SilvaCarbon does not have a results framework with indicator baseline data and targets, which presents a variety of challenges to evaluating many aspects of the program.

In terms of regional coverage, the evaluation team was only able to carry out country visits in Latin America and Southeast Asia, but not in the Congo Basin countries. Consequently fewer KIIs were conducted with people working on SilvaCarbon in the Congo Basin relative to the other regions.

The online survey response rate of 20 percent is within the normal range for response rates.[3] However, the small sample size (97 respondents) limits the statistical power and level of analysis. Also, because the respondents represent a diversity of stakeholder types and countries at different stages of engagement, the statistical analysis of subgroups was problematic. For these reasons, the survey results should be treated as indicative and not conclusive. However, the results of the online survey provide useful insights into the program, and capturing the views of the broad array of stakeholders was valuable for the evaluation.

In terms of language, there were some minor language barriers in Southeast Asia with respect to the fact that potentially relevant documents from Vietnam (the bilateral SilvaCarbon partner country in the region) and other countries in the region were only in local languages. This was not an issue in the Andean-Amazon or Congo Basin regions, as the evaluation team included experts with Spanish and French language skills.

That the evaluation was conducted mid-stream while the program is ongoing, rather than as a terminal evaluation, presented some minor challenges. For example, during the evaluation, SilvaCarbon generated a communications strategy, a draft FY2015–2016 work plan, and other internal documents, including one that defines SilvaCarbon's role within GFOI. These and other outputs are expected to continue strengthening the program, and they may already begin to address some of the recommendations identified in this report.

3 PROGRAM BACKGROUND

3.1 SILVACARBON INITIATIVE OVERVIEW

SilvaCarbon is a USG interagency initiative bringing together US technical expertise in forest and terrestrial carbon monitoring and management. SilvaCarbon builds the capacity of partner beneficiary governments to create and sustain national forest and terrestrial carbon assessment and monitoring systems and GHG inventory systems.

From FY2011 through FY2014, the program has provided more than $23 million USD in TA. Funding for SilvaCarbon is included within the $1.11 billion USD the USG contributed towards climate finance under the sustainable landscapes pillar from 2010–2013.[4] DOS and USAID contribute the majority of funding for

[3] See Resnick, 2012; Nulty, 2008; and Penwarden, 2014.

[4] SilvaCarbon is part of a USG climate-finance programs group, including: Lowering Emissions in Asia's Forests (LEAF); Low Emissions Asian Development (LEAD); Central Africa Regional Program for the Environment (CARPE); Forest Carbon, Markets and Communities (FCMC); Sustainable Wetlands Adaptation and Mitigation Program (SWAMP); and Enhancing Capacity for Low

SilvaCarbon, though the other USG agencies involved have also made additional in-kind contributions in terms of staff time and resources. Beyond this, SilvaCarbon has also leveraged additional partner resources, for example through the co-sponsorship of events and workshops with other projects and programs. However, in-kind and leveraged resources have not been systematically tracked.

The SilvaCarbon USG agency partners responsible for TA delivery are USGS, USFS, EPA, NASA, and NOAA. SI plays a central coordination role.

3.2 INTERNATIONAL CONTEXT

In addition to being an interagency initiative, SilvaCarbon is also part of a larger intergovernmental effort. SilvaCarbon was created as result of increasing intergovernmental and international activity related to climate finance and forest and terrestrial carbon monitoring. According to SilvaCarbon stakeholders, around 2009 there were ongoing discussions among USG agencies and international partners about how the US could contribute to the Forest Carbon Tracking (FCT) task under the GEO.[5] During 2009–2011 the FCT task became more formally structured as the GFOI (see Figure 2 below), which included capacity development as one of its five components.

SilvaCarbon was conceptualized in 2011 as a means for USG to contribute to this international effort through a bottom-up approach, building the capacity of beneficiary governments via direct partnerships. SilvaCarbon became the *de facto* primary capacity development initiative of GFOI, though USG has contributed to the other components of GFOI (e.g., methods and guidance, satellite data, research and development (R&D)) through SilvaCarbon.

FIGURE 2. WHAT IS GFOI?

The Global Forest Observations Initiative (GFOI) is led by Australia, Norway, USA, FAO, and CEOS. In 2008, GEO developed the FCT program to support countries develop national systems for forest carbon tracking, monitoring, and reporting through international coordination and cooperation. In 2009, stakeholders recognized that the coordination of satellite data providers and pre-processing centers, along with provision of methodological guidance and advice for using the data, would be necessary for a consistent and sustained system. The GFOI Task Force was formally created by the 2010 GEO Plenary. The GFOI Implementation Plan was approved in November 2011, and in January 2012 a governance structure and overall work plan for 2012–2013 were developed. In 2013, more permanent and sustainable governance arrangements were established; GFOI is led by the GFOI Lead Team (FAO, CEOS, Australia, Norway, and the USA) and is steered by an advisory committee. The GFOI office was established in 2013 to improve coordination among the various components of GFOI and to support the Lead Team. There are five components to GFOI work: Methods & Guidance, Coordination of Satellite Data Supply, Capacity Building, Research & Development, and Administration & Coordination.

Source: http://www.gfoi.org/about-gfoi.

In addition, during the United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP15) in December 2009 in Copenhagen, developed countries pledged to provide new

Emission Development Strategies (EC-LEDS). These programs are separate from USG climate finance contributions to multilateral climate funds. See http://www.state.gov/climatefinance for additional information.

[5]GEO is a voluntary partnership of governments and international organizations, established as an outcome of the World Summit on Sustainable Development (2002). GEO's members include 96 governments and the European Commission. 89 intergovernmental, international, and regional organizations with a mandate in Earth observation or related issues have been recognized as Participating Organizations. For more information on GEO see http://www.earthobservations.org/.

and additional resources to address climate change. From 2010–2012, the collective investment towards "fast-start financing" approached USD 30 billion.[6] SilvaCarbon served as one of many USG channels for the disbursement of fast-start finance related to climate change, and has continued beyond the fast-start period.

3.3 SILVACARBON STRUCTURE

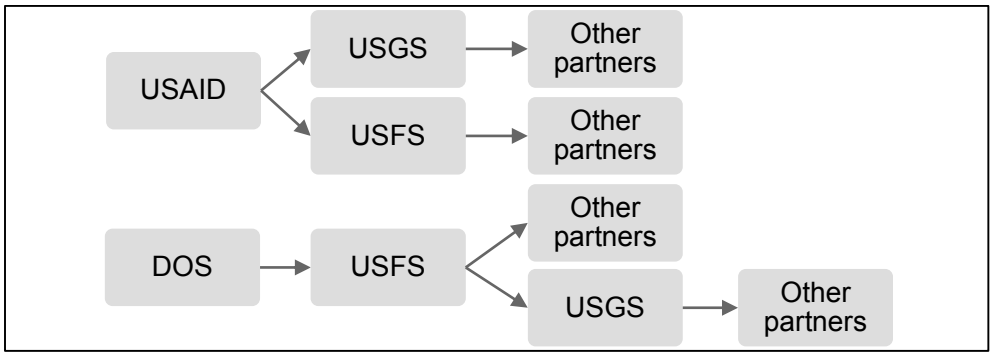
SilvaCarbon operates without a stand-alone management body, but with regular input and contributions from all involved USG agencies. Program coordination and planning is carried out both through the SilvaCarbon Steering Committee and the Technical Team. The Steering Committee consists of representatives from the involved USG agencies; external partners are represented by the University of Virginia. The Steering Committee conducts monthly meetings to discuss SilvaCarbon strategic issues, coordination aspects, and long-term planning. Decisions are made by consensus, though USAID and DOS, as the primary sources of SilvaCarbon funding, have final approval over SilvaCarbon strategic decisions.

The SilvaCarbon Technical Team is made up of technical specialists from the involved USG agencies and holds teleconference meetings on a monthly basis to discuss specific technical issues, provide regular updates on SilvaCarbon activities, and coordinate short-term planning on SilvaCarbon TA activities. SilvaCarbon has previously held multi-day planning meetings on an annual basis. Neither the SilvaCarbon Steering Committee nor Technical Team have formally defined Terms of Reference.

In the countries where SilvaCarbon is working on a bilateral basis, SilvaCarbon engages with the primary government institution responsible for forest and terrestrial carbon measurement and monitoring. However, it does not generally establish a Memorandum of Understanding (MOU) or other formal agreement with the partner institutions. Communication, planning, and organization are coordinated through a "focal point" individual in the respective national institution. In addition, in a number of bilateral partner countries SilvaCarbon has contracted a country coordinator. To support regional activities SilvaCarbon has also employed regional coordinators in the Andean-Amazon region (based in Lima, Peru), and in Southeast Asia (based at USAID Low Emissions Asian Development (LEAD) in Bangkok, Thailand).

Due to various bureaucratic restrictions, SilvaCarbon primarily operates through interagency agreements between USAID and USFS, USAID and USGS, and between DOS and USFS. Under DOS support, USFS has a secondary interagency agreement with USGS. USFS and USGS also conduct SilvaCarbon work through secondary agreements with NASA and non-USG technical partners, like the Woods Hole Research Center, the University of Maryland, and Boston University. Funding flows are diagrammed in Figure 3.

FIGURE 3. SILVACARBON FUNDING FLOWS



[6] Report of the Conference of the Parties December 2009. UNFCCC, March 20, 2010. http://unfccc.int/resource/docs/2009/cop15/eng/11a01.pdf

3.3.1 SILVACARBON PROGRAM OBJECTIVES

SilvaCarbon has five officially stated program objectives, as summarized in Figure 4 below. The evaluation completed an assessment of the SilvaCarbon program objectives, which can be found in Annex 10.

FIGURE 4. SILVACARBON PROGRAM OBJECTIVES

1. Demonstrate and compare forest and terrestrial carbon measurement and monitoring methodologies.

Achieving this objective includes critically reviewing methodologies and technologies for accuracy, uncertainty, and cost to provide countries with a range of options for adoption and implementation; supporting an assessment and integration function for methodologies currently being deployed in GFOI countries; and developing scientific designs for comparing methodologies in selected sites in GFOI countries.

2. Build capacity of selected developing countries to use forest and terrestrial carbon monitoring and management methodologies and technologies.

Achieving this objective includes developing and delivering good practice guides, manuals, trainings, and tools; facilitating learning exchanges, regional forums, and networks to enhance sharing among countries; providing technical advice and assistance to governments, including GFOI countries; and partnering with other donors and with International Organizations to multiply impact and reach.

3. Facilitate, in cooperation with CEOS and GFOI, the coordinated collection and dissemination of Earth observation data related to forest and terrestrial carbon monitoring and management.

Achieving this objective includes supporting efforts to enhance interoperability, coordination, and transparency of data collection systems; participating in the design of global sampling schemes of continuous satellite observations aligned with *in situ* data collection; and enhancing access to, and facilitating the processing of, Earth observation data for developing countries.

4. Strengthen the community of forest and terrestrial carbon technical experts.

Achieving this objective includes maintaining a web presence with knowledge management and social networking capabilities; convening meetings and workshops to build collaboration and greater consistency in technical understanding and in the recommendations provided to developing countries; and producing publicly available technical documents that summarize and critique the latest methodologies and approaches.

5. Interagency cooperation and collaboration.

SilvaCarbon's technical scope is not formally defined, but according to SilvaCarbon's own communication materials, SilvaCarbon addresses forest and terrestrial carbon assessment activities related to:

- Sampling protocols and design
- Data capture, processing, archiving, and distribution
- Collection and analysis of *in situ* data
- Integration of remotely sensed and *in situ* data
- Classification and mapping of forest cover
- Carbon stock and flow estimation

- Design of monitoring systems for multiple uses

3.3.2 SILVACARBON APPROACH TO CAPACITY DEVELOPMENT

SilvaCarbon has not yet developed a theory of change or logic chain that ties its capacity development inputs to outputs and expected outcomes. However, the program has defined its approach to capacity development; it operates through four main avenues, or areas of work.

1. National Capacity Development: National-level support, primarily to bilateral partner countries
2. Regional Capacity Development: Regional-level support to bilateral and non-bilateral partner countries
3. Knowledge Generation: R&D, forest and terrestrial carbon monitoring method, and technology development
4. Global Community Support: Global level contributions, such as inputs to other GFOI initiatives

SilvaCarbon supports national and regional capacity development through a range of technical assistance activities. These have included, but are not limited to, the following:

- Regional workshops (both formally linked to GFOI and in collaboration with other partners);
- National workshops and training sessions in bilateral partner countries (conducted by national experts and by experts from SilvaCarbon USG agencies);
- Long-term in-country assignments of USG experts to work in country partner agencies;
- Informal remote technical support through phone and email;
- South–South "peer-to-peer" knowledge exchanges;
- North–South study tours (where developing country participants travel to the US for training and other capacity-development activities);
- Provision of data and data products (remote sensing data and analyzed data such as maps); and
- Provision of equipment (including computers and personal data recorders for NFI field operations).

3.3.3 GEOGRAPHIC COVERAGE

Geographically, SilvaCarbon has focused on three priority regions where the most significant tropical forest in the world is found: the Andean-Amazon, the Congo Basin, and Southeast Asia. In 2014, SilvaCarbon officially expand into the Central American region (some country activities had been previously carried out in the region). Because the Central America regional workplan was still in development while the evaluation was underway, the report focuses on the other three regions. SilvaCarbon has supported regional activities, such as workshops, while also supporting a limited number of countries on a direct bilateral basis. Regional level activities in the three target regions have also engaged participants from countries outside of the main target regions, such as Costa Rica and Mexico in Latin America, Tanzania and Zambia in Africa, and Nepal in Asia. Table 2 below provides a summary of SilvaCarbon partner countries.

TABLE 2. SILVACARBON GEOGRAPHIC COVERAGE

Beneficiary Type	Andean-Amazon	Congo Basin	Southeast Asia
Bilateral Partners	Colombia, Ecuador, Peru	Cameroon, Democratic Republic of Congo (DRC), Gabon, Republic of Congo (ROC)	Bangladesh, Vietnam
Other Regional Participants	Brazil, Guyana		Cambodia, Indonesia, Lao People's Democratic Republic (PDR), Philippines, Thailand

Beneficiary Type	Andean-Amazon	Congo Basin	Southeast Asia
Bilateral Partners	Colombia, Ecuador, Peru	Cameroon, Democratic Republic of Congo (DRC), Gabon, Republic of Congo (ROC)	Bangladesh, Vietnam
Additional and Peripheral Countries *(outside the target region)*	Costa Rica, Honduras, Mexico, Panama (expanded to Central America during 2014)	Ghana, Kenya, Tanzania, Zambia	Nepal

3.3.4 SILVACARBON ACTIVITY TIMELINE

SilvaCarbon activities started in 2011. A complete table listing the timing of the initiation of SilvaCarbon engagement for each bilateral country partner can be found in Annex 8. The longest engagement has been in the Andean-Amazon region. The first SilvaCarbon scoping mission to a potential bilateral partner country was conducted in Ecuador in July 2011, and scoping missions to Colombia and Peru followed in October 2011. SilvaCarbon activities in Gabon also started in October 2011. The scoping mission for Vietnam was carried out in April 2012.

These five countries represent the first generation of SilvaCarbon bilateral partners and are the countries in which the most extensive SilvaCarbon activities have been carried out to date. A second generation of bilateral partners was initiated in September 2013, with scoping missions to Cameroon, DRC, and ROC. A scoping workshop in Bangladesh was completed in July 2014.

In terms of regional activities, the first SilvaCarbon GFOI regional capacity development workshop was held for the Latin America region in Lima, Peru, in August 2011. The regional series of SilvaCarbon GFOI workshops in Latin America has reached 11 workshops. The first SilvaCarbon GFOI workshop in the Southeast Asia region was in Chiang Mai, Thailand, in January 2014. The first Congo Basin SilvaCarbon GFOI workshop was in Doula, Cameroon, in June 2014.

3.3.5 KEY SILVACARBON STAKEHOLDERS

SilvaCarbon's role as an international development initiative that is both interagency in structure and part of a larger intergovernmental effort means that it must maintain an extensive network of relationships. The five main types of SilvaCarbon stakeholders are described in the table below.

TABLE 3. KEY STAKEHOLDER TYPES

Stakeholder Types	Example Stakeholders
USG Partner Agencies	DOS, USAID, USFS, USGS, EPA, NASA, NOAA, SI
Non-USG Technical Partners	Boston University, University of Maryland, Wageningen University
International Development Partners	FAO, German Agency for International Cooperation (GIZ), Japan International Cooperation Agency (JICA)
National Government Beneficiaries	Institute of Hydrology, Meteorology and Environmental Studies (IDEAM) in Colombia, Forest Inventory and Planning Institute (FIPI) in Vietnam
Non-government Country Beneficiaries	Government institutions other than the primary SilvaCarbon partners (universities, civil society)

At the **national level**, in the bilateral partner countries SilvaCarbon works with the primary government institutions responsible for forest and terrestrial carbon measurement and monitoring, and for GHG

inventory in the land use, land-use change, and forestry (LULUCF) sector. The full list of these bilateral government beneficiary partners is included in Annex 7. In addition, SilvaCarbon also engages with other relevant national institutions and stakeholders, though often in a much more limited manner.

National and global stakeholders are also those engaging at the **regional level** within SilvaCarbon. However, other relevant regional initiatives can also be considered regional stakeholders, such as the USAID initiative Lowering Emissions in Asian Forests (LEAF) in Southeast Asia, and the Central Africa Regional Program for the Environment (CARPE) in the Congo Basin.

At the **international level**, SilvaCarbon supports national efforts related to UNFCCC Reducing Emissions from Deforestation and Forest Degradation (REDD+) and other related initiatives, which have innumerable stakeholders. However, SilvaCarbon is focusing specifically on capacity development for technical issues related to NFMS, including forest and terrestrial carbon measurement, reporting, and verification (MRV) systems. This is a narrower realm, and the key international stakeholders working on these issues are multi-lateral organizations such as FAO, which is responsible for MRV aspects in the context of UN-REDD, the World Bank's Forest Carbon Partnership Facility (FCPF), and bilateral aid organizations such as JICA and GIZ. GFOI is also considered an international stakeholder.

4 FINDINGS, CONCLUSIONS, & RECOMMENDATIONS

The following section of the evaluation report presents the key conclusions of the evaluation, supported by qualitative and quantitative data, and related findings. This section follows the order and structure of the evaluation questions. Section 4.1 below provides an assessment at the program level. Section 4.2 answers Evaluation Question 1, and its four sub-questions address program objectives 1-4. The assessment of the achievement of SilvaCarbon objective 5 is addressed later in Section 0 of this report.

4.1 OVERALL PROGRAM ASSESSMENT

Conclusion 1: SilvaCarbon has been a highly valuable vehicle for United States fast-start financing for climate change mitigation, with notable contributions to partner countries' capacity for assessment and monitoring of forest and terrestrial carbon. The program has multiple strengths, including excellent inter-agency cooperation, proactive and appropriate coordination with other donors and related initiatives, and high relevance to partner country needs and international priorities.

SilvaCarbon is an important initiative within the USG's contribution to climate change mitigation financing, and the program continues to provide high-quality TA beyond the "fast-start period." SilvaCarbon has supported capacity development for forest and terrestrial carbon assessment and monitoring systems in three regions: the Andean-Amazon, South/Southeast Asia, and the Congo Basin. The five countries with the longest-standing bilateral relations are Colombia, Ecuador, Peru, Gabon, and Vietnam. SilvaCarbon has initiated support to at least four more bilateral partner countries (Bangladesh, Cameroon, Democratic Republic of Congo, Republic of Congo), has provided assistance to multiple other non-bilateral partner countries. SilvaCarbon has also begun collaboration with a fourth region, Central America.

SilvaCarbon has a narrow demand-driven focus, addressing specific technical needs identified by countries. It

focuses on issues such as the analysis of remote sensing data, design of forest inventory methodologies, and calculation of greenhouse gas (GHG) inventories in the LULUCF sector. These technical fields are well suited to the USG agencies involved in the SilvaCarbon initiative (e.g., USGS, USFS, NASA, EPA) and key technical partners (e.g., Boston University, University of Maryland, Wageningen University), which employ some of the world's leading authorities on these issues.

Strategic Logic Model, Results Framework, and Baselines

Conclusion 2: Objectively assessing progress toward desired outcomes of the SilvaCarbon program is challenging, given that the program does not have a clearly defined logic model or results framework, and did not systematically define and document the baseline situation in partner countries. This also makes it more difficult for the program to communicate a story of what has been achieved.

As further discussed throughout this report, qualitative data collected strongly suggests that SilvaCarbon is regarded as a highly valuable and important program, both by partners providing TA and by beneficiary partners. However, aggregating the sum achievements of the program is a challenge, particularly at the outcome level, as the program does not have: a) an explicit logic model; b) a results framework with defined results areas and metrics; nor c) systematically documented baseline data.

According to USG SilvaCarbon participants, SilvaCarbon has intentionally avoided tying its results chain to REDD+ or any other mechanism as the means to leveraging GHG mitigation. The particular pathways by which countries will work to reduce their emissions are rightly considered a matter best left to partner countries. There are multiple logical pathways through which SilvaCarbon's capacity development work can support partner countries reduce emissions.

Although multiple potential results chains exist, SilvaCarbon has not explicitly articulated a logic model that indicates how the activities supported under the program will achieve outcome level results. SilvaCarbon has five main objectives, but these objectives indicate the activities SilvaCarbon is pursuing without justifying them nor explicitly linking these activities to the long-term overall objective of reducing carbon emissions. Some of the program's technical support areas are identified in program public outreach materials, but the desired outcomes in each of these areas are not defined. These areas are listed in Section 3.3.2 above.

SilvaCarbon's long-term overall objective is to meet country-specific needs for developing comprehensive and transparent systems for measuring and monitoring carbon stocks in forests and other lands, so that countries can use these systems to: a) make informed decisions that lead to reduced deforestation and sustainable low-emission development in the land use sectors; and b) accurately report on emissions from land use for country-specific applications, which may include participation in REDD+ programs. Formal adoption of this objective by the SilvaCarbon Steering Committee would be an excellent positive step toward strengthening the clarity and explicitness of the strategic approach of the program.

Once a specific results chain is articulated, developing a detailed results framework with specific indicators and targets may be a challenge for this global program given the differing levels of capacity and priority needs in the countries and regions where SilvaCarbon is working. However, it would still be helpful for the program to identify key results areas with outcome-level goals.

Further, SilvaCarbon has also not tracked baseline information in a systematic manner. One of the program's strengths is employing a scoping mission at program start-up in a bilateral country to identify priority areas for SilvaCarbon support. However, across the SilvaCarbon scoping reports, the baselines of capacity level and overall situation in each country have not been systematically documented. Some baseline information is included in scoping mission reports, but it is not documented in a comprehensive or systematic way

across countries. For example, Ecuador's scoping report contains informative statements like the following: "They are missing 30% of the country due to clouds, so they are looking at RADAR and LIDAR (active sensors)," and "In terms of imagery, they have Landsat data from '90, '00, and '08 Aster imagery from '08 wall to wall, and they have acquired RapidEye and Quickbird for specifics projects." But this information is not recorded in a structured way so as to create records that can be compared across countries.

Part of the challenge for SilvaCarbon is that an internationally agreed-upon tool or approach does not exist to systematically measure countries' capacity levels related to national forest and terrestrial carbon monitoring and MRV systems, including NFMS. Some SilvaCarbon partners are working to fill this gap, but this is a work in progress.

Without the strategic elements discussed above, it is a challenge to describe the achievements and value of the SilvaCarbon program and to document the results as something more than a broad palette of information-sharing and training activities related to national forest and carbon inventories.

Recommendation 1: The SilvaCarbon program should develop an explicit logic model that linking stated program objectives and technical areas of work with the targeted key outcome results, which are necessary to contribute to the long-term impact goal of climate change mitigation. This work, and the systematic collection of baseline data, could be supported with development of a standardized country-level capacity assessment tool. An example results chain was created for this evaluation; it can be found in Annex 11.

Strategic Geographic Coverage

SilvaCarbon's long-term impact goal is the reduction or avoidance of GHG emissions. Considering this goal, SilvaCarbon's focus on the Andean-Amazon region, the Congo Basin, and South/Southeast Asia is appropriate. Through regional engagement (i.e., through countries' participation in regional workshops) SilvaCarbon is working with eight of the 15 developing countries with the largest amount of total forest area. Annex 8 includes a table that lists all the countries in the three SilvaCarbon target regions, by forest area.

Although SilvaCarbon targets some of the most forested regions of the world, the selection of individual countries for bilateral SilvaCarbon partnerships does not have transparent criteria. Criteria mentioned by SilvaCarbon participants include regional forest biome, focus for synergy, countries with large forest areas, degree of threat, and USG priorities in relation to bilateral political and economic situations.

SilvaCarbon participants also noted that SilvaCarbon's bilateral partnerships were often the result of political and practical considerations. This is somewhat understandable, as these are important factors for achieving results. However, SilvaCarbon is consequently working in bilateral partnerships with only six of the top 15 countries by forest area in the three SilvaCarbon target regions. The ten countries in these regions that SilvaCarbon is not working with, ordered from largest to smallest forest area, are China, South Sudan, India, Angola, Bolivia, Venezuela, Mozambique, Myanmar, Argentina, and Papua New Guinea. However, given political considerations (e.g., in Bolivia, Myanmar, Venezuela), and the fact that some large countries already have significant capacity for forest carbon monitoring (e.g., Brazil, India) or already have significant other donor support (e.g., Indonesia, Guyana), the most notable gaps in SilvaCarbon's bilateral portfolio in the regions where it is working are Angola, Papua New Guinea, Central African Republic, Thailand, Lao PDR, Suriname, and Cambodia (in order of forest area). If SilvaCarbon seeks to expand its portfolio of bilateral partner countries in the future, working with countries from this group would likely be the most strategic approach in terms of potential impact, though other factors, such as threat level, would also need to be considered.

4.2 EVALUATION QUESTION 1: ARE THE STATED SILVACARBON OBJECTIVES BEING MET?

4.2.1 EVALUATION QUESTION 1.A. HAVE FOREST AND TERRESTRIAL CARBON MEASUREMENT AND MONITORING METHODOLOGIES BEEN DEMONSTRATED, REVIEWED, AND COMPARED?

This section assesses SilvaCarbon's delivery of TA, as well as the SilvaCarbon research grant program.

Conclusion 3: SilvaCarbon successfully demonstrates, reviews, and compares forest and terrestrial carbon assessment methodologies. SilvaCarbon uses regional and national workshops and study tours to educate bilateral and non-bilateral partners alike on the menu of tools and methods available and to identify those most suited to their needs. The results of these efforts have been focused in the five initial SilvaCarbon bilateral partner countries, but other countries in the three target regions have also benefited. There remains a need to focus on practical in-country application of technologies and methodologies in the specific contexts of beneficiary countries.

According to some SilvaCarbon USG participants, the original concept behind this SilvaCarbon objective was to pursue a scientific approach, field-testing the same handful of tools and methodologies in the various SilvaCarbon partner countries to compare results. However, SilvaCarbon has instead pursued a more pragmatic approach in which it responds to the particular needs and contexts of the partner countries. There is not a consistent one-size-fits all international standard approach for forest carbon monitoring, and stakeholders in SilvaCarbon bilateral countries have indicated that it has been helpful for SilvaCarbon to assist in providing information to compare and contrast different methodologies and technologies.

In the bilateral partner countries where SilvaCarbon is working, the program has specifically supported USG, non-governmental, and other international experts to conduct TA missions to demonstrate, review, and compare forest carbon assessment methodologies to assist countries in identifying methodologies that may be useful for their needs and circumstances. Examples of these activities are highlighted in

Table 4 below.

TABLE 4. SILVACARBON EXAMPLES OF REVIEWING, DEMONSTRATING, AND COMPARING METHODS

Country	Activity
Colombia	July 2013: Two experts from the USFS traveled to Colombia for a NFI pilot discussion with the Ecosystems group and REDD+ group from IDEAM. Colombia has begun using the Design Tool for Inventory Monitoring (DTIM), developed by USFS and FAO, in its forest inventory design, and has continued to work closely with USG experts on inventory design and database through follow-up visits.
Ecuador	November 2013: A Boston University expert conducted a training in Quito with the Ministry of Environment to design validation methodology for a forest cover change map
Peru	2013: SilvaCarbon supported the investigation and implementation of three change detection methodologies for protected areas in Peru: (1) Supervised Enhanced Vegetation Index Classification, (2) Moderate Resolution Imaging Spectroradiometer (MODIS) Vegetation Continuous Fields Cluster-aided Forest/Non Forest Masking, and (3) Supervised Pre-processing Forest/Non Forest Masking.
Gabon	During its engagement in Gabon SilvaCarbon supported the government in establishing a countrywide NFI plot sample of more than 100 one-hectare plots. Six teams of forest technicians collected field data, which is helping estimate forest carbon stocks and will be used to ground-truth future LIDAR data collection (for more, see Annex 9).

Country	Activity
Vietnam	April 2014: A USFS expert conducted an Optimal Sampling and Plot Design for NFIs training

At the regional level, SilvaCarbon has primarily supported regional capacity-development workshops, most of which have been within the framework of GFOI's capacity-development pillar. Approximately 14 regional GFOI technical workshops have been conducted (as of September 2014): 11 conducted for countries in Latin America, one conducted for the Congo Basin, and two conducted for South/Southeast Asia. These workshops have served as a platform specifically for SilvaCarbon experts, other international experts, and the countries themselves to demonstrate, review, and compare forest and terrestrial carbon assessment methodologies. Technical topics of the workshops have included:

- Developing consistent GEO forest information products from time-series mid-resolution optical data (2nd Latin America workshop)
- Integration of forest inventories, remote sensing data, and carbon models (3rd Latin America workshop)
- Use and processing of radar imagery for forest monitoring (4th Latin America workshop)
- Biomass mapping estimation and forest cover mapping in the Tropics (9th Latin America workshop)
- Data interoperability for forest monitoring (1st Congo Basin workshop)
- Integration of remote sensing data, forest inventory data, and carbon models (2nd Asia workshop)

SilvaCarbon has also contributed to the review of methodologies at the global level, through inputs to the methods and guidance document (MGD) developed under the methods and guidance pillar of GFOI. SilvaCarbon is not the lead GFOI partner on this pillar, but SilvaCarbon has been the main channel through which the USG has provided input and support to the three pillars of GFOI other than capacity development. The MGD was published by GFOI in January 2014.

There are technical issues for which countries require decision-support. In Vietnam, for example, methodological approaches demonstrated by US experts have varied compared to those demonstrated by FAO under the UN-REDD program in three key areas: sample plot design for national forest inventory, software for analyzing data (OpenForis vs. SIPB2), and the particular use of different types of remote sensing data (LANDSAT vs. SPOT[7]). In other cases, SilvaCarbon (as well as other development partners) may be demonstrating methodologies and technologies that are beyond the immediate needs and priorities of developing countries for national forest and terrestrial carbon assessment and monitoring. For example, the 1st SilvaCarbon GFOI regional workshop in Asia (in Thailand in January 2014) included the field demonstration of unmanned aerial vehicles (UAVs, also known as drones) for aerial imagery, which is a technology typically beyond the financial and technical capacity of countries in the region and is not necessary to meet Intergovernmental Panel on Climate Change (IPCC) guidelines. This is not considered a widespread issue within the SilvaCarbon approach, but highlights the need for SilvaCarbon to both ensure capacity-development efforts are focused on priority outcomes in key results areas, and also to provide decision-support guidance as part of the approach of demonstration, review, and comparison of technologies.

Recommendation 2: Along with demonstrating, reviewing, and comparing forest carbon assessment methodologies and technologies, SilvaCarbon should also provide decision-support guidance and criteria to

[7] SPOT: Satellite Pour l'Observation de la Terre, "Satellite for Earth observation"

assist partner countries in determining if these technologies and methods are appropriate for their adoption and application, and under what circumstances.

The SilvaCarbon Research Grant Program

Another means by which SilvaCarbon is contributing to the review, demonstration, and comparison of methodologies is through its research program. Two rounds of research have been funded in 2013 and 2014, for a total of 11 projects. A summary of the research projects is included in Annex 12 of this report.

Conclusion 4: Given that the 2013 round of research projects is ongoing and the 2014 round has just started, it is not yet possible to assess the results of the research program. Yet it is clear that the research program fills a valuable international need, with a focus on addressing critical practical issues related to forest and terrestrial carbon monitoring and the needs of beneficiary country stakeholders.

However, though it may not always be appropriate, there may be opportunities to generate synergies between the research program and the rest of SilvaCarbon's capacity development work.

SilvaCarbon funded four of the projects from its first request for proposals, in 2013, which focused on issues related to LIDAR. In 2014, the request for proposals process was less thematically specific (though still focused on forest degradation issues) but more structured, and the call for proposals was widely disseminated. As a result, 2014 demand was unexpectedly high for the second round of funding, with 75 proposals being submitted. SilvaCarbon was able to fund seven grants. The research projects are expected to take between 12 and 24 months; the research is ongoing. Grantees submitted progress updates on the first round of grants in December 2014. Proposals could be funded for up to $250,000, though the actual average grant is $123,545 USD, with total research funding of $1,359,000.

SilvaCarbon's practical focus and linkages with in-country individuals and institutions are strengths of the program. According to interviewees, the research program's emphasis on the issue of forest degradation was useful and relevant. One respondent noted that "clear objectives are defined," although it was not clear "how that prioritization was done." Another stated the RFP was "very targeted and relevant," and "the things that got funded are relevant to the program and the overall effort of the program." Eight of the 11 research projects include work in SilvaCarbon bilateral countries. Three of the 11 projects do not specify or do not include work in a SilvaCarbon bilateral partner country. Nine of the 11 research projects include researchers from institutional partners that are already involved in SilvaCarbon activities such as USFS, USGS, Boston University, and University of Maryland.

According to SilvaCarbon USG partners, collaboration with in-country researchers and institutions was made mandatory in the second year of the research program. However, the summary information about the research projects available for this evaluation did not identify the country partner institutions involved other than for the research project in the Republic of Congo, where the University of Marien Ngouabi is an identified research partner.

While the technical focus of the research program was strong, participants felt that SilvaCarbon could improve in its solicitation of proposals. According to participants, similar programs run by NASA have a two-step proposal process, with short-listed applicants invited to submit a more detailed second-step proposal. However, in the SilvaCarbon program, the detailed second-step proposals were only requested after funding decisions had been made. In addition, the participants felt the "review process was not very well known, but at the end the decision was made somehow." A participant acknowledged that from an external point of view, "some people may find that the process may not be as transparent and clear." Participants noted there was a trade-off between a simple application process (chosen by SilvaCarbon)

relative to more common intensive processes; researchers are the clear beneficiaries of a simple, straightforward process that did not require a heavy investment in proposal preparation.

SilvaCarbon requests that grantees report annually with a brief summary of activities carried out, funds spent, and any expected changes to the research proposal or planned expenditure of funding. According to both grantees and program staff, the specific expected formal outputs from the research program have not been explicitly defined in terms of the products and practical results expected. A USG SilvaCarbon stakeholder indicated that the RFP did not include "any requirement for reporting" on publication of research results, or practical implementation of research results, though it was "suspected" that the supported research projects were likely to do both. Accordingly, the same interviewee stated "it would be ideal" if research projects "published at least once or twice in US peer-reviewed journals" and reported on "training and adoption rates within the participant country." But SilvaCarbon "didn't require it outright" and "it is an unstated assumption." However, this was not formally established in funding agreements after funding decisions were made or in other research program documentation.

Recommendation 3: SilvaCarbon should confirm through written agreements with grantees concerning the expected research program outputs, such as peer-reviewed publications, number of people trained, or other practical results.

4.2.2 EVALUATION QUESTION 1.B. HAS TA PROVIDED BY SILVACARBON BUILT THE CAPACITY OF KEY STAKEHOLDERS IN PARTICIPATING DEVELOPING COUNTRIES TO USE FOREST AND TERRESTRIAL CARBON MONITORING & MANAGEMENT METHODOLOGIES & TECHNOLOGIES?

This subsection addresses SilvaCarbon objective 2 regarding the building of stakeholder capacity to use tools and methods. The section is organized in two parts, with the first section examines issues and results at the program level. The second section assesses results of capacity building efforts in each of the three major regions of SilvaCarbon involvement: the Andean-Amazon, the Congo Basin, and South/Southeast Asia.[8]

Program-level Assessment of Capacity Development Results

Conclusion 5: SilvaCarbon is an important and useful program that is developing capacities for NFMS and MRV systems, making valuable contributions in the countries where it works. SilvaCarbon focuses on a set of globally pressing technical issues and marshals leading technical expertise that is not often accessible to developing countries. In this respect, SilvaCarbon fills a critical niche in the international effort related to forest and terrestrial carbon assessment and monitoring.

There are significant differences in initial level of capacity among the countries and regions in which SilvaCarbon is working. As previously mentioned, there is no agreed upon standard measuring stick or set of metrics for assessing a country's level of capacity with regard to carbon assessment and monitoring. Given the varied initial capacity in each region and country, SilvaCarbon uses a demand-driven approach to identify the areas to work in and responds directly to the TA requests received from beneficiary partners.

The partner country beneficiaries and external SilvaCarbon partners all highlighted the excellent quality of the technical support provided by SilvaCarbon experts. For example, 69 percent of survey respondents indicated they were mostly or totally satisfied with the technical guidance and methodologies shared by SilvaCarbon (online survey, question CI22). A SilvaCarbon stakeholder stated, SilvaCarbon "is very important for my country because [we are] committed to the REDD+ mechanism, and we always need

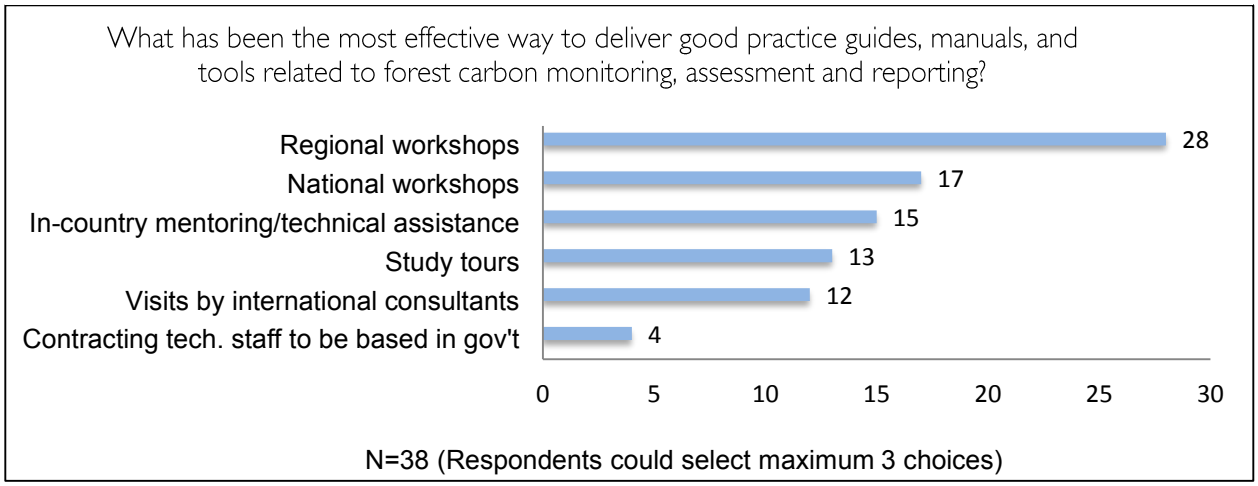
[8] The work undertaken in the regional Central American program started too recently to be assessed. The Central America regional program is not covered in this report.

international expertise to improve our knowledge of the areas of remote sensing." Others noted that SilvaCarbon provides "excellent technical quality" and "a high quality team of experts."

SilvaCarbon delivers a great deal of capacity development through regional workshops. In KIIs, program participants noted that there are pros and cons to the regional workshop approach. For example, workshop series across a set of topics can result in increased individual capacity that can be applied into daily professional use. On the negative side, SilvaCarbon participants report that it unlikely to build substantial and sustainable capacity throughout an institution through single multi-day workshops without additional support, particularly because at these events space is limited. Further, workshops are time-intensive exercises that require participants to be away from the office for significant periods of time, and often out of their own country. In most developing countries the individuals who would be participating in such workshops are key individuals related to REDD+ in their countries, and their frequent absences have negative externalities in-country. Capacity development activities at the individual level also face challenges related to personnel turnover, which is discussed further in Section 4.3. On the positive side, participants consider that the development of a knowledge exchange network between Andean-Amazon countries to be a major success story to come out of the regional workshops.

While regional workshops have pros and cons, participants generally review them favorably. The post-workshop surveys distributed by SilvaCarbon have indicated a majority of positive feedback, and in the survey conducted for this evaluation regional workshops were highly rated (**Error! Reference source not found.**). Regional workshops were considered the most effective way of delivering good practice and tools, with 28 out of 38 respondents most in favor of this approach. National workshops came in second, with 17 respondents rating them as most effective. This feedback contrasts slightly with the more nuanced qualitative feedback received during interviews, which touched on the pros and cons indicated above.

FIGURE 5. WORKSHOPS ARE SEEN BY RECIPIENT AS EFFECTIVE



Source: Online survey, Question CI13

<u>Conclusion 6:</u> Capacity development is most effective through a sustained engagement, and making a significant contribution to capacity for NFMS and GHG inventories is estimated to require a minimum of five years, depending on a variety of country-specific factors. Therefore, SilvaCarbon would need to continue efforts in the countries where it is working for additional years to generate significant outcome-level results. Based on the initial progress made in the target countries to date, a continued engagement is likely to be a worthwhile investment.

Capacity development in international development is recognized as a long-term process. Significant contributions to capacity development can take years. One SilvaCarbon expert noted that he had spent many years studying geographic information systems (GIS) and remote sensing technology, and it is not possible to convey very much to workshop participants in a few days. Another interviewee noted that it can take two years of training to teach someone to create land cover maps from raw data. So it is not surprising that qualitative feedback indicates that the capacity development approaches considered most effective are small group, weeks-long, in-person trainings and months-long study tours. Another method of building capacity would be to finance individuals to obtain advanced degrees or certificates, but this is not an approach that SilvaCarbon has pursued. Ultimately SilvaCarbon has to make strategic decisions about the capacity development modalities it employs based on cost-effectiveness and other factors. One USG participant and a country beneficiary noted that it may be best for SilvaCarbon to target a "higher" level of TA by providing already processed data products (e.g. maps, etc.) that can be put to immediate use in-country, rather than invest significant resources in developing countries' capacity to do more technically intensive tasks themselves.

Given the long-term nature of the capacity development process, the strongest results from the SilvaCarbon program are seen in the countries where SilvaCarbon has been working the longest: Colombia, Ecuador, Peru, and Gabon. Results in Vietnam and Southeast Asia are more limited, but there still have been notable contributions in the approximately 18 months the program has been operating in Vietnam. Results in the most recent bilateral partner countries (Cameroon, DRC, ROC, and Bangladesh) are limited as of this evaluation. A more in-depth summary of capacity results by region are further discussed in Annex 9.

Potential to Influence Policy: SilvaCarbon has had most success in affecting policy change in the countries in which it has the longest history. In South America, respondents tied participation in SilvaCarbon to indirect policy change like an increased focus on and investment in scientific research in forest carbon management. In other cases, participation in the program directly affected policy change, as it did when SilvaCarbon assisted Colombia in the development of its REDD+ carbon monitoring and management strategy, which was subsequently incorporated into the national MRV policy and national policy to reduce deforestation. In Southeast Asia, SilvaCarbon's involvement was commonly considered too short to have yet affected policy, though many participants expected it to. One respondent cited a specific goal to increase their office's capacity to produce "validated data" and measure carbon sequestration in order to inform land use policymaking.

Recommendation 4: Policy change is one of the DOS indicators being pursued by the SilvaCarbon program, yet as of 2013 it had not yet collected any data on policy change. This is an area in which SilvaCarbon can improve its monitoring and reporting.

4.2.3 EVALUATION QUESTION 1.C. HAS COOPERATION WITH CEOS AND OTHER PARTNERS IN GEO GFOI FACILITATED COLLECTION AND DISSEMINATION OF EARTH OBSERVATION DATA RELATED TO FOREST AND TERRESTRIAL CARBON MONITORING AND MANAGEMENT?

This subsection addresses SilvaCarbon Objective 3 regarding the collection and dissemination of Earth observation data related to forest and terrestrial carbon monitoring and management.

Conclusion 7: SilvaCarbon has contributed to beneficiary country access to Earth observation data, but it appears that the program's more valuable role has been in assisting countries to process and analyze data. Areas identified for further support include effective data management and data sharing.

Beginning in 2008, USGS publicly released free Landsat program data dating back to the 1970s. Under the European Space Agency's Copernicus programme, Sentinal-1 has followed suit, with Sentinal-2 data[9] to become available to the public in 2015. Other development partner initiatives including GFOI, FAO, Global Observations of Forest and Land Cover Dynamics (GOFC-GOLD), Finland, NASA, SI, and France (SPOT) provide Earth observation data, although in some cases the data must be purchased.

SilvaCarbon has directly facilitated Earth observation data access and analysis. Although Landsat data is freely available online for download, developing countries often do not have the capacity to download large data sets. SilvaCarbon has provided the following data: Landsat Thematic Mapper 4 and 5, Landsat 7 Enhanced Thematic Mapper Plus, Landsat 8 Operational Land Imager and Thermal Infrared Sensor, Shuttle Radar Topography Mission, and Global Land Survey 1975, 1990, 2000, 2005, and 2010. SilvaCarbon has provided more than 3,800 gigabytes of remote sensing data to bilateral and regional partner countries, and has also provided data to other countries such as Guyana and Guatemala. SilvaCarbon experts have traveled with hard-drives to deliver to country counterparts because of the accessibility challenges. **Error! Reference source not found.** provides examples of SilvaCarbon's support for collection and dissemination of Earth observation data.

TABLE 5. EXAMPLES OF EARTH OBSERVATION DATA DISSEMINATION ACTIVITIES

Country	Data Dissemination Activities
Colombia	Implementing a prototype time-series system using optical and radar data
Colombia, Peru, Ecuador	USGS downloaded and packed the Global Digital Elevation Model over Colombia, Ecuador, and Peru, and delivered to the three countries
Costa Rica	Classification methods using multispectral satellite imagery to obtain cover types or land use maps
Guatemala	Integration of field and remote sensing data; statistical methods for generating national estimates (e.g., of biomass or carbon) using remote sensing monitoring data
Peru	Forest cover loss analysis (2000–2013)
Central America	Workshops for training on preprocessing and classification methods using multispectral satellite imagery to obtain cover types or land-use maps; generation of biomass estimations using satellite data; carbon measurements.
Nepal	GFOI initiative on integrating remote sensing and field data and carbon models
DRC	Workshop on remote sensing; GIS and remote sensing

The online survey suggests that beneficiaries are mostly satisfied with the effectiveness of earth observation data support and capacity building assistance, and somewhat less satisfied with their levels of access, as indicated in Figure 6, Figure 7, and Figure 8 below.

[9] Sentinel-1 provides C-band synthetic aperture radar imaging, while Sentinel-2 will provide multi-spectral optical imagery at high spatial resolution.

FIGURE 6. EFFECTIVENESS PERCEPTIONS OF SILVACARBON ACCESS TO EARTH OBSERVATION DATA

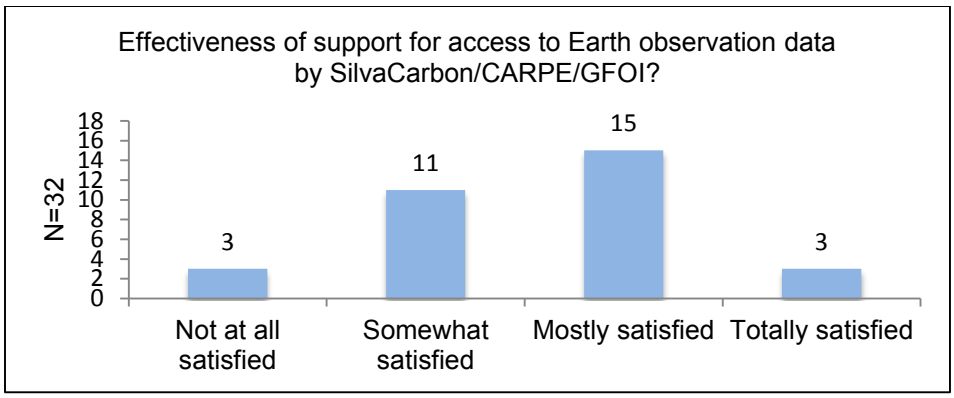


FIGURE 7. SATISFACTION WITH SILVACARBON'S EARTH OBSERVATION DATA CAPACITY BUILDING & TA

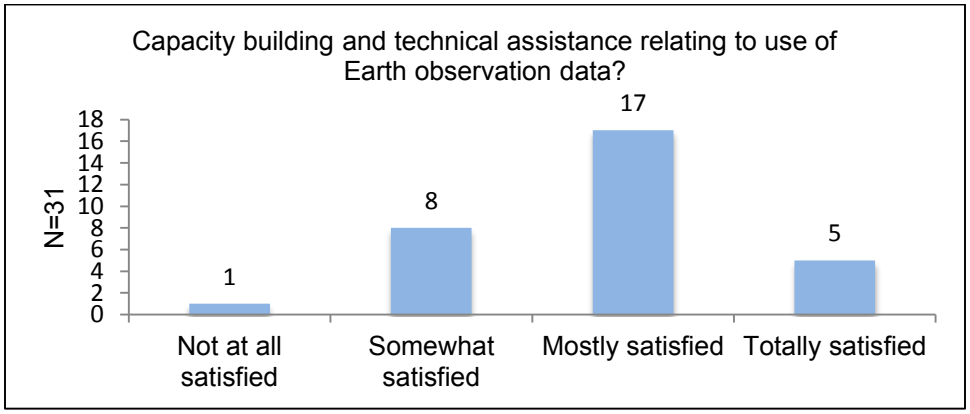
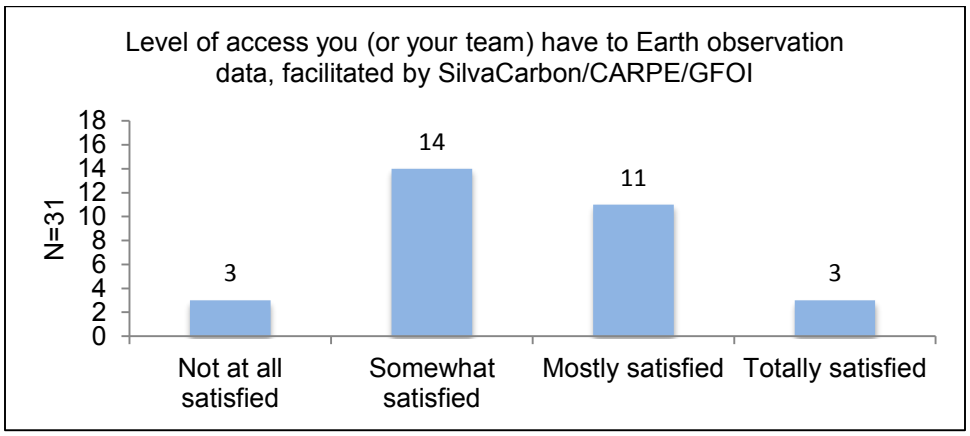


FIGURE 8. SATISFACTION WITH ACCESS TO EARTH OBSERVATION DATA FACILITATED BY SILVACARBON



In addition to providing actual data, SilvaCarbon has greatly helped partner countries define and articulate their data acquisition plans and needs for submission to the CEOS Spatial Data Coordination Group (SDCG). In September 2013, SilvaCarbon facilitated a meeting between the CEOS SDCG and the Andean-Amazon partner countries at which delegates from Colombia, Ecuador, and Peru presented their data acquisition plan for the development of their biannually reporting MRV systems. SilvaCarbon also helped partner countries in the Congo Basin and Southeast Asia develop similar data acquisition plans.

Also under this objective SilvaCarbon experts have worked with CEOS to provide inputs on the development of the CEOS Visualization Environment (COVE) tool. During the above-mentioned

September 2013 meeting, NASA provided training on the COVE tool. USGS SilvaCarbon provided funding towards the COVE tool for enhancements that add useful capabilities for the users.

While SilvaCarbon has delivered significant amounts of data, the value of this data in contributing to desired outcome-level results has not been specified, with a few exceptions. For example, the value of data contributions in Colombia to generate the first annual forest cover change estimates were noted, but similar expected results from the provision of data in other countries have not been made explicit. At present, SilvaCarbon is providing significant amounts of data as requested by countries, but the specific outcomes (such as data uses) are as yet undefined. Data needs vary by country, but, as an example, SilvaCarbon could specify that a goal is to support the generation of wall-to-wall land-use maps of a certain resolution for specific time periods, and indicate how such maps would be used in managing forests and land-use and mitigating GHG emissions. A side benefit to articulating these results chains is the improved ability to communicate beyond the key outcomes the program is contributing to, and the value of its work.

Country beneficiary and USG SilvaCarbon stakeholders also identified data management (not just access) as a significant capacity building issue that needs support. Even when data can be accessed for free, the downloading, storage, and use of large remote sensing data sets requires high technical capacity. Efficiently managing this data is a challenge to many partner countries. They need good systems and institutional mechanisms to store and manage data in a way that all key individuals and government institutions who might need to use the data know about it and can securely access it. SilvaCarbon may be already partially addressing this issue, but this need was identified by a variety of stakeholders during this evaluation.

Recommendation 5: For activities that attempt to increase access to Earth observation data, SilvaCarbon should identify and define the key outcomes that directly link to climate change mitigation impacts, such as improved forest management and implementation of REDD+ initiatives.

Recommendation 6: SilvaCarbon should focus on assisting countries in developing their institutional capacity to manage forest remote sensing and Earth observation data at the national level to ensure that the data access, which SilvaCarbon has supported, is sustained. Supporting effective data management would also ensure that data provided by SilvaCarbon is accessible to all relevant national stakeholders.

4.2.4 EVALUATION QUESTION I.D. HAS THE COMMUNITY OF FOREST AND TERRESTRIAL CARBON TECHNICAL EXPERTS BEEN STRENGTHENED?

This subsection addresses SilvaCarbon Objective 4 regarding the strengthening of the community of forest and terrestrial carbon technical experts. The aims of the fourth SilvaCarbon objective include:

- Maintaining a web presence with knowledge management and social networking capabilities;
- Convening meetings and workshops to build collaboration and greater consistency in technical understanding and in the recommendations provided to developing countries; and
- Producing publicly-available technical documents that summarize and critique the latest methodologies and approaches.

Conclusion 8: SilvaCarbon's body of work has contributed to a strengthening of the community of forest and terrestrial carbon experts, but this has been primarily within SilvaCarbon's bilateral beneficiary partner countries by building the capacity of individuals and supporting networking and in-person information sharing. At the global level, there have not been significant contributions other than SilvaCarbon inputs to the GFOI Methods and Guidance Document. The results of SilvaCarbon's research program are expected to contribute to the broader community once they are completed and published.

The objective does not clearly define "the community," leaving a question as to whether it refers to the broader international community or the "community" of forest carbon experts within the regions and partner countries where SilvaCarbon is working. If the latter is the case, it can be said that SilvaCarbon has fulfilled this objective simply through addressing the program's second objective of strengthening capacity. Organizing regional workshops and conducting bilateral TA activities have contributed to capacity development, and by strengthening the capacity of individuals and institutions working on the assessment of forest and terrestrial carbon, this community within each of the bilateral partner countries has been strengthened. Assessing this objective through specific indicators is challenging, as little or no data appears to have been collected on possible metrics, such as the number of forest carbon experts from SilvaCarbon bilateral countries participating in international fora, or the number of international publications produced.

Based on the online survey, the view of government institutional stakeholders is highly positive, with 35 out of 40 respondents believing that SilvaCarbon meetings and workshops have contributed to increasing collaboration (and technical understanding) within the community of experts.

Conclusion 9: Any strengthening of the community of forest and terrestrial carbon experts has been primarily through in-person networking at workshops and through person-to-person contact, rather than through use of online tools. SilvaCarbon's online presence has been a notable weakness.

This SilvaCarbon objective also discusses maintaining a web page with knowledge management and social networking capabilities. SilvaCarbon has a website, but it is not highly dynamic and is not a notable repository of knowledge documents related to forest and terrestrial carbon assessment. The SilvaCarbon website does have a "library" link, but few of the documents linked therein have specific relevance to forest and terrestrial carbon assessment methodologies, and almost none of the documents are produced under SilvaCarbon. The website also does not have social networking capabilities, such as fora, participant directories, or other services. Until mid-2014 the website was hosted through a URL by a US university, and did not contain updated information about SilvaCarbon activities or the countries SilvaCarbon is working in.

In terms of the production of publicly available technical documents, the most significant output has been the GFOI MGD, as previously discussed. Some publications have been supported at the national level in bilateral countries such as the production of field manuals in the Andean-Amazon region; this is also within the work plan for SilvaCarbon in Vietnam in 2015.

One notable SilvaCarbon contribution under this objective has been support for "South-South" learning opportunities and professional exchanges. This has occurred within regions, and between SilvaCarbon regions. For example, SilvaCarbon supported experts from Peru and Colombia to visit Mexico. In addition, experts from Southeast Asia have participated in regional workshops in the Andean-Amazon.

Recommendation 7: For the SilvaCarbon website to serve as a valuable community-building and external communications tool, significant additional investment and resources are required. The SilvaCarbon website could be used to build a community of forest and terrestrial carbon experts as well as serve as a valuable knowledge bank. Whether the resources required for the website should be invested depends on the anticipated future of SilvaCarbon.

Recommendation 8: The achievement of this objective appears to be more of a side-benefit of SilvaCarbon's primary capacity-development work through regional workshops and bilateral technical assistance. If one capacity development activity is held, SilvaCarbon has technically contributed to a strengthening of the community. It would be more insightful if the objective specified the purpose of strengthening activities and defined levels of community strength. The SilvaCarbon objective of building a

community of forest and terrestrial carbon technical experts should be more clearly defined and justified and potentially re-structured to narrow the focus.

4.3 EVALUATION QUESTION 2: WHAT FACTORS HAVE FACILITATED OR IMPEDED MEETING SILVACARBON OBJECTIVES AND WHY? EVALUATION QUESTION 2.A. IN WHAT WAYS CAN SILVACARBON IMPROVE ITS APPROACH?

Like Section 4.2, Section 4.3 focuses on Program Objectives 1–4, identifying the factors that have facilitated or impeded meeting these objectives and recommending ways to improve SilvaCarbon's approach. The findings from this section repeat themes from other sections because the evaluation question is a reframing of other evaluation questions. The first subsection covers the program-level factors affecting meeting of the objectives, while the next four address each objective individually.

There is not an objectively measurable means of assessing SilvaCarbon's success in meeting its objectives; however, the evaluation team collected the contextual information available to identify the most relevant factors that have facilitated or impeded the meeting of SilvaCarbon's objectives and generated recommendations on methods for improving SilvaCarbon's approach. These are included where the recommendations do not repeat those found elsewhere in the report.

4.3.1 PROGRAM-LEVEL FACTORS

Program Flexibility: The flexibility, agility, and demand-driven nature of the SilvaCarbon program is frequently cited as one of its strengths. This is related to the malleability of the SilvaCarbon initiative, as compared to a firmly structured and long-planned ODA project. SilvaCarbon's interagency and international relationships have allowed the program to adapt to changing diplomatic relationships and changing beneficiary needs. SilvaCarbon has successfully used the flexible nature of its interagency and intergovernmental structure to its advantage in establishing and maintaining relationships with beneficiary governments in the face of diplomatic challenges. As one example, following the Thai military coup in May 2014, USG's official diplomatic ties were diminished, but the SilvaCarbon regional coordinator was able to maintain communication with Thai partners even though work in and funding to the country was paused.

Regional and National Coordinators: Evidence from multiple sources indicates that country and regional coordinators are effective and are in constant contact with their beneficiary counterparts, monitoring the status of activities, and adjusting to changing needs. Country beneficiaries, missions, donors, and SilvaCarbon staff alike spoke of the benefits of deploying in-country coordinators. All said that it should be pursued wherever and whenever possible, and demand was high for more country coordinators in both South/Southeast Asia and the Andean-Amazon. Some donors specifically mentioned their desire to increase in-country coordination. SilvaCarbon already deploys regional coordinators in the Andean-Amazon, Southeast Asia, and the Congo Basin. The response to their work and the value that they provide to all levels of SilvaCarbon work and interaction has also been overwhelmingly positive to reduce duplication of efforts and improve overall coordination. For example, one donor in Southeast Asia noted that "SilvaCarbon was always just parachuting in experts from the US for one-off workshops until [the regional coordinator] came. With [the regional coordinator] being brought on, we really improved the overall coordination, making sure we were not duplicating efforts on the very same workshops."

GFOI Cooperation and Coordination: As noted above, within the GEO-GFOI structure, SilvaCarbon is the USG contribution to GFOI (according to USG SilvaCarbon stakeholders, its involvement was suggested by the US Presidential Administration) and is responsible for GFOI's capacity building arm. SilvaCarbon's five

objectives are closely aligned with GFOI's five objectives and thus there are significant intentional synergies between SilvaCarbon and GFOI. SilvaCarbon takes the lead role in supporting some countries in line with GFOI objectives, while other GFOI members, such as FAO and Australia, do so in other countries. SilvaCarbon and GFOI have collaborated in the Andean-Amazon region through the series of GFOI Regional Capacity Building workshops that SilvaCarbon supported.

Other Donor Coordination and Leveraged Funding: Despite the complexity of the context and large number of organizations with which to coordinate, SilvaCarbon has had good coordination with other donors and organizations working on capacity development related to NFMS, which has helped avoid inefficiencies, with a few exceptions. This has been partially facilitated by SilvaCarbon's narrow technical focus, resulting in minimal overlap with other donors' activities.

Other donor stakeholders provided positive feedback on coordination efforts by SilvaCarbon, and just three out of 39 online survey respondents reported being aware of any overlap between SilvaCarbon and other programs or donors, suggesting SilvaCarbon has avoided this potential problem. There was high praise for the fact that SilvaCarbon engaged all major donors prior to their entry into the region, which was considered critical to establishing good working relationships and avoiding overlaps and redundancy. All donor stakeholders interviewed expressed satisfaction with SilvaCarbon's interest in coordination and in collaboration for trainings and workshops. This has helped to ease the large burden from donors that is regularly placed on the same small group of beneficiary country technical experts, an oft-cited challenge for capacity-building efforts. Appendix 9 provides greater detail on SilvaCarbon's generally strong coordination with FAO, FCPF, UN-REDD, and other USAID programs as well as its successes in leveraging funding.

The key international partner working on issues similar to SilvaCarbon in many of the same countries is FAO (responsible for monitoring global forests and forestry activity), which is the primary technical partner of the UN-REDD program working on MRV systems. The FCPF, operating through the World Bank, also provides extensive financial support for the development of REDD+-related MRV systems. However, the work on development of MRV systems through FCPF support is primarily conducted by the national institutions responsible for forest carbon assessment and monitoring, or by individually contracted experts and organizations. Thus coordination with SilvaCarbon is not through a single organization.

UN-REDD is operating in all of the SilvaCarbon bilateral partner countries except Gabon and Peru. SilvaCarbon's positive coordination with FAO was particularly mentioned in the Andean-Amazon region, in DRC, and in Vietnam. In addition, the Bangladesh SilvaCarbon program is directly funding FAO to carry out work on Bangladesh's REDD+ MRV system. Also within FAO's REDD+ work is the Finland-FAO Program, which is specifically working in five pilot countries: Ecuador, Peru, Tanzania, Zambia, and Vietnam. Three of the five Finland-FAO program pilot countries are also SilvaCarbon bilateral partner countries, but despite this potential overlap, SilvaCarbon has worked in a coordinated way with the Finland-FAO program. Partner countries have also highlighted the potential benefit of having multiple donors (i.e., SilvaCarbon and FAO) working on some similar issues in their countries. Country beneficiaries stated that they appreciate having information from different sources about various technical issues, such as forest sampling design for forest inventories or remote sensing data analysis. It was noted that this allows beneficiary countries to compare and contrast different approaches and technologies to find the method that best suits their needs. In cases where SilvaCarbon is working on similar issues to other donors, this can be considered "positive redundancy."

SilvaCarbon has also had good coordination with other relevant USAID supported programs, such as Forest Carbon, Markets and Communities (FCMC), LEAF, Enhancing Capacity for Low-Emissions Development

(EC-LEDS), Sustainable Wetlands Adaptation and Mitigation Program (SWAMP), and CARPE. For example, FCMC and SilvaCarbon worked with the University of Maryland for over 20 months to aid Peru's Ministerio del Ambiente (MINAM). The two USAID programs jointly funded the work and collaborated in the organization and facilitation of the associated efforts, which included:

- Creating a data time series, mining the entire Landsat archive, from 2000 through 2011, including temporal metrics used in classification and change detection;
- Installing the classification processing system in MINAM and training on use of the system;
- Providing continuous guidance through multiple iterations of classifications by MINAM;
- Partnering on generating forest cover and change estimates for 2000 through 2011, and then updates for 2011–2012 and 2012–2013;
- Providing guidance in validation of cover and change, including advising on sampling schemes and methods;
- Contributing to training materials to be used for regional training;
- Training and support to ministries of environment teams in the development of a Land Use and Land Cover map covering the six broad IPCC land-use categories;
- Developing tools and methodologies to support forest cover and carbon mapping and monitoring;
- Identifying and overcoming scientific and operational challenges

In Southeast Asia, SilvaCarbon has held joint workshops with the LEAF program in Vietnam and with the SWAMP program in Cambodia in assessing carbon in mangrove forests. USAID's LEAF program is working to develop university curricula, degrees, and certifications through direct engagement with universities in Asia. SilvaCarbon should consider partnering with LEAF to contribute knowledge, tools, and methodologies, and also to leverage curriculum materials in SilvaCarbon's work.

SilvaCarbon has also leveraged funding from other donors to contribute to the program. For example, SilvaCarbon has leveraged $72,000 from various partners in support of the regional GFOI series of workshops. In addition, the Norwegian Space Center has supported SilvaCarbon with $98,000 to develop training materials to train beneficiaries in accuracy assessment methods using the global forest cover change map to estimate nation-specific rates of forest cover change. The training modules were developed from country examples from Colombia, Ecuador, Indonesia and others. The plan is for the modules to be made available online through GFOI, FAO, and SilvaCarbon websites and to be able to be accessed from different cooperation platforms perhaps including Global Forest Watch and COVE tool web mapping applications.

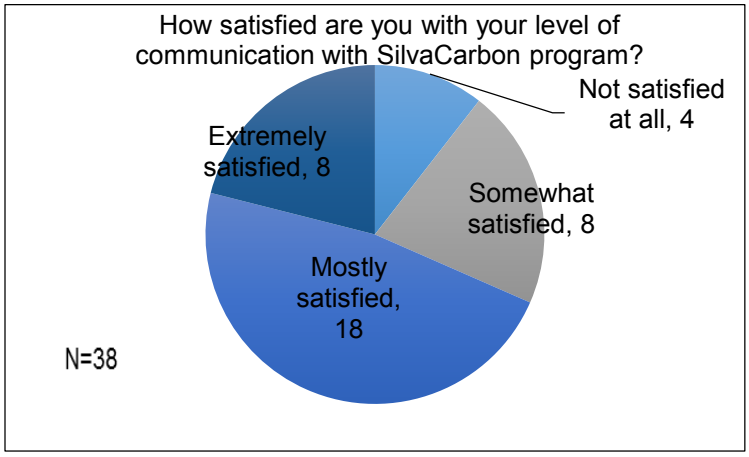
Institutional Coordination in Beneficiary Countries: SilvaCarbon is not addressing the commonplace institutional capacity barriers to implementation such as those posed by a lack of interagency collaboration among beneficiary stakeholders. There is a minimum of inter-ministerial collaboration that is required in order to successfully apply the tools and methodologies being promoted by the SilvaCarbon program. This is because, in most governments, the many activities required to meet UNFCCC guidelines (e.g., land use, forest monitoring, remote sensing, carbon stock estimation) are distributed among different offices or agencies. In many ways, the success of SilvaCarbon efforts hinge on inter-ministerial collaboration. Those doing forest inventory work must collaborate with those involved in remote sensing and carbon monitoring; they must share data and apply compatible tools and methodologies. However, some countries, like Vietnam, face challenges regarding data and knowledge sharing between agencies. Also, in the Andean-Amazon countries, there were problems with a lack of communication resulting in the duplication of roles and efforts; in one example, two institutions unknowingly produced incompatible forest maps using different methodologies in spite of being part of a joint working group.

Technical-Policy Gap: The evaluation team received repeated feedback regarding the technical gap between technical staff and policy and decision makers, another commonplace institutional capacity barrier to implementation. There are widespread problems with technical staff being unable to reach out to and communicate effectively with decision-makers. Many technical staff commented that they have no access and no lines of communication to policy-makers whatsoever.

Internal Communication: As discussed further in later Section 0, communication within SilvaCarbon has been one of the program's strengths. There have been regular Steering Committee and Technical Team meetings held, with good attendance. Informal oral updates on program activities are regularly provided for the countries in the respective target regions. This strong internal communication has greatly assisted with program coordination at the central level.

In addition, program participants responding to the evaluation online survey rated the communication levels mostly positively, with 26 out of 38 either mostly or extremely satisfied (see below), underscoring SilvaCarbon's positive performance in this area.

FIGURE 9. LEVEL OF SATISFACTION WITH SILVACARBON COMMUNICATION



Source: Online survey, Question IA4

External Communication: In contrast to SilvaCarbon's internal communication, external communication has been one of the weaker areas. While SilvaCarbon's collaboration with donor groups and country beneficiaries is considered a strong suit, most donor partners interviewed did not understand the full scope of what SilvaCarbon does or what it hopes to achieve long-term. In Vietnam, potential beneficiaries not working directly with SilvaCarbon were unfamiliar with the program's services and were unaware that they could partner with SilvaCarbon. In the Andean Amazon, most indirect beneficiaries were requesting increased access to and direct communication with the program. Further, the program website has historically had little information about program activities, or other dynamic content. A communications strategy was developed in 2014 and small steps have been taken to enhance external communications, but much more progress is required.

Languages: Language has been both a positive and negative influence in SilvaCarbon's work, depending on the region and the context. The countries within both the Andean-Amazon region and the Congo Basin share common languages: Spanish and French, respectively. This naturally makes regional communication and collaboration much more straightforward. In Southeast Asia there is no common tongue, and English is the common working language, by default. However, relatively few government staff in Southeast Asia speak English fluently, which makes regional collaboration more challenging. In addition, print materials cannot be easily passed between countries to be widely disseminated. It was also noted that generally speaking, within USG Spanish language capacity is greater than French capacity, and there is very limited capacity in any Southeast Asian language.

4.3.2 FACTORS RELATED TO OBJECTIVE 1: DEMONSTRATE AND COMPARE FOREST AND TERRESTRIAL CARBON MEASUREMENT AND MONITORING METHODOLOGIES

Training Workshops as a Capacity Delivery Modality: Participants place high value on their access to SilvaCarbon's workshops and trainings, and there is a high demand on acquiring the skills and knowledge being offered by the SilvaCarbon program. Requests included having more in-country trainings, expanding seats available at trainings so that more staff could attend, and expanding the quantity of organizations given access to trainings.

Staying Focused on Practical Needs: SilvaCarbon staff and other donors noted that it is sometimes difficult to maintain focus on countries' practical needs. As one key informant stated, "Countries don't always need the newest data or more data, they often are okay with what they have and need help using what is already available and also what they can afford into the future." However, when leading international experts are providing TA to developing countries there can be a tendency from both sides to focus on cutting edge methods or technologies, when a more basic approach will suffice.

Beneficiary Country Internal Coordination and Decision-making Processes: In the words of a donor respondent: "Top management does not understand much of the directives that come, and those [staff members] who do, don't talk to top management. So the right decisions don't get made in spite of their being the right capacity in the country at some place in the government." Though not directly under the purview of the program, the technical knowledge gap presents real and frequent obstacles to the achievement and sustainability of SilvaCarbon's goals. Helping to bridge the technical knowledge gap is an area in which SilvaCarbon could increase their assistance.

4.3.3 FACTORS RELATED TO OBJECTIVE 2: BUILD CAPACITY OF COUNTRIES TO USE FOREST AND TERRESTRIAL CARBON MONITORING AND MANAGEMENT METHODOLOGIES & TECHNOLOGIES

Demand-driven Approach: Among bilateral partner countries, SilvaCarbon's demand-driven approach to changing country needs is considered a strong suit. According to responses gathered during site-visit KIIs, SilvaCarbon engagement is responsive and well-tailored to beneficiary's technical needs. At the outset of its engagement with bilateral partners, SilvaCarbon conducted scoping trips to bilateral countries to conduct needs assessments. Beneficiary needs are revisited annually during the development of SilvaCarbon work plans that occurs with some bilateral partners.

Knowledge and Capacity Retention: As will be discussed in greater detail in Section 4.5.2, SilvaCarbon countries face problems in knowledge and capacity retention. Sources of the problem include limited access to trainings, high staff turnover rates, and dependence on outside contractors. One knowledge-capture approach cited by both USG and beneficiary country partners was a "training of trainers" (TOT) approach, which must be done in a systematic manner to be effective. An effective TOT approach must provide instruction on how to train others, materials for training, and support for organizing additional trainings.

Recommendation 10: During the development of annual work plans, countries should be encouraged to develop country capacity and knowledge retention plans. This should include the development of a systematized and structured TOT approach to enhance sustainability of capacity-development activities.

Capacity Delivery Modalities: Workshops, Training, Technical Assistance Missions, and Others: Each method of delivering TA has its pros and cons. Many beneficiary country individuals noted that extended trainings of multiple weeks or more (either in-country or on study tours) are most useful for applying newly learned techniques and skills. However, the limited availability of both the trainers and trainees must be balanced. Intensive one-on-one or small-group trainings were also considered to be effective but susceptible

to staff turnover. Week-long workshops are convenient because they are shorter, but are considered less effective at building capacity to put trainings to practical use.

Limited Scope for Regional Capacity Development: There are limits to the potential utility and effectiveness of regional capacity-development modalities. Events that bring together a small number of people from each of the countries in the region (e.g., regional workshops) can be useful for building professional networks and information sharing, but they have limited effectiveness as a training method. Attendance of key technical individuals at workshops may not be consistent, and space is often limited relative to the need at the national level.

Political Barriers: According to USG SilvaCarbon participants, some of the challenges SilvaCarbon has faced relate to areas in which political and technical issues intersect. For example, in some countries the term "forest" has not been specifically defined through legislation. Because there is a wide range of land cover types with various degrees of forestation, clearly defining what is and what is not considered forestland has significant implications for landholders and resource-users.

Institutional Structure: Single Institutional Point of National Contact: Another issue identified by SilvaCarbon stakeholders is SilvaCarbon's official partnership with one singular government office or agency as the focal point. This approach allows SilvaCarbon to focus on the key partner's needs, but there are likely multiple organizations with a link to MRV and NFI processes that would benefit from direct communication about SilvaCarbon activities. Universities in particular were highlighted as potential key partners that have only been engaged peripherally. Through KIIs, the majority of government and non-government beneficiaries in Latin America indicated that they wanted increased access to SilvaCarbon. In Southeast Asia, a majority of stakeholders were uneducated on the TA that SilvaCarbon could provide them.

Recommendation 11: Although it may be challenging for SilvaCarbon to engage directly with multiple stakeholders in a country, SilvaCarbon might hold more multi-stakeholder meetings or encourage the primary partner institution to increase multi-stakeholder engagement.

Recommendation 12: Invite more relevant players to planning meetings, particularly during annual work planning. Although including more collaboration in this manner will not fix the jurisdictional issues or guarantee successful teamwork, it can at least help eliminate duplication of efforts and ensure that the tools, methods, and data that are being pursued across the relevant agencies are compatible with one another.

Recommendation 13: SilvaCarbon should consider increasing the engagement of academic stakeholders. SilvaCarbon has had minimal engagement with universities and other third-party beneficiary groups. Academic institutions can be helpful to retain built capacity within a country. Training the trainers and the development and constant maintenance of staff training programs is expensive and time-intensive; outsourcing this task to academic forestry programs could be an attractive alternative for agencies. Pulling in the academic sector could create a growing pool of highly trained staff from which to hire and replenish its workforce and expand the country technical expert community.

No Systematic Means to Track Progress: At the regional-level, needs assessments are conducted at workshops during which country representatives provide individual summaries of their current statuses and then agree as a group upon topics of interest to be covered in the next year or phase of involvement. Over the course of the year workshop participants fill out evaluation forms, which provide some insight into country progress during each workshop. Otherwise, however, country progress and shifting needs are gauged informally by noting the kinds and levels of additional TA countries request throughout the year. According to one respondent, "How we try to monitor things is based on their request for further topics,

so we can see that they are moving toward more specific technical issues." There is much room for improvement in SilvaCarbon's approach to tracking progress, especially with non-bilateral partners.

Recommendation 14: While SilvaCarbon has sometimes provided follow-up trainings and periodic check-ins after major hands-on trainings, many respondents requested that follow-up be made standard practice, particularly during the early stages of implementation such as data use and analysis training. Follow-up would help monitor outcome level results by assessing the stakeholders' absorption of the trainings and allow trainers to troubleshoot any impediments to full and successful implementation. SilvaCarbon regional and country coordinators may be well-positioned to monitor follow-up.

Access to Technical Experts: Participants and other donor groups cite the access that SilvaCarbon provides partner countries to world-class technical expertise as a major success of the SilvaCarbon program. The level of expertise in developing methodologies and tools on the cutting edge of the forest and carbon inventory fields is very high in the US, and there are few other donor groups delivering trainings at such a high level. One donor mentioned that "You can't get this level of experts from other bilaterals; this comes around only very infrequently and is certainly very valuable."

Technical Experts Familiarity with Regional and Country Context: Although SilvaCarbon provides access to world-class experts, some may not have extensive regional, country, and ecological context to make their trainings applicable to their target audiences. There is little opportunity to work these problems out during regional, multi-country, or multi-agency trainings, which decreases the trainings' utility. Even during in-country TA, some beneficiaries noted that it can take a long time for external technical experts to grasp the contextual and political realities within which the technical team must operate.

Recommendation 15: A regional or country expert present at trainings could help streamline the process of tailoring trainings to a region's or country's specific needs. Another option would be to pair the trainer with a regional or country expert prior to his or her arrival to help make adjustments to the curriculum in advance.

4.3.4 FACTORS RELATED TO OBJECTIVE 3: FACILITATE, IN COOPERATION WITH CEOS AND GEO GFOI, THE COORDINATED COLLECTION AND DISSEMINATION OF EARTH OBSERVATION DATA RELATED TO FOREST AND TERRESTRIAL CARBON MONITORING AND MANAGEMENT

The evaluation team approached this evaluation question with respect to objective 3 in two parts. The team investigated first the level of cooperation with GFOI (cooperation with CEOS is limited) and second, the collection and dissemination of Earth observation data, which does not always occur in direct collaboration with GFOI.

Defined Role within GFOI: SilvaCarbon has ramped up its collaboration with GFOI over the course of FY2014. Before then the role of SilvaCarbon within GFOI and even its relationship with GFOI was not clear to all USG SilvaCarbon individuals. But SilvaCarbon's representatives to GFOI have made great strides in improving this situation, including a coordination meeting in July 2014 in Washington, D.C., and the GFOI Capacity Building Summit in Armenia, Colombia, in September 2014. SilvaCarbon team members feel that the draft internal document on SilvaCarbon's Role in GFOI (November 3, 2014) has successfully defined and communicated SilvaCarbon's role and purpose within the GFOI context.

Data Resources: SilvaCarbon is limited in its ability to provide access to high-frequency, high-resolution data. SilvaCarbon's country partners' level of access to Earth observation data is varied. SilvaCarbon provides Landsat data to countries that request it (both bilateral and non-bilateral), so most at least have access to Landsat data. However, Landsat imaging is low-resolution and limited in its usefulness. The

evaluation team did find countries that hesitated in increasing access to data due to limited capacity to use and analyze it. However, by and large countries were unsatisfied with their lack of access to high-quality, high-resolution satellite imaging or data. Many beneficiaries did say that they had gone to SilvaCarbon to request assistance in increasing access in the past, and most reported that they would like SilvaCarbon to provide them with more assistance in this area in the future. It is unclear whether SilvaCarbon intends or is able to take on a bigger role in this area.

4.3.5 FACTORS RELATED TO OBJECTIVE 4: STRENGTHEN THE COMMUNITY OF FOREST AND TERRESTRIAL CARBON TECHNICAL EXPERTS

Capacity-building in Related Areas and at the Subnational Level: One possibly necessary limitation of the SilvaCarbon program is that it is targeted in its efforts. In some aspects this might be a reason for the success of the program, but for the country beneficiaries it can be very frustrating to gain so much advancement in one area but not in related or supporting areas. For example, SilvaCarbon works in carbon monitoring in forest ecosystems only, with very few exceptions. However countries are interested in measuring carbon stocks and developing GHG emission inventories in the LULUCF sector as well.

Within forest carbon monitoring, SilvaCarbon is limited in its engagement with countries. There is a need for countries to develop the capacity of staff at the subnational level to conduct proper fieldwork and use advanced methodologies in line with the work being conducted at the national level. If SilvaCarbon can prompt federal agencies to develop TOT programs, these agencies could institute subnational training programs themselves and further pass along the gained skills and knowledge, as needed.

Andean-Amazon Region Peer-to-Peer Exchanges: As Latin America is the only region in the implementation stage, it is unsurprising that the most progress in fomenting regional collaboration had been made there. The effort is a clear achievement for the program. It was one of the most cited successes of the SilvaCarbon program during the site-visit KIIs to South America. Comments from KIIs follow.

- Peru: "The tool developed by MINAM, Colombia, and Carbon Decisions International (Costa Rican company): we have been helping toward the creation of methodologies to collect basic data, they are helping that these data are included in data analysis exchange between countries. [We have] technical and practical discussion in the field on different ways to establish a system of MRV."
- Colombia: "[We have] not completed the national forest inventory, so the ability to exchange ideas lets us identify that the plan had to be revised, and identify needed adjustments."
- Ecuador: "Globally SilvaCarbon has helped us understand the global situation and helped us see where Ecuador stands on the global stage. […] It lets us position ourselves at a global level because we know what is happening in Southeast Asia and Africa, etc. […] Through trainings we have been able to position ourselves in comparison to other countries."

4.4 EVALUATION QUESTION 2.B. IN WHAT WAYS CAN SILVACARBON IMPROVE ITS APPROACH TO PROMOTE GENDER EQUALITY IN PARTICIPATION IN AND BENEFITS FROM SILVACARBON?

Attention to gender equality is required of SilvaCarbon as a USG development assistance program. Most USG operating units are required to gather evidence, monitor, and use findings to close gender gaps relating to the needs, opportunities, and gains of people impacted by USG programs and projects. According to USAID Gender Equality and Female Empowerment Policy, USG programming with heavy USAID funding is expected to integrate "approaches and actions to advance gender equality and female empowerment

throughout''. If applied, SilvaCarbon would work to reduce gender disparities in access to, control over, and benefit from resources, wealth, opportunities, and services - economic, social, political, and cultural.[10]

As discussed previously in Section 1.2, the evaluation team attempted to assess the extent to which gender considerations were addressed in SilvaCarbon by looking at: a) the role of women in SilvaCarbon program design and implementation; b) distinguishing opinions and perceptions of SilvaCarbon program female beneficiaries and implementers; and c) the extent of collecting and use of gender-disaggregated data, where relevant and possible.

Conclusion 10: Gender considerations were not integrated into SilvaCarbon design and implementation, and relevant data was not gathered to assess gender-related outcomes thoroughly. The SilvaCarbon Steering Committee and Technical Team are relatively gender balanced,[11] however, gender representation is not balanced at the country level.

Few qualitative interviewees and only 13.5% of survey respondents note involvement of a representative of gender issues among advisors, ministries, or women's groups in in any work planning, none indicated a perception that groups representing women should have been involved, and only one indicated that indigenous groups should have been included. Headquarter- and country-level project documents did not reveal reference to gender considerations, as required by USAID, with the exception of sex-disaggregated data on trainings on selected occasions.

At the regional and country levels, the gender balance among the key informant participants (who were identified by headquarters, regional teams, and through document review) was more of an issue in South/Southeast Asia than in Latin America. There was a stark contrast in female representation, at all levels, from technical to management, between the two regions. The divergence was evident in the gender representation numbers from the KIIs (see Table 6 below) and supported by participants' responses.

TABLE 6. SEX-DISAGGREGATION OF BENEFICIARY KEY INFORMANTS AND SURVEY RESPONDENTS

Region	Male (%)	Female (%)	Total (%)
Steering Committee, Technical Team, & other KIIs	24 (57%)	18 (43%)	42 (100%)
South/Southeast Asia KIIs	15 (88%)	2 (12%)	17 (100%)
Latin America KIIs	6 (60%)	4 (40%)	10 (100%)
Online Survey	59 (69%)	26 (31%)	85* (100%)
Total	104 (68%)	50 (32%)	154 (100%)

**Of the 97 total online survey respondents, only 85 chose to identify their sex*

Gender-disaggregated data on SilvaCarbon activity participation, especially for its capacity building and training activities, is not consistently or systematically collected. With an exception of data reported on the DOS-funded portion of SilvaCarbon, it does not appear that gender-disaggregated data were reported for workshops supported by SilvaCarbon. Where data were available, the breakdown is relatively balanced. For

[10] USAID Evaluation Policy and Gender Equality and Female Empowerment Policy; USAID Automated Directives System (ADS) chapters ADS 203: Assessing and Learning and ADS 205: Integrating Gender Equality and Female Empowerment in USAID's Program Cycle.

[11] Gender representation data for the Steering Committee and Technical Team were drawn from program documentation and from an informal inventory of email listervs for Steering Committee and Technical Team meeting invitations. As the numbers are unofficial, findings should be considered indicative rather than conclusive.

example, data was reported by USGS for eight training activities in the Andean-Amazon region for FY2013, which indicated that the activities included participation by 42 men and 24 women (64%, 36%). Also for the same time period, USFS reported data for 20 training activities, which indicated that 134 men and 136 women participated (50%). For FY2014, reporting from USFS in the Andean-Amazon region for 17 events held indicated that 114 men and 83 women participated (58%, 42%). For FY2013 the Gabon SilvaCarbon program reported that women received 400 (or 25%) of the 1,600 hours of training that were provided. The USFS CARPE program report for FY2014 includes some gender disaggregated data, but it is not totaled, and it is not clear which activities included in the report are SilvaCarbon activities.

Where gender disaggregated data are presented in monitoring reports, there was no evidence of use of the sex-disaggregated data through discussion of implications and actions to balance the trainee and beneficiary numbers. In the online survey, slightly more than half of survey respondents indicated that the balance was in favor of men in terms of participation in TA for the community of forest and terrestrial carbon technical experts, although slightly less than half perceived the balance to be equal.

Recommendation 16: Attention to gender equality in SilvaCarbon should be strengthened through ensuring that steps are taken to promote equal access to both women and men to the benefits of this initiative. As SilvaCarbon serves as the capacity building arm of GFOI, it could play an active role in increasing the proportion of women among the in-country technical expert community, which SilvaCarbon is seeking to grow. It could do this by leveraging the access SilvaCarbon provides to technical workshops and trainings to promote efforts towards more equal gender- and other minority group-representation from countries and regions, particularly those with already low female participation rates.

Recommendation 17: Sex-disaggregated data at SilvaCarbon trainings should be consistently collected and reported for all training and workshop and other capacity building activities. Report narratives should discuss implications of gaps found when reviewing sex-disaggregated data and include actionable items to address these gaps.

Recommendation 18: Effort should be made to bring primary forest carbon management stakeholders to the discussion table together with women's and indigenous groups. Even though forestry management policy regarding community engagement, wood harvesting and foraging, etc. are far outside the narrow scope of the national forest inventory design, mapping, and carbon monitoring and measurement SilvaCarbon is undertaking, the implications of that work spread to and affect communities.

Recommendation 19: It is worth reviewing national- and policy-level planning regularly for relevance to and inclusion of marginalized groups. Key program planning documents should be subject to review by USAID gender advisors regardless of whether thematic focus of planning work is directly relevant to gender equality in order to consider opportunities that may be more obvious to staff trained to view with a gender lens. In the absence of USAID gender advisor, especially in the countries with the strong established collaboration with FAO and other UN agencies, it is recommended that UN REDD+ gender advisors be invited to ensure that gender considerations are incorporated into planning and implementation.

4.5 EVALUATION QUESTION 3. HOW CAN THE EXISTING INTERAGENCY COOPERATION AND COLLABORATION BE IMPROVED?

4.5.1 3.A. HOW CAN THE EXISTING INTERAGENCY COOPERATION AND COLLABORATION BE IMPROVED IN ORDER TO: ENHANCE MEETING SILVACARBON OBJECTIVES?

Conclusion 11: Overall, SilvaCarbon interagency cooperation and collaboration is effective and significantly better than other interagency initiatives key informants have been involved in. Almost all agency key informants spoke highly of this aspect of the program. Agencies feel that the interagency collaboration strengthens their ability to fulfill their mandate and meet SilvaCarbon objectives.

Overall, cooperation levels were rated by most key informants from the SilvaCarbon agencies as positive. Several interviewees emphasized the absence of fighting over turf, and many highlighted the cooperative spirit within SilvaCarbon as unusual based on their experiences with other interagency initiatives. Interagency collaboration, in terms of planning and avoiding unnecessary overlap, was also seen as generally positive (fostered in part by good cooperation) and one of SilvaCarbon's strengths, but with some areas for improvement.[12] The following are statements were made by agency KIs.

FIGURE 10. KEY INFORMANT REMARKS ON INTERAGENCY COOPERATION AND COLLABORATION

"It's a very collaborative environment. Everyone [the SilvaCarbon agencies] is chipping in."

"Collaboration is great, it's a nice model. Everyone brings different expertise. There's no sense of duplication."

"EPA and USFS reportedly arrive at their forest carbon numbers and methodologies separately, don't effectively collaborate to produce one stream of advice."

[Other agencies] "are collaborative, beyond the terms and conditions, which is always appreciated in our office."

"There is really good communication, collaboration. I'm very impressed."

"I think it's a strong program over all… Interagency collaboration is fantastic."

"We get points for collaboration with the other agencies and we get benefits from coordinating… Everybody benefits. We give and get information from other players we wouldn't normally have access to."

"In terms of duplication, USAID has agreements with all different agencies, and we all have mandates that overlap. USAID basically says 'you must all work together and figure out how you can collaborate'. And that sometimes can be a challenge, when the direction is not super clear. There might be funding from DOI, but they will say, 'all our funding is for workshops, not for training."

As the program developed and matured, the Steering Committee clearly recognized the importance of interagency cooperation and collaboration in conducting its work, having added interagency cooperation and collaboration as a fifth internal objective in 2012. This conscious focus on good cooperation and collaboration may well be a factor contributing to SilvaCarbon's success.

Conclusion 12: While inter-agency cooperation and collaboration have many highlights, internal stakeholders consider there to be untapped potential in some partner agencies and in the Technical Team. Some agencies are less active participants (e.g., EPA, NASA), in part related to internal procedural and

[12] For the purposes of this evaluation, cooperation is understood, in the positive sense, as the extent to which interagency relationships are positive, mutually supportive and that information as well as levels of trust and goodwill are shared. Collaboration is understood to mean the extent to which decisions, activities, funding, and expertise are managed and/or shared; and thus is more concerned with logistics, coordination, and organization.

funding issues. Greater involvement of all agencies could allow SilvaCarbon to generate more synergies among the work-streams of each agency, increasing the program's value beyond the sum of its parts.

The depth of collaboration was found to be uneven among agencies. Some agencies' involvement, specifically that of EPA, NASA, and SI, is less integrated into TA activities, while NOAA's involvement seems the most peripheral. It is likely that the expertise and networks of these agencies could be used to greater advantage. Lack of participation is in part related to bureaucratic or procedural issues, which are specific to the various agencies. Some of these issues include:

- NASA: Operates on a different funding basis, which requires the need for individual research funding and donated staff time. NASA's role is as a space agency with a global, high-level perspective, and it has limited experience on the ground in a country context.
- USGS: Faces restrictions on funding use, specifically related to funding workshops and travel.
- USFS: Has more operational flexibility and can more easily receive and transfer funding on behalf of USAID, but includes a relatively high overhead rate.
- EPA: Conflicting responses were obtained concerning its (desired) level of engagement. Its work supporting GHG inventories (for LULUCF sector) can be seen as separate from forest inventory work.
- Smithsonian Institution: Plays a coordination role that is not clearly defined.

Another area that several KIs identified for improvement includes a number of bureaucratic financial management procedures concerning the transfer of funds between agencies. Also, decision making by the Steering Committee was described as sometimes slow and unclear. There is no formal decision-making mechanism, and the Steering Committee relies on consensus among its members, with decisions approved by USAID and DOS as the funding organizations.

At an organizational/logistics level, a SilvaCarbon agency KI noted that the responsiveness by Steering Committee leads regarding the planning and scheduling of Steering Committee and Technical Committee meetings was not always high, presenting a minor challenge.

The Andean-Amazon region uses performance indicators (going back to FY2012) and is the only region doing so consistently. Some indicators were reported for Gabon in 2013 and 2014, but in a different form than for the Andean-Amazon region. Four indicators cover: a) laws, policies, and agreements; b) number of people receiving training in GCC; c) number of institutions with improved capacity to address GCC issues; and d) number of awards made directly to local organizations.[13]

There are opportunities for more linkages among GHG inventory work and other work on NFMS, REDD+ MRV, and reference emission levels (e.g., between EPA and USFS). GHG inventory monitoring activities are informed by national MRV systems, as well as by GHG inventory tools and applications included in core SilvaCarbon capacity building programs.[14] Partner universities are involved in providing this support. However, according to some KIs, EPA participation is limited to conducting its ongoing GHG inventory activities under the SilvaCarbon umbrella, rather than active coordination with other partners. This may be related in part to staff resource constraints at SilvaCarbon agencies.

Recommendation 20: New efforts should be made to maximize synergies and the aggregate technical expertise of the SilvaCarbon program. There is not one clear means to achieve this, but various mechanisms could be explored. For example, the SilvaCarbon Technical Team could review the annual work plan for each SilvaCarbon bilateral partner country to ensure that all of SilvaCarbon's potential TA resources are being applied to the maximum relevant extent.

[13] See SilvaCarbon Andean-Amazon Region Annual Report FY2012.
[14] See, for example, SilvaCarbon in the Andean-Amazon Region Semi-Annual Report October 2011–March 2012.

Recommendation 21: To increase responsiveness, SilvaCarbon should define and streamline decision-making processes based on internal analysis and agreement on which approach would work best within the existing collaborative framework.

4.5.2 EVALUATION QUESTION 3.B. HOW CAN THE EXISTING INTERAGENCY COOPERATION AND COLLABORATION BE IMPROVED IN ORDER TO: ENHANCE SUSTAINABLE AND STABLE MANAGEMENT OF THE SILVACARBON PROGRAM?

The sustainability and stability of SilvaCarbon can be looked at from two different perspectives, one that emphasizes its continued existence as a *program*, and the other its post-program impact at the country/regional level.

Conclusion 13: SilvaCarbon management is solid and has improved over the life of the program, building on lessons learned and growing levels of trust among its partners. Internal and external stakeholders see SilvaCarbon as an effective program.

Stakeholder feedback strongly suggests that the program is managed in a manner that promotes sustainability. Cooperation and collaboration are strong; resources are used and managed well and creatively, with partner agencies filling gaps for each other when there is a need; and meetings are held and reports issued regularly. Perhaps the clearest indication of good collaboration (pointed out by a KI from a SilvaCarbon agency) is that, after three years, the partner agencies continue to actively participate in meetings and joint activities. This underlines a belief expressed by many staff at SilvaCarbon agencies that the program is worthwhile and that partner agencies see benefits in working through it.

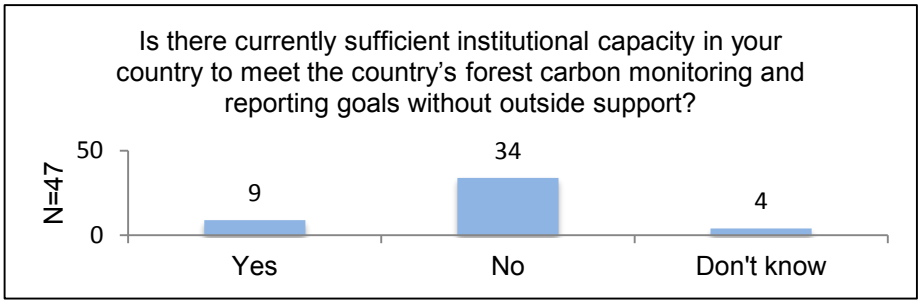
Conclusion 14: The sustainability of SilvaCarbon's existence as a program is closely linked to its management and funding. If the strong central coordination mechanisms that SilvaCarbon has at present were degraded, its cohesion as a program would be at risk.

Though the possibility is uncertain, there has been some discussion of a shift to a decentralization of funding, which would come mostly from USAID Missions. However, missions are naturally focused on the country in which they are based, and KIs expressed that it is not clear to them why missions should fund global or regional activities. The KIs from USAID Missions indicated they are content with their current levels of engagement in SilvaCarbon activities. They consider the work to be important and well executed but outside of their purview. In general, missions favor USAID/Washington continuing to lead these efforts. KIs from SilvaCarbon agencies feel this shift could risk the *Balkanization* of the program, splitting SilvaCarbon into a series of loosely related programs. Even if overall funding remains the same, the program could be weakened. Under such a scenario, global/central coordination would be more important than ever in order to hold the program together, while the centralized decision-making power would inherently decrease.

Conclusion 15: SilvaCarbon is considered effective by beneficiaries, and partner government demand for expertise and capacity building is generally strong. However, sustaining capacity-building results requires long-term engagement. If SilvaCarbon TA ends before completion of key steps to set up an NFMS (which can take four to five years), it is possible that SilvaCarbon's contributions could be lost. Any disengagement of SilvaCarbon in a bilateral partner country without a well-defined exit strategy could result in the loss of prior progress. At present, results are more likely to be sustained in the Andean-Amazon countries and Gabon than in other countries and regions.

Program sustainability also depends on partner country buy-in. Country partners rate SilvaCarbon as effective, based on KIIs and the online survey. 62 percent of survey respondents rated the program as mostly effective or extremely effective, compared with 21 percent who rated it least effective or only somewhat effective. In fact, many report that they would like more TA. The feedback that SilvaCarbon is doing effective work and more assistance is desired suggests that the program is meeting a clear need.

FIGURE 11. REMAINING NEED FOR ADDITIONAL CAPACITY BUILDING SUPPORT



Source: Online survey, Question CI8

In response to the question about whether there is sufficient in-country institutional capacity to meet forest carbon monitoring and reporting goals without outside support, only nine out of 47 online survey respondents replied 'yes.' One online respondent noted that "We need more institutional-governmental support within the country," a sentiment that was echoed by at least one other respondent. This speaks to both a problem and the potential of a program such as SilvaCarbon to address it.

Key informants are divided over the sustainability of SilvaCarbon's work and achievements. They cite factors that may increase its sustainability but also factors that could weaken it. The capacity level at which countries start out is said to have a major impact on how far programs like SilvaCarbon can help them towards finalizing their NFI and moving from IPCC Tier 1 to Tiers 2 and 3.[15] The entire process can last four to five years. The higher the existing capacity, the more a country's ability to take advantage of the relatively sophisticated capacity-building work from SilvaCarbon.

Constant and regular presence of SilvaCarbon experts is deemed highly important for ensuring countries' capacity-building progress. A KI from a SilvaCarbon agency noted that between visits to countries, progress often seems to stall: Data is often not stored well or isn't used; staff don't have the analysis software up and running; or their NFIs are not underway, yet they are incorporating the USG inputs.

Furthermore, there are reported high levels of staff turnover at the agencies with which SilvaCarbon works. When the value of staff increases due to higher skills and training, they are more likely to get promoted or look elsewhere for work. This problem is not unique to SilvaCarbon; most capacity-development programs, particularly in government, face this problem. However, it can be observed that as long as the persons who receive training remain in the country, even at other institutions, capacity is retained by the country.

Intensive one-on-one work, where technical experts work with a single country or team, is said to have the most lasting impacts. Use of in-country coordinators has been effective in creating a constant presence, which improves relationships, communication, responsiveness, and trust. Ministry staff who come to the US to sit in with agencies for a period of weeks or months are said to make strong gains, as they avoid being pulled away for other work, which happens in their home agencies. Department staff are also encouraged to record what they learn through the SilvaCarbon capacity-building activities. However, this is not emphasized in a systematic way. Leaving detailed instructions in a set of manuals would be one way of strengthening institutional memory, even if it cannot fully substitute for one-on-one work with experts.

Countries may not take as much advantage of their own internal resources as they could, especially their respective country's academic institutions. Unlike in the US, the linkages among governments and universities in many countries are reportedly weak. Awareness of the value in such linkages may be growing; in the Andean-Amazon region, SilvaCarbon reported that some government officials "see a need to begin developing not only technical capacity within the government to do so, but also to start to develop

[15] See IPCC. Good Practice Guidance for Land Use, Land-Use Change and Forestry. 2003.

relationships with researchers at academic institutions."[16]

Recommendation 22: SilvaCarbon's current programming and funding structures are effective and should be maintained if possible. Regardless of the changes to come, functions such as the global Steering Committee and Technical Team must be retained to maintain program cohesion. Likewise, regional focal points who consistently participate in Technical Team meetings should be retained to provide the vital communication-coordination link between regional activities and central coordination bodies.

Recommendation 23: To enhance near-term program sustainability, SilvaCarbon should establish timelines for engagement and develop country exit strategies. Also, during the development of annual work plans, countries should be encouraged to develop individual capacity and knowledge retention plans, which could serve as a topic for inter- and intra-regional peer-to-peer exchange.

4.6 RESULTS MONITORING

The drawbacks associated with SilvaCarbon's lack of an adequate results framework and monitoring systems is a recurring theme throughout this evaluation. This section assesses the program's current monitoring and reporting efforts, identifies their drawbacks, and makes recommendations for improvement.

SilvaCarbon does not have a formal process for monitoring GCC indicators[17] and does not report on quantifiable GCC outcomes. There is also no management unit tasked with overseeing the process, as there would be in the context of a typical ODA project. The issue has not been specifically taken up by any of the external support agencies or been assigned by the Steering Committee. A SilvaCarbon agency KI described this as an issue of resources and priorities.[18]

Conclusion 16: SilvaCarbon does not comprehensively aggregate GCC results for the program as a whole. GCC indicators data is reported individually by USFS and USGS to USAID and DOS as required by the respective inter-agency agreements. However, results are not systematically reported or aggregated with respect to GCC or other indicators at either the output or outcome levels.

SilvaCarbon is pursuing seven GCC Clean Productive Environment Indicators (4.8.2), and as of FY2013, had collected partial data on only five of those seven. Further, while these seven indicators may be sufficient to measure whether the program is meeting DOS and USAID objectives (which is something the evaluation team did not assess), they are insufficient for tracking SilvaCarbon's progress in meeting its own objectives. For example, the most closely related indicators for which the program is gathering data are:

- Indicator 4.8.2-6: Number of persons AND person hours of training completed in climate change supported by USG assistance (report total number and disaggregated by men and women)
- Indicator 4.8.2-27: Number of days of USG funded technical assistance in climate change provided to counterparts or stakeholders[19]

However, these are output-level indicators only. The lack of outcome-level indicators tied to SilvaCarbon's own objectives implies SilvaCarbon has not fully defined its measures of success as a program, and has not identified the necessary conditions for achieving it.

Even the relatively straightforward activity of monitoring program inputs is generally not carried out. Records

[16] See Annual Andean Amazon SilvaCarbon report (2013) Support to Research for Forest Carbon Monitoring.
[17] For DOS GCC indicators, see OES/DOS 4.8.2 indicators. http://www.state.gov/f/indicators/
[18] On a related note, the lack of a monitoring program for GCC indicators places limits on what an evaluation can achieve in terms of robust analysis and making clear conclusions on the extent of program achievements.
[19] SilvaCarbon Indicators Reporting for FY2013

are not kept of the number of workshops, workshop participants, persons trained, and other such statistics. While such information may have been collected in individual cases, it is not systematically monitored, collected, or aggregated at a global level where it could feed into program-level indicators.

There are several likely reasons why GCC results monitoring has not been carried out at the global program level. While some agencies, such as USFS, may collect data on their own, this is not a program requirement. Since SilvaCarbon is not structured as a traditional ODA project with formal reporting requirements (but rather a coordinated network-based initiative), there was no external requirement for conducting monitoring and reporting. Another reason is that resources were not set aside for it.

SilvaCarbon's Global Program issues monthly and quarterly reports covering countries or regions, for the purposes of systematizing internal reporting and promoting communication among the country/regional programs, according to a KI at a SilvaCarbon agency. SilvaCarbon Steering Committee and Technical Team members also provide oral updates on their activities at monthly meetings, as well as meeting minutes. However, these reports are of an informational nature and do not include systematic tracking of results based on an agreed set of GCC indicators. As a result, aggregate information on SilvaCarbon that can be monitored and tracked, an overview of all SilvaCarbon activities, and information on the degree to which country capacity is being developed is difficult to obtain. It should be noted that reporting has improved recently. The SilvaCarbon Steering Committee is aware of the issue, and since mid-2014, SilvaCarbon (through USFS) has hired a staff person to better document results and produce quarterly reports.

Only the Andean-Amazon region has produced semi-annual and annual reports (for its first two years). Some countries and regions (Vietnam, Southeast Asia, Andean-Amazon, Gabon) have always produced routine reports, while others (Central America, Congo Basin, and Bangladesh) produce quarterly updates. Some partner agencies, particularly USFS, report their own results (e.g., in the Andean-Amazon region). There is some interagency reporting on how funds are spent, but this is driven by interagency agreements (i.e., a funding agency's internal requirements), not SilvaCarbon requirements.

Conclusion 17: Monitoring GCC results was not given priority when SilvaCarbon was set up, and resources have not been specifically allocated to develop a monitoring and reporting framework. If SilvaCarbon devoted resources to monitoring GCC results, it would make it easier to track its progress, implement improvements, and communicate its achievements.

Although the present evaluation strongly suggests the program has been effective in building country capacity, the lack of systematic reporting on indicators poses a challenge for SilvaCarbon in measuring its achievements. Introducing GCC monitoring would help SilvaCarbon better communicate its achievements. SilvaCarbon has noted in its draft Communication Strategy (June 2014) the need to better explain the importance of the work to outsiders, define how it contributes toward the greater good, and produce success stories. The ability to draw on quantifiable indicators could assist in this effort.

On the other hand, the evaluation findings do not support the assumption (embedded in the evaluation question above) that reporting on GCC results is linked to problems with collaboration/cooperation levels within SilvaCarbon. It follows that any improvements to already high-quality cooperation and collaboration would not necessarily address monitoring and reporting issues. As noted above, improvement has more to do with prioritizing GCC results monitoring as a goal and then creating an internal management function to be responsible for it. The SilvaCarbon Steering Committee has proven that it has a good track record of identifying program weaknesses and taking steps to address them.

Recommendation 24: To improve tracking of GCC results, SilvaCarbon should commit additional human and financial resources to develop and implement a basic program monitoring and reporting framework and

corresponding reporting tools. A structured monitoring and reporting framework would include GCC indicators and be applied in all SilvaCarbon regions. The number of indicators must remain practical and feasible. Indicator data should be aggregated at the global level to the extent possible. This would involve systematic collection of basic data at the input/output level (number of workshops, participants, persons trained, etc.), to document, track, and share data on the program's results. The demonstration of progress using quantitative evidence helps provide a clear picture of the overall value of the program.

SILVACARBON PERFOMANCE EVAULATION FINAL REPORT: ANNEXES

Evaluating Current Results and Future Opportunities for the SilvaCarbon Program in Supporting Capacity Development for Forest and Terrestrial Carbon Monitoring

March 13, 2015

This publication was produced for review by the United States Agency for International Development. It was prepared by Josh Brann, Nils Junge, Svetlana Negroustoueva, Claudia Rossel, and Marc Shapiro of Development & Training Services, Inc. (dTS).This

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SILVACARBON PERFORMANCE EVALUATION: ANNEXES

EVALUATING CURRENT RESULTS AND FUTURE OPPORTUNITIES FOR THE SILVACARBON PROGRAM IN SUPPORTING CAPACITY DEVELOPMENT FOR FOREST AND TERRESTRIAL CARBON MONITORING

March 13, 2015

DISCLAIMER

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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CONTENTS

Contents iii

Acronyms v

Annex 1: Evaluation Matrix 1

Annex 2: Document List 7

2.1 SilvaCarbon Documents Reviewed 7

2.2 External Documents Reviewed and Cited 9

Annex 3: List of Key Informants Interviewed 11

Annex 4: Country Visit Itineraries 15

4.1. Trip to South America: Colombia and Peru 15

4.2. Trip to Southeast Asia: Vietnam and Thailand 15

Annex 5: Data Collection Instruments (English) 16

5.1 Key Informant Interview Guide: Government/Non-Government Beneficiary 16

5.2 Key Informant Interview Guide: Donor/Development Partner 21

5.3 Key Informant Interview Guide: Steering Committee / Technical Team 26

Annex 6: SilvaCarbon Organigram 34

Annex 7: Partner Country Institutions 35

Annex 8: Additional Data Tables Referenced 36

Annex 9: Capacity Development Results By Region 38

9.1 Andean-Amazon: Colombia, Ecuador, Peru, and Regional Participants 38

9.2 South/Southeast Asia: Bangladesh, Vietnam, and Regional Participants 40

9.3 Congo Basin: Cameroon, DRC, Gabon, ROC, and Regional Participants 42

Annex 10: Review of SilvaCarbon Objectives 44

Annex 11: Illustrative Draft SilvaCarbon Results Chain 47

Annex 12: Summary of Research Grants 50

Annex 13: Review of Sub-group Perspectives 52

13.1 CONCLUSIONS 52

13.2 MAIN FINDINGS 53

13.2.1 Demand-based Assistance 53

13.2.2 On Working with Government Institutions 54

13.2.3 Workshops as a Capacity Building Tool 55

13.2.4 Sustainability of Program Assistance 58

13.2.5 Technical-policy Link 59

13.2.6 Access to Data 61

13.2.7 Access to Network of Experts 62

13.2.8 Communication 63

Annex 14: Vietnam 2015 Workplan REDD+ Alignment Analysis 65

14.1 SilvaCarbon Vietnam 2015 Workplan Alignment with REDD+ MRV Activities 65

14.2 Planned Vietnam UN-REDD+ Activities Supported by SilvaCarbon Workplan Activities68
Annex 15: Options for Improved Transparency & Documentation of SilvaCarbon.....71
Annex 16: Online Survey Complete Data Tables.....73
Annex 17: Disclosure of Any Conflict of Interest.....186

ACRONYMS

CARPE	Central Africa Regional Program for the Environment
CEOS	Committee on Earth Observation Satellites
DOS	United States Department of State
DOS/OES/EGC	Department of State Bureau of Oceans and International Environmental and Scientific Affairs/Office of Global Change
DRC	Democratic Republic of Congo
dTS	Development and Training Services, Inc.
DOI	Department of Interior
E3	United States Agency for International Development, Bureau for Economic Growth, Education, and Environment
EC-LEDS	Enhancing Capacity for Low-Emissions Development (USG effort)
EPA	United States Environmental Protection Agency
GIS	Geographic Information Systems
GIZ	German Agency for International Cooperation
FAO	Food and Agriculture Organization of the United Nations
FCMC	USAID's Forest Carbon, Markets and Communities project
FCPF	Forest Carbon Partnership Facility
FCT	Forest Carbon Tracking
FIPI	Forest Inventory and Planning Institute (Vietnam)
FY	Fiscal Year
GCC M&E	dTS Global Climate Change Monitoring and Evaluation Task Order
GEO	Group on Earth Observations
GFOI	GEO Global Forest Observation Initiative
GHG	Greenhouse gas
IDEAM	Institute of Hydrology, Meteorology and Environmental Studies (Colombia)
IPCC	Intergovernmental Panel on Climate Change
JICA	Japan International Cooperation Agency
KII	Key informant interview
LANDSAT	Land satellite
LEAD	Low Emissions Asian Development
LEAF	Lowering Emissions in Asian Forests
LIDAR	Light Detection and Ranging (remote sensing technology)
LULUCF	Land use, land-use change and forestry
NASA	United States National Aeronautics and Space Administration
NFI	National forest inventory
NOAA	United States National Oceanic and Atmospheric Administration (Department of Commerce)
MGD	Methods and guidance document
MRV	Measurement, reporting, and verification
MOU	Memorandum of Understanding
ODA	Official development assistance
PPL	Bureau of Policy Planning and Learning
R&D	Research and development
RDMA	USAID Regional Development Mission for Asia

REDD+	Reducing Emissions from Deforestation and Forest Degradation (+ restoration, rehabilitation, sustained management, and enhancement of forest carbon stocks)
RELs	Reference emission levels
ROC	Republic of the Congo
SDCG	CEOS Satellite Data Coordination Group
SI	Smithsonian Institution
SOW	Statement of Work
SPOT	Satellite Pour l'Observation de la Terre, "Satellite for the observation of the Earth"
SWAMP	USFS & USAID's Sustainable Wetlands Adaptation and Mitigation Program
TA	Technical assistance
UAV	Unmanned aerial vehicle
UN-REDD	United Nation's Reducing Emissions from Deforestation and Forest Degradation Programme
REDD+	Reduce emissions from deforestation and forest degradation, and foster conservation, sustainable management of forests, and enhancement of forest carbon stocks
USAID/E3	United States Agency for International Development, Bureau for Economic Growth, Education, and Environment
USAID/GCC	United States Agency for International Development, Bureau for Economic Growth, Education, and Environment, Office of Global Climate Change
USD	United States Dollar
USFS	United States Forest Service (Department of Agriculture)
USG	United States Government
USGS	United States Geological Survey (Department of Interior)
UNFCCC	United Nations Framework Convention on Climate Change
UNFCCC COP15	UNFCCC Conference of the Parties
WWF	World Wildlife Federation

ANNEX 1: EVALUATION MATRIX

Note: This is the version of the evaluation matrix that was developed and included in the Evaluation Statement of Work, which was submitted prior to data collection. The evaluation matrix below was created with the assumption that SilvaCarbon was reporting on monitoring data that could be reviewed to generate the measures and indicators included below. It was not until data collection began that the evaluation team became aware of the lack of programmatic data available. For practical reasons, many of the indicators and measures in the matrix had to be revised in favor of more viable options. Due to time constraints, the evaluation matrix was not revised to reflect later practical limitations of the evaluation in terms of data collection and analysis.

EVALUATION QUESTION (AND SUB-QUESTIONS)	MEASURES AND INDICATORS	DATA SOURCES	DATA COLLECTION METHODS
1. Are the stated SilvaCarbon objectives being met?	(explored per each sub-question) a. Degree to which objectives were achieved b. Degree to which progress has been made with respect to objectives c. Percentage of planned work plan activities that were not carried out, other than to avoid duplication d. Approaches that positively or negatively affect the achievement of results e. Lessons learned from implementation of activities	• Steering Committee and Technical Team meeting notes • Work plans and reports: quarterly, semi-annual, annual, etc. • Reports on workshops, technical assistance, and other support provided • Partner Beneficiaries (national government and non-governmental) • Capacity Building Partners (Non-USG): FAO, UN-REDD, TBC where applicable	• Key informant telephone interviews • *In situ* in-person interviews with partner beneficiary teams and key informants in selected countries • Online survey • Document review
a. Have forest and terrestrial carbon measurement and monitoring methodologies been demonstrated, reviewed, and compared?	a. Partner beneficiary perceptions of the efficiency and utility of processes used to demonstrate, review and compare measurement and monitoring methodologies b. Number of SilvaCarbon countries that are known to have reviewed (for accuracy, uncertainty, and cost) and adopted forest and terrestrial carbon measurement and monitoring methodologies and technologies that that comply with international standards c. Proportion of partner beneficiaries who indicate that SilvaCarbon facilitated delivering good practices	• Steering Committee and Technical Team meeting notes • Work plans and reports: quarterly, semi-annual, annual, etc. • Reports on workshops, technical assistance, and other support provided • Partner Beneficiaries (national government and non-governmental) • Capacity Building Partners (Non-USG): FAO, UN-REDD, TBC where applicable	• Key informant telephone interviews • In situ in-person interviews with partner beneficiary teams and key informants in selected countries • Online survey • Document review

EVALUATION QUESTION (AND SUB-QUESTIONS)	MEASURES AND INDICATORS	DATA SOURCES	DATA COLLECTION METHODS
	guides, manuals, and tools related to forest carbon monitoring, assessment and reporting to their organization. d. Partner beneficiaries' perception of the effectiveness of various modes of delivering good practice manuals and tools e. Number of partner beneficiaries who report the ability to apply or use methodologies f. Number of partner beneficiaries who report actual application or use of methodologies		
b. Has the technical assistance provided by SilvaCarbon built the capacity of key stakeholders in participating developing countries to use forest and terrestrial carbon monitoring and management methodologies and technologies?	a. Stakeholder perceptions of capacity improvements in the use of forest and terrestrial carbon monitoring and management methodologies by national forest monitoring experts b. Number of stakeholders reached with capacity building and technical assistance, disaggregated by sex c. Number of national forest carbon monitoring and policies/strategies developed or amended d. Reported progress in meeting the technical gaps identified in the initial country needs assessment/ Proportion of partner beneficiaries who believe that SilvaCarbon was affective in addressing the needs of their country e. Percentage of partner beneficiaries who believe that SilvaCarbon has played a role in assisting their country to reach its forest and terrestrial carbon management goals f. The degree to which progress has been made in reaching national forest inventory and MRV system, goals since SilvaCarbon started? g. Degree of alignment between country needs assessments and work plans h. Reported instances in which partnering with other donors and with international organizations led to multiplied results and reach i. Partner beneficiaries' perception of SilvaCarbon's direct or indirect contribution to policy.	• Work plans and reports: quarterly, semi-annual, annual, etc. • Documents covering country-specific initiatives and national policies (forest management plans, etc.) • Partner Beneficiaries (national government and non-government) • Capacity Building Partners (Non-USG): FAO, UN-REDD, TBC where applicable	• Key informant telephone interviews • In situ in-person interviews with partner beneficiaries • Online survey • Document review

EVALUATION QUESTION (AND SUB-QUESTIONS)	MEASURES AND INDICATORS	DATA SOURCES	DATA COLLECTION METHODS
c. Has cooperation with the Committee on Earth Observing Satellites and other partners in GEO GFOI facilitated collection and dissemination of Earth observation data related to forest and terrestrial carbon monitoring and management?	a. Country demand for Earth observation data related to forest and terrestrial carbon monitoring and management that has been met as a result of collaboration between SilvaCarbon and GFOI b. Instances of countries reporting use of earth observation data, facilitated by SilvaCarbon and GFOI collaboration c. Partner beneficiaries' perception of SilvaCarbon's role in facilitating access to Earth observation data and the mode in which it is implemented.	• Steering Committee and Technical Team meeting notes and reports • Reports on workshops, study tours, TA, other support provided – Partner Beneficiaries (national government and non-governmental) • Capacity Building Partners (Non-USG): GEO GFOI members, collaborating with SilvaCarbon	• Document review • Key informant telephone interviews • In situ in-person interviews with partner beneficiaries • Online survey
d. Has the community of forest and terrestrial carbon technical experts been strengthened?	a. Increased collaboration and greater consistency in technical understanding among the community of forest and terrestrial carbon technical experts as a result of SilvaCarbon-supported meetings and workshops b. Degree of participation by female in communities c. Technical expert perception of the effectiveness of efforts to strengthen the community of forest and terrestrial carbon technical experts d. Proportion of partner beneficiaries who indicate that SilvaCarbon-supported meetings and workshops contributed to increased collaboration and greater consistency in technical understanding among the community of forest and terrestrial carbon technical experts. e. Availability of publicly-accessible technical documents that summarize and critique the latest methodologies and approaches.	• Technical Team or working group meeting notes, reports • Partner Beneficiaries (national government and non-governmental) • Women's groups/ female experts in forest and terrestrial carbon monitoring in countries selected for a diversity of perspectives • Capacity Building Partners (Non-USG): Universities • Capacity Building Partners (USG)	• Document review • Online survey • Key informant telephone interviews • In situ in-person interviews with partner beneficiaries

EVALUATION QUESTION (AND SUB-QUESTIONS)	MEASURES AND INDICATORS	DATA SOURCES	DATA COLLECTION METHODS
2. What factors have facilitated or impeded meeting SilvaCarbon objectives and why?	a. Evidence and partner beneficiary perceptions of: I. Successful factors and inputs II. Perceived challenges or barriers III. Unintended consequences IV. Lessons learned V. Gender equality and female empowerment (GEFE) considerations b. Presence/absence of clearly defined results targets c. Level of coordination with related initiatives d. Efficiency of implementation/execution arrangements of SilvaCarbon activities at national level e. Sex differential (M/F) in outputs and outcomes, successes, and/or challenges f. Perception of the balance between capacity building through workshops and in-country technical assistance.	• Work plans and reports: quarterly, semi-annual, annual, etc. • Capacity Building Partners (USG) • Partner Beneficiaries (national government and non-governmental) • Capacity Building Partners (Non-USG): GFOI and U.S. Group on Earth Observations members interacting with SilvaCarbon team(s) • USAID Office of Gender Equality and Women's Empowerment • Gender advisor/focal point at USAID/Mission (where applicable)	• Key informant telephone interviews • In situ in-person interviews with partner beneficiaries • Online survey • Observations at workshops, site visits, and technical and steering committee meetings
a. In what ways can SilvaCarbon improve its approach?	a. Perceived degree of "ownership" of SilvaCarbon program by USG agencies and by partner governments b. Perceived program sustainability (based on factors indicated within data collection instrument) c. Perceived degree of coordination and cooperation (based on factors spelled out in data collection instruments) d. Partner beneficiary perceptions of strengths and weaknesses of current SilvaCarbon approaches e. Partner beneficiary perceptions of duplication of efforts between SilvaCarbon and other programs/donors f. Partner beneficiary satisfaction with the level of engagement and communication with SilvaCarbon/USG partner	• Capacity Building Partners (USG) • Partner Beneficiaries (national government and non-governmental) • Capacity Building Partners (Non-USG): GFOI and U.S. Group on Earth Observations members • Other SilvaCarbon stakeholders	• Observations at workshops, site visits, and technical and steering committee meetings • Key informant telephone interviews • In situ in-person interviews with partner beneficiaries • Online survey
b. In what ways can SilvaCarbon improve its approach in	a. Number of documented gender equality and female empowerment (GEFE) considerations incorporated into program design and implementation	• Women's groups in countries involved in REDD+ activities • USAID Office of Gender Equality and Women's Empowerment	• Document review • Online survey • Key informant telephone interviews

EVALUATION QUESTION (AND SUB-QUESTIONS)	MEASURES AND INDICATORS	DATA SOURCES	DATA COLLECTION METHODS
order to promote gender equality in participation in and benefits from the program?	b. Gender-equal participation in decision-making related to program design and implementation c. Inclusion of a gender advisor in regional/national work plan development (Y/N) d. Partner beneficiary perceptions of strengths and weaknesses or challenges to SilvaCarbon's approach to promoting gender equality	• Gender advisor/focal point at USAID/Mission (where applicable) • Reports on workshops, TA, and other support provided to participating countries • "The Business Case for Mainstreaming Gender in REDD+" and other related documents • USAID/mission gender strategies where applicable • Partner Beneficiaries (national government and non-governmental) selected for a diversity of perspectives • Work plans and reports: quarterly, semi-annual, annual, etc. • Staff that receive training, TA	• In situ in-person interviews with partner beneficiaries
3. How can the existing interagency cooperation and collaboration be improved in order to			
c. Enhance meeting SilvaCarbon objectives?	Effectiveness of and satisfaction with the a. Global coordination of USG forest carbon assistance to developing countries b. Contributions and accountability of each participating USG agency c. Current structure of interagency relationship under SilvaCarbon d. Degree to which interagency relationships facilitate attainment of each agency's mandate in SilvaCarbon	• Capacity Building Partners (USG) • Partner Beneficiaries (national government and non-governmental) • Other SilvaCarbon stakeholders • Implementing partners selected for a diversity of perspectives • Capacity Building Partners (Non-USG): GFOI and U.S. Group on Earth Observations members, FAO, UNREDD, TBC depending on a country • Activity work plans and reports • Reports on workshops, TA, and other support provided to participating countries	• Online survey • Key informant telephone interviews • In situ in-person interviews with partner beneficiaries • Observations at workshops, site visits, and technical and steering committee meetings
d. Enhance sustainable and stable	a. Degree of "ownership" of SilvaCarbon program by USG agencies and by partner governments	• Capacity Building Partners (USG) • Partner Beneficiaries (national government and non-governmental)	• Observations at workshops, site visits, and technical and

EVALUATION QUESTION (AND SUB-QUESTIONS)	MEASURES AND INDICATORS	DATA SOURCES	DATA COLLECTION METHODS
management of the SilvaCarbon program?	b. Partner beneficiary satisfaction with the relationship between USG and other donors. c. Perceived effectiveness of research and technology development and dissemination to improve technical knowledge under SilvaCarbon d. Coordination of regional information sharing and capacity building with developing and other donor country partners as a result of SilvaCarbon support e. Effectiveness of developing programs of work to address key needs identified by the partner country and adapting to country-specific scenarios at a bilateral levels	• Capacity Building Partners (Non-USG): GFOI and U.S. Group on Earth Observations members	steering committee meetings • Key informant telephone interviews • In situ in-person interviews with partner beneficiaries • Online survey
e. Achieve consistent and thorough monitoring of GCC (standard or custom) results?	a. Consistency and thoroughness of monitoring of GCC results, by funding agency b. Use of monitoring data to make adjustments to activity plans or strategies during next implementation period c. Use of monitoring data to make adjustments to workshop and technical assistance implementation d. Ability to accurately record and track progress toward meeting the five objectives e. Number of existing monitoring tools that include requirement for sex-disaggregated data	• Capacity Building Partners (USG) • Partner Beneficiaries (national government and non-governmental) • Other SilvaCarbon stakeholders	• Document review • Observations at site visits, and technical and steering committee meetings • Key informant telephone interviews • In situ in-person interviews with partner beneficiaries

ANNEX 2: DOCUMENT LIST

2.1 SILVACARBON DOCUMENTS REVIEWED

Document or Document Type	Country or Year
Global / General	
Quarterly Reports/Updates	Jan-April 2014, May-July 2014,
Technical Team Meeting Summaries	2013 – Feb, April, June, July, August, September, November, December 2014 – Jan, Feb, Mar, Apr, May
Steering Committee Meeting Summaries	2011 - 2014
SilvaCarbon Objectives and Outcomes - Final	2013
Communication Strategy SilvaCarbon	June 2014
Inter-Agency Coordination/Planning Meetings	January 22-23, 2014 (Agenda and notes) September 17, 2012 (Agenda and notes) June 12, 2012 (Agenda and notes)
SilvaCarbon Projections for FY14	No date
Summary of FY15/16 Workplan, including Budget	No date
USFS Obligations for FY11 through FY14 using USAID E3 Funds	No date
SilvaCarbon Summary Budget for Workplan	No date
USFS reporting to DOS	Narrative, Financial and Indicator reports from 2013 and 2014
Regional	
Andes-Amazon Regional Workplans	Dated March 10, 2013
Semi-Annual Report - Andes-Amazon Regional Program	Oct11- Mar 12; Oct 12-Mar 13; Oct 13-Mar 14; Apr 13-Sep 13
Annual Report - Amazon-Andean Regional Program	FY 2012, October 2012 – October 2013
SilvaCarbon program budget information	Andean-Amazon annual report for FY2012 includes a "financial summary" that summarizes "USFS expenditures"
US FOREST SERVICE International Programs Central Africa Portfolio CARPE 3 Partners Meeting January 27, 2014 Jason Ko	January 2014
Country Specific	
Scoping Trip/Design Mission Report	Colombia, Ecuador, Cameroon, DRC, RoC, Vietnam
Country Workplans	Gabon - July 2012-December 2013 Vietnam – dated September 7, 2012
Annual Report – Gabon	2013
SilvaCarbon Fact Sheet	Gabon - 2013
Monthly Report updates – Gabon	Gabon - Monthly updates for Jan and Feb 2014
Cameroon SilvaCarbon Design Mission Recommendations	Cameroon – November 2013

Document or Document Type	Country or Year
REPORT: Workshop to Evaluate Methods for Biomass Estimation and Forest Carbon Mapping in the Tropics	Colombia – December 2013
Forest Carbon, Markets and Communities (FCMC) A USAID-funded project Summary of Activities in Colombia	Colombia - March 2014
DRC SilvaCarbon Design Mission Recommendations	DRC - November 2013
Democratic Republic of Congo SilvaCarbon Update	DRC - May-July 2014, July 2014,
Vietnam SilvaCarbon update report	Vietnam, 2013
Monthly report SilvaCarbon work in Vietnam	Vietnam – Aug 2013, Sep 2013, Oct 2013, Nov 2013, Jan 2014, March 2014, April 2014, May 2014, June 2014, July 2014, Aug 2014, Sept 2014, Oct. 2014,
Vietnam Draft Workplan	Vietnam - 2014

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ANNEX 3: LIST OF KEY INFORMANTS INTERVIEWED

First Name	Title, Department	Organization
US Government SilvaCarbon Participants		
Mausami Desai	Environmental Engineer, Climate Change Division	EPA
Christine Dragisic	REDD+ Focal Point, Office of Global Change (OES/EGC)	DOS
Linda Heath	Research Forester, Northern Research Station	USFS
Cate Hight	Environmental Policy Specialist, Climate Change Division	EPA
Jason Ko	Program Manager, International Programs Office	USFS
Marija Kono	Southeast Asia Regional Coordinator	SilvaCarbon
Sarah Marlay	Climate Change Program Specialist, International Programs	USFS
Megan McGroddy	Research Specialist	USFS
Alex Moad	Assistant Director, Technical Cooperation Group	USFS
Dana Moore	Climate Change Specialist, International Programs	USFS
Doug Morton	Physical Scientist	NASA
Douglas Muchoney	Senior Scientist - Forest Ecology	USGS
Evan Notman	Program Manager - Forests and Climate	USAID
Lauren Oschman	Project Manager, Climate Change Office	DOS
Jean Parcher	Project Manager, International Technical Assistance Program	DOI
Wade Price	Executive Secretary, U.S. Group on Earth Observations	Smithsonian
Chip Scott	Program Manager, Forest Inventory & Analysis	USFS
John Verdieck	Foreign Affairs Officer	DOS
Diane Wickland	Retired - Manager, Terrestrial Ecology Program	NASA
Silvia Wilson	Physical Scientist - Eastern Geographic Science Center	USGS
Vo Viet Cuong	SilvaCarbon Vietnam In-Country Coordinator	SilvaCarbon Vietnam Program
Non-US Government Technical Assistance Partners		
Dr. Stephen Briggs	European Space Agency	GFOI

First Name	Title, Department	Organization
Dr. Matt Hansen	Professor, Department of Geographical Sciences	University of Maryland
Dr. Martin Herold	Professor of Geoinformation Science and Remote Sensing	Wageningen University
Dr. Pontus Olofsson	Research Assistant Professor, Department of Earth and Environment	Boston University
US Government Donors		
Mr. Christopher Abrams	Director of the Environment Office	USAID Peru Office
Ms. Marion Adeney	AAAS Fellow / Regional Environmental Science Advisor	USAID/Peru
Mr. Orestes R. Anastasia	Senior Regional Climate Change Advisor, Regional Environment Office	Regional Development Mission for Asia, USAID
Dr. Geoffrey Blate	Asia Regional Forest Advisor	International Programs, USDA Forest Service
Mr. Tran Chinh Khuong	Climate Change Specialist, Environment and Social Development Office	USAID Vietnam Office
Mr. Karl Wurster	Environment Program Officer, USAID Mission Bangladesh	USAID
Dr. Suphasuk Pradubsuk (Ms.)	Program Development Specialist, Regional Environment Office	Regional Development Mission for Asia, USAID
Non-US Government Donors		
Mr. Brian Bean	Deputy Chief of Party, LEAF Program	Winrock International
Dr. David Ganz	Chief of Party, LEAF Program	Winrock International
Ms. Akiko Inoguchi	Forestry Officer	FAO – Vietnam
Mr. Eddy Mendoza	Coordinador de Ordenamiento Territorial	Conservation International
Ms. Carla Ramirez	Asesora Técnica Principal, Inventario Nacional Forestal y Manejo Forestal Sostenible del Perú ante el Cambio Climático	FAO - Peru
Mr. Carlos Riano	Technical Advisor, NFMS - MRV	FAO – Democratic Republic of Congo
Mr. Ben Vickers	Regional Programme Officer, UN-REDD	FAO – Southeast Asia
Bangladesh Beneficiary Stakeholders		
Md. Abdul Latif Mia	Assistant Chief Conservator	Ministry of Environment and Forest of Bangladesh
Cambodia Beneficiary Stakeholders		
Ms. Sar Sophyra	Technical Specialist	Forest Global Assessment Office of Cambodia
Colombia Beneficiary Stakeholders		

First Name	Title, Department	Organization
Ms. Adriana Paola Barbosa Herrera	Coordinadora Grupo de Bosques	Subdirección de Ecosistemas e Información Ambiental Instituto de Hidrología, Meteorología y Estudios Ambientales - IDEAM
Mr. Edersson Cabrera	Coordinador Sistema Monitoreo de Bosques	Subdirección de Ecosistemas e Información Ambiental Instituto de Hidrología, Meteorología y Estudios Ambientales - IDEAM
Maria Claudia Garcia Dávila	Directora de Bosques, Biodiversidad, y Servicios Ecosistémicos	Ministerio de Ambiente y Desarrollo Sostenible (MADS)
Ecuador Beneficiary Stakeholders		
Ms. Andrea Bustos Insuasti	Technical Specialist	Ministry of Environment Ecuador
Nepal Beneficiary Stakeholders		
Shree Krishna Gautam	Remote Sensing Officer/MRV Focal Person	Department of Forest Research and Survey of Nepal
Peru Beneficiary Stakeholders		
Renzo Vergara,	Coordinador Inventarios Forestales	SERFOR, MINAGRI
William Llactayo	Especialista SIG I	MINAM, Direccion General de Ordenamiento Territorial (DGOT)
Víctor Barrena Arroyo	Jefe de Departamento de Manejo Forestal, FCF-UNALM	Universidad Nacional Agraria La Molina (UNALM)
Roxana Guillen	Forest Management Specialist	Universidad Nacional Agraria La Molina (UNALM)
Maria Paz Montoya	M&E Specialist	USFS/Peru Forest Sector Initiative (PFSI)
Victor Miyakawa	Investigador en tecnologías de la información y recursos naturales	USFS/Peru Forest Sector Initiative (PFSI)
Brian Zutta Salazar	MRV Coordinator	MINAM, Bosques, REDD+
Christian Vargas	Technical Specialist	Projecto REDD+ MINAM
Thailand Beneficiary Stakeholders		
Mr. Anuchit Ratanasuwan	Forestry Technical Officer, Senior Professional Level	Protected Area Rehabilitation and Development Office, Department of National Parks, Wildlife and Plant Conservation, Ministry of Natural Resources and Environment
Mr. Chingchai Viriyabuncha	Forestry Technical Officer, Senior Professional Level	Forest and Plant Conservation Research Office, Department of National Parks, Wildlife and Plant Conservation, Ministry of Natural Resources and Environment
Mr. Suwan Pitaksintorn	Scientist, Senior Professional Level	Forest and Plant Conservation Research Office, Department of National Parks, Wildlife and Plant Conservation, Ministry of Natural Resources and Environment
Vietnam Beneficiary Stakeholders		

First Name	Title, Department	Organization
Dr. Nguyen Nghia Bien (Mr.)	Director General	Forest Inventory and Planning Institute (FIPI), Ministry of Agriculture and Rural Development (MARD)
Mrs. Ly Thi Minh Hai	REDD+ Sector Leader, LEAF Project Manager – Vietnam	SNV – Netherlands Development Organisation
Mrs. Vu Thi Hien	Director	Centre of Research & Development in Upland Area (CERDA)
Dr. Nguyen Dinh Hung (Mr.)	Director, Planning and International Cooperation Division	Forest Inventory and Planning Institute (FIPI), Ministry of Agriculture and Rural Development (MARD)
Dr. Nguyen Phu Hung (Mr.)	Director	Sciences, Technology and International Cooperation Department, National Director of UNCCD and REDD office of Vietnam, Vietnam Administration of Forestry, Ministry of Agriculture and Rural Development (MARD)
Mr. Nguyen Trong Hung	Division of GHG Emission Monitoring and Low Carbon Economy	Department of Meteorology, Hydrology and Climate Change, Ministry of Natural Resources and Environment
Dr. Vu Tan Phuong (Mr.)	Director	Department of Training and International Cooperation, Vietnamese Academy of Forest Science (VAFS)
Mr. Quách Tất Quang	Acting Director, Ozone Layer Protection Center	Department of Meteorology, Hydrology and Climate Change (DMHCC), Ministry of Natural Resources and Environment
Mr. Hien Vu Quang	Deputy Director, Planning and International Cooperation Division	Forest Inventory and Planning Institute (FIPI), Ministry of Agriculture and Rural Development (MARD)
Mr. Nguyen Ba Quyen	Technician	Forest Inventory and Planning Institute (FIPI), Ministry of Agriculture and Rural Development (MARD)
Mr. Nguyen Cao Tung	Director, Center for Forestry Information and Consultancy	Forest Inventory and Planning Institute (FIPI), Ministry of Agriculture and Rural Development (MARD)
Mr. Ho Manh Tuong	National Project Coordinator, Support to National Assessment of Forest Resources in Vietnam (NFA project), FAO-Finland	Forest Inventory and Planning Institute (FIPI), Ministry of Agriculture and Rural Development (MARD)

ANNEX 4: COUNTRY VISIT ITINERARIES

4.1. TRIP TO SOUTH AMERICA: COLOMBIA AND PERU

City, Country	Date
Travel Day	Tuesday, September 16, 2014
Bogota, Colombia	Wednesday, September 17, 2014
Armenia, Colombia	Thursday, September 18, 2014
Armenia, Colombia	Friday, September 19, 2014
Weekend	Saturday, September 20, 2014
Weekend	Sunday, September 21, 2014
Bogota, Colombia	Monday, September 22, 2014
Lima, Peru	Tuesday, September 23, 2014
Lima, Peru	Wednesday, September 24, 2014
Lima, Peru	Thursday, September 25, 2014
Travel Day	Friday, September 26, 2014

4.2. TRIP TO SOUTHEAST ASIA: VIETNAM AND THAILAND

City, Country	Date
Travel Day	Monday, November 10, 2014
Hanoi, Vietnam	Tuesday, November 11, 2014
Hanoi, Vietnam	Wednesday, November 12, 2014
Hanoi, Vietnam	Thursday, November 13, 2014
Hanoi, Vietnam	Friday, November 14, 2014
Weekend	Saturday, November 15, 2014
Weekend	Sunday, November 16, 2014
Bangkok, Thailand	Monday, November 17, 2014
Bangkok, Thailand	Tuesday, November 18, 2014
Travel Day	Wednesday, November 19, 2014

ANNEX 5: DATA COLLECTION INSTRUMENTS (ENGLISH)

This annex contains the English language interview guides used as qualitative data collection instruments for the evaluation's key informant interviews. Different interview guides were created for each of the three major SilvaCarbon stakeholder type: Government/non-government beneficiaries, donor/development partner, and Steering Committee/Technical Team.

For detailed information about the online survey used to collect evaluation data, including the questions and structure, please see Annex 14. The online survey itself is provided as a separate attachment.

5.1 KEY INFORMANT INTERVIEW GUIDE: GOVERNMENT/NON-GOVERNMENT BENEFICIARY

We are interested in hearing about your experience with the SilvaCarbon Program. Are you familiar with SilvaCarbon? *A number of United States federal agencies joined together to create the SilvaCarbon program to enhance capacity worldwide for monitoring and managing forest and terrestrial carbon. SilvaCarbon is a flagship program under U.S. fast start financing for REDD+. SilvaCarbon covers a variety of technical areas and includes in its program activities: data compilation, analysis of data needs and mapping; support to GEO Forest Carbon Tracking Task regional capacity building workshops; strengthening national forest inventories; providing technical assistance in the use of greenhouse gas (GHG) inventory tools and applications; and the production of technical reports and maps to use in support of GHG inventories.*

What is your professional responsibility or area of expertise? *(e.g., involved in the national forest inventory, carbon research, mapping, government program management, decision-making, etc.?)*

How long have you been engaged in SilvaCarbon activities?

(Month, Year) Initial involvement

(Month, Year) Most recent involvement

What SilvaCarbon activities have you participated in or benefited from?

__*Regional Workshop(s)*

__*National Workshop(s)*

__*In-country Technical Assistance, expertise, and skills transfer*

__*Study Tour(s)*

__ *Organization/provision of technical contribution to national or regional workshop(s)*

__*Needs assessment and/or workplan development*

Other _____

1. WORK PLANNING & PARTICIPATON

1.1 What role have you played in SilvaCarbon planning? (Q. 1c)

1.2 Are you aware of specific groups that were not engaged in SilvaCarbon planning or other activities that perhaps should be? For example, *groups representing women or vulnerable (e.g., indigenous) populations?* (Q. 3b) __Yes __No __Don't know/not sure

a. **Was a gender advisor, Ministry of Gender, or representative of any women's group included in the national work plan development or in any work planning since? (Q. 2a) How?**

1.3 Briefly, what are your country's forest and terrestrial carbon management goals? What role does SilvaCarbon play in assisting your country to reach these goals?

1.4 How much progress have you made in reaching your national forest inventory and/or greenhouse gas inventory goals? (Q. 1b) __Reached our goal(s) __Almost reached our goal(s) __About half-way toward meeting our goal(s) __We have only just started __In the planning phase __Not yet started

PROBE: and *progress toward larger REDD and Forest Carbon Partnership Facility objectives?*

2. SUSTAINABILITY

2.1 In your opinion, how far should SilvaCarbon take your program in the process of building capacity for the development of a national forest monitoring system?

2.2 How dependent on SilvaCarbon support would you say this country and its beneficiary agencies are in order to reach your desired outcomes? (Q.2a)

__Very dependent __mostly dependent __not very dependent __not at all dependent __not sure

2.3 At the completion of your country's involvement in the SilvaCarbon program, what degree of certainty do you have that your program will have the sufficient institutional capacity and enough trained/experienced individuals to proceed with implementation? (Q.2a)

__Very confident __fairly confident __not very confident __not sure

2.4 How effective have the SilvaCarbon activities been in addressing your needs? Are activities tailored to fit your team's need? Your country's needs? (Q. 1b) *Please explain.*

2.5 Has participation in SilvaCarbon directly or indirectly affected any changes in government or agency forest management policy? In any other policies? Examples?

2.6 Would you say SilvaCarbon support is well integrated into the overall carbon monitoring and measurement initiatives ongoing in your country? (i.e., R-PP, UN-REDD+ process?) *Please provide examples if you can.* (Q. 3b)

2.7 Has participation in the SilvaCarbon program helped your country meet its international reporting requirements? (Q. 3c) How?

2.8 Has your organization had any experience partnering with other donors or international organizations to generate synergies with the SilvaCarbon program? If yes, please describe. (Q. 1b)

3. DATA USE & REPORTING

3.1 How do you (or your team) access Earth observation data related to forest and terrestrial carbon monitoring and management? (Q. 1c)

3.2 Does the SilvaCarbon program facilitate your access to data?

3.3 Do other donors facilitate your access to data? *Please specify which one(s).*

3.4 How satisfied are you with the level of ***access*** you (or your team) have to Earth observation data? (Q.1c) __Very satisfied __Mostly satisfied **for landsat** __Somewhat satisfied **overall** __Not at all satisfied

Please explain—why or why not?

3.5 Has the SilvaCarbon program helped you (your team) use Earth observation data more effectively? *Please provide examples—IN WHAT WAYS HAVE YOU USED DATA?*

4. METHODOLOGIES

4.1 What forest and terrestrial carbon measurement and monitoring methodologies do you currently use here? (you, your team, institution or ministry) (Q. 1a) *For example:*

__*Videography: Plot-level biomass estimation*

__*CLASlite: Approach to monitoring deforestation and forest degradation*

__*CLASlite + LiDAR Landsat*: mapping carbon stocks directly

__*Airborne Taxonomic Mapping (AToMS)*

__*Decision Tree Matrix*: biomass est. (Amazon Basin) using remotely sensed data & ground plot data

__*CATHALAC Tropicarms*

__*Normalized difference fraction index: Combining spectral and spatial data to map canopy damage*

__*DETER: Brazil's Real-time Deforestation Detection System*

__*Our Planetary Skin*

__*Terrestrial Observation and Prediction Program (TOPS)*

__*DTIM*

__*FRIED*

__Other, Specify

4.2 Do these methodologies meet your needs for measurement, verification, and reporting (MRV)? (Q.1a) __Yes X Not yet *Please explain how/why/why not?*

4.3 Has SilvaCarbon's support improved your team's ability to use forest and terrestrial carbon monitoring and management methodologies? *Please provide examples—on USE.* (Q. 1b)

5. STRENGTHS/WEAKNESSES & COORDINATION

5.1 What would you highlight as the most valuable elements of the SilvaCarbon program for you, your team, and your work here? (Q. 2) *(please explain)*

5.2 What would you say are significant weaknesses of the SilvaCarbon approaches? (Q. 2a)

5.3 In looking at the relationship between the SilvaCarbon program and partner country/ministry activities (forest inventory, MRV, etc.) here? How would you rate the following: (Q. 2a)

a. Awareness of each other's entire program efforts (e.g., objectives, focus, scale)?

__very high __moderate __low __almost nonexistent __don't know

b. Mutually reinforcing efforts—that is, shared or having a consensus on strategies and priorities?

__very high __moderate __low __almost nonexistent __don't know

c. Compatibility of procedures, processes, data format, and computer systems?

__very high __moderate __low __almost nonexistent __don't know

d. Common/shared or complementarity of performance measures?

__very high __moderate __low __almost nonexistent __don't know

5.4 Looking back to when you first became engaged with SilvaCarbon, is there anything that you wish had been done differently?

6. RECOMMENDATIONS

6.1 What recommendations would you offer to improve, strengthen, or enhance SilvaCarbon support?

a. In your country?
b. Within your region? if
c. Globally?

6.2 Based on your experience what measures could the SilvaCarbon program take to enhance sustainability of results?

6.3 Do you have any other recommendations related to the SilvaCarbon program?

Was there anything else you would like to address—any questions we did not ask regarding the SilvaCarbon program that you want to speak to?

THANK YOU VERY MUCH FOR YOUR PARTICIPATION! THE INFORMATION YOU HAVE PROVIDED WILL CONTRIBUTE TO THE EVALUATION OF THE SILVACARBON PROGRAM.

5.2 KEY INFORMANT INTERVIEW GUIDE: DONOR/DEVELOPMENT PARTNER

We are interested in hearing about your experience with the SilvaCarbon Program.

1.1 What is your involvement/connection and your agency's role in SilvaCarbon program? *Programmatic planning, management, facilitating and/or participating in training, sharing of technical expertise, other?*

How long have you been involved with SilvaCarbon?

1. COORDINATION

1.2 Do you feel that SilvaCarbon's interagency relationships have helped in attaining your agency mandate or interests within the program? [Q.3a] Why or why not?

1.3. Are you aware of and do you agree with the ***criteria*** that are applied to decisions made about which agency should implement which activities?

1.3 [USG only] How satisfied are you with the current structure of USG interagency relationships under SilvaCarbon? [Q.3a] Why or why not? What could be improved?(Q. 2a)

EXAMPLES IF PROMPTING IS NEEDED:
SilvaCarbon's internal programmatic decision-making process?
Communication regarding progress and challenges in the field
Communication channels in order to reach the Technical Team, the Steering Committee, and to the USG agencies and externally?
Communication from the HQ level to reach all appropriate country partners?
Other?

1.4 What about relationships between SilvaCarbon USG and other donors, globally and in countries?

Do you know of mechanisms (if any) at the regional/country level to support donor coordination in accomplishing SilvaCarbon objectives?

Are you aware of any partnering with other donors and/or international organizations to generate synergies with the SilvaCarbon program? If yes, please describe. (Q. 1b)

Are you aware of any areas where there has been a duplication of effort between SilvaCarbon and other programs or donors?

1.5 How well have SilvaCarbon and GFOI collaborated in their work *(i.e. workshops, TA)*? What are the successes? What are the challenges and what could be improved?

How effective would you say SilvaCarbon and GFOI cooperation has been in contributing to:

A) Demonstrating to countries the different data, methodologies, and tools that are available in order for them to compare and contrast the techniques best suited to their needs?

B) In helping countries meet their remote sensing and field data integration needs? Please explain.

1.6 By and large, would you say SilvaCarbon support is adequately integrated into the overall carbon monitoring and measurement initiatives ongoing globally and in partner countries? (i.e., R-PP, UN-REDD+ process?) (Q. 3b) *Why or why not?*

1.7 [IF COUNTRY EXPEREINCE WAS MENTIONED] In looking at the relationship between the SilvaCarbon program and partner country activities (forest inventory, MRV, etc.), on the whole, how would you rate the following: (Q. 2a)

a. Awareness of each other's entire program efforts (e.g., objectives, focus, scale)?

☐very high ☐moderate ☐low ☐almost nonexistent ☐don't know

b. Consensus on strategies and priorities?

☐very high ☐moderate ☐low ☐almost nonexistent ☐don't know

2. PROGRAM STRATEGY AND MONITORING

2.1 Are you familiar with SilvaCarbon 5 stated objectives? Were you/your agency involved in the process by which SilvaCarbon's objectives were developed and defined?.

[REFERENCE, AS NECESSARY]:

- *Objective 1. Demonstrate and compare forest and terrestrial carbon measurement and monitoring methodologies.*
- *Objective 2. Build capacity of selected developing countries to use forest and terrestrial carbon monitoring and management methodologies and technologies.*
- *Objective 3. Facilitate, in cooperation with the Committee on Earth Observing Satellites and the GEO Global Forest Observation Initiative, the coordinated collection and dissemination of earth observation data related to forest and terrestrial carbon monitoring and management.*
- *Objective 4. Strengthen the community of forest and terrestrial carbon technical experts.*
- *Objective 5. Interagency cooperation and collaboration.]*

2.2 [IF FULLY AWARE AND FAMILIAR] Do you feel you have a good understanding and agree with the logic or strategy behind identifying the five elements as the SilvaCarbon objectives?

2.4 Do you believe these objectives provide the necessary foundation to guide SilvaCarbon's work? Going forward, would you reconsider particular objectives or add new objectives?

2.6. Are you aware of and do you agree with the ***criteria*** that are applied in order to select countries as bilateral SilvaCarbon partners?

2.7 [DOS and USAID only] How are decisions made about which agency will fund planned activities?

2.8. [S.C. only] Are you aware of research portfolio of the SilvaCarbon program? How well has it worked?

2.9 Have you been involved in monitoring and reporting of SilvaCarbon activities and results?

Are you satisfied with the clarity, consistency and comprehensiveness of SilvaCarbon monitoring and reporting? What aspects could be improved? [Q.3c]

3. WORK PLANNING & PARTICIPATON

3.1 Have you participated in capacity needs assessments for forest and terrestrial carbon monitoring carried out for all SilvaCarbon partner countries? If yes, which country? What have been your observations on their progress in meeting needs?

3.2 Can you think of any groups that have not been sufficiently involved in SilvaCarbon planning and/or activities that should be more involved? *For example, non-government entities, groups representing women or other vulnerable (e.g., indigenous) populations* (Q. 3b)

3.3 Can you think of instances when USAID gender advisor or gender focal point included in project design, or the SilvaCarbon country needs assessments or in the development of national workplans? (Q. 2a)

What about Ministry of Gender, or representative of any national women's group, or UN Women?

❍Always ❍Most of the time ❍About half ❍Infrequently ❍Not at all ❍❍don't know

3.4 What do you think of the nature of SilvaCarbon work in countries where workplans have not been developed? *Does it create obstacles?*

3.5 How effective is SilvaCarbon at addressing capacity needs and gaps and tailoring activities to partner country needs? (Q. 1b) *Please explain with specific examples.*

3.6 How well do you think SilvaCarbon has been in supporting partner countries to bridge the gap between scientific/technical issues and policy/decision-making?

4. METHODOLOGIES AND DATA USE

4.1 **[Tech Team only]** What forest & terrestrial carbon measurement and monitoring methodologies are currently being used in national forest monitoring systems among SilvaCarbon partner countries? (Q. 1a) *For example:*

- ❍ *Videography: Plot-level biomass estimation*
- ❍ *CLASlite: Approach to monitoring deforestation and forest degradation*
- ❍ *CLASlite + LiDAR Landsat*: mapping carbon stocks directly
- ❍ *Airborne Taxonomic Mapping (AToMS)*
- ❍ *Decision Tree Matrix*: biomass est. (Amazon Basin) using remotely sensed data & ground plot data
- ❍ *CATHALAC Tropicarms*
- ❍ *Normalized difference fraction index: Combining spectral and spatial data to map canopy damage*
- ❍ *DETER: Brazil's Real-time Deforestation Detection System*
- ❍ *Our Planetary Skin*
- ❍ *Terrestrial Observation and Prediction Program (TOPS)*
- ❍ *DTIM*
- ❍ *FRIED*
- ❍ *University of Maryland algorithm for developing land cover maps*
- ❍ _____

4.2 How effective has SilvaCarbon been in working with beneficiary partners/country teams to

a. review the various methodologies and technologies
b. determine which methodologies best fit their individual needs, capacities, and long-term planning? *What are the challenges and needed impovements?*

Has SilvaCarbon program helped improve consistency in technical understanding among the community of technical experts? [Q.1d] Why or why not?

4.4 Has SilvaCarbon enhanced the interoperability, coordination and transparency of data collection systems in SilvaCarbon partners and beneficiary countries? [Q.1c] In what ways?

4.5 How has SilvaCarbon increased the access that partner countries have to Earth observation data? (Q. 1c)

a. **Have any of these happened as a result of SilvaCarbon and GFOI collaboration? Which country(s)?**
b. **Have any of the county's demand for Earth observation data related to forest and terrestrial carbon monitoring and management been met as as a result of collaboration between SilvaCarbon and GFOI?**
b. What have been the challenges/barriers? How could this be improved? (Q. 1c)

4.10 Is there a balance between providing capacity building in workshops settings versus technical assistance in-country under SilvaCarbon?

4.9 To what degree is SilvaCarbon support sufficient to train technical staff to learn and independently use the necessary tools and methodologies to meet their countries' forest and terrestrial carbon management needs?

4.11 Does SilvaCarbon support countries in:

a) **meeting their international reporting requirements under the UNFCCC? (Q. 1b)**

b) **affecting any changes in government or agency forest management policy? Examples?**

5. SUSTAINABILITY

5.1 Do you think the SilvaCarbon program capacity building efforts will be sustainable? What has and should be done to ensure sustainability of results?

EXAMPLES/ISSUES

Workforce turnover within partner country institutions.

South to South cooperation

In-country coordinators

Utilizing national capacities

Focus on in-country TA versus workshops

5.2 How much continued SilvaCarbon assistance would you say that partner country beneficiary institutions need in order to:

a) **meet international requirements for forest and terrestrial carbon MRV?** (Q.2a)

☐Have a great deal of need ☐Have some need ☐Don't have a lot of need ☐Have no need ☐not sure

b) **maintain the level of capacity developed for forest monitoring?**

☐Have a great deal of need ☐Have some need ☐Don't have a lot of need ☐Have no need ☐not sure

c) **maintain the level of capacity developed for terrestrial carbon monitoring?**

☐Have a great deal of need ☐Have some need ☐Don't have a lot of need ☐Have no need ☐not sure

6. STRENGTHS/WEAKNESSES and RECOOMENDATIONS

6.1 Besides some that you may have mentioned already, what would you highlight as the most valuable elements, and weaknesses of the SilvaCarbon program approach? (Q. 2) *(please explain)*

6.2 What would you recommend to improve, strengthen, or enhance SilvaCarbon support:

d. **At the country-level,?**

e. **At the regional level(s)?**

f. **Globally?**

6.3 What activities would you prioritize for SilvaCarbon capacity development support activities for partner countries in the short-term (i.e.,of 1 to 2 years)? In the long-term (i.e., of 5 years or more)?

THANK YOU VERY MUCH FOR YOUR PARTICIPATION! THE INFORMATION YOU HAVE PROVIDED WILL CONTRIBUTE TO THE EVALUATION

5.3 KEY INFORMANT INTERVIEW GUIDE: STEERING COMMITTEE / TECHNICAL TEAM

We are interested in hearing about your experience with the SilvaCarbon Program. What is your involvement/connection with SilvaCarbon activities?

Programmatic planning, management, facilitating and/or participating in workshops, training, technical expertise, other?

How long have you been involved with SilvaCarbon?

What are your agency's global forest carbon monitoring goals?

1. COORDINATION

1.1 What is your agency's role in the SilvaCarbon program?

1.2 Do you feel that SilvaCarbon's interagency relationships have helped your agency pursue its mandate or interests within the program? [Q.3a] Why or why not?

1.3 [USG only] Are you satisfied with the current structure of USG interagency relationships under SilvaCarbon? [Q.3a] Why or why not? What could be improved?

How well does SilvaCarbon's internal programmatic decision-making process work? What works well and what could be improved?

What processes exist to ensure that information regarding progress and challenges in the field travel the appropriate communication channels in order to reach the Technical Team, the Steering Committee, and to the USG agencies beyond? What processes ensure that information flows successfully in the opposite direction in order to reach all appropriate country partners? What could be done better?

1.10 What do you think are the most significant challenges or barriers (if any) to improving program coordination among USG agencies? (Q. 2a) And among other donors and partners in country?

1.4 What about relationships between USG and other donors? Are you aware of any partnering with other donors and/or international organizations to generate synergies with the SilvaCarbon program? If yes, please describe. (Q. 1b)

1.7 Are you aware of any areas where there has been a duplication of effort between SilvaCarbon and other programs or donors?

1.8. Do you know of mechanisms (if any) at the regional/country level to support donor coordination on climate change, forest management, and carbon measurement-related capacity building activities?

In your view, how well have SilvaCarbon and GFOI collaborated in their work? What are the challenges? What are the successes? What could be improved?

How effective would you say SilvaCarbon and GFOI cooperation has been in contributing to the alignment of global sampling schemes of continuous satellite observations with *in situ*/field data collection? Please explain. Can you provide examples of SilvaCarbon countries using GFOI designs for comparison?

1.9 By and large, would you say SilvaCarbon support is adequately integrated into the overall carbon monitoring and measurement initiatives ongoing in partner countries? (i.e., R-PP, UN-REDD+ process?) (Q. 3b) *Why or why not?*

1.5 In looking at the relationship between the SilvaCarbon program and partner country activities (forest inventory, MRV, etc.), on the whole, how would you rate the following: (Q. 2a)

a. Awareness of each other's entire program efforts (e.g., objectives, focus, scale)?

☐very high ☐moderate ☐low ☐almost nonexistent ☐don't know

b. Consensus on strategies and priorities? ☐very high ☐moderate ☐low ☐almost nonexistent ☐don't know

c. Compatibility of procedures, processes, data format, and computer systems?

☐very high ☐moderate ☐low ☐almost nonexistent ☐don't know

2. PROGRAM STRATEGY

2.1 SilvaCarbon has five stated objectives. Are you familiar with these objectives?

[REFERENCE, AS NECESSARY]:

- Objective 1. Demonstrate and compare forest and terrestrial carbon measurement and monitoring methodologies.
- Objective 2. Build capacity of selected developing countries to use forest and terrestrial carbon monitoring and management methodologies and technologies.
- Objective 3. Facilitate, in cooperation with the Committee on Earth Observing Satellites and the GEO Global Forest Observation Initiative, the coordinated collection and dissemination of earth observation data related to forest and terrestrial carbon monitoring and management.
- Objective 4. Strengthen the community of forest and terrestrial carbon technical experts.
- Objective 5. Interagency cooperation and collaboration.]

9.1. [S.C. only] Please describe the process by which SilvaCarbon's 5 objectives were developed and defined.

a. **Are there other elements not covered by SilvaCarbon's current objectives that should be included?**

9.3. What ***criteria*** are applied in order to select countries as bilateral SilvaCarbon partners?

a. ~~9.4.~~ What is the ***process*** for selecting a country as a SilvaCarbon bilateral partner country?

9.6. How are decisions made about which activities should be funded?

9.7 [S.C. only] How are decisions made about which agency will fund activities planned?

9.8. [S.C. only] What was the rationale for establishing the research portion of the SilvaCarbon program?

3. WORK PLANNING & PARTICIPATON

3.3 Have capacity needs assessments for forest and terrestrial carbon monitoring and analysis been carried out for all SilvaCarbon partner countries? If not, why not?

We understand that there are countries with which SilvaCarbon has not developed workplans. In these cases, what is the nature of SilvaCarbon planning and coordination relationship with partner governments?

a. **Does the lack of a workplan create obstacles? If not, why does the arrangement work? If so, what are the reasons for not developing workplans with those countries?**

3.1 During the initial SilvaCarbon workplanning stages in each country, would you say that *all* the necessary representative population groups are routinely been engaged in activities? Can you think of any groups that have not been sufficiently involved that should be more involved? *For example, non-government entities, groups representing women or other vulnerable (e.g., indigenous) populations* (Q. 3b)

a. How often is a USAID gender advisor or gender focal point included in the SilvaCarbon country needs assessments or in the development of national workplans? (Q. 2a)

❍Always ❍Most of the time ❍About half ❍Infrequently ❍Not at all ❍❍don't know

b. What about Ministry of Gender, or representative of any national women's group, or UN Women?

❍Always ❍Most of the time ❍About half ❍Infrequently ❍Not at all ❍❍don't know **3.4 How effective is SilvaCarbon at addressing capacity needs and gaps and tailoring activities to partner country needs?** (Q. 1b) *Please explain with specific examples.*

2.5 How does SilvaCarbon balance short-term or immediate needs for capacity development with longer-term needs in partner countries?

2.4 To what extent should SilvaCarbon provide support to partner countries in an attempt to bridge the gap between scientific/technical issues and policy/decision-making?

4. METHODOLOGIES AND DATA USE

4.1 [Tech Team only] What forest & terrestrial carbon measurement and monitoring methodologies are currently being used in national forest monitoring systems among SilvaCarbon partner countries? (Q. 1a) ***For example:***

- ❍*Videography: Plot-level biomass estimation*
- ❍*CLASlite: Approach to monitoring deforestation and forest degradation*
- ❍*CLASlite + LiDAR Landsat*: mapping carbon stocks directly
- ❍*Airborne Taxonomic Mapping (AToMS)*
- ❍*Decision Tree Matrix*: biomass est. (Amazon Basin) using remotely sensed data & ground plot data
- ❍*CATHALAC Tropicarms*
- ❍*Normalized difference fraction index: Combining spectral and spatial data to map canopy damage*
- ❍*DETER: Brazil's Real-time Deforestation Detection System*
- ❍*Our Planetary Skin*
- ❍*Terrestrial Observation and Prediction Program (TOPS)*
- ❍*DTIM*
- ❍*FRIED*
- ❍*University of Maryland algorithm for developing land cover maps*
- ❍_____

How does SilvaCarbon work with beneficiary partners/country teams to determine which methodologies best fit their individual needs, capacities, and long-term planning? How successful is the process? What are the challenges?

4.3 How has SilvaCarbon increased the access that partner countries have to Earth observation data? (Q. 1c) To which country(s)?

a. What are the challenges/barriers for increasing access to Earth observation data? How could this be improved? (Q. 1c)

4.2 In what ways has SilvaCarbon enhanced the interoperability, coordination, and transparency of data collection systems between those countries that generate satellite images and SilvaCarbon's beneficiary countries? What work is still left to be done? [Q.1c]

4.8 To what degree is SilvaCarbon support sufficient to train technical staff to learn and independently use the necessary tools and methodologies to meet their countries' forest and terrestrial carbon management needs?

What proportion of SilvaCarbon technical assistance occurs in workshops settings versus in-country or in-the-field settings? Would you say that SilvaCarbon currently strikes the correct balance? 4.9 Does SilvaCarbon support countries' needs in meeting their international reporting requirements under the UNFCCC? (Q. 1b) In what way?

4.10 To your knowledge, has participation in SilvaCarbon directly or indirectly affected any changes in government or agency forest management policy? In any other policies? Examples?

4.11 Do you feel there is greater consistency in technical understanding among the community of technical experts as a result of SilvaCarbon support? [Q.1d] Why or why not?

5. MONITORING, REPORTING AND GAUGING SUCCESS

5.1 How clear, do you feel, are the requirements for monitoring and reporting of SilvaCarbon activities and results to the beneficiary countries?

5.3 Are you satisfied with the consistency and comprehensiveness of SilvaCarbon monitoring and reporting? [Q.3c]

a. What aspects of monitoring and reporting could be improved? [Q.3c]

5.5 Does SilvaCarbon have a results framework or other strategic representation to guide and assess its results and achievements? If not, on what basis do you assess whether SilvaCarbon is successfully achieving its objectives?

5.7 How would you define success for SilvaCarbon? Can you give some examples of results indicators you might use?

6. SUSTAINABILITY

6.1 How far do you expect SilvaCarbon to accompany partner countries along the path of developing a fully functional national forest monitoring system, and capacity for assessment, monitoring, analysis and reporting of forest and terrestrial carbon data? (Q. 1b)

☐All the way ☐Most of the distance ☐Up to a mid-point ☐Set them off on a good start

6.2 When comparing forest carbon monitoring capacity to that of terrestrial carbon monitoring, how much continued SilvaCarbon assistance would you say that partner country beneficiary institutions need in order to maintain:

a) the level of capacity developed for forest monitoring?

☐Have a great deal of need ☐Have some need ☐Don't have a lot of need ☐Have no need ☐not sure

b) the level of capacity developed for terrestrial carbon monitoring?

☐Have a great deal of need ☐Have some need ☐Don't have a lot of need ☐Have no need ☐not sure

6.3 Looking at all SilvaCarbon partner countries as a group, at the completion of a given country's involvement in the SilvaCarbon program, how confident are you that the country will have sufficient institutional capacity and enough experienced individuals to meet international requirements for forest and terrestrial carbon MRV? (Q.2a)

☐Very confident ☐fairly confident ☐not very confident ☐not sure

6.4 What are the most critical risks to sustaining and utilizing the national capacities that have been enhanced with SilvaCarbon support?

6.5 How can SilvaCarbon address the issue of workforce turnover within partner country institutions in order to ensure capacity that has been created remains in place?

6.6 What steps does the SilvaCarbon team take to ensure sustainability of results when winding down engagement with a partner country?

a. Based on your experience, what more could the SilvaCarbon program take to enhance sustainability of results?

7. STRENGTHS/WEAKNESSES

7.1 What would you highlight as the most valuable elements of the SilvaCarbon program to country beneficiaries? (Q. 2) *(please explain)*

7.2 What would you say are significant weaknesses of the current SilvaCarbon approaches? (Q. 2a)

7.3 Looking back to when you first became engaged with SilvaCarbon, is there anything that you wish had been done differently?

8. RECOMMENDATIONS

8.1 What recommendations could improve, strengthen, or enhance SilvaCarbon support

g. At the country-level, or within the countries in which you are working?

h. At the regional level, or in the regions in which you are working?

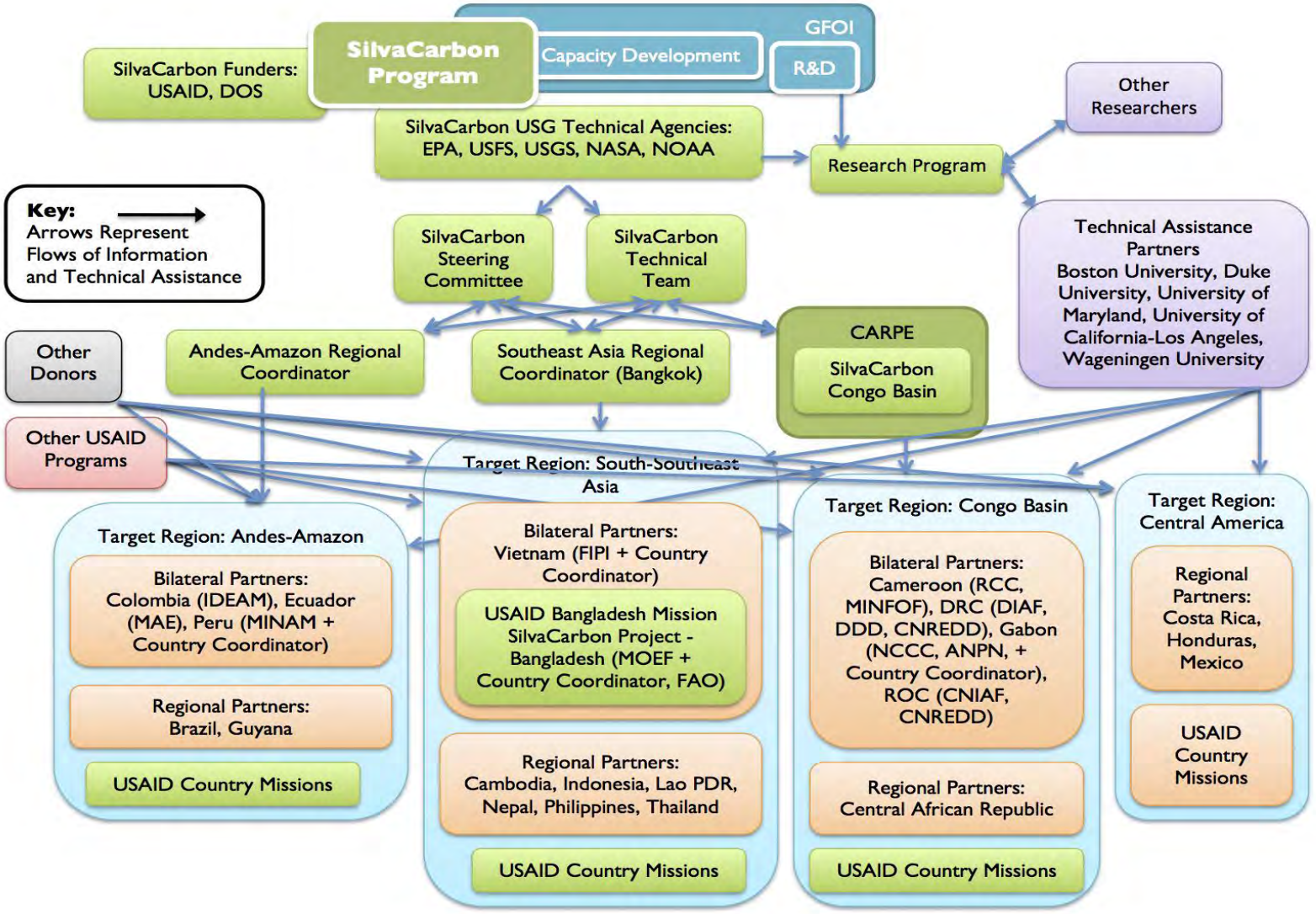
i. At the program level?

8.3 Do you have any other recommendations related to the SilvaCarbon program?

8.4 Do you have any other observations, questions, concerns, or suggestions you would like to add regarding the SilvaCarbon program?

THANK YOU VERY MUCH FOR YOUR PARTICIPATION! THE INFORMATION YOU HAVE PROVIDED WILL CONTRIBUTE TO THE EVALUATION OF THE SILVACARBON PROGRAM.

ANNEX 6: SILVACARBON ORGANIGRAM



ANNEX 7: PARTNER COUNTRY INSTITUTIONS

Colombia
- Institute of Hydrology, Meteorology and Environmental Studies (IDEAM), of the Ministry of Environment and Sustainable Development

Ecuador
- Ministry of the Environment (MAE)

Peru
- Ministry of the Environment (MINAM)

Cameroon
- REDD Coordination Steering Committee (RCC), of Ministry of Environment, Nature Protection, and Sustainable Development (MINEPDED)
- Ministry of Forests and Wildlife (MINFOF)

Democratic Republic of Congo
- National Forest Monitoring System: Directorate of Forest Inventory and Management (DIAF)
- GHG Inventory: Directorate of Sustainable Development (DDD)
- National REDD+ Coordination (CNREDD)

Gabon
- National Climate Change Council
- National Agency of National Parks (ANPN)

Republic of Congo
- National Centre for Surveys and Forest and Fauna Resources Management (CNIAF)
- National REDD+ Coordination (CNREDD)

Bangladesh
- Forest Department, Ministry of Environment and Forests (MOEF)

Vietnam
- National Forest Monitoring System: Forest Inventory and Planning Institute (FIPI), Ministry of Agriculture and Rural Development (MARD)
- GHG Inventory: Ozone Layer Protection Center, Department of Meteorology Hydrology and Climate Change (DMHCC), Ministry of Natural Resources and Environment (MONRE)

ANNEX 8: ADDITIONAL DATA TABLES REFERENCED

TABLE 1. SILVACARBON BILATERAL ENGAGEMENT TIMEFRAMES

Country	Scoping Mission (Initiation of SilvaCarbon Engagement)
Ecuador*	July 18-22, 2011
Colombia*	October 10-14, 2011
Peru*	October 17-22, 2011
Gabon*	October 2011 (start of activities, scoping not specified)
Vietnam*	April 16-20, 2012
Cameroon	September 10-14, 2013
DRC	September 16-19, 2013
ROC	September 16-19, 2013
Bangladesh	July 2014

*First generation SilvaCarbon bilateral partners (5)

TABLE 2: FOREST COVER OF COUNTRIES IN SILVACARBON TARGET REGIONS

Country	Forest Area (1,000 ha)[1]	SilvaCarbon Engagement (B = Bilateral, R = Regional)
Andean-Amazon		
Brazil	519,522	R
Peru	67,992	B, R
Colombia	60,499	B, R
Bolivia	57,196	
Venezuela	46,275	
Guyana	15,205	R
Suriname	14,758	
Ecuador	9,865	B, R
Congo Basin		
Democratic Republic of the Congo	154,135	B, R
Central African Republic	22,605	R
Congo	22,411	B, R
Gabon	22,000	B, R
Cameroon	19,916	B, R
Equatorial Guinea	1,626	
South-Southeast Asia		
Indonesia	94,432	R
India	68,434	
Myanmar	31,773	
Malaysia	20,456	

[1] Source: Global Forest Resources Assessment 2010.

Country	Forest Area (1,000 ha)[1]	SilvaCarbon Engagement (B = Bilateral, R = Regional)
Thailand	18,972	R
Lao People's Democratic Republic	15,751	R
Viet Nam	13,797	B, R
Cambodia	10,094	R
Philippines	7,665	R
Nepal	3,636	R
Bhutan	3,249	
Sri Lanka	1,860	
Pakistan	1,687	
Bangladesh	1,442	B, R
Timor-Leste	742	
Brunei Darussalam	380	
Singapore	2	
Maldives	1	

ANNEX 9: CAPACITY DEVELOPMENT RESULTS BY REGION

This annex identifies the progress SilvaCarbon has made in building capacity at the regional and country levels in the Andean-Amazon, the Congo Basin, and South/Southeast Asia. Reflecting the varied levels of capacity among beneficiary countries and regions, SilvaCarbon has followed a demand-driven model that is responsive to partner beneficiary country needs and priorities. As mentioned throughout the report, due to the lack of systematic reporting, there is little information on the extent to which SilvaCarbon has been successful in building capacity at the regional and national levels. This section outlines the successes of each of the regional programs, as well as the unique challenges and opportunities facing them.

SilvaCarbon's most significant capacity-development results have been in the Andean-Amazon region (specifically in Colombia, Ecuador and Peru) and in Gabon, largely reflecting the length of engagement in each of these beneficiary countries, and partially reflecting their initial capacity levels that leveraged their ability to take advantage of technical assistance. In Southeast Asia and in other Congo Basin countries, where the start of SilvaCarbon activities is more recent, results are more limited but show promise with further time and resources.

9.1 ANDEAN-AMAZON: COLOMBIA, ECUADOR, PERU, AND REGIONAL PARTICIPANTS

The primary SilvaCarbon capacity development activities in the Andean-Amazon region have taken place in the three bilateral partner countries: Colombia, Ecuador, and Peru. The primary beneficiary partners in these countries are Colombia's Institute of Hydrology, Meteorology, and Environmental Studies (IDEAM), Ecuador's Ministry of the Environment (MAE), and Peru's Ministry of Environment (MINAM).

As noted previously in this evaluation report, there is no standard "measuring stick" for countries' capacity levels with respect to national forest and terrestrial carbon monitoring systems. The SilvaCarbon activities planned for the bilateral Andean-Amazon countries were developed based on the scoping visits to each country. Although the scoping missions identified a range of country needs and priorities, systematic capacity needs assessments were not conducted at the beginning of SilvaCarbon support. Thus it is not possible to directly assess the progress of capacity development at the outcome level in the countries where SilvaCarbon is working. One of the recommendations of this report is that SilvaCarbon work with GFOI to develop a tool to identify the key MRV and NFMS components and summarize the future development requirements.

At the regional level there has been a series of 11 GFOI-affiliated workshops, with nearly 400 total (not unique) participants, of which more than 250 were beneficiary country participants. Representatives from the three bilateral countries have been the main participants at these workshops, although there has also been significant participation from Mexico, as two of the workshops were held in Mexico. One workshop was held in Costa Rica and also had high participation from that country. The costs of the workshops have been shared by parties other than SilvaCarbon, such as the USAID-funded FCMC program, as well as the host institutions in the countries where the workshops have been held. 248 participants from 12 countries in South and Central America, as well as Mexico and Indonesia, have participated in the Americas GFOI Workshop Series.

In addition to the GFOI series of workshops, there have been at least 10 other smaller training workshops, some held individually with bilateral partner countries and some with regional participation. SilvaCarbon has

also organized or sponsored participation in approximately 12 study tours for participants from the three bilateral countries. For example, in December 2013, SilvaCarbon supported two individuals each from Colombia and Ecuador to visit the USFS Remote Sensing Applications Center in Salt Lake City, Utah, for four days to learn about methodologies and tools to measure deforestation. Table 3 below highlights some additional capacity-development activities supported by SilvaCarbon.

TABLE 3. EXAMPLES OF CAPACITY BUILDING ACTIVITIES BY COUNTRY

Country	Capacity Development Activity
Ecuador	In May 2013, MAE sent 16 people from different areas of the ministry (national inventory, vegetation map, and deforestation map) to the "R" course, which provides training on a statistical software that USFS uses to conduct various analyses of forest inventory data. The "R" course software is both free and widely used in the statistical community, and serves as a cost-effective method for analyzing forest inventory data.
Colombia	A team from the University of Maryland traveled to Colombia in March 2014 to provide advice to IDEAM on the design of a classification system to be use in land-cover classes other than forests, as suggested by the IPCC.
Colombia, Ecuador, Peru	In July 2013, SilvaCarbon sponsored the travel and per diems for representatives of the three countries to attend a soils study tour to the University of Michigan Biological Station-UMBS. Additional participants from Central and South America, with sponsorship from other programs, also attended the study tour to learn about the various methodologies to sample and analyze soils.

Participants noted that a key value of the regional workshops was building the network of professionals working on these issues. The workshops also increased understanding among the countries about where they stand in relation to others in their region, which allows them to assess their progress and put their efforts within the global context. Thus the knowledge-sharing and exchange among countries has been a highlight, as it has been in other study tour activities, including "South-South" study tours like the one that took three individuals from Peru to Mexico for four days in July 2013 to learn about environmental information systems.

In the Andean-Amazon, SilvaCarbon supported University of Maryland scientists to work with national partner institutions in Peru, Ecuador, and Colombia to enhance land cover and forest monitoring in support of national carbon accounting programs. This included the development of forest extent and change maps from 2000 to present, and training on product derivation and iteration. The University of Maryland scientists' task was to teach project partners about their processing methods, including radiometric corrections, quality assessment, derivation of time-integrated spectral features, characterization algorithms, integration strategies, product development and iteration, and methods for validation. The objective was to generate annual forest cover disturbance maps for the Andean-Amazon over the 2000–2011, and 2011-2012 periods, along with a land-cover map for 2012. This product helped Colombia achieve a significant MRV milestone in 2013: the production of its first annual national figures for forest cover and deforested area, and publication of its first annual estimates of forest-cover change.

In Peru, SilvaCarbon has made significant contributions to the design of the national forest inventory approach. Another significant SilvaCarbon contribution in the Andean-Amazon bilateral countries has been assistance with cloud-free mapping.

Despite all of SilvaCarbon's contributions in this region, capacity development remains a long-term process. A key informant from Colombia, often considered the most advanced of the SilvaCarbon bilateral partners, says it is unclear if they can develop the necessary processing infrastructure for some satellite imaging, which

requires the use of large computers and the creation of expensive labs or processing centers. This informant said that this problem is "especially critical when trying to reach international requirements, given their [requirements'] evolution over time. Our team isn't capable at this time.

9.2 SOUTH/SOUTHEAST ASIA: BANGLADESH, VIETNAM, AND REGIONAL PARTICIPANTS

Vietnam: SilvaCarbon's engagement in Southeast Asia began with the scoping mission to Vietnam in April 2012. Following the scoping mission, SilvaCarbon activities in Vietnam did not get underway until May 2013. The key institutional partner in Vietnam on NFI and MRV is the Forest Inventory and Planning Institute (FIPI) under the Ministry of Agriculture and Rural Development. On GHG inventory work, the key institutional partner has been the Ozone Layer Protection Center, Department of Meteorology Hydrology and Climate Change (DMHCC), under the Ministry of Natural Resources and Environment (MONRE). The SilvaCarbon Vietnam program has operated with a full-time in-country national coordinator, which has been one of the keys to the program having completed a large number of activities in a relatively short period of time.

Under the bilateral Vietnam SilvaCarbon program there have been more than 10 capacity-building events or activities. These have included two US study tours, five workshops for training on NFI data collection or analysis, three trainings on the Agriculture and Land Use (ALU) software, and a training on the SIBP2 software. More than 300 (non-unique) participants attended these workshops (129 of whom participated in the National Forest Inventory Information Needs workshop held in Hanoi in August 2013).

Although the SilvaCarbon activities in Vietnam have been relatively short-term so far, SilvaCarbon has been able to make some valuable contributions. One notable effort was the feedback SilvaCarbon experts provided on the methodological proposal for Vietnam's next national forest inventory, developed under the Finland-FAO program. The government of Vietnam requested the SilvaCarbon experts to review the proposal, which generated some professional tension as neither SilvaCarbon team members nor FAO staff were comfortable with SilvaCarbon being asked to review FAO's work. However, this also gave SilvaCarbon the opportunity to provide input on the proposal and provided Vietnam with additional professional expertise.

Beneficiaries in Vietnam have considered the training exercises conducted thus far to be useful, but indicated that they were not yet applying the techniques and methodologies they had learned. With respect to training on software (the ALU software and SIB2), participants indicated a need to use national data from Vietnam during demonstrations rather than model data. However, accessing national data within the country can be a challenge, as a government department under MONRE is the main manager of remote sensing data, and SilvaCarbon's key institutional partner, FIPI, is under the Ministry of Agriculture and Rural Development. There are also other factors affecting the utility of the training exercises. One is that because FIPI is a service organization that generates 80 percent of its own revenue, it is difficult for staff members to be available for non-revenue generating activities (e.g., trainings) for significant periods of time. Therefore there has been inconsistent participation in some of the SilvaCarbon activities. For example, of the 54 unique individuals who have participated in the five SilvaCarbon training activities in Vietnam related to NFI, 33 (61 percent) have participated in only one activity, and only one individual has participated in all five events.

SilvaCarbon's work in Vietnam is at least in part addressing officially identified forest carbon monitoring capacity gaps and needs. Vietnam's UN-REDD Phase 2 program document identifies key activities to be undertaken, such as identifying remote sensing imagery and interpretation technologies that address temporal and spatial resolution requirements, and costs for estimating activity data. According to Vietnam's 2015 SilvaCarbon Work Plan, seven of 25 identified capacity needs would be at least partially addressed by

the planned SilvaCarbon activities for 2015. The main issues not addressed relate to development of allometric equations, emission factors, and reference levels. This evaluation includes an analysis of SilvaCarbon's planned 2015 contributions to Vietnam's UN-REDD MRV capacity needs. The full summary of this analysis is included as Annex 12 of this report.

On the issue of GHG inventory in the LULUCF sector, there have been three trainings held on use of the EPA ALU software. However, stakeholders in Vietnam noted there is a critical need for the creation of land-cover maps for non-forest areas. This is currently an issue because Vietnam primarily uses SPOT data for remote sensing analysis, which is expensive, and the government's Remote Sensing Center, under MONRE, retains control of this data.

As in the Andean-Amazon region, in Vietnam SilvaCarbon is weak on engaging stakeholders beyond the primary government partner institution. During the scoping mission, SilvaCarbon representatives consulted a wide selection of stakeholders on the potential initial activities in Vietnam, but this broad consultation process did not take place within the development of the 2015 work plan for SilvaCarbon in Vietnam. Stakeholders other than FIPI (e.g., universities, other government institutions) have participated in some SilvaCarbon activities, but there has been limited direct engagement, and knowledge of SilvaCarbon remains low.

Bangladesh: In July 2014, the SilvaCarbon program conducted scoping activities with Bangladesh as a bilateral partner. SilvaCarbon's institutional partner in Bangladesh is the Forest Department of the Ministry of Environment and Forests (MoEF), though the SilvaCarbon program in Bangladesh also has a significant component funded as a project with FAO. The planned four-year SilvaCarbon program in Bangladesh is being funded by Sustainable Landscapes resources allocated through the USAID mission in Bangladesh, and is set to be one of the largest bilateral engagements for SilvaCarbon to date; the program is budgeted for approximately $8 million USD. Given the recent start of activities in Bangladesh, there are no notable capacity-development results to date.

The development of the SilvaCarbon program in Bangladesh has established a model that is ideal in many ways, but may not be easily replicable in other countries. The program was initiated by a staff member of the USAID Mission in Bangladesh, rather than centrally from Washington, D.C. Bangladesh only recently began its REDD+ readiness process (the REDD+ Readiness Preparation Proposal (R-PP) was nationally validated in November 2013), and as of early 2014 when the Bangladesh program was proposed, there had not been significant work done on the MRV aspects of the R-PP. In addition, because Bangladesh has relatively little forest cover, other donors have not been highly active in the country on REDD+ activities.

GFOI and Other Regional Workshops: The SilvaCarbon Southeast Asia regional program operates with the support of a regional coordinator based in Bangkok. The formal start of the SilvaCarbon Southeast Asia regional program dates to the institution of the regional coordinator, who has been in place for approximately one and a half years since early 2013. The regional program targets seven countries: Cambodia, Indonesia, Lao PDR, Nepal, the Philippines, Thailand, and Vietnam. The program operates through focal points in the national REDD+ units in these countries. The first regional training workshop in August 2012, prior to the official start of the program, trained nine participants from Vietnam, Philippines, and Indonesia on Satellite Data and Technical Optical Remote Sensing and Image Processing. There have been two regional workshops since then, with a total of 97 (non-unique) participants, of which 66 have been from beneficiary countries.

As in the Andean-Amazon region, beneficiary country stakeholders highlighted the importance of building the linkages among TA activities, and of linking communication and data analysis with policy decision-making.

9.3 CONGO BASIN: CAMEROON, DRC, GABON, ROC, AND REGIONAL PARTICIPANTS

Gabon: Gabon was one of the first SilvaCarbon bilateral partners. SilvaCarbon support to Gabon covered the period from the fourth quarter of 2011 through the first quarter of 2014, with a total of approximately $2 million USD. In Gabon and the other Congo Basin countries, SilvaCarbon operates as one of the USAID supported Low Emissions Development Strategies (LEDS) activities under the umbrella of the Central Africa Regional Program for the Environment (CARPE). Given that the CARPE program was already in place and providing various types of support to the Congo Basin countries, SilvaCarbon decided to brand the program's regional support as CARPE support to minimize confusion. The primary institutional partner for national forest monitoring in Gabon is the National Agency of National Parks (ANPN). The program has operated with US-national program coordinators based full-time in Gabon.

Perhaps the most significant SilvaCarbon results at the national level have come in Gabon, where SilvaCarbon was engaged in-depth for approximately three years. SilvaCarbon has supported the development of Gabon's Forest Monitoring and Observation System (FMOS) through establishment of a countrywide pilot sample of more than 100 one-hectare forest inventory plots. In the future, additional plots can be added randomly to each square, increasing sample size and coverage.

SilvaCarbon reports from the Congo Basin indicate that at least 1,600 hours of training were given to more than 30 members of field inventory teams. The training consisted of field techniques for measuring soil and above-ground carbon, soil carbon laboratory techniques, human resources management, data organization, program planning, and accounting.

With the assistance of SilvaCarbon and other partners, Gabon completed its first countrywide forest carbon inventory. Six teams of forest technicians collected field data, including species identification of trees and lianas, and tree diameter and height measurements. In addition to helping estimate forest carbon stocks, this data will be used to ground-truth future LIDAR data collection. As noted in SilvaCarbon documents, "This network of forest inventory plots is currently serving as the national natural resource monitoring system. Information collected through this system can be used to inform policy decisions about forest management and conservation, thus contributing to the Government of Gabon's interest in and emphasis on integrated approaches for natural resource management. Executing this countrywide forest carbon inventory is also an essential step for tracking the results of climate change mitigation activities in Gabon's forest sector."

Although SilvaCarbon's funding in Gabon has been completed, related activities are continuing with other sources of USG support. For example, in 2014 the University of Texas made a formal proposal to the government for a Gabon wall-to-wall LIDAR project.

Cameroon, DRC, and ROC: SilvaCarbon support for Cameroon, DRC, and ROC was initiated in late 2013, with the scoping missions to these countries in September 2013. Thus bilateral support activities have only gotten underway in 2014, and there are few capacity-development results as yet. All of the Congo Basin countries are generally considered to have relatively low levels of carbon assessment and monitoring capacity and require sustained long-term engagement to build a solid base of individual and institutional expertise to operationalize a self-sustaining national forest monitoring system and GHG inventory.

There are numerous other donors and partners active in DRC in particular, but it is still anticipated that SilvaCarbon can bring unique technical expertise and assistance in support of DRC's forest and terrestrial carbon assessment and monitoring system. In DRC, SilvaCarbon has excellent coordination with FAO, including joint work plans.

In ROC, few SilvaCarbon activities have been carried out as yet. The program recognizes UN-REDD as the primary framework within which capacity development for forest and terrestrial carbon assessment and

monitoring are being carried out. Additionally, ROC is participating in the FCPF with support of the World Bank. SilvaCarbon plans to focus on mapping wetland forests such as peatlands and mangroves.

In Cameroon, the bilateral aid agencies of the United Kingdom and Norway are actively supporting REDD+ processes. A technical work plan for MRV aspects was developed in Cameroon with the government prior to SilvaCarbon's engagement. Due to a funding gap, SilvaCarbon was able to step in at a key moment to provide support to Cameroon's MRV system. One individual working on SilvaCarbon in the Congo Basin noted that Cameroon is "almost at ground zero," and that it would likely be 10 to 20 years before the country has a sufficient base of capable national staff to work on the national forest monitoring system.

SilvaCarbon participants, both within and outside USG agencies, noted that capacity development for government agencies in the Congo Basin was a particular challenge because public sector salaries are so low and there are so few technically skilled people. When an individual is trained or acquires a specific valuable skill, that person is often poached by NGOs or private sector companies.

SilvaCarbon GFOI Regional Workshops: So far, one regional SilvaCarbon GFOI workshop has been conducted with 57 participants, of which 36 were beneficiary country participants.

ANNEX 10: REVIEW OF SILVACARBON OBJECTIVES

As mentioned throughout the report, the lack of a logical framework is a substantial obstacle to measuring the achievement of SilvaCarbon's Programmatic Objectives. The SilvaCarbon Objectives (apart from Objective 5) are shown below and include a brief description of activities being undertaken toward each objective. However, they fail to define what achievement of each objective would look like. For each objective, SilvaCarbon should identify the key results areas and should tie together discrete and measurable inputs, outputs, and expected long-term outcomes.

1. Demonstrate and compare forest and terrestrial carbon measurement and monitoring methodologies.

Achieving this objective includes critically reviewing methodologies and technologies for accuracy, uncertainty and cost to provide countries with a range of options for adoption and implementation; supporting an assessment and integration function for methodologies currently being deployed in GFOI countries; developing scientific designs for comparing methodologies in selected sites of the GFOI countries.

2. Build capacity of selected developing countries to use forest and terrestrial carbon monitoring and management methodologies and technologies.

Achieving this objective includes developing and delivering good practice guides, manuals, trainings, and tools; facilitating learning exchanges, regional forums, and networks to enhance sharing among countries; providing technical advice and assistance to governments, including GFOI countries; and partnering with other donors and with International Organizations to multiply impact and reach.

3. Facilitate, in cooperation with the Committee on Earth Observing Satellites (CEOS) and the GEO Global Forest Observation Initiative, the coordinated collection and dissemination of earth observation data related to forest and terrestrial carbon monitoring and management.

Achieving this objective includes supporting efforts to enhance interoperability, coordination, and transparency of data collection systems; participating in the design of global sampling schemes of continuous satellite observations aligned with *in situ* data collection; and enhancing access to, and facilitating the processing of, Earth observation data for developing countries.

4. Strengthen the community of forest and terrestrial carbon technical experts

Achieving this objective includes maintaining a web presence with knowledge management and social networking capabilities; convening meetings and workshops to build collaboration and greater consistency in technical understanding and in the recommendations provided to developing countries; and producing publicly-available technical documents that summarize and critique the latest methodologies and approaches.

5. Interagency cooperation and collaboration

The description of activities themselves, developed for four of the five objectives, is one of the major programmatic documents created by the program and is a good first step toward defining the key result

areas for each objective. However the objectives should be routinely updated and refined to reflect both newly incorporated and newly eliminated activities and goals.

SilvaCarbon's Program Objectives 1-4, cover the TA work being provided under the SilvaCarbon program. However, there are some major aspects of SilvaCarbon TA that are not mentioned in the objectives. Here is a summary of the major TA work undertaken by SilvaCarbon:

(1) Uses regional and national level workshops, study tours, and other activities to educate beneficiaries on the forest carbon measurement and monitoring options available
(2) Helps countries to identify/select the tools and methods most suitable to fit their needs
(3) Delivers intensive hands-on trainings with US technical experts to beneficiaries, mostly bilateral partners, to build their capacity to use and apply selected methods and tools.
(4) Makes Landsat data available to all beneficiary countries and coordinates with CEOS to deliver highly specialized TA to assess and fill the Earth observation data and systems needs of select partner countries.
(5) Funds a grant program for the research and development of new, innovative forest carbon tracking tools methodologies to fill-in the many technical gaps in this quickly evolving field

The work done under items #2 and #5 are the most glaring omissions from the SilvaCarbon Program Objectives activity descriptions. It could be argued that item #2, the identification and selection of tools and methods for application, is implied under either or both Objectives 1 and 2. However, there was a great deal of feedback from interviewed beneficiaries that they require more support during this phase of TA. This phase of TA delivery may not be getting the attention it needs. Explicitly stating this work within the objectives could help reemphasize its importance as a program focus.

As for item #5 on the list, the program's R&D work singlehandedly covers one of SilvaCarbon's four identified work areas. This area, of knowledge generation, focuses on research and development (R&D) of "forest and terrestrial carbon monitoring method and technology." However, there is no mention of R&D work in any of SilvaCarbon's five Program Objectives. A clear statement of purpose defining how SilvaCarbon's R&D work relates to the full suite of SilvaCarbon activities should be developed; it should also be incorporated into the SilvaCarbon Objectives.

In addition to the objectives being incompletely defined on the whole, in their current state, three of the five objectives are also inaccurately defined. These are Objectives 1, 4, and 5.

Objective #1 may need to be clarified and revised. Its description implies a TA strategy that was initially considered but eventually modified. USG SilvaCarbon stakeholders suggested that the initial approach of SilvaCarbon TA of "developing scientific designs for comparing methodologies" angle was abandoned due to the infeasibility of systematically and scientifically field-testing and demonstrating forest and terrestrial carbon measurement and monitoring methodologies. Objective 1 should be updated to reflect the highly-targeted, demand-driven approach to TA delivery that is the currently the basis for SilvaCarbon programming and strategy.

Objective #4 suffers from a similar problem. SilvaCarbon works with two communities of technical experts, global experts and in-country experts. Though, SilvaCarbon initially set out with the intention to fortify the community of global forest carbon experts, its work is overwhelmingly focused on strengthening the in-country expert communities. Program Objective 4's language should be corrected or made more explicit as it appears to omit the great work SilvaCarbon has undertaken with the in-country technical expert community, which outweighs that done with the global expert community both in quantity of work and in quality of outputs.

Lastly, SilvaCarbon's 5th Program Objective stands apart from the rest in that it is the only one that addresses SilvaCarbon structure and programming. Because it is the only objective to do so, it is unfortunate that it is also the only objective for which there is no articulation of the work being undertaken to achieve this objective, or indication of the purpose and expected results under this objective. This omission should be addressed.

ANNEX 11: ILLUSTRATIVE DRAFT SILVACARBON RESULTS CHAIN

The below table was developed in draft format for this evaluation as an illustrative example of the SilvaCarbon results chain that needs to be explicitly identified and articulated. An actual SilvaCarbon results chain analysis would provide more specificity and greater detail on potentially all of these elements, and would be more comprehensive. All key outcomes would be identified and defined, which could then be further developed in a results framework, with potential indicators to track the status of results.

It should be recognized that the full results chain, reaching to impact-level results, includes elements that are beyond the scope of SilvaCarbon. Thus a SilvaCarbon results chain would also need to clearly indicate which elements are within the scope of SilvaCarbon's work and objectives.

Outputs	Outcomes	2nd Level Outcomes	Assumptions	Impact Drivers	Intermediate States	Impact
- Training on analysis of remote sensing and earth observation data - High quality and high resolution land-use and land-use change maps - Wall-to-wall high resolution imagery updated annually - Well-established and accepted allometric equations for	National institutions have ability to analyze remote sensing and other earth observation data to determine forest cover, forest cover change, and forest degradation	Countries have robust National Forest Monitoring Systems, which include collection of data on factors associated with the status of carbon stocks	- Adequate national financing for NFMS and NFI - Availability of human resources - Political will to reduce GHG emissions from LULUCF sector	- Availability of high quality and timely information on forest and terrestrial carbon stocks - Forest resource managers are empowered to make appropriate forest management decisions - Adequate enforcement capacity of forest management - Forest management plans produced	Forest resources are sustainably managed to maintain or enhance carbon stocks	Reduced GHG emissions from LULUCF sector

Outputs	Outcomes	2nd Level Outcomes	Assumptions	Impact Drivers	Intermediate States	Impact
relevant species and ecosystems				that reflect carbon stock maintenance or enhancement		
- Support for methods and techniques for QA / QC of NFI data - Support for NFI planning and execution - Key elements of NFI systems, such as sampling plot establishment, technical manuals and guides for conducting measurements, technical equipment to conduct assessments	National institutions have capacity to conduct NFI to produce high quality data	Countries conduct regular NFIs (annual, biannual, quinquennial, etc.)				
- Provision of hardware and software - Training on data management - Clearly assigned institutional roles and responsibilities	National institutions have ability to efficiently manage and disseminate large data sets of remote sensing and other earth observation data					

Outputs	Outcomes	2nd Level Outcomes	Assumptions	Impact Drivers	Intermediate States	Impact
for data management						
		Countries report regularly at international level on GHG emissions LULUCF sector				
				Operationalization of financial mechanisms to provide necessary incentives	Financial incentives are in place to maintain or enhance national carbon stocks	
		MRV systems that meet international standards are in-place				
	National institutions have remote sensing and earth observation data necessary to determine national reference emission levels	National reference emission levels established				
				Land-use planning decisions are taken with consideration of forest and terrestrial stocks	Forest conversion occurs only as a result of rationalized land-use planning decisions	

ANNEX 12: SUMMARY OF RESEARCH GRANTS

Year	Research Project Title	Research Team	SilvaCarbon Individuals Included	SilvaCarbon Bilateral Country
2014	Measuring Forest Degradation for REDD+: A Synthesis Study Across Five SilvaCarbon Countries	Prof. M. Herold, Dr. V. Avitabile, and K. Calders (Wageningen University), Dr. L. Verchot and Dr. C. Martius (CIFOR Indonesia)	Wageningen University	Yes (not specified)
2014	Biomass in Degraded Forests in Peru and Brazil: Evaluation Using Airborne Lidar Remote Sensing	Michael Keller (USDA Forest Service) and Ted Feldpausch (University of Exeter, INPA, and UNEMAT)	USFS but not SilvaCarbon core team	Peru
2014	A Prototype MRV System for a Sub-region in Colombia Compliant with IPCC Approach 3 for Securing Activity Data	Dr. Pontus Olofsson (Boston University)	Boston University	Colombia
2014	Addressing Carbon Emissions and Removals from Selective Logging In Support of MRV System Capabilities in Gabon	Dr. Sassan Saatchi (UCLA), Dr. John Poulsen and Dr. Vincent Medjibe (Duke University)	UCLA, Duke University	Gabon
2014	Integration of Remote Sensing Data with Ground Plot Information for MRV	Charles T. Scott (USDA Forest Service), Doug Muchoney (USGS), Andrew Lister (USDA Forest Service), and John Poulsen (Duke University)	USFS, USGS, Duke University	Gabon, possibly Colombia, Ecuador and/or Peru
2014	Integrating Earth Observation and Forest Inventory Data in Quantifying Biomass in Degraded Forests of the Republic of Congo	Matthew Hansen (University of Maryland), Peter Potapov (University of Maryland), Alexandra Tyukavina (University of Maryland), and Ifo Averti Suspense (University of Marien Ngouabi, Republic of Congo)	University of Maryland	Republic of Congo
2014	Mapping Deforestation and Degradation in Mexico, Colombia and Peru Using Time Series of SENTINEL-1 Radar Data	Dr. Kellndorfer and Dr. Cartus (Woods Hole Research Center)		Colombia, Peru
2013	A synthesis of tropical forest degradation scenarios and	Dr. Jennifer K. Balch (Penn State University)		Not specified

Year	Research Project Title	Research Team	SilvaCarbon Individuals Included	SilvaCarbon Bilateral Country
	carbon emissions trajectories for REDD+			
2013	Inventory and remote sensing-based assessments of forest degradation	Ronald E. McRoberts (USFS), Michael Keller (USFS), Douglas C. Morton (NASA) and Erik Næsset (Norwegian University of Life Sciences)	USFS but not SilvaCarbon core team, NASA	Not specified
2013	Detecting and Monitoring Tropical Forest Degradation in Vietnam using Landsat Time Series Analysis	James E. Vogelmann, (USGS), Michael Wimberly (South Dakota State University)	USGS	Vietnam
2013	Investigating the influence of airborne lidar data density on the ability to detect low-intensity forest degradation in the western Brazilian Amazon	Dr. Hans-Erik Andersen (USDA Forest Service)	USFS but not SilvaCarbon core team	No

ANNEX 13: REVIEW OF SUB-GROUP PERSPECTIVES

This annex reviews key aspects of the SilvaCarbon program from different stakeholder perspectives. It provides more detailed information than the main report, and includes selected, illustrative citations from interviews and the online survey.

We propose that the most relevant comparison to the evaluation is between the intended beneficiaries such as government counterparts, academia, civil society, etc. (referred to as 'beneficiary stakeholders') on the one hand, and those engaged in providing services, such as USG agencies, technical experts, development partners, etc. ('provider stakeholders'), on the other. (See the box below for definitions of who is included in the respective groups.)

Stakeholder Definitions

Beneficiary stakeholders:

- Country government institutional partner
- Country university / academia (beneficiary of SilvaCarbon)
- Country civil society organization (beneficiary of SilvaCarbon)
- Non-USG capacity building delivery/implementation partner (e.g. university, civil society)

Provider stakeholders:

- Headquarters FAO
- Headquarters SilvaCarbon United States government (USG) agency (e.g. USAID, USFS, USGS, NASA, Smithsonian, Department of State)
- In-country SilvaCarbon United States government (USG) agency (e.g. USAID, USFS, USGS, NASA, Smithsonian, Department of State)
- Country FAO office

Not all issues addressed in the main report under the evaluation questions are covered here. This is generally because the issue was not explored with one or the other stakeholder group –e.g. beneficiary stakeholders were not asked about internal SilvaCarbon program processes, such as coordination or reporting, or country selection criteria; provider stakeholders were not asked about satisfaction with program support.

This discussion highlights similarities and differences between the two broad groups, but refrains from exploring explanatory factors behind any differences (which were found to be relatively few, or ambiguous, given the qualitative nature of the data and small sample on which most of the findings are based).

The analysis is based both on quantitative (online survey) and qualitative findings, drawn from key informant interviews and open-ended responses in the online survey.

13.1 CONCLUSIONS

- Overall, based on both the key informant interviews and online survey responses, relatively few clear differences were found between the perspectives of the two stakeholder groups. In fact, based on review of the data, it is possible that statistical analysis would reveal that intra-group differences (i.e.

among beneficiary stakeholders and among provider stakeholders) are larger than inter-group differences.

- On the positive side, workshops, as well as access to an international network of experts, are highly valued. Beneficiaries generally agree with the program's focus on government institutions as the key counterpart. Beneficiary perspective generally confirms that the program is demand-based, as intended. They also confirm that SilvaCarbon partner agencies help them to access and analyze data.
- On the negative side, program sustainability is unclear, but suggestions were made for ways of enhancing it. Weaknesses are noted with regard to communication, by both stakeholder groups.
- Intergroup differences are most evident in variations in emphasis. Beneficiary stakeholders focus more on technical-policy linkage than provider stakeholders. They often raise the issue of the technical and the policy gap (and the need to address it), frequently in response to a separate issue, such as sustainability of program results, or communication.
- Workshops are highly valued by both stakeholder groups. Both regional and national workshops are seen to provide benefits, with the former serving as productive cross-learning and networking opportunities, and the latter for allowing attendance by more country staff. Nonetheless, suggestions on improving workshops, in terms of their target audience, technical level, and presenters were made.

13.2 MAIN FINDINGS

13.2.1 DEMAND-BASED ASSISTANCE

The SilvaCarbon program is designed as a demand-based approach, responding to the stated needs of the countries where it is active. Many USG stakeholders emphasized this point during key informant interviews and meetings.

The majority of beneficiaries concur that the SilvaCarbon program does indeed adapt its capacity building assistance to country needs. SilvaCarbon is described as being very open, and its assistance adapted to country needs, as identified by the countries themselves. There are some exceptions (as noted in comments about the capacity building workshops, below), for example, cases where the technical focus of country or regional workshops was not well suited to the participants' own technical levels or available tools. However, overall, beneficiaries confirm that assistance is demand-based and tailored to country needs. One respondent noted that flexibility and responsiveness are key to achieving sustainable results.

However, SilvaCarbon is not "blindly" demand-responsive, providing whatever assistance is asked for; generally, country needs are jointly assessed between country counterparts and SilvaCarbon experts as part of the scoping mission exercise. As a provider stakeholder pointed out, "we need not be very demand-driven if country just asks for assistance, which may not fit into the 'uber-objective.' We work with missions to adjust [SilvaCarbon support] on a country basis."

Demand-based Approach
Beneficiary stakeholders: "[SilvaCarbon assistance] is tied to the country's needs. It has tried to adjust to our capacity building needs. (Latin America KII)

"Because we are part of the UN REDD program we want to make the references scenario. We have a checklist. We try to resolve these items. SilvaCarbon has helped all along the way in this process. If there is something we need, they help us meet that need." (Latin America KII)

"At many times I was personally involved in adjusting the SilvaCarbon agenda to the needs of the country. SilvaCarbon asked us at the outset: What is your current stage, what do you need next and in the future what do you want?" (Latin America KII)

"Appropriate to Colombia and [my organization's] capacities…by not taking a one size fits all approach" (Latin America KII)

"Technical assistance is very targeted to needs - how to quantify forest cover and change. Very responsive to what [my Ministry] wants and needs." (Latin America KII)

Referring to program weakness: "Obtaining country feedback on approaches and techniques for continued improvement." (Online survey respondent)

Provider stakeholders:

"We…believe in a philosophy of capacity building and not a top-down approach; working with labs around world to strengthen their analytical abilities to do this." (USG key informant)

"[USG Agency] work is demand-driven, we wait for them to invite [us]." (USG key informant)

13.2.2 ON WORKING WITH GOVERNMENT INSTITUTIONS

Among beneficiaries, SilvaCarbon is seen to work best with government, because that is where most of the in-country capacity and expertise lies. The SilvaCarbon program approach was consciously designed, according to a USG key informant.

Based on the online survey responses, the majority of beneficiary stakeholders believe that the counterpart with the most capacity to facilitate country goals and needs is government staff (53%) followed by contracted technical staff in government (13%). Only 3 out of 47 respondents pointed to academic institutions as having the greatest capacity in this area.

Table A. Beneficiary stakeholders: In your country, what group would you say has the most capacity to facilitate meeting the country's MRV goals and forest carbon monitoring and reporting needs?

Group	Group with the most capacity to facilitate goals and needs	
	N	%
Government staff	25	53%
Contracted technical staff in government	9	19%
Academic institutions	6	13%
Consultants, working regionally	3	6%

Group	Group with the most capacity to facilitate goals and needs	
	N	%
International consultants, locally-based	2	4%
National consultants	1	2%
NGOs	0	0%
*Other	1	2%
Total responses	47	

Source: Online survey, Question CI6.

In many, if not most countries where SilvaCarbon is active, government ties with academia are fairly uncommon, in contrast to the situation in the US, and beneficiaries (most of whom are themselves in government) confirm that there are weak links with non-government actors. However, a key informant from a Latin American university who was involved in SilvaCarbon activities noted that more interaction between state actors and non-state actors would be beneficial, adding that, "had we not been invited by the USFS, perhaps we would not have been involved or known about it."

Perspectives on Working with Government Institutions

Beneficiary stakeholders:

"SilvaCarbon is linked directly to the government. This is good as I am the counterpoint to the government and can report the results back home. It would be less effective to work through an NGO." (Southeast Asia KII)

"Always work with government agencies. This ensures that capacity is built and remains within the [state] institutions." (Latin America KII)

Provider stakeholders:

"In terms of broader stakeholder groups, we made decision fairly early on that we're focused on one type of capacity – government capacity, so in that respect would say we haven't left out groups, made that choice, and been clear about that, would say that is a reasonable approach."

13.2.3 WORKSHOPS AS A CAPACITY BUILDING TOOL

SilvaCarbon holds both regional and country workshops and the majority of beneficiaries appear to consider both types as valuable approaches, as do provider stakeholders. This is borne out by responses to two different survey questions. To the first, concerning "Most effective ways identified to deliver good practice materials related to forest carbon monitoring, assessment and reporting", three quarters of online survey respondents (from beneficiary countries) agreed that regional workshops were one of three most effective ways "to deliver good practice guides, manuals, and tools related to forest carbon monitoring, assessment and reporting," with 45% saying the same of national workshops. This compared with a smaller share of

respondents favoring In-country mentoring/technical assistance (39%), study tours (34%), or visits by international consultants as the best way of delivering this particular type of assistance.

Table B. Beneficiary stakeholders: What has been the most effective way to deliver good practice guides, manuals, and tools related to forest carbon monitoring, assessment and reporting?

Response (Beneficiary stakeholders only)	Most effective ways identified to deliver good practice materials related to forest carbon monitoring, assessment and reporting. (Check maximum 3)	
	N	% (Respondents)
Regional workshops	28	74%
National workshops	17	45%
In-country mentoring/technical assistance	15	39%
Study tours	13	34%
Visits by international consultants	12	32%
Contracting technical staff to be based in government	4	11%
Total responses	89	
Total respondents	38	

Source: Online survey, Question CI13

The popularity of workshops was confirmed by a survey question about 'the most valuable approach of SilvaCarbon. Both stakeholder groups rated workshops as "the most valuable approach of SilvaCarbon." The second most popular approach, again between both types of stakeholders, was technology transfer through in-country technical assistance.

Table C. All stakeholders: What would you highlight as the most valuable approaches of the SilvaCarbon program for you and/or your team?

Responses (check all that apply)	Most valuable approaches of SilvaCarbon program					Responses (check all that apply)
	Beneficiaries			Providers		
Workshops	17	71%		18	78%	Workshops
Technology transfer through in-country technical assistance	16	67%		13	57%	Technology transfer through in-country technical assistance
Technology and knowledge transfers through study tours	14	58%		9	39%	Enhancing data access
Joint research activities	12	50%		8	35%	Joint research activities
Enhancing data access	11	46%		8	35%	Technology and knowledge transfers through study tours
Enhancing data use	5	21%		6	26%	Enhancing data use
Responses	24			23		Responses

Source: Online survey, Question SWR1

Likewise, key informant interviews with in-country counterparts indicated a high level of interest in the workshop approach. Some made requests to expand them to include more participants, which could be achieved by having more in-country, as opposed to regional, workshops, and to expand follow-up on the training provided at workshops.

However, workshops are not seen as a panacea; weaknesses were also noted. For example, a beneficiary respondent recommended selecting participants more carefully to ensure they had the right technical skill levels to benefit from attending workshops. Other beneficiaries recommended tailoring workshop training more carefully to the technical capacity of attendees. Another observed that presenters did not always have the right technical background for delivering workshop material. Finally, training sessions sometimes assumed the availability of technology or equipment in-country when this was not the case.

Requests were made by some to hold more in-country workshops, to allow more country stakeholders to attend. More follow-up support following workshops was also requested.

It is noted that key informants from Latin America spoke more positively about the workshops than Southeast Asia key informants. This is very likely related to the fact that many more workshops have been held in LA--since the program began earlier there and LA country stakeholders have thus had more opportunity to benefit from and use what they have learned at the workshops.

Although workshops are a big part of SilvaCarbon assistance, provider stakeholders, and a key forum for exchange of information and country experiences, were aware that workshops are not always well-tailored to countries' specific needs.

One provider stakeholder underlined the value of workshop participants being exposed to a regional perspective, specifically, how work is conducted in other countries. She noted the value "countries talking to one another," of south-south and peer-to-peer exchanges and cooperation.

A provider stakeholder also noted that it was unlikely that countries would hold or pay for their workshops if SilvaCarbon, or another donor, did not fund them.

Perspective on the Value of Capacity Building Workshops

Beneficiary stakeholders:

"I have used the knowledge in developing national forest monitoring system action plan for our country." (Online survey respondent)

"Do follow-up on workshops to see how well we are using it and if we are using it well or can make improvements." (Online survey respondent)

"Organized workshops are always followed by technical support." (Online survey respondent)

"Workshops made me aware of data availability." (Online survey respondent)

"Workshops need to be more adjusted to real local needs." (Online survey respondent)

"It is very difficult to use software that most of the time is very expensive or inaccessible." (Online survey respondent)

"[Recommend that] trainings are held in-country, so that not just one technician is able to take advantage, but so that all can. The ministry does not absorb all the training …This would require want more in-country training of larger number of technical staff." (Latin America KII)

"SilvaCarbon has had workshops before (last year) with specific technical issues the team wasn't ready for. We were educated in subjects but didn't have the use for them, didn't have data so we could use the information." (Latin America KII)

Responding to question "How can SilvaCarbon and its partners assist countries in bridging the gap between scientific/technical issues and policy/decision-making: "More hands-on exercises instead of theoretical workshops." (Online survey respondent)

Provider Stakeholders:

"At the Columbia capacity building workshop, it was great for me to get a pulse on the country experience on how our work has gone." (USG key informant)

[as a program weakness] "Lack of manual and concrete practical cases at the Workshops." (Online survey respondent)

[as a program weakness] "Some workshops are not focused on real needs of the countries." (Online survey respondent)

"Workshops may not be appropriate, sometimes too technical, due to other donor requests." (Key informant interview).

13.2.4 SUSTAINABILITY OF PROGRAM ASSISTANCE

Online survey respondents were explicitly asked: "what measures could the SilvaCarbon program take to enhance sustainability of results." Several themes emerge for both beneficiaries and providers/development partners: the need for continuous, ongoing activities (including follow-up and monitoring), suggestions for institutionalizing practices, and technical concerns.

Most beneficiaries report they require, or would like, several more years of SilvaCarbon capacity building assistance to consolidate the work and arrive at the desired results. This is tied in with perceived institutional and technical weaknesses. There is a general sense among beneficiaries that the capacity which would enable country counterparts to reach their goals (in the areas which they are partnering with SilvaCarbon) is not yet in place.

Some survey respondents noted that SilvaCarbon has effected changes in country policy, which is an important element in sustaining and committing to results.

Provider stakeholders expressed different views on the sustainability of SilvaCarbon program efforts. While some noted the impacts on local capacity, others were unsure whether the work would result in sustainability.

Key informants from Peru noted that there are plans to set up a technical institute, ideally within two years, to implement the country's REDD+ program. However, until that time,

Some respondents stressed that working with government counterparts was important for sustaining results, given that this is where most of the existing capacity lies.

Perspectives on the Sustainability of SilvaCarbon Results

Beneficiary Stakeholders:

"For now, SC should take the program through the whole process." (Latin America KII)

"From our perspective, we need many more years to work jointly to consolidate the process." (Latin America KII)

"We expect SilvaCarbon to keep touch with our needs and continue address to our requests and help us institutionalize our teams and efforts in country." (Southeast Asia KII)

Provider Stakeholders:

"We are always thinking about [sustainability of program capacity building]. We engage with different institutions. I think countries are starting to think about that, because of the UNFCCC reporting requirements, to really institutionalize what they can, and make sure there is sustainability." (USG key informant)

"There's been a lot of effort to build it into national programs and systems, so results achieved should be wrapped in the work of the country." (USG key informant)

"When funding dries up, probably a lot of balls will drop. Wouldn't say that under our current model sustainability from efforts to date is high." (USG key informant)

"SilvaCarbon is making a very big difference in their ability to do this stuff. Not sure how dependent, but SilvaCarbon is having a big impact on their capacity." (Country-based AAAS Fellow)

13.2.5 TECHNICAL-POLICY LINK

Many respondents stressed the importance of linking technical assistance with policy areas, and how there is often a gap which needs to be bridged in their country, or challenges to address. This is tied to the issue of sustainability – more government buy-in is seen as important for integrating the results into country policy.

Another reason for closer policy maker engagement with SilvaCarbon, shared by a Latin American stakeholder, concerned the risk that the new knowledge would not "surviv"Ministry staff turnover, which is a common problem in countries. Stronger institutional involvement by the government might help 'internalize' the technical capacity.

While SilvaCarbon doesn't focus on the policy side, this does not mean that nothing is happening. Based on the online survey, 13 provider respondents from eight different countries (in all three regions) responded positively to the question: "Are you aware of instances, when participation in SilvaCarbon directly or indirectly effected any changes in government or agency forest management policy." (Twenty five responded that they were not aware.)

Table D. Provider Stakeholders: Are you aware of instances, when participation in SilvaCarbon directly or indirectly effected any changes in government or agency forest management policy?

Response	SilvaCarbon participation effected changes in policy	
	N	%
Yes	13	34%
No	25	66%
Total responses	38	

Source: Online survey, Question IA10

A provider noted that few policy makers participate in workshops, and indeed, workshops do not target policy makers. This was felt to be a risk for institutionalizing the SilvaCarbon program achievements.

SilvaCarbon providers are aware of the technical-policy gap issue, but hold differing views on how and whether to address it. Some believe that it is best to keep a narrow technical focus, and avoid the political dimension. Others responded that bringing in policymakers into the discussion was important, because technical issues cannot be divorced from policy discussions. Furthermore, they noted that building awareness among policy makers could be a key factor in promoting sustainability.

One USG provider agreed that much of what SC does is "plugged into the technical wor,yet notes she has seen the technical work feed into policy discussions. For example, with regard to reference levels, she said that "we are now seeing demand from countries to work on reference levels coming out of that policy discussion. SilvaCarbon provides support to fill technical gap to fill policy demands."

Perspectives on the Link Between Technical and Policy Areas

Beneficiary Stakeholders:

"We need more institutional-governmental support within the country" (Online respondent)

"I think that institutional arrangements are being defined" (Online respondent)

"If the politicians would realize how the [SilvaCarbon] support works and that this is tool for their own government, it would be more feasible to develop more things. Results don't always depend on SilvaCarbon, but on how they are implemented in the country, because they come to a political decision." (Latin America key informant)

"[to improve sustainability] make sure that experience and training is retransmitted to…government and ministries." (Latin America key informant)

Provider Stakeholders:

"SilvaCarbon is improving demand-driven technical capacity [which] also generates political buy-in." (USG key informant)

"SilvaCarbon has limited capacity and ability to influence political agendas." (USG key informant)

[To strengthen sustainability] "Listen more to the needs of the countries." (Online respondent)

13.2.6 ACCESS TO DATA

Beneficiary stakeholders were asked about whether and how SilvaCarbon program facilitated their access to data, and whether they were satisfied with the assistance.

Many respondents confirmed that partnering with SilvaCarbon has given them access to data (Landsat), as well as provided training for analyzing it. Data is sometimes downloaded from the web (e.g. USGS website) and quite often delivered by SilvaCarbon partners or experts on hard drive when they visit the country.

A Latin American key informant noted that they receive data from a variety of sources (LandSat, ESA.), and that the entire whole GFOI and GEO group, not just SilvaCarbon,, assists them in this area. However, SilvaCarbon facilitates provides the GEO contact group, and through they we have contact with GFOI.

While some online survey respondents replied that SilvaCarbon did not increase their access to data,[2] the reasons given were mostly because they were obtaining it from other sources or development partners (e.g. for Sentinel, RADAR, RapidEye) the data was not needed, or they had not reached that stage in the process yet. In Ecuador, beneficiaries reported that SilvaCarbon provided Landsat images to them directly, and then trained them using an algorithm developed by UMD.

Not all feedback was positive. One beneficiary felt that data access was a program weakness, noting that SilvaCarbon was not enhancing data access or applying an open data policy; although support should be for the entire country the data was only used by a select group. They concluded that "This is not helpful at the country level."

Table E. Beneficiary Stakeholders: How does SilvaCarbon support your use of Earth observation data? Check all that apply.

Type of support	Ways SilvaCarbon supports use of Earth observation data	
	N	% (Respondents)
Integration of remote-sensing data and field data	17	46%
Transparency of data collection systems	13	35%
Analysis of high resolution data	13	35%
Coordination	10	27%
Enhanced interoperability	4	11%
*Other	9	24%
Total responses	66	
Total respondents	37	

Source: Online survey, Question CI18

[2] Question CI17

Perspectives on Access to Data

Beneficiary Stakeholders:

"Even though data may be free, the capacity to access and store the data is not always there."

"In terms of data generation of data/info we can go on alone. For research component, we are dependent because we a bridge between research groups is needed, and for this we are still dependent on SilvaCarbon, which serves as a catalyst"

13.2.7 ACCESS TO NETWORK OF EXPERTS

SC opens up a network of technical experts, facilitates access to, direct contact with them. Beneficiaries noted that they expected to be in continuous contact with high level international technical groups, which would permit them to develop their own capacity.

A Latin American beneficiary stakeholder highlighted the exchange of experiences and training, according to the specific needs of our country, and direct contact with experts, as particular benefits.

One provider stakeholder expressed the view that the SilvaCarbon members underestimate their potential to foster an international network, even though this is one of its key objectives.

Of course, access to a large network of experts does not guarantee their availability, as one USG stakeholder noted: "We have a network of expert in USG and in countries but it is not getting very big and we are asking all of them to do more. Many of the same scientists are in high demand for international contributions for REDD+ efforts."

Perspectives on Access to Network of Experts

Beneficiary Stakeholders

"From our perspective it is very important to maintain this contact [with international technical experts]. SilvaCarbon has helped us to maintain contact with these groups. (Latin America Key informant)

The capacity building is part of it, but the facilitation of communication, that is a key component. Communication with other research groups, other countries, other programs working on same subject. That has led to workshops and other interactions. That communication has really helped. (Latin America Key informant)

Provider Stakeholders:

"We are a really great network, we work in so many countries, and are plugged into an international network [GFOI]. But we don't see ourselves that way. I think there is potential to help country partners connect, plug into other partners. I think that is a potential that we've probably underestimated."

13.2.8 COMMUNICATION

SilvaCarbon's external communication, an Achilles' heel, as acknowledged by providers, is perceived as a significant weakness among beneficiaries as well. (This is in contrast to internal communication between SilvaCarbon partners, which is perceived as very good, even exemplary for an inter-agency initiative.) Providers describe possible shortcoming with communication and the need to "clearly articulate the value" of the program.[3]

When asked for general recommendations to improve, strengthen, or enhance SilvaCarbon support, communication/collaboration emerged as a strong theme at all levels - national, regional and global. Some beneficiary stakeholders are also critical of coordination of efforts, which is generally seen as a major positive at the inter-agency level.

In general, for provider stakeholders, the issue of communication is related to more basic support/structural issues than it is for beneficiaries.

Perspectives on Communication

Beneficiary Stakeholders:

Responding to questions on program weaknesses: "Lack of ongoing communication." (Online survey respondent)

Responding to questions on program weaknesses: "Communicating what can be done now, what we need to research, and what is not at all feasible is needed." (Online survey respondent)

To strengthen SilvaCarbon regionally: "Involve already established international cooperation partners." Online survey respondent)

Provider Stakeholders:

"We need a better communications strategy. We're not getting a big bang for our buck." (USG key informant).

"I would improve communication to a larger audience besides just the US and international government audience already familiar with this work." (USG key informant).

The communication and branding of SC could be more effective. More organized, standardized. (USG key informant).

[3] While the evaluation was underway, the SilvaCarbon program began addressing this issue by hiring a communications specialist, housed within USFS.

"Better communication strategy is needed" (online survey respondent)

ANNEX 14: VIETNAM 2015 WORKPLAN REDD+ ALIGNMENT ANALYSIS

14.1 SILVACARBON VIETNAM 2015 WORKPLAN ALIGNMENT WITH REDD+ MRV ACTIVITIES

Workplan Item #	Workplan Item Description	Number of REDD+ MRV Activities Contributing To (25 total possible)
8	Raster-based software training on the use of ArcGIS, ERDAS, and potentially other software	10
10	Development of training material (courses or guidelines) for more institutional, long-lasting material on forest inventory.	10
5	Improvement of QA/QC in the Field	8
11	Continuing the design work on the NFA to build upon the progress that has been made on forest inventory sampling and design.	8
16	Potential Activity: Mapping and Remote Sensing Needs and Resources Assessment & GIS Data Compilation - A basic requirement for developing a national greenhouse gas (GHG) inventory for the Land Use, Land-Use Change and Forestry (LULUCF) sector, when using guidelines developed by the Intergovernmental Panel on Climate Change (IPCC), is a complete and consistent representation of a country's land base, categorized into the following six land uses: forestland, cropland, grassland, settlements, wetland and other lands. These broad land use categories then need to be sub-divided into country-specific subcategories.	8
3	Pilot in Field Data Management to understand the benefits of a PDR or handheld device and associated software for collecting data in the field. SilvaCarbon could equip half of one sub-FIPI as a pilot (maybe in the South). The pilot would compare the use of PDRs against a control of not using PDRs. We could compare cost, accuracy, time, etc. and then do an evaluation.	7
6	Landsat 8 for Multiple Time Series Monitoring of Forest Resource Changes to improve forest cover maps for different periods of time.	6

Workplan Item #	Workplan Item Description	Number of REDD+ MRV Activities Contributing To (25 total possible)
9	Data Analysis training will expand upon the previous data analysis training, will start with a short introduction on the inventory process and then it will focus in on data analysis. It will be a hands-on TOT training for the core team of FIPI staff and it will include in-class exercises	5
14	Comparison of forest cover products from time series systems - In developing national forest cover mapping and monitoring programs, and estimating forest cover changes at a large scale, a number of methodologies for semi-automated remote sensing-based forest cover mapping/estimation are available. These methodologies are constantly being improved and changing over time. The primary objective of this activity will be to provide guidance to Vietnam of a revision of current and developing methodologies for possible integration with Vietnam's satellite data.	5
17	Activity: Compilation of IPCC data, addressing data gaps and preliminary mitigation analysis - to meet international reporting requirements and to place the country of Viet Nam in a good position to develop NAMAs and take advantage of carbon financing mechanisms like REDD+, it is critical to develop the capacity within the Government of Viet Nam to produce accurate, complete and transparent GHG inventories that are continually and incrementally improving.	5
12	Workshop in the use of radar for LULC applications is to familiarize Vietnamese scientists with the use of radar independently or in combination with optical data for land use/land cover mapping. This will be a hands-on workshop using ERDAS IMAGINE software and radar data for Vietnam.	4
15	Training in Accuracy assessment and understanding validation of activity data - complementary to the three previous activities. The two main goals of the workshop are to provide participants with (1) a good understanding of the many components for consideration when developing a validation activity and (2) hands-on implementation practice	4
2	Comparison between SIPB2 and Open Foris	3

Workplan Item #	Workplan Item Description	Number of REDD+ MRV Activities Contributing To (25 total possible)
13	Evaluation of Methods for Biomass Estimation and Forest Carbon Mapping workshop will seek to review methods associated with the different remote sensing sources for estimating biomass, whether optical a, SAR or LiDAR data. In addition this workshop will focus on the revision of the critical issues associated with biomass estimation methods, such as available field data plots, the analysis of uncertainty of the estimates, the use of adequate algorithms, and the use of appropriate metrics for biomass models.	3
1	Short seminar for VNFOREST and MARD senior and high-rank officers to give decision makers a clear understanding of the forest inventory process so that they understand the different components and are supportive of FIPI's needs.	1
7	International workshop attendance sending FIPI staff to participate in international trainings or conferences that are being held by other organizations, we would take advantage of an existing resource and expose FIPI to the latest work that is being done around the world.	1
4	Training on report development to train key people and/or team leaders so they know how to create a report structure and write a report.	0

14.2 PLANNED VIETNAM UN-REDD+ ACTIVITIES SUPPORTED BY SILVACARBON WORKPLAN ACTIVITIES

Under Output No.	Indicative Activity	Number of SilvaCarbon Workplan Activities Supporting
3.2	For Forestry Land: Improving capacity (through increasing number of trained staff and provision of relevant software and licenses) for sub-FIPIs, in particular for improving the quality of RS interpretation and accuracy assessments (see also section on capacity building needs under estimation of EF)	10
3.3	Forestry land: Field inventory capacity will require training on new field inventory protocols and be supported by the GIS and RS, which will provide them with maps detailing the locations of sample plot sites; and	9
3.2	Identify appropriate RS imagery and interpretation technologies taking into account temporal and spatial resolution and cost of estimating AD of the five REDD+ activities and required frequency for reporting and updating the REDD+ GHG-I;	7
3.2	Estimate annual costs for RS systematic ground-truthing across the country;	6
3.4	In close coordination with the Standing Office for Climate Change under MONRE (within Department of Meteorology, Hydrology, and Climate Change: DMHCC), identify, institutionalize and build capacity of the agency responsible for compiling the forestry sector GHG-I based on the information system made available from the MRV elements;	6
3.4	Identification and training of sufficient numbers of staff managing the NFMS, who are, i) well-versed with the UNFCCC requirements of the GHG-I and are familiar with the operations of the shared information platform, ii) familiar and capable of coordination of MONRE and MARD agencies carrying out each component of the NFMS, including land classification related issues, and organizing joint periodic reviews, and iii) familiar with the respective steps of MRV to manage QA procedures.	6
3.2	For Non-Forestry Land: Building overall capacity in RS-based land mapping.	5
3.2	Test forest/non-forest and forest type detection using low-med spatial resolution RS imagery with high temporal resolution for identifying "hotspots" for analysis;	4
3.2	In collaboration with parties working on the National Forest Inventory and Statistics Programme, develop and formalize procedures for ground-truthing the AD generated through RS;	4

Under Output No.	Indicative Activity	Number of SilvaCarbon Workplan Activities Supporting
3.2	Develop a procedural manual for the operationalization of the LMS including QA/QC (Quality Control) procedures and procedures to cross-check with Monitoring results;	4
3.3	Develop methods for QA/QC and internal verification of the NFI;	4
3.3	Design protocols for cross-referencing data collected through Monitoring (Output 2.7) which caters to QA of NFI data;	4
3.5	In the pilot provinces, assess and develop historical trends based on medium resolution RS imagery and available past (namely from NFIMAP) data for determining the benchmarks for each type of REDD+ activity;	4
3.3	Setting/improving/revising sampling design, and standardized protocols for the collection of field data for the NFI;	3
3.4	In close coordination with the DMHCC, review existing procedures and improve and establish procedures for verification, for the forestry sector;	3
3.2	Review and aligning land use classification systems between MARD and MONRE;	2
3.4	Develop a QA/QC plan for the forestry sector;	2
3.3	Following up from the Phase I Programme, develop and implement a plan identifying gaps for further work on country-specific tree allometric equations and biomass conversion/expansion factors;	1
3.3	Design an inventory system and field data collection protocols to generate EFs for representative land use types of non-forestry land, which frequently undergo conversion to/from forests (to identify EFs for "forests" outside forest lands and also to address the REDD+ safeguard on the displacement of emissions);	1
3.3	Training for the development of one or two specialised carbon inventory database(s); Training on the generation of EFs drawing from the results of the inventory work and the allometric equations and conversion/expansion factors (e.g. training to use data from plot censuses (e.g. diameter at breast height, tree identification, soil and other carbon content) and from research (e.g. tree allometry data) to estimate EFs for each strata);	1
3.3	Non forestry land: Field inventory for carbon also needs to be institutionalized within the research community. Building capacity	1

Under Output No.	Indicative Activity	Number of SilvaCarbon Workplan Activities Supporting
	for conducting the inventory based on standardized protocols for collection of field data will also be a requirement.	
3.4	Identify capacity gaps;	1
3.3	Based on land use and forest classification systems, determine forest and land use strata for which EFs need to be developed	0
3.3	Link the allometric equation database with the NFI data and other REDD+ information systems;	0
3.5	In line with the progress of UNFCCC deliberation on REL/FRLs, draft recommendations and provide support towards the establishment of REL/FRLs at the national level.	0
3.2	Based on the framework design of the LMS (developed in the Phase I Programme), develop a web-based system to be integrated to the NRIS;	Not relevant
3.2	Develop institutional arrangements with sub-national FPD and DONRE offices playing a key role;	Not relevant
3.3	Pilot protocols to test practicability for pilot provinces (if necessary);	Not relevant
3.4	Identify the agency(-ies) most appropriately positioned to carry out this task;	Not relevant
3.4	Define institutional roles between the agency and DMHCC for carrying out the tasks;	Not relevant
3.4	In close coordination with DMHCC, review existing procedures including institutional arrangements and improve and establish standardized procedures and institutional arrangements for QA/QC for the forestry sector;	Not relevant
3.5	Centrally establish approaches of setting and monitoring interim performance indicators per each type of REDD+ activity;	Not relevant
3.5	Once the indicators and benchmarks have been established (target is for end of Year 1), the national MRV capacity (i.e. AD generated through Outputs 3.2and EF from Output 3.3) will monitor performance for each of the indicators, generating annual updates	Not relevant

ANNEX 15: OPTIONS FOR IMPROVED TRANSPARENCY & DOCUMENTATION OF SILVACARBON

The GCC M&E Task Order that covers the SilvaCarbon Performance Evaluation requires that final evaluation reports include "options for improved transparency and documentation." The recommendations outlined in the main body of the evaluation report include multiple elements that could contribute to improved transparency and documentation for the SilvaCarbon program. These recommendations include the following points related to transparency and documentation:

1. Improvement of the SilvaCarbon website as a dynamic resource regarding the program and its activities, and as a knowledge platform. SilvaCarbon could significantly enhance the capabilities of the website. The USAID LEAF program website (http://www.leafasia.org/) provides one example of a more dynamic program website with significant knowledge resources.
2. In addition, the SilvaCarbon website could be used to publicly post the regular quarterly, semi-annual, and annual activity reports of the SilvaCarbon program from the bilateral partner countries and key regions.
3. External communications, including but not limited to enhanced use of the website, would also strengthen transparency and documentation. There was important progress made on this front in 2014 with the development of a communications plan and the hiring of a communications focal point. The execution of the communications plan is then an important next step.
4. SilvaCarbon could improve the transparency of the decision-making process about which countries it decides to engage on a bilateral basis. As discussed in the evaluation report, there are a number of unwritten criteria, which may be clear to internal SilvaCarbon steering committee members, but which are not clearly documented, publicly available, or clearly discussed in SilvaCarbon internal documentation such as steering committee meeting minutes.
5. Once SilvaCarbon does engage with a country on a bilateral basis, transparency and documentation would be significantly enhanced if the program clearly communicated to bilateral partners the expected approximate length of engagement that the program is expecting, and the scale and scope of resources SilvaCarbon has to offer. In the current case of Vietnam, the SilvaCarbon country coordinator did not even have a clear understanding of the amount of funds SilvaCarbon had spent in support of the country or the amount of funds that might be expected in the future. Country partner institutions would be in a better position to make strategic decisions about how to use SilvaCarbon support if they had a clear understanding of what that support consisted of. Other beneficiary stakeholders mentioned that they did not necessarily have a clear understanding of all the potential technical resources SilvaCarbon could offer.
6. The development of a results framework with key results areas is an important opportunity to improve transparency and documentation, as this would allow external stakeholders to clearly understand what

SilvaCarbon is trying to achieve, and the key outcomes it is working toward. An example results chain is included in Annex 11.

7. The development of a systematic monitoring and reporting framework is another opportunity for enhanced transparency and documentation. At present, SilvaCarbon activities and results are not reported consistently between regions or countries where the program is active. Frequent verbal internal reporting does happen on a regular basis through the central technical team and steering committee meetings, but written activity and results reports are produced irregularly. In addition, the USG agencies involved have separate reporting tracks, with some program level reporting to the central coordination mechanisms, and other reporting formats just to USAID or DOS, based on the inter-agency funding agreements.
8. It would also be useful if SilvaCarbon documented the funding streams of the program in a more comprehensive and systematic manner.
9. To improve transparency regarding gender equality efforts at the program level, sex-disaggregated data should be consistently collected and reported for all training and workshop and other capacity building activities. Report narratives should also discuss implications of gaps found when reviewing sex-disaggregated data and include actionable items to address these gaps. Key program planning documents should be subject to review by USAID gender advisors. In the absence of USAID gender advisor, especially in the countries with the strong established collaboration with FAO and other UN agencies, it is recommended that UN REDD+ gender advisors be invited to ensure that gender considerations are incorporated into planning and implementation.
10. Efforts should be made to bring primary forest carbon management stakeholders to the discussion table together with women's and indigenous groups. This would improve communication on gender equality at the country level and reemphasize SilvaCarbon's commitment to the promotion of gender equality.

ANNEX 16: ONLINE SURVEY COMPLETE DATA TABLES

Introduction and Comments

The following tables were derived from the data obtained through the online survey, combining the responses from the three language versions--English, French and Spanish. These versions are identical except as noted in the tables. The tables are presented in a format that maintains the integrity of the data.

The tables are organized in sections, in the order of the survey, with each section headed by a brief description of the respondent categories to which it applies.

Wording of the questions and responses is retained as presented in the survey, except to simplify wording of explanations for text responses. For example, "Specify, please explain," was reduced to "Explain" in the tables in order to increase readability.

If the question allowed for or requested an open-ended response (e.g. "other, specify" or "please explain if 'no'" the specification is retained, as in "Explain if 'no,"' in order that it is clear as to which respondents are providing textual responses. Where open-ended responses were given, they are presented following the table to which they refer.

Nominal variables are ordered according to numerical rank, highest to lowest, and ordinal variables are in rank order as presented in the survey.

A total of 479 persons connected to the SilvaCarbon program (beneficiaries, service providers and development partners) were invited to take the online survey. Of these 113 responded, and 97 answered at least one question, for a response rate of approximately 20%. Not all survey takers completed the survey.

In some cases there are inconsistencies between the number of textual responses and those reported; these have been checked, and are due to download formatting; all textual responses are provided. Other inconsistencies are noted in the tables.

Section BG: All respondents

2. BG1. WHAT IS YOUR SEX?

RESPONSE	MALE, FEMALE	
	N	%
MALE	66	68%
FEMALE	31	32%
TOTAL	97	100%

3. BG2. What is the timeline of your engagement in SilvaCarbon (including GFOI, CARPE) activities?

Response	Timeline of initial and most recent involvement						
	More than 2 years		1-2 years		Less than 1 year		
	N	%	N	%	N	%	Total responses
Initial involvement	17	29%	22	38%	19	33%	58
Most recent involvement	6	17%	4	11%	26	72%	36

4. BG3. In which countries are you primarily involved in SilvaCarbon related activities? (check all that apply)

Country of involvement	Number and percent involvement in each country	
	N	% (Respondents)
Peru	22	23%
Colombia	17	9%
Democratic Republic of Congo	17	9%
Ecuador	16	8%
Mexico	12	6%
Nepal	12	6%
Vietnam	12	6%
Philippines	9	5%
Bangladesh	8	4%
Indonesia	8	4%
Thailand	7	4%
Cameroon	7	4%
Brazil	6	3%
Norway	6	3%
Cambodia	4	2%
Lao PDR	4	2%

Country of involvement	Number and percent involvement in each country	
	N	% (Respondents)
Republic of Congo	4	2%
Costa Rica	3	2%
Guyana	3	2%
Honduras	3	2%
Kenya	3	2%
Guatemala	2	1%
Italy	2	1%
Nicaragua	1	1%
India	1	1%
Gabon	1	1%
Chad	1	1%
The Netherlands	1	1%
Germany	1	1%
Finland	1	1%
Japan	0	0%
Malaysia*	0	0%
Singapore*	0	0%
Central African Republic	0	0%
Equatorial Guinea	0	0%
Burundi	0	0%
Switzerland	0	0%
El Salvador	0	0%
*Other	2	1%
Total responses	196	
Total respondents	97	

**Not included in French and Spanish versions of the survey*

*Other:
Australia
Primarily regional activities in Latin America and Asia

5. BG4. What SilvaCarbon activities have you participated in?

Activity	Involvement in activity	
	N	% (Respondents)
Participate in regional workshop(s), including GFOI and CARPE	70	72%
Participate in national workshop(s)	32	33%
Organize/provide technical contribution to national workshop(s)	18	19%
Participate in study tours	15	15%
Provision of technical assistance in-country and regionally	14	14%
Receipt of technical assistance, expertise and skills transfer from experts	14	14%
Work plan development	10	10%
Conduct needs assessment	5	5%
Global oversight, coordination	4	4%
Program Implementation	3	3%
*Other	6	6%
Total responses	191	
Total respondents	97	

*Other
National Satellite System ground tracking
Participated in AFOLU Technical Workshop held in Jakarta 20-22 August, 2014
Organizing and running joint regional workshops
Small--coordinating activities for research and aiding in collaboration
01/06/2008
6th Meeting of the CEOS Space Data Coordination Group for GFOI
Participated in AFOLU Technical Workshop held in Jakarta 20-22 August, 2014

6. BG5. What are your key professional responsibilities? Check maximum 3 options.

Key professional responsibilities	Key professional responsibilities	
	N	% (Respondents)
Involved in national MRV system	40	17%
Geographic Information Systems (GIS) specialist	28	12%
Involved in the national forest inventory	26	11%
Remote sensing specialist	26	11%
Coordination	24	10%
Forest management specialist	23	10%
Mapping	22	9%
Involved in REDD+, REDD desk/cell	20	8%
Program or institutional management	11	5%
Government decision-making and policy	6	3%
Communications	3	1%
Soil scientist	2	1%
Advocacy	2	1%
*Other	7	3%
Total responses	240	
Total respondents	95	

*Other
Field measurements
Specialist carbon stocks
Working as LULUCF Sector lead in GHG Inventory team that has been developed at Department of Environment, Bangladesh
Training, Research
Carbon cycling in (forested) ecosystems
Scientist
For SilvaCarbon coordination and collaboration activities; SC webpage content updates, and RS and GIS for non SC related activities

7. BG6. Please identify your primary professional affiliation in relationship to SilvaCarbon?

Response	Primary professional affiliation	
	N	%
Country government institutional partner	44	47%
Country FAO office	12	13%
Non-USG capacity building delivery/implementation partner (e.g. university, civil society, etc.)	11	12%
Country university / academia, beneficiary of SilvaCarbon	9	10%
In-country SilvaCarbon United States government (USG) agency (e.g. USAID, USFS, USGS, NASA, Smithsonian, Department of State)	6	6%
Headquarters SilvaCarbon United States government (USG) agency (e.g. USAID, USFS, USGS, NASA, Smithsonian, Department of State)	4	4%
Country civil society organization, beneficiary of SilvaCarbon	3	3%
Headquarters FAO	2	2%
Other UN, World Bank	1	1%
Other non-USG bilateral donor	1	1%
Total responses	93	

SECTION CI: COUNTRY GOVERNMENT INSTITUTIONAL PARTNER

COUNTRY UNIVERSITY / ACADEMIA, BENEFICIARY OF SILVACARBON

COUNTRY CIVIL SOCIETY ORGANIZATION, BENEFICIARY OF SILVACARBON

8. CI1. ARE YOU FAMILIAR WITH YOUR COUNTRY'S FOREST AND TERRESTRIAL CARBON MANAGEMENT GOALS?

RESPONSE	FAMILIARITY WITH GOALS	
	N	%
YES	51	88%
NO	7	12%
TOTAL RESPONSES	58	

9. CI2. DOES SILVACARBON PLAY A ROLE IN ASSISTING YOUR COUNTRY TO REACH THESE GOALS? EXPLAIN

RESPONSE	SILVACARBON PLAYS A ROLE IN REACHING GOALS	
	N	%
YES	39	76%
NO	2	4%
DON'T KNOW/NOT APPLICABLE	11	22%
*EXPLAIN IF "YES"	27	
TOTAL RESPONSES	51	

*Explain if yes
Technical capacity building and technology transfer
Silva Carbon provides support for various trainings on topics proposed for achieving goals
Provides technical support for initiatives relating to the National Forest Inventory and REDD +
Joint technical support IDEAM
Advice, technical support
Technical capacity building and technology transfer
Supports the National REDD strategy, the national MRV and national forest inventory
Technical support, technical and capacity building in MRV for REDD +
Assistance in implementing the MRV system
Technical assistance
SilvaCarbon has assisted the country but has not been fully open to embrace input from a wide range of local experts
For capacity building to monitor and manage forest
They support knowledge and some capacity building
Because I participated in workshops organized by SilvaCarbon
It bring tools to measure carbon stocks
They have been advising and supporting the implementation of effective policies for forest conservation and management
Supports filling the knowledge and capacity gaps
Because it strengthens the technical and organization skills that supports the goals
Through developing a forest monitoring system
We have received advices from foreign experts of SilvaCarbon
Capacity building for NFMS and MRV
Silva Carbon assists for capacity building.

10. CI3. To what extent do you expect the SilvaCarbon program to help the country achieve its forest and/or greenhouse gas inventory goals?

Expectations	Expectations of SilvaCarbon assistance toward reaching goals	
	N	%
Get us started	13	29%
Self-sufficiency, where we need minimal input	14	36%
Almost to the end	12	13%
All the way to reaching objectives	7	23%
Total responses	46	

11. CI4. How effective have the SilvaCarbon activities been in addressing the needs of your country?

Level of effectiveness	Extent of effectiveness of SilvaCarbon in addressing needs of country.	
	N	%
Least effective	3	6%
Somewhat effective	7	15%
Mostly effective	23	49%
Extremely effective	6	13%
Not sure/not applicable	8	17%
Total responses	47	

12. CI5. How much progress has been made in reaching national forest inventory and MRV system goals since SilvaCarbon program started in your country?

Progress	Progress made in reaching goals since SilvaCarbon program started in country.	
	N	%
Reached our goal(s)	0	0%
Almost reached our goal(s)	4	9%
About half-way toward meeting our goal(s)	20	43%
We have only just started	8	17%
In the planning phase	6	13%
Not yet started	3	6%
Don't know/not applicable	6	13%
Total responses	47	

13. CI6. IN YOUR COUNTRY, WHAT GROUP WOULD YOU SAY HAS THE MOST CAPACITY TO FACILITATE MEETING THE COUNTRY'S MRV GOALS AND FOREST CARBON MONITORING AND REPORTING NEEDS?

GROUP	GROUP WITH THE MOST CAPACITY TO FACILITATE GOALS AND NEEDS..	
	N	%
GOVERNMENT STAFF	25	53%
CONTRACTED TECHNICAL STAFF IN GOVERNMENT	9	19%
ACADEMIC INSTITUTIONS	6	13%
CONSULTANTS, WORKING REGIONALLY	3	6%
INTERNATIONAL CONSULTANTS, LOCALLY-BASED	2	4%
NATIONAL CONSULTANTS	1	2%
NGOS	0	0%
*OTHER	1	2%
TOTAL RESPONSES	47	

*OTHER
ALL THE FIRST 3 CATEGORIES

14. CI7. ARE THERE ENOUGH TRAINED INDIVIDUALS IN YOUR COUNTRY TO IMPLEMENT THE METHODOLOGIES AND TECHNIQUES INTRODUCED BY SILVACARBON?

RESPONSE	ENOUGH TRAINED INDIVIDUALS IN THEIR COUNTRY TO IMPLEMENT METHODOLOGIES AND TECHNIQUES INTRODUCED BY SILVACARBON.	
	N	%
YES	13	28%
NO	27	57%
DON'T KNOW/NOT APPLICABLE	7	15%
*EXPLAIN	16	
TOTAL RESPONSES	47	

*Explain
The methodologies of SilvaCarbon are not sufficiently known in our country.
Many of the methodologies handle high technology and experts with very high academic levels mainly in statistical modeling. The country does not have that level yet!!
We need to link increased plant personnel to ensure the stability of the training events, most of these have been given to contractors having no official relationship with the entity and nothing guarantees continuity in the same
No, although it depends on contract staff, which has no permanent link with the institution.
Support by more professionals is required to cover all areas
Requires more effective long training course to be familiar with the new methodologies and techniques of GHG and Forest Inventory. Regular workshop/training for increased number of related professional officers can promote skilled individuals.
We already have the methodologies but we still need enhancement to improve efficiency and accuracy of our land cover maps
Technical staff for field data collection are sufficient but we still need staff for data analysis and report writing
Want to involve more in this activity
I don't know if our country is applying the SilvaCarbon technologies
We don't have some remote sensing techniques in my country, We want to know them and need more training.
We have a growing body of scientists, but still we need help from international specialists and teams
Not many skilled professionals in MRV and if they exist they do not work in the government
The project is not yet started,
We have a remote sensing and GIS team

15. CI8. IS THERE CURRENTLY SUFFICIENT INSTITUTIONAL CAPACITY IN YOUR COUNTRY TO MEET THE COUNTRY'S FOREST CARBON MONITORING AND REPORTING GOALS WITHOUT OUTSIDE SUPPORT?

RESPONSE	SUFFICIENT CAPACITY IN COUNTRY TO MEET MONITORING AND REPORTING GOALS WITHOUT OUTSIDE SUPPORT.	
	N	%
YES	9	19%
NO	34	72%
DON'T KNOW	4	9%
*EXPLAIN	14	
TOTAL RESPONSES	47	

*Explain
There are still steps to take in all external support
There is not enough staff dedicated to the task
Most of them are green staff
The capacity exists, what is lacking is coordinating the efforts that are taking place in an efficient way
We need consult.
We need more institutional-governmental support within the country
There are other priorities besides MRV which disrupts the 100% of the efforts in MRV activities
There is only very limited capacity
We would like to train
The Ecuador commitment institutionalized the forest monitoring system and is led by the Ministry of Environment.
The staff which currently manages the system is not from the plant, and mission capacities have not been transferred to monitoring institutions, which creates instability in the continuity of the process
I think that institutional arrangements are being defined
Institutional arrangements are still improving

16. CI9. Does your institution need assistance and capacity building from SilvaCarbon to help your country reach MRV goals?

Response	Institution needs assistance and capacity building from SilvaCarbon to help their country meet MRV goals.	
	N	%
Yes	44	94%
No	3	9%
*Explain if "yes"	24	
Total responses	47	

*Explain if "yes"
In Remote Sensing, Spatial Statistics and advanced GIS.
Technical assistance and capacity building at the level of technical and policy makers, especially regarding the generation of reports under the MRV for REDD +
Technical assistance
It requires strengthening technical capacity within plant officials of the Institute, this capability has only been given to contractors level at a given moment can not continue to work in the IDEAM.
Because they need to build institutional capacity in community monitoring
Financial support, technical support, training
It would be important to maintain a more structured and support continued progress, not only on the part of building technical capabilities, inputs for decision-makers should also be issues to consider
In several technical aspects
Advice on the implementation of established methodologies
In the development of techniques and methodologies that allow for monitoring terrestrial carbon in areas with high inaccessibility physical or social
Technical assistance and training in enhancing the methodologies and techniques in land cover mapping.
Training in field methods
How to develop proposals
SilvaCarbon works closely with FA side. The other side of the MoE mandate is less.
Our institutions need RS tools to better monitor LU-dynamics on a yearly basis.
To build -Institutional capacity (logistics, equipment, human resource for satellite image processing, field data collection, interpretation, integration and reporting).
We need to consult. SilvaCarbon has more connections to help and to make MRV.
Technical, logistical, economic resources
We always have something to learn from scientists and institutions with a broader and better trajectory
Without it, technical and managers can't improve their skills and work in MRV
MRV process

DEVELOPMENT OF OPERATIONAL AND SUSTAINABLE FOREST MONITORING SYSTEM
CAPACITATION IN FOREST TOPICS AND TECHNICAL SUPPORT

17. C110. HAS YOUR ORGANIZATION RECEIVED RECOMMENDATIONS FROM SILVACARBON ON TECHNICAL APPROACHES RELATED TO FOREST CARBON MONITORING?

RESPONSE	ORGANIZATION RECEIVED RECOMMENDATIONS FROM SILVACARBON RELATED TO CARBON-FOREST MONITORING.	
	N	%
YES	35	74%
NO	11	23%
DON'T KNOW	1	2%
TOTAL RESPONSES	47	

18. CI11. HAVE THESE RECOMMENDATIONS BEEN USED?

RESPONSE	RECOMMENDATIONS HAVE BEEN USED.	
	N	%
YES	29	73%
NO	10	25%
DON'T KNOW	1	3%
*EXPLAIN IF "NO"	9	
TOTAL RESPONSES	40	

*EXPLAIN IF "NO"
FOR SOME PROGRAMS LIKE SMBYC HAVE BEEN APPLIED IN OTHER RELATED SOIL MONITORING THESE RECOMMENDATIONS HAVE NOT BEEN ACCEPTED TOPICS.
MAINLY RECOMMENDATIONS FROM THE WORKSHOPS. HOWEVER IN SOME CASES IT HAS BEEN DIFFICULT TO ASSUME THE RECOMMENDATIONS AS THEY ARE TIED TO GREATER EXPERIENCE WITH THEMATIC APPROACHES OR DIFFERENT COUNTRY AND TECHNOLOGY EXPERTS OR ACCESSIBLE YET TO DEVELOP OR ADAPT THE RECOMMENDATIONS
IT IS DOING A REDESIGN OF THE NATIONAL FOREST INVENTORY
WHAT RECOMMENDATIONS?
IT HAS YET TO START.
SILVACARBON HAS SUPPORTED AN EXCLUSIVE AND LIMITED GROUP AND MANY OTHER GROUPS THAT HAVE APPROACHED SILVACARBON HAVE NOT BEEN INVITED TO PARTICIPATE. THE EFFORT HAS ONLY BENEFITED A SELECTED GROUP DESPITE IS SAID THAT IS NATION-WIDE SUPPORT. SOMEHOW THIS ATTITUDE HAS DIVIDED THE EFFORTS WITHIN THE COUNTRY.
FAO COUNTRY OFFICE WILL IMPLEMENT. IT IS YET TO START.
FIRST TIME TO USE

19. CI12. HAS SILVACARBON PROGRAM FACILITATED DELIVERING GOOD PRACTICE GUIDES, MANUALS, AND TOOLS RELATED TO FOREST CARBON MONITORING, ASSESSMENT AND REPORTING TO YOUR ORGANIZATION?

RESPONSE	SILVACARBON FACILITATED DELIVERING GOOD PRACTICE GUIDES, MANUALS AND TOOLS TO THEIR ORGANIZATION.	
	N	%
YES	22	73%
NO	10	25%
DON'T KNOW	7	3%
*EXAMPLE IF "YES"	13	
TOTAL RESPONSES	39	

*Example if "yes"
If all the workshops provided important material linked to the theme of forest carbon particular technical participants provided. A direct level information for decision-makers no.
We have been provided various methodological and conceptual methodological documents that serve as reference basis for the implementation of monitoring carbon
Workshops organized
Knowledge of procedures for IFN is USA
EPA guidelines for INGEI
Advice on methodologies for estimating biomass
Manual for carbon inventory translated into Spanish
SC has facilitated us to receive useful third party development & training materials
They have more examples.
I am in the academy, but I have worked as advisor for the National Institutes in charge of the environmental policies. SilvaCarbon has served as a quite useful contributor and facilitator of the improvements in capacity building
USFS Forest inventory field manuals
The upcoming SilvaCarbon project will be implemented from January 2015.
Integrating remote-sensing and ground-based observations for estimation of emissions and removals of greenhouse gases in forests

20. C113. What has been the most effective way to deliver good practice guides, manuals, and tools related to forest carbon monitoring, assessment and reporting? (Check maximum 3)

Response	Most effective ways identified to deliver good practice materials related to forest carbon monitoring, assessment and reporting.	
	N	% (Respondents)
Regional workshops	28	74%
National workshops	17	45%
In-country mentoring/technical assistance	15	39%
Study tours	13	34%
Visits by international consultants	12	32%
Contracting technical staff to be based in government	4	11%
Other	0	0%
Total responses	89	
Total respondents	38	

21. C114. HAVE SILVACARBON-SUPPORTED MEETINGS AND WORKSHOPS CONTRIBUTED TO INCREASED COLLABORATION AND GREATER CONSISTENCY IN TECHNICAL UNDERSTANDING AMONG THE COMMUNITY OF FOREST AND TERRESTRIAL CARBON TECHNICAL EXPERTS?

RESPONSE	SILVACARBON SUPPORTED MEETINGS AND WORKSHOPS CONTRIBUTED TO INCREASED COLLABORATION AND GREATER CONSISTENCY.	
	N	%
YES	35	83%
NO	5	12%
*EXPLAIN	12	
TOTAL RESPONSES	42	

*Explain
Limited participation in meetings
No, if a better compression and uniformity given the high range of professionals, visions, working scales, methodologies, technicalities, scientific detail, countries, etc. But if it has helped position our work and define the state in which we are, locate contacts, learn from the various existing techniques, etc.
The borrowed experiences outside the country through these international workshops have served for review of different methodological gaps, it is important to take those lessons learned in other realities and not start from scratch.
Although still lacking unifying methodologies in some national projects
Pretty, allowing adjustment of our work.
Facilitates interaction with experts and share experiences.
Forest officials participated in regional workshops only, no meetings/workshops with community of forests.
There has been limited efforts to engaged other participants outside a select group that benefited from SilvaCarbon.
We have more experience from another country-What they are thinking and how to solve the problem.
Enhance and exchange of knowledge about MRV and monitoring
It has yet to start.
We need help from SilvaCarbon-supported

22. CI15. HAS SILVACARBON PROGRAM IMPLEMENTATION IN YOUR COUNTRY DIRECTLY OR INDIRECTLY CONTRIBUTED TO ANY CHANGES IN GOVERNMENT OR AGENCY FOREST MANAGEMENT POLICY? IN ANY OTHER POLICIES?

RESPONSE	SILVACARBON IMPLEMENTATION CONTRIBUTED TO CHANGES IN GOVERNMENT OR AGENCY POLICIES.	
	N	%
YES	13	36%
NO	23	64%
*EXAMPLE IF "YES"	11	
TOTAL RESPONSES	36	

*EXAMPLE IF "YES"
GOOD TO STRENGTHEN TECHNICAL CAPACITY IN OUR TEAM, WE HAVE BEEN ABLE TO COPE WITH THE DEMANDS OF INFORMATION MANAGEMENT LEVEL AND AS SUCH TO TRANSLATE THIS INFORMATION INTO BETTER DECISIONS. STILL NEED TO WORK MORE ON THE TECHNICAL GAP WITH POLITICS TO SHORTEN.
INDIRECTLY YES, BUT I DON'T KNOW. I AM NOT AWARE OF ANY EVIDENCE OF THIS
WITH THE FORMATION OF TECHNICAL CAPABILITIES HAVE BEEN ABLE TO AFFORD MORE CLEAR AND ACCURATE INFORMATION FOR DECISION MAKERS
MAINLY IN BETTER DECISION-MAKING AT THE POLITICAL LEVEL
SILVACARBON ACTIVITIES YET TO START.
SILVACARBON MAKES ME KNOW DIRECTLY ABOUT POLICY FROM ANOTHER COUNTRY. IT IS A GOOD EXAMPLE FOR MAKING NATIONAL POLICY.
LOGISTICAL
ILLUSTRATION AND CAPACITATION OF LOCAL STAFF ATTACHED TO NATIONAL INSTITUTES
REF LEVELS ADJUSTMENT. REVISION OF NFI

23. CI16. How do you (or your team) access Earth observation data related to forest and terrestrial carbon monitoring and management? *Please explain.

*Please explain. Respondents 31
No handling that issue directly but our technicians understand if geographers.
Our office generates information across different studies related to the evaluation of Natural Resources in this area is included carbon information. This is Peru level.
Through the project on forest monitoring, but it is necessary that these trainings are shared with officials of the institute who are working on other, related projects
Web
No subject is led directly, but through our technicians and our processes can access information
FTP links
USGS servers and acquisition of high-resolution images
I have not agreed to such data
With the help of GIS
Download data from Phil-GIS or USGS
We have received satellite data, we have to analyze the data and should monitor with base line
Through ERMEX (spot imagery), free Landsat data
No way
National agencies, Multinational agency sources,
Via internet portals
We want but could not start.
NASA
Download data from USGS website and make a land used change mapping
Field samples, plots
Mainly through the open sources we have and through our own projects
I do not have access yet
Internet download, buying online
RapidEye image
Through Glovis to Landsat data and through project, have to procure data from the data providers
Through Bilateral / International collaboration.
We have to use data analysis from satellite and field survey
We access Earth observation data through internet.

*Please explain. Respondents 31
We use Landsat...
Do terrestrial inventory all over the country by temporary sample plots and permanent sample plot (TSP/PSP) and uses the interpretation of remote sensing data
Delivery in hard drive by SilvaCarbon

24. C117. Does the SilvaCarbon program facilitate your access to Earth observation data?

Response	SilvaCarbon facilitates access to Earth observation data.	
	N	%
Yes	19	54%
No	16	46%
*Example if "no"	17	
Total responses	35	

*Example if "no"
But as mentioned above not for all projects, knowledge and access should be wider and not just for contractors
SilvaCarbon is a strategic ally and as such provides access to data in the interests OT to build the national system of forest monitoring
Collaborating with access management
In Mexico has not been promoted that activity
I have not requested
Workshops made me aware of data availability
Need help on this.
We don't need it
We have access through NASA and USFS directly
Once we start, SilvaCarbon program likely to facilitate.
I don't apply to have access to Earth observation data
I am not required yet
It has still not facilitated.
Not yet
Held by country through National Forest Inventory

25. CI18. How does SilvaCarbon support your use of Earth observation data? Check all that apply.

Type of support	Way(s) SilvaCarbon supports use of Earth observation data.	
	N	% (Respondents)
Integration of remote-sensing data and field data	17	46%
Transparency of data collection systems	13	35%
Analysis of high resolution data	13	35%
Coordination	10	27%
Enhanced interoperability	4	11%
*Other	9	24%
Total responses	66	
Total respondents	37	

*Other
USFS helps train
SilvaCarbon does not support our use
Does not support
I don't have access yet
Funding
Not yet

26. CI19. DO OTHER INTERNATIONAL PARTNERS INITIATIVES FACILITATE YOUR ACCESS TO DATA? PLEASE SPECIFY WHICH ONE(S)

INTERNATIONAL PARTNERS	OTHER INTERNATIONAL PARTNERS FACILITATE ACCESS TO DATA.	
	N	% (RESPONDENTS)
GFOI	16	26%
FAO	13	21%
GOFC-GOLD	5	8%
CARPE	0	0%
DON'T KNOW	12	19%
*OTHER	7	22%
TOTAL RESPONSES	62	
TOTAL RESPONDENTS	32	

*OTHER
FOREST RESOURCES ASSESSMENT NEPAL PROJECT, SUPPORTED BY FINLAND GOVERNMENT
NASA
CTFS- SMITHSONIAN
I DO NOT HAVE ACCESS YET
OTCA
UNIVERSITY OF MARYLAND
TRADE AGREEMENTS WITH RAPID EYE AND SPOT

27. CI20. HAS YOUR ORGANIZATION HAD EXPERIENCE PARTNERING WITH OTHER DONORS OR INTERNATIONAL ORGANIZATIONS TO GENERATE SYNERGIES WITH THE SILVACARBON PROGRAM?

RESPONSE	ORGANIZATION HAD EXPERIENCE PARTNERING WITH OTHER DONORS OR INTERNATIONAL ORGANIZATIONS.	
	N	%
YES	20	54%
NO	8	22%
DON'T KNOW	9	24%
*DESCRIBE	13	
TOTAL RESPONSES	37	

*DESCRIBE
USFS, FAO, JICA
FOR THE NATIONAL FOREST INVENTORY, WE HAVE ESTABLISHED PARTNERSHIPS WITH THE US FOREST SERVICE, FAO AND THE PERUVIAN GOVERNMENT
WITH GEO, UNIVERSITIES IN GERMANY AND USA, JAXA, AMONG OTHERS.
WORKING IN COORDINATION WITH THE USFS-IP
WITH FAO
SOME DATA FROM NASA HAD BEEN AVAILABLE FOR RESEARCH
US FOREST SERVICE
UN-REDD PROGRAM (FAO COUNTRY OFFICE) IS EXPECTED TO PARTICIPATE.
WITH FAO
EUROPEAN COMMISSION F RECOVER PROTECT FOR WORKSHOP IN LETICIA, COLOMBIA
UN-REDD, FAO & UNDP
JICA PROJECT

28. CI21. ARE YOU AWARE OF ANY AREAS WHERE THERE HAS BEEN A DUPLICATION OF EFFORTS BETWEEN SILVACARBON AND OTHER PROGRAMS OR DONORS?

RESPONSE	THERE HAS BEEN A DUPLICATION OF EFFORTS BETWEEN SILVACARBON AND OTHER PROGRAMS OR DONORS.	
	N	%
YES	3	8%
NO	36	95%
*EXAMPLE	3	
TOTAL RESPONSES	38	

*EXAMPLE
POSITIVELY
SILVACARBON HAS SUPPORTED A SELECTED GROUP THAT IS ALREADY SUPPORTED BY THE GOVERNMENT. THIS HAS CREATED DIFFICULTY AMONG GROUPS IN THE COUNTRY THAT DID NOT RECEIVE SUPPORT.
COMMUNITY MRV WORKSHOPS IN ALMOST THE SAME DATE OF MEXICO CONOBIO WORKSHOP IN THE SAME TOPIC

29. CI22. Overall, how satisfied are you with the:

Level of satisfaction	Overall, how satisfied are you with the:									
	Effectiveness of support for access to Earth observation data by SilvaCarbon/CARPE/ GFOI?		Level of access you (or your team) have to Earth observation data, facilitated by SilvaCarbon/CARPE/ GFOI?		Capacity building and technical assistance relating to use of Earth observation data?		Technical guidance and methodologies shared by SilvaCarbon/CARPE/ GFOI?		Your level of engagement and communication with SilvaCarbon/US government partner institutions?	
	N	%	N	%	N	%	N	%	N	%
Not at all satisfied	3	9%	3	10%	1	3%	2	6%	2	6%
Somewhat satisfied	11	34%	14	45%	8	26%	8	25%	7	22%
Mostly satisfied	15	47%	11	35%	17	55%	13	41%	15	47%
Totally satisfied	3	9%	3	10%	5	16%	9	28%	8	25%
Total responses	32		31		31		32		32	

SECTION IA1: IN-COUNTRY SILVACARBON UNITED STATES GOVERNMENT (USG) AGENCY (E.G. USAID, USFS, USGS, NASA, SMITHSONIAN, DEPARTMENT OF STATE)

COUNTRY FAO OFFICE

30. IA1. WHAT ROLE DOES SILVACARBON/US GOVERNMENT PARTNER PLAY IN ASSISTING YOUR COUNTRY TO REACH FOREST AND TERRESTRIAL CARBON MANAGEMENT PLANS?

Role played by SilvaCarbon Respondents 22
This program is very important for my country because the DRC committed in recent years in the REDD + mechanism and we always need international expertise to improve our knowledge of the areas of remote sensing which I move and also the national forest inventory to arrive at a correct assessment of forest carbon stock in my country.
Support for strengthening national capacities in geomatics
It plays an important role in the implementation of national forest inventory in DRC
Studies, training and visualization on the evolution of the degradation of the forest, its long and medium-term consequences, if possible monitoring for sustainable management of the forest.
Capacity building and other data relevant to the monitoring of forests.
We support the carbon analysis of soil and forest botany
Currently only as an aid worker who provides technical training. Not if your planning depends on this topic or country may request other assistance.
Exchange of experience at the regional level, training and technology transfer
Developed methodological guidance, financial support, capacity
Technically supports the development of MRV and IFN
Technical support, capacity building and financial support
Advising government agency responsible
Technical assistance
We are working in synergy with other partners (UNREDD/FAO/UNDP, JICA, WB etc.) to build the capacity of Ministry of Environment on technical and organizational aspects.
Yes through FAO
World Bank, GOFC-Gold, IUCN
UN-REDD (FAO country office) is likely to cooperate.
CTFS-Smithsonian
With FAO
FAO

JICA and GIZ

31. IA2. How effective have the SilvaCarbon activities been in addressing the needs of your country? (Q. 1b)

Level of effectiveness	Effectiveness of SilvaCarbon activities addressing country's needs	
	N	%
Least effective	1	2%
Somewhat effective	15	18%
Mostly effective	17	39%
Extremely effective	8	18%
Not sure/not applicable	3	7%
Total responses	44	

42. IA13. Which international partners and/or initiatives facilitate country's access to data?

International partners	Other international partners' initiatives facilitating access to data	
	N	%
GOFC-GOLD	9	23%
FAO	7	18%
GFOI	6	15%
CARPE	3	8%
Don't know/not sure	8	21%
*Other	6	15%
Total responses	39	

*Other
GFOI, CARPE, JICA, WWF etc.
None
CTFS-Smithsonian
I was not have access to the data because I did not apply to have yet
Projects of the departments
WRI, FAO

33. IA4. How satisfied are you with your level of communication with SilvaCarbon program?

Level of Satisfaction	Satisfaction with level of communication with SilvaCarbon	
	N	%
Not satisfied at all	4	11%
Somewhat satisfied	8	21%
Mostly satisfied	18	47%
Extremely satisfied	8	21%
*Example if "1 or 2"	7	
Total responses	38	

*Example if "1 or 2"
Because so far I personally have not felt his involvement or contribution in my work sphere (Remote Sensing , GIS, etc.) despite the presence of US Forest Service
Exploitation of training reports
No communication on the process, little is known about the mechanism and no idea about the future of the program
Personally I 'm in the lab, since they happened and promised some training, we see more!
I am not vey satisfied because Cameroon is backward concerning the SilvaCarbon program.
More communication is needed with the activities in Ecuador
Only participated in two regional workshops.

34. IA5. How satisfied are you with the relationships between USG implementing SilvaCarbon and other donors working with them on related activities in this country?

Level of Satisfaction	Satisfaction with relationships between USG implementing SilvaCarbon and other donors.	
	N	%
Not satisfied at all	5	13%
Somewhat satisfied	7	18%
Mostly satisfied	20	53%
Extremely satisfied	6	16%
*Example if "1 or 2"	6	
Total responses	38	

*Example if "1 or 2"
With other donors because as I've said far my country has engaged in REDD + long time and I have participated in national training as well as international in the field of remote sensing with the support of several international partners.
There is a good internal partnership
Collaboration not enough, because it was not much information about the program
When it s combined it goes on well
Mostly we have collected field data from FRA Nepal but the project and Silva Carbon are not linked with each other
Once we start, we can evaluate.

35. IA6. PLEASE RATE, HOW MUCH SILVACARBON SUPPORT DO YOU THINK THIS COUNTRY NEEDS IN ORDER TO REACH THIS COUNTRY'S MRV GOALS?

LEVEL OF SUPPORT NEEDED	SUPPORT NEEDED TO REACH COUNTRY'S MRV GOALS	
	N	%
NONE/INDEPENDENT	0	0%
MINIMUM SUPPORT	1	3%
MODERATE SUPPORT	10	26%
VERY INTENSIVE SUPPORT	26	68%
DON'T KNOW/NOT SURE	1	3%
TOTAL RESPONSES	38	

36. IA7. CURRENTLY, ARE THERE ENOUGH TRAINED INDIVIDUALS IN YOUR COUNTRY TO IMPLEMENT THE METHODOLOGIES AND TECHNIQUES INTRODUCED BY SILVACARBON?

RESPONSE	ENOUGH TRAINED INDIVIDUALS IN COUNTRY TO IMPLEMENT METHODOLOGIES AND TECHNIQUES INTRODUCED BY SILVACARBON.	
	N	%
YES	16	41%
NO	23	59%
*EXPLAIN IF "NO"	19	
TOTAL RESPONSES	39	

*Explain if "no"
I believe that there 'communication gap for all that is being done by this program, so I will be able to answer with certainty on this issue, people mastering this methodology can be there or not.
We have the experts on the inventory level, remote sensing, and other sig
We use several Remote Sensing and GIS software, which we are only users, yet the work requires people with knowledge not only of the land but also software.
Mainly results in us lacking skills in statistical modeling and technological applications.
Yet to achieve a transfer to local universities
It is necessary to have a senior team to fully comply with all the components of MRV.
We just started training key people within government institutions in advanced remote sensing and inventory data management and analysis.
Need to train more field technicians
We have only started building our capacities
Poor institutional arrangement and financial support.
We need more trained because we want to find what the techniques is helpful our country
According to my knowledge, There has never been a meeting with all those who work with SilvaCarbon.
We have just started.
Limited capacity
Due to the high turnover of personnel, most of the trained individuals have or are going to be, unrelated with their actual employer.
Because until then these individuals if they exist, they are not yet used. We would like it even goes beyond training only, but also provide support to the integration of those.
We need the methodologies and techniques introduced by SilvaCarbon
The institutional situation is really complicate. Is not clear how much people of the MECNET is trained.
We need the methodologies and techniques introduced by SilvaCarbon

*Explain if "no"
The institutional situation is really complicate. Is not clear how much people of the MECNET is trained.

37. IA8. Is there currently sufficient institutional capacity in this country to meet the country's forest carbon monitoring and reporting goals without outside support?

Response	Institutional capacity in country is sufficient to reach goals without outside support.	
	N	%
Yes	12	31%
No	27	69%
*Explain if "no"	23	
Total responses	39	

*Explain if "no"
Because there are directions that work on that: Inventories Management and Forest Management (DIAF) and the Sustainable Development Department (DDD)
Geomatics division of the DIAF was strengthened capacity has enabled progress as part of MRV
The "yes" technically, but financially unimaginably slow by authorities
Especially for reporting detail forest carbon. For example reference levels that Ecuador is generating are performed by international consultants.
The country has failed to consolidate the MRV and IFN as a missionary activity presupposed by the national government permanently
The institutions arrangements are underway.
Lack of specialized staff on issues
Not yet. We are working in synergy with other partners (UNREDD/FAO/UNDP, JICA, WB etc.) to build the capacity of Ministry of Environment on technical and organizational aspects.
It lacking they need institutional capacity building
It is not sufficient. Need more assistance in this field.
There is lack of coordination within the responsible departments is Ecuador.
Poor institutional arrangement and financial support.
We need more techniques and more example
We need more support from governmental institutions
We need more capacity on measures, mapping and also analyzing data
No long term assignment in national budget
Because we need the assistance of other countries to acquire their experiences (especially technology transfer and financing)
Proper training programs have not been conducted.
Need to be upgraded
By lack of infrastructure and institutions dedicated to the theme.
Methodologies and techniques introduced by SilvaCarbon

*Explain if "no"
Unfortunately the technical level in the institutions remains low.

38. IA9. In your country, what group would you say has the most capacity to facilitate meeting the country's forest carbon monitoring and reporting needs?

International partners	Group with the most capacity to meet country's monitoring and reporting needs.	
	N	%
Government staff	18	46%
Contracted technical staff in government	8	21%
Academic institutions	4	10%
National consultants	2	5%
International consultants, locally-based	2	5%
Consultants, working regionally	1	3%
NGOs	0	0%
*Other	4	10%
Total responses	39	

*Other
The technical people hired by the state in these structures already operating in the mechanism but with the material and financial support of donors and international partners
Agency staff United Nations
It is a combination of government staff and locally based international consultants.
Nos. 3, 4, 5

39. IA10. ARE YOU AWARE OF INSTANCES, WHEN PARTICIPATION IN SILVACARBON DIRECTLY OR INDIRECTLY EFFECTED ANY CHANGES IN GOVERNMENT OR AGENCY FOREST MANAGEMENT POLICY?

RESPONSE	SILVACARBON PARTICIPATION EFFECTED CHANGES IN POLICY	
	N	%
YES	13	34%
NO	25	66%
*EXAMPLE IF "YES"	8	
TOTAL RESPONSES	38	

*EXAMPLE IF "YES"
THROUGH THE TECHNIQUES CAPACITIES GENERATED IN THE WORKSHOPS IS TECHNICALLY FALLS IN THE FOREST LAW.
THE INTEGRATION OF GIS AS AN ESSENTIAL TOOL IN THE CONTEXT OF MRV
IFN
AROUND THE COUNTRY. WHAT ARE THEY GOING AND WE SHOULD DO IT AROUND THE COUNTRY.
ENHANCE THE CAPACITY
US EXPERTS EXCHANGED ON TECHNICAL FOREST INVENTORY MADE IN THE UNITED STATES DURING A TRAINING ORGANIZED BY CARPE AND USFS, THESE MAKE ALLOWED THE OFFICIALS WORKING ON FOREST INVENTORIES TO ENRICH THEIR METHODOLOGY.
ZONAGE

40. IA11. HAS YOUR ORGANIZATION HAD EXPERIENCE PARTNERING WITH OTHER DONORS OR INTERNATIONAL ORGANIZATIONS TO GENERATE SYNERGIES WITH THE SILVACARBON PROGRAM?

RESPONSE	ORGANIZATION HAD EXPERIENCE PARTNERING WITH OTHERS TO GENERATE SYNERGIES WITH SILVACARBON	
	N	%
YES	23	62%
NO	14	38%
*DESCRIBE IF "YES"	19	
TOTAL RESPONSES	37	

*Describe if "yes"
FAO, JICA, JAFTA, US Forest Service, GIZ, WRI
FAO, JICA/JAFTA
FAO, OIBT, USFS
Coordination spaces South - South cooperation among several countries in Central and South America
GEO, JAXA, Germany and USA Universities
With USFS-IP
FAO
There is always collaboration with other partner for the feasibility of the process, there is exchange of idea, experience and data, with WRI, OSFAC, WWF, ...
FOA recognized worldwide, which has synergy with the SilvaCarbon program
We are working in synergy with other partners (UNREDD/FAO/UNDP, JICA, WB etc.) to build the capacity of Ministry of Environment on technical and organizational aspects.
Yes through FAO
World Bank, GOFC-GOLD, IUCN
UN-REDD (FAO country office) is likely to cooperate.
CTFS-Smithsonian
With FAO
FAO8
JICA and GIZ

41. IA12. DOES THE SILVACARBON PROGRAM FACILITATE YOUR COUNTRY'S ACCESS TO EARTH OBSERVATION DATA?

RESPONSE	SILVACARBON FACILITATES COUNTRY'S ACCESS TO EARTH OBSERVATION DATA	
	N	%
YES	23	61%
NO	12	32%
I DON'T KNOW	3	8%
*EXPLAIN IF "NO"	11	
TOTAL RESPONSES	38	

*EXPLAIN IF "NO"
LANDSAT
IN MEXICO HAS NOT OFFERED THIS INFORMATION
I HAVE NOT REQUESTED IT
WE DO NOT HAVE ANY DIRECT WORKING RELATIONSHIP WITH SILVACARBON BESIDES ATTENDING REGIONAL WORKSHOPS ORGANIZED BY SILVACARBON
WE DON'T NEED IT
IT IS YET TO START THE SILVACARBON PROGRAM.
I WAS NOT HAVE ACCESS TO THE DATA BECAUSE I DID NOT APPLY TO HAVE YET
IT IS NOT REQUIRED
BECAUSE THE PROJECT IS TO BE STARTED
I DON´T KNOW ABOUT THIS, FOR THIS REASON MY ANSWER IS NEGATIVE.

42. IA13. WHICH INTERNATIONAL PARTNERS AND/OR INITIATIVES FACILITATE COUNTRY'S ACCESS TO DATA?

INTERNATIONAL PARTNERS	PARTNERS FACILITATING COUNTRY'S ACCESS TO DATA	
	N	%
FAO	13	33%
GFOI	9	23%
GOFC-GOLD	2	5%
CARPE	1	3%
DON'T KNOW/NOT SURE	7	18%
*OTHER	7	18%
TOTAL RESPONSES	39	

*OTHER
GFOI, CARPE, JICA, WWF ETC.
CTFS-SMITHSONIAN
I WAS NOT HAVE ACCESS TO THE DATA BECAUSE I DID NOT APPLY TO HAVE YET
PROJECTS OF THE DEPARTMENTS
WRI, FAO
GFOI, CARPE, JICA, WWF ETC.

43. IA14. How does SilvaCarbon program support country's use of Earth observation data?

Means of support	Ways SilvaCarbon supports country's use of Earth observation data	
	N	%
Integration of remote-sensing data and field data	8	22%
Facilitating transparency of data collection systems	5	14%
Coordination role	4	11%
Analysis of high resolution data	3	8%
Enhancing interoperability	2	5%
Don't know/not applicable	10	27%
*Other	5	14%
Total responses	37	

*Other
Training on remote sensing for now.
I was not have access to the data because I did not apply to have yet

44. IA15. HAS SILVACARBON FACILITATED DELIVERING GOOD PRACTICE GUIDES, MANUALS, AND TOOLS RELATED TO FOREST CARBON MONITORING, ASSESSMENT AND REPORTING TO RELEVANT INSTITUTIONS IN THIS COUNTRY? (Q.)

RESPONSE	SILVACARBON FACILITATED DELIVERY OF MATERIALS TO RELEVANT INSTITUTIONS IN COUNTRY.	
	N	%
YES	17	40%
NO	8	19%
DON'T KNOW/NO RESPONSE	17	40%
*EXAMPLE IF "YES"	11	
TOTAL RESPONSES	42	

*EXAMPLE IF "YES"
IN THE TECHNICAL WORKSHOPS
IFN-RELATED TOOLS
EPA GUIDELINES FOR INGEI
MANUAL FOR MONITORING CARBON
THROUGH REGIONAL WORKSHOPS
WORKSHOPS ON AFOLU
FACILITATED ACCESS TO THIRD PARTIES
WORKSHOPS PROVIDED MUCH INFORMATION ABOUT BEST CARBON MONITORING TECHNIQUES.
TRAINING AND SUPPORT
SOIL SAMPLING AND SOIL ANALYSIS
INTEGRATING REMOTE-SENSING AND GROUND-BASED OBSERVATIONS FOR ESTIMATION OF EMISSIONS AND REMOVALS OF GREENHOUSE GASES IN FORESTS

45. IA16. WHAT HAS BEEN THE MOST EFFECTIVE WAY TO DELIVER GOOD PRACTICE GUIDES, MANUALS, AND TOOLS RELATED TO FOREST CARBON MONITORING, ASSESSMENT AND REPORTING? (CHECK MAXIMUM 3)

MOST EFFECTIVE MEANS OF DELIVERY	MOST EFFECTIVE MEANS TO DELIVER MATERIALS	
	N	% (RESPONDENTS)
REGIONAL WORKSHOPS	12	31%
NATIONAL WORKSHOPS	8	21%
IN-COUNTRY MENTORING/TECHNICAL ASSISTANCE	7	18%
VISITS BY INTERNATIONAL CONSULTANTS	5	13%
STUDY TOURS	3	8%
CONTRACTING TECHNICAL STAFF TO BE BASED IN GOVERNMENT	1	3%
*OTHER	3	8%
TOTAL RESPONSES	39	
TOTAL RESPONDENTS	39	

*OTHER
1,2,4

46. IA17. HAVE SILVACARBON, INCLUDING GFOI AND CARPE-SUPPORTED WORKSHOPS AND TECHNICAL ASSISTANCE CONTRIBUTED TO INCREASED COLLABORATION AND GREATER CONSISTENCY IN TECHNICAL UNDERSTANDING AMONG THE COMMUNITY OF FOREST AND TERRESTRIAL CARBON TECHNICAL EXPERTS?

RESPONSE	SILVACARBON CONTRIBUTED TO GREATER COLLABORATION AND CONSISTENCY	
	N	%
YES	33	85%
NO	6	15%
*EXPLAIN	20	
TOTAL RESPONDENTS	39	

*Explain
Recently in the Yaoundé conference where some of my colleagues were invited, we had some discussion concluding with respect to different work methodologies, these workshops are always important.
Especially meetings at the sub-regional
But it must be a perfect collaboration and followed for partner SilvaCarbon during actual training places to talk about information. Remote sensing side enough information about the program
Through exchanges of experts and training at regional and national level
Rather, for the skills acquired
Especially among countries in the region
Enhanced perspective on the issue and greater idea on implementation.
Facilitated collaboration
There is a good relationship between the ministries of environment of Colombia, Peru and Ecuador; and now there is a technical sharing of forest inventory methodologies.
Forest officials participated in some regional workshop only. No meeting/workshop with community of forest.
They sent me to the workshop for forest monitoring.
Because we have no experience
Awareness building among the stakeholders and upgrade their knowledge for carbon monitoring and implementation
SilvaCarbon´s workshop gave a big consistency to our research.
Sometimes technical workshops are organized with expert and partners for officials, stakeholders.
Ongoing in planning

SECTION PC: ALL RESPONDENTS EXCEPT "HEADQUARTERS"

(HQ: OTHER NON-USG BILATERAL DONOR

HEADQUARTERS FAO

HEADQUARTERS SILVACARBON UNITED STATES GOVERNMENT (USG) AGENCY (E.G. USAID, USFS, USGS, NASA, SMITHSONIAN, DEPARTMENT OF STATE)

NON-USG CAPACITY BUILDING DELIVERY/IMPLEMENTATION PARTNER (E.G. UNIVERSITY, CIVIL SOCIETY, ETC.))

47. PC1. WHAT ROLE HAVE YOU/YOUR AGENCY PLAYED IN SILVACARBON WORK PLANNING? *DESCRIBE

*Describe Respondents 37
Exchange and discussion of the methodologies used in relation to the estimation of forest carbon stock.
Identify capacity building needs and serve EV transmission belt for the necessary assistance
Harvester Field Data
Participation in workshops
GFW and forest atlas presentation
I have no idea about the role of my agency in planning. I personally played no role.
We have not had a chance to bond on planning issues
Beneficiary training
Planning for specific events: workshops and exchange
Regional workshop organization
My work involves automating processes to generate products and information services related to IFN and MRV. We have worked in very specific activities in this regard.
Trained specialist
I'm just a technical staff but I have helped in organizing workshops
National work planning.
Our agency collaborated with SilvaCarbon in a regional workshop
Participating and providing presentation about the status of the country and sharing the experience among participants
Supervising forest carbon inventory and training field technicians in sampling methods.
Delivered a presentation
Share an experiences and lessons learned on REDD+ implementation, and sustainable forest management.

*Describe Respondents 37
Inputs to regional workshops
The USFS in Ecuador supported local technical assistance for the implementation of the projects.
Forest Department organized national workshop involving stakeholders.
Select site or area for pilot project and select techniques for forest monitoring.
Assistance as academic institutions
As government counterpart
Workshop planning, bottom up approach
Facilitator role
Providing the GAPs
Forest Inventory, Remote Sensing
Regional Workshop
I am a researcher
Coordination, country updates, capacity need identification

48. PC2. ARE YOU AWARE OF ANY SPECIFIC GROUPS THAT HAVE NOT BEEN ENGAGED IN SILVACARBON PLANNING OR OTHER ACTIVITIES THAT PERHAPS SHOULD BE? CHECK ALL THAT APPLY.

GROUPS	GROUPS NOT ENGAGED IN SILVACARBON ACTIVITIES.	
	N	% (RESPONDENTS)
NATIONAL GOVERNMENT INSTITUTIONS	9	21%
NATIONAL INSTITUTIONS OTHER THAN GOVERNMENT (ACADEMIA, RESEARCH, ETC.)	9	21%
CIVIL SOCIETY ORGANIZATIONS	2	5%
INTERNATIONAL BILATERAL OR MULTILATERAL ORGANIZATIONS	1	2%
GROUPS REPRESENTING INDIGENOUS POPULATIONS	1	2%
GROUPS REPRESENTING WOMEN	0	0%
DON'T KNOW/NOT SURE	20	48%
*NAME AND TYPE OF ORGANIZATION	9	
TOTAL RESPONSES	42	
TOTAL RESPONDENTS	42	

*Name and type of organization
Ministry of Environment, Spatial Institute, Institute of Biodiversity
SERFOR
Technical service providers
Ministry of Forestry and Wildlife, University of Yaoundé I, Douala and Dschang who have training in GIS, Remote Sensing and forestry
World Resources Institute, international organization
University
Forest Inventory and Planning Division, Department of Forestry
University of Kinshasa - University (to conduct research)
FORDA

49. PC3. Was a gender advisor, Ministry of Gender, or representative of any women's group included in the national work plan development or in any work planning since?

Response	Gender advisor or similar was included in work planning	
	N	%
Yes	6	25%
No	11	61%
Don't know	27	
*Example if "yes"	4	
Total responses	44	

*Example if "yes"
Recent case in the development of the agenda on MRV Action Plan a representative of the indigenous people has been associated
We have no problem with gender.
People from the Ministry of Environmental have been involved
Women empowerment

50. PC4. Are there mechanisms (if any) at your country (or regional) level to support donor coordination on climate change, forest management, and carbon measurement-related capacity building activities?

Response	There are mechanisms supporting donor coordination	
	N	%
Yes	26	60%
No	6	14%
Don't know	11	26%
*Example if "yes"	21	
Total responses	43	

*Example if "yes"
There is the action plan on MRV
National Coordination REDD MINEPDED
The Ministry of Environment through the Secretariat for Natural Heritage and Sub-secretariat of Climate Change. Directorate of Environment and Climate Change Chancellery
FAO support to national forest inventory
UN REDD Program
MADS and Cooperation Offices of public entities
The CN-REDD is the national coordination body for REDD initiatives.
A lot of training and capacity building is needed
Gross national happiness.commission
National strategy REDD, Cellule MRV du MINEPDED
Carbon assessment/accounting
In CONAFOR
The USFS supported a Climate Change Vulnerability Assessment in the southern region of Ecuador.
World Bank
LCG of Donors and local agencies.
We are good doing that
REDD strategy, National policy
FAO
REDD cell
Sub working group
REDD+

51. PC5. WOULD YOU SAY SILVACARBON, INCLUDING GFOI AND CARPE, SUPPORT IS WELL INTEGRATED INTO THE OVERALL CARBON MONITORING AND MEASUREMENT INITIATIVES ONGOING IN YOUR COUNTRY? (I.E., R-PP, UN-REDD+ PROCESS?)

RESPONSE	SILVACARBON IS WELL INTEGRATED INTO CARBON MONITORING AND MEASUREMENT INITIATIVES IN COUNTRY	
	N	%
YES	29	67%
NO	14	33%
*EXAMPLE IF "YES"	23	
TOTAL RESPONSES	43	

*Example if "yes"
On the macro-zoning with US Forest Service
UN-REDD + process
The country now has information on the quantification of carbon stock
MRV
Between institution and not governmental organization
Working in collaboration with FAO on the analysis of forest soil carbon
On the macro-zoning with US Forest Service
Through what we (USFS) do.
Be involved in most activities.
Cellule MRV
No need
We expect, SilvaCarbon can play an integrated role in R-PP implementation (UN-REDD+ process).
But only maybe
i.e. Helping with the national inventory
MRV
MRV system
Every project work together
For the NFI there is a good support.
MRV
Because we have only limited interaction of technical training
Has not felt his presence
It coordinates with the UN REDD program
Let's say that the staff involved in these processes is the same that has been trained

2. PC6. HAS PARTICIPATION IN THE SILVACARBON PROGRAM HELPED THIS COUNTRY MEET ITS INTERNATIONAL REPORTING REQUIREMENTS UNDER THE UNFCCC?

RESPONSE	NUMBER AND PERCENTAGE INDICATING PARTICIPATION IN SILVACARBON PROGRAM HELPED COUNTRY MEET REPORTING GOALS AND REQUIREMENTS	
	N	%
YES	24	56%
NO	4	9%
DON'T KNOW	15	35%
*EXAMPLE IF "NO"	11	
TOTAL RESPONSES	43	

*EXAMPLE IF "NO"
I THINK MAKING THE MACRO-ZONING WE GET TO KNOW THE TYPES OF LAND USE AND THIS WILL ALLOW US HAS DECIDED ON THE AREAS TO PROTECT, OPERATE AND MAINTAIN
NATIONAL REPORTS HAVE BEEN INCREASINGLY IMPROVED
BY ESTABLISHING A CONSISTENT METHODOLOGY TO INTERNATIONAL AGREEMENTS AND TREATY.
THE TECHNICAL CAPABILITIES OF OUR TEAM HAVE HELPED ASSIST INTERNATIONAL REPORT GENERATORS. IDEALLY, OUR TEAM GENERATED.
THROUGH TRAINING IN THE UNFCCC GUIDELINES
A JOB MANAGEMENT STAKEHOLDER.
WITH INGEI, CONSTRUCTION OF EMISSION FACTORS AND ACTIVITY DATA AND THE CALCULATION OF UNCERTAINTIES
TOO SOON TO ASSESS.
WE DO NOT RECEIVE ANY DIRECT SUPPORT
ONCE SILVACARBON PROGRAM START, IT WILL BE GREAT TO MEET THE REQUIREMENT.
BUT ONLY MAYBE

53. PC7. IN LOOKING AT THE RELATIONSHIP BETWEEN THE SILVACARBON PROGRAM AND PARTNER COUNTRY/MINISTRY ACTIVITIES (FOREST INVENTORY, MRV, ETC.) IN THE COUNTRY, HOW WOULD YOU RATE THE FOLLOWING:

Ratings	How do you rate the following::											
	Awareness of each other's entire program efforts (e.g., objectives, focus, scale)?		Level of engagement of national technical staff in program decisions and implementation?		Coordination and consensus on strategies and priorities?		Compatibility of procedures and processes?		Interoperability of format and computer systems?		Integration of remote-sensing data and field data?	
	N	%	N	%	N	%	N	%	N	%	N	%
Nonexistent	2	5%	0	0%	0	0%	0	0%	3	3%	2	5%
Low	10	24%	7	17%	9	21%	11	26%	11	26%	12%	29%
Moderate	20	48%	21	50%	24	57%	22	52%	13	52%	16%	38%
Very high	7	17%	8	19%	7	17%	8	19%		%		%
Don't know/NA	3	7%	2	5%	2	5%	1	1%	8	19%	4	10%
Total responses	42		42		42		42		42		42	

54. PC8. WOULD YOU SAY THAT SILVACARBON CURRENTLY STRIKES THE CORRECT BALANCE BETWEEN CAPACITY BUILDING THROUGH WORKSHOPS AND IN-COUNTRY TECHNICAL ASSISTANCE?

RESPONSE	SILVACARBON STRIKES CORRECT BALANCE BETWEEN CAPACITY BUILDING AND IN-COUNTRY ASSISTANCE.	
	N	%
YES	34	74%
NO	12	26%
*EXPLAIN IF "NO"	14[A]	
TOTAL RESPONSES	46	

*Explain if "no"
Organized workshops are always Followed by technical support
Believe that the capacity not because we have to have very specific training in relation to the activities of each pillar
In country technical assistance is low
In-country technical assistance (by SilvaCarbon) is yet to start. Once it starts, we can evaluate.
SilvaCarbon has supported an exclusive and limited group and many other groups that have approached SilvaCarbon have not been invited to participate. The effort has only benefited a selected group despite is said that is a Nation-wide support. Somehow this attitude has divided the efforts within the country.
We need more capacity building.
We need more assistance and training
The impact is not very sensitive because the need is really huge
More hand-on and evidence-based training
No further technical assistance, training workshops only.
Their work is not noticed
Because he has managed to improve capacity in the country on issues of IFN and MRV
Although I believe that technical assistance to more custom scale is more efficient

a. 14 responses were provided even though only 12 responded "no"

ST: ALL RESPONDENTS EXCEPT "HEADQUARTERS," IF ST1 RESPONSE IS "YES"

(HQ: OTHER NON-USG BILATERAL DONOR

HEADQUARTERS FAO

HEADQUARTERS SILVACARBON UNITED STATES GOVERNMENT (USG) AGENCY (E.G. USAID, USFS, USGS, NASA, SMITHSONIAN, DEPARTMENT OF STATE)

NON-USG CAPACITY BUILDING DELIVERY/IMPLEMENTATION PARTNER (E.G. UNIVERSITY, CIVIL SOCIETY, ETC.)

55. ST1. HAVE YOU PARTICIPATED IN A STUDY TOUR?

RESPONSE	PARTICIPATED IN A STUDY TOUR	
	N	%
YES	9	33%
NO	18	67%
TOTAL RESPONSES	27	

56. ST2. HOW MANY STUDY TOURS ORGANIZED BY SILVACARBON PROGRAM HAVE YOU PARTICIPATED IN?

NUMBER OF STUDY TOURS	NUMBER OF STUDY TOURS PARTICIPATED IN	
	N	%
1	5	71%
2-4	2	29%
5+	0	
TOTAL RESPONSES	7	

57. ST3. How satisfied were you with the technical content of the tour(s)?

Level of satisfaction	Level of satisfaction with study tour technical content	
	N	%
Not at all satisfied	0	0%
Somewhat satisfied	2	25%
Mostly satisfied	3	38%
Extremely satisfied	3	38%
Total responses	8	

58. ST4. What were the most beneficial elements of the study tour?

Most beneficial elements of the study tour Respondents 6
Launch of Forest Carbon Mapping drone
MRV know tools
Aircraft experimentation to collect forest data around Douala, Cameroun
To learn the experiences from other countries.
Example from real case study
I could improve the protocol for monitoring soil carbon

59. ST5. Do you have suggestions for improvement(s) for study tour organizers?

Response	Suggestions for study tour improvement	
	N	%
Yes	4	50%
No	4	50%
*Explain	4	
Total responses	8	

*Explain
Make the group more homogeneous in terms of its knowledge/understanding
The cost of equipment is still high
Study tours need to focus more on the needs of the country's participants, and not only the benefits from techniques applied in more advanced countries.
My comments were not addressed nor followed

60. ST6. Have you used knowledge and skills gained after the study tour(s)?

Response	Used knowledge and skills gained in study tour	
	N	%
Yes	3	43%
No	4	57%
*Explain	4	
Total responses	7	

*Explain
In applying what they learned in the work of MRV
The equipment used is not available at the country level
It is very difficult to use software that most of the time is very expensive or inaccessible.
I could improve the protocol for monitoring soil carbon

61. ST7. Would you say that study tours supported by SilvaCarbon have led to increased collaboration and greater consistency in technical understanding among the community of forest and terrestrial carbon technical experts?

Response	Study tours led to increased collaboration and consistency	
	N	%
Yes	5	63%
No	1	13%
Don't know/not applicable	2	25%
*Explain if "no"	1	
Total responses	8	

*Explain if "no"
The exchange of experiences was the best

SECTION WS: ALL RESPONDENTS EXCEPT (HEADQUARTERS) IF WS1 RESPONSE IS "YES"

62. WS1. HAVE YOU PARTICIPATED IN A WORKSHOP(S), ORGANIZED BY SILVACARBON AND/OR GFOI, CARPE?

RESPONSE	PARTICIPATED IN WORKSHOP	
	N	%
YES	20	83%
NO	4	17%
TOTAL RESPONSES	24	

63. WS2. HOW MANY WORKSHOPS ORGANIZED BY SILVACARBON PROGRAM AND/OR GFOI, CARPE HAVE YOU PARTICIPATED IN?

RESPONSE	NUMBER OF WORKSHOPS PARTICIPATED IN	
	N	%
1	11	55%
2-4	8	40%
5+	1	
TOTAL RESPONSES	20	

64. WS3. HAVE YOU USED KNOWLEDGE AND SKILLS GAINED AFTER THE WORKSHOP(S)?

RESPONSE	USED KNOWLEDGE AND SKILLS GAINED IN WORKSHOPS	
	N	%
YES	11	52%
NO	10	48%
*EXPLAIN	17	
TOTAL RESPONSES	21	

65. WS4. WOULD YOU SAY THAT MEETINGS AND WORKSHOPS SUPPORTED BY SILVACARBON (INCLUDING THOSE ORGANIZED BY GFOI AND CARPE) HAVE LED TO INCREASED COLLABORATION AND GREATER

*Explain
Because the workshop was informative as formative and too general and forest inventory on Remote Sensing
Organized workshops are always Followed by technical support .....
Through presentations and lectures on the dirt satellite surveillance system and forest inventories
I already work in the land monitoring satellite system
I am in coordination, not in technical team
Through FRA Nepal activities
I have used the knowledge in developing national forest monitoring system action plan for our country
The equipment used is not available
But not all I have learned, particularly to share the knowledge and experiences to other stakeholders at internal meeting and/or regulatory set up.
(1) In improving my training materials (2) national & international contacts
It is very difficult to use software that most of the time is very expensive or inaccessible.
I am now engaged in other forestry activities.
Communicated with the authority but could not use because of non-engagement of SilvaCarbon in country level.
I know a lot of knowledge.
I could improve understanding of combining field analysis and monitoring sensors
MRV
National Forest Inventory, MRV , Allometric Models , Community Monitoring

CONSISTENCY IN TECHNICAL UNDERSTANDING AMONG THE COMMUNITY OF EXPERTS IN YOUR COUNTRY AND/OR REGION?

RESPONSE	WORKSHOPS LED TO INCREASED COLLABORATION AND CONSISTENCY.	
	N	%
YES	17	81%
NO	2	10%
DON'T KNOW/NOT APPLICABLE	2	10%
*EXPLAIN IF "NO"	1	
TOTAL RESPONSES	21	

*EXPLAIN IF "NO"
BECAUSE IT HAS NOT YET THE IMPACT OF THESE WORKSHOP, BUT AT LEAST AN UNDERSTANDING OF SOME ASPECTS RELATED TO FOREST INVENTORIES.

SECTION FTE: ALL RESPONDENTS EXCEPT "HEADQUARTERS," IF FTE1 RESPONSE IS "YES."

66. FTE1. WOULD YOU CONSIDER YOURSELF A PART OF COMMUNITY OF FOREST AND TERRESTRIAL CARBON EXPERTS?

RESPONSE	PART OF FOREST AND TERRESTRIAL CARBON EXPERT COMMUNITY	
	N	%
YES	17	68%
NO	8	32%
TOTAL RESPONSES	25	

67. FTE2. HAVE YOU BEEN INVOLVED IN LEARNING EXCHANGES, REGIONAL FORUMS, AND NETWORKS TO ENHANCE KNOWLEDGE AND EXPERTISE SHARING AMONG COUNTRIES THROUGH THIS COMMUNITY?

RESPONSE	INVOLVED IN ACTIVITIES TO ENHANCE SHARING AMONG COUNTRIES	
	N	%
YES	11	61%
NO	7	39%
TOTAL RESPONSES	18	

68. FTE3: How effective have these opportunities been in enhancing knowledge and expertise sharing in strengthening the community of forest and terrestrial carbon technical experts?

Level of effectiveness	Effectiveness of activities	
	N	%
Least effective	0	0%
Somewhat effective	4	36%
Mostly effective	5	45%
Extremely effective	2	18%
*Explain	6	
Total responses	11	

*Explain
Exchanges have been supported and shared
The partners used as trainers did not completely fulfill their mission
The exchange of experience facilitates all work
A true exchange, training and transfer
Necessary to learn experience of other countries - policy, implementation, methods
If we have a good person how well know and can explain anything. It easy to transfer knowledge to local people.

69. FTE4. What would you say about gender balance in this community?

Gender balance	Level of gender balance	
	N	%
Primarily men	9	56%
Primarily women	0	0%
Equal	7	44%
Total responses	16	

70. FTE5. How would you describe the activity of female participants in the community?

Female participant activity	Activity of female participants in community	
	N	%
Equally active with men	8	50%
Less active	6	38%
More active	2	13%
Total responses	16	

71. FTE6. What forest and terrestrial carbon measurement and monitoring methodologies does your organization currently use? (You, your team, institution or ministry)

Measurement and monitoring methodologies	Measurement and monitoring methodologies used	
	N	%
University of Maryland algorithm for developing land cover maps	4	27%
Videography: Plot-level biomass estimation	2	13%
Decision Tree Matrix: biomass est. (Amazon Basin) using remotely sensed data & ground plot data	2	13%
Normalized difference fraction index: Combining spectral and spatial data to map canopy damage	2	13%
FRIED optimization tool	1	7%
CLASlite + LiDAR Landsat: mapping carbon stocks directly	1	7%
DTIM information needs tool for selecting the metrics to monitor	0	0%
CLASlite: Approach to monitoring deforestation and forest degradation	0	0%
Airborne Taxonomic Mapping (AToMS)	0	0%
CATHALAC Tropicarms	0	0%
DETER: Brazil's Real-time Deforestation Detection System	0	0%
Our Planetary Skin	0	0%
Terrestrial Observation and Prediction Program (TOPS)	0	0%
*Other	3	20%
Total responses	15	

*Other
Satellite Earth Observing System combined with IFN
Field inventory.
We have modeling and equations from AML language.

72. FTE7. Do these methodologies meet your needs for measurement, verification, and reporting (MRV)?

Response	Methodologies meet needs	
	N	%
Yes	9	64%
No	5	36%
*Explain	5	
Total responses	14	

*Explain
The combination of remote sensing and field optimizes the gain in spending
The method is good, only the beginning is often difficult to get to agree, of course the results
We are the stage of assessing and harmonizing methodologies
Not available in country and lack of technical know-how.
Is not complete and needs more calibration.

73. FTE8. HAS SILVACARBON'S SUPPORT IMPROVED YOUR TEAM'S ABILITY TO USE FOREST AND TERRESTRIAL CARBON MONITORING AND MANAGEMENT METHODOLOGIES?

RESPONSE	SILVACARBON SUPPORT IMPROVED TEAM'S ABILITY TO USE METHODOLOGIES	
	N	%
YES	9	69%
NO	4	31%
*EXPLAIN	6	
TOTAL RESPONSES	13	

*EXPLAIN
TRAINING IN TOOLS AND TECHNOLOGIES
NOT MUCH
TRAINING ON BOTANY AND SOIL SAMPLING. SOIL SAMPLES ANALYSIS.
NOT FULLY
FINANCIAL SUPPORT HELPED CONDUCTING THE FIELD WORK
SILVACARBON PROGRAM YET TO START.

74. FTE9. How often have you or your staff used forest and terrestrial carbon monitoring and management methodologies and technologies developed/disseminated under SilvaCarbon in your daily work?

Frequency	Frequency of use of monitoring and management methodologies and technologies	
	N	%
Daily	1	7%
Monthly	4	29%
Several times a year	6	43%
Once a year or less	1	7%
Never	2	14%
Total responses	14	

75. FTE10. Are there currently enough trained individuals in your country to implement the methodologies and related initiatives introduced by SilvaCarbon?

Response	Enough trained individuals in country to implement methodologies	
	N	%
Yes	7	44%
No	9	56%
*Explain	8	
Total responses	16	

*Explain
At the DIAF
The competent people are there
There are three components in operation in the MRV structure: Satellite Land Monitoring System, National Forest Inventory and Inventory of Greenhouse Gases
People trained environment ministry
Need to train more technician
Capacity building is needed.
We need more training.
We need more capacity

76. FTE11. Is there currently sufficient level of expertise and capacity in forest and terrestrial carbon monitoring in this country at this at this time reach national MRV goals without outside support, either financial or technical? (Q. 2a)

Response	Expertise and capacity are sufficient to reach MRV goals without outside support	
	N	%
Yes	4	25%
No	12	75%
*Explain	10	
Total responses	16	

*Explain
The current institutional setup is running well
Technically yes, financially it is still doubtful
Developing countries will often need to finance the projects. Capacity building can come in advance
Always updating and funding is required for new requirements
Need capacity building
Technical and financial resource constraints.
We need techniques that is suitable for REDD+ in my country
We need more training tools of analysis and interpretation

77. FTE12. HAVE YOU AND/OR YOUR INSTITUTION BEEN DIRECTLY OR INDIRECTLY INVOLVED IN IN EFFECTING ANY CHANGES IN GOVERNMENT OR AGENCY FOREST MANAGEMENT POLICY, AS A RESULT OF YOUR INVOLVEMENT IN SILVACARBON (INCLUDING GFOI AND CARPE)?

RESPONSE	INSTITUTIONAL INVOLVEMENT WITH SILVACARBON EFFECTED POLICY CHANGES	
	N	%
YES	7	44%
NO	9	56%
*EXPLAIN	6	
TOTAL RESPONSES	16	

*EXPLAIN
I DON'T HAVE A SPECIFIC CASE
HAS THE OPPORTUNITY OF DISCUSSION MEETINGS BETWEEN PARTNERS
WAITING TO GET FULL RESULTS BEFORE MAKING RECOMMENDATION.
SILVACARBON PROGRAM YET TO START.
WE TRIED BUT NEITHER THE GOVERNMENT NOR SILVACARBON HAVE BEEN SUPPORTIVE.
IF RESULT IS CLEAR AND CORRECT.

78. FTE13. To what degree is SilvaCarbon support sufficient to train technical staff to learn and independently use the necessary tools and methodologies to meet your countries' forest and terrestrial carbon management needs?

Sufficiency of support	Level of sufficiency of SilvaCarbon support to train staff	
	N	%
Extremely insufficient	0	0%
Somewhat insufficient	1	7%
Relatively sufficient	7	50%
Extremely sufficient	2	14%
Don't know/not applicable	4	29%
Total responses	14	

79. FTE14B. Please rate how well SilvaCarbon strikes the balance between capacity building through workshops/trainings and in-country technical assistance?

Response	Balance between workshops and in-country technical assistance	
	N	%
Not balanced at all	2	17%
Marginal balance	3	25%
Fine balance	7	58%
Perfect balance	0	0%
*Explain	4	
Total responses	12	

*EXPLAIN
IT WAS POSSIBLE TO IMPROVE A MORE CONTINUOUS TECHNICAL SUPPORT
MY INSTITUTION DOESN'T RECEIVE TECHNICAL ASSISTANCE
SILVACARBON PROGRAM YET TO START.
NOT ENOUGH

B, QUESTION NOT INCLUDED IN FRENCH VERSION

80. FTE15. BASED ON YOUR EXPERIENCE WHAT MEASURES COULD THE SILVACARBON PROGRAM TAKE TO STRENGTHEN THE COMMUNITY OF FOREST AND TERRESTRIAL CARBON EXPERTS?

MEASURES TO STRENGTHEN THE FOREST AND TERRESTRIAL EXPERT COMMUNITY RESPONDENTS 16
BUILD ON EXISTING NATIONAL EXPERTISE
REGULAR MONITORING OF ACTIVITIES IN EACH COUNTRY.
ENSURE PLANNED AND STRUCTURED TRAINING WITH WELL-ESTABLISHED EXERCISES WITH CONSCIENTIOUS TRAINER!
WORKSHOPS AT INTERNATIONAL AND ESPECIALLY REGIONAL LEVEL, TRAINING, EQUIPMENT AND FINANCIAL SUPPORT (SATELLITE IMAGES, AND OTHERS)
ADVANCED LEVEL TRAINING TO A GROUP WITH PROVEN KNOWLEDGE AND EXPERIENCE
PROVIDE OPPORTUNITIES FOR EXCHANGE AND UPDATING WITH NEW TECHNOLOGIES; ESTABLISHING A VIRTUAL NETWORK MONITORING AND INTERACTION
WE ARE PLANNING MORE TARGETED TRAINING SESSIONS.
TO DEVELOP MODELS WITH LOCAL LEVEL DATA
PROVIDE SUFFICIENT ASSISTANCE
GOOD WEBSITE WITH LINKS TO DOCUMENTS AND TRAINING MATERIALS
CAPACITY BUILDING, LOGISTICS AND EQUIPMENT.
I THINK SILVACARBON SHOULD LOOK BEYOND SUPPORTING A SELECTIVE GROUP WITHIN THE COUNTRY AND TRULY EMBRACE NATIONAL EXPERTS BEYOND A LIMITED PRIVILEGED GROUP. ALSO I THINK THAT THE PROJECT SHOULD NOT BE ADVERTISED AS A COUNTRY-WIDE SUPPORT AS IT IS LIMITED TO A SELECTED GROUP OF PARTICIPANTS THAT HAVE BENEFITED BEYOND EXPERTS ACROSS THE COUNTRY
SUPPORT CAPACITY BUILDING FOR NEW TECHNOLOGY
ONLY TO CONTINUE THE ASSISTANCE AND SUPPORT GIVEN SO FAR
YES, IF IT WOULD BE APPLIED CONSISTENTLY

SECTION HQ: OTHER NON-USG BILATERAL DONOR

HEADQUARTERS FAO

HEADQUARTERS SILVACARBON UNITED STATES GOVERNMENT (USG) AGENCY (E.G. USAID, USFS, USGS, NASA, SMITHSONIAN, DEPARTMENT OF STATE)

NON-USG CAPACITY BUILDING DELIVERY/IMPLEMENTATION PARTNER (E.G. UNIVERSITY, CIVIL SOCIETY, ETC.)

81. HQ1. WHAT ROLE HAVE YOU PLAYED IN SILVACARBON PROGRAM PLANNING? DESCRIBE

ROLE PLAYED IN SILVACARBON PROGRAM PLANNING RESPONDENTS 12
AS A NATIONAL COORDINATOR FOR USFS.
PRIMARILY ORGANIZING AND RUNNING JOINT REGIONAL WORKSHOPS. INPUT TO GLOBAL PLANNING AND COORDINATION.
DEVELOPING WORKSHOP PROGRAM
CAPACITY BUILDING
I ATTEND MEETINGS AND WORKSHOPS THAT INVOLVE SOME PLANNING ASPECTS TO SILVACARBON.
PLANNED SILVACARBON REGIONAL WORKSHOPS AND COUNTRY-LEVEL ENGAGEMENT
I HAVE BEEN INVOLVED AS A LECTURER AND IN METHOD DEMONSTRATION DURING FIELDWORK. I HAVE ALSO GIVEN SOME INPUT TO THE ORGANIZATION OF THE REGIONAL WORKSHOPS.
CONTRIBUTION TO NATIONAL FOREST INVENTORY PLANNING.
ONLY ASSISTANT
THE SILVACARBON PROGRAM, HELP ME TO KNOW MORE ABOUT REMOTE SENSING DATA AND HOW THIS CAN BE USED TO DEVELOP MODELS TO FOREST MONITORING

82. HQ2. Do you feel that SilvaCarbon's interagency relationships have helped attaining your agency mandate or interests within the program? Why or why not?

Response	SilvaCarbon's interagency relationships helped attain agency mandate	
	N	%
Yes	13	77%
No	4	24%
*Explain	12	
Total responses	17	

*Explain
SilvaCarbon brings technical expertise and additional financial resources.
We have run some good joint activities that have had mutual benefits with each agency/project covering different technical aspects and also supporting different countries to participate.
Country involvement in Latin America
I think it is very positive to have the relevant agencies present and working together on this task - they have complementary skill sets and experiences.
Irrelevant question
SilvaCarbon has provided an effective method for country-level engagement and capacity building
Yes and no. In my opinion the regional workshops of Silva Carbon should also be used to support a long term scientific Cooperation between REDD countries and the institutions of the lecturers, but there seems to be little financial and managing support for this.
We can evaluate, once SilvaCarbon program starts.
Platform to discuss approaches, tools and institutional alternatives to implement forest governance activities.
Because, was easy to the program, make relations with some universities in US.
Ineffective leadership at USAID and USFS with no vision.

83. HQ3. What do you see as the most significant challenges to coordination among USG agencies implementing SilvaCarbon program? (Check all that apply)

Most significant challenges	Most significant challenges to coordination among USG agencies implementing the SilvaCarbon program	
	N	%
SilvaCarbon's internal programmatic decision-making process?	5	25%
Communication of regarding progress and challenges in the field travel the appropriate communication channels in order to reach the Technical Team, the Steering Committee, and to the USG agencies and externally?	5	25%
Communication from the HQ level to reach all appropriate country partners?	5	25%
*Other	5	25%
Total responses	20	
Total respondents	17	

*Other
I am not involved in this level
Improved joint planning and coordination between FAO, UN-REDD and SilvaCarbon and GFOI was attempted but not well followed through - no one agency particularly responsible.
I am not qualified to respond, but I have not experienced any problems related to internal USG communications or decision-making.
Irrelevant question
Coordination among all USG agencies for a common theme is difficult with numerous activities

4. HQ4. Are you aware of any partnering with other donors and/or international organizations to generate synergies with the SilvaCarbon program?

Response	Awareness of partnering with other donors or international organizations	
	N	%
Yes	11	69%
No	5	31%
*Describe if "yes"	8	
Total responses	16	

*Describe if "yes"
I have personally been involved in organizing and running successful joint regional workshops between FAO, UN-REDD and SilvaCarbon. We have done some global planning and coordination but that could be improved. Some proposals for joint funding could be a future opportunity.
UASAID
I work on CARPE, which is a great synergistic activity wit SilvaCarbon.
Clinton Foundation work in Kenya (SLEEK project) and Norway funding of in-country activities
GFOI, UN-REDD
UN-REDD Program (FAO country) is likely to do it.
With FAO
With USFS or some universities

85. HQ5. ARE YOU AWARE OF ANY AREAS WHERE THERE HAS BEEN A DUPLICATION OF EFFORTS BETWEEN SILVACARBON AND OTHER PROGRAMS OR DONORS?

RESPONSE	DUPLICATION OF EFFORTS BETWEEN SILVACARBON AND OTHER PROGRAMS OR DONORS.	
	N	%
YES	5	31%
NO	11	69%
*DESCRIBE IF "YES"	5	
TOTAL RESPONSES	16	

*DESCRIBE IF "YES"
SEVERAL WORKSHOPS ON SIMILAR TOPICS HAVE BEEN HELD BY FAO/UN-REDD AND SILVACARBON AND ALSO OTHER PROJECTS. SOME EFFORTS TO COMBINE BUT COULD BE IMPROVED.
FAO CAPACITY BUILDING AND SILVACARBON
REGIONAL WORKSHOPS SEEM TO NOT TAKE WELL INTO ACCOUNT OTHER INTERNATIONAL COOPERATION THAT IS ALREADY IN PLACE THAT COULD CONTRIBUTE TO THE WORKSHOPS.
IN SAME PROCESS MOST BE SAME RESULT.
WITH USFS OR SOME UNIVERSITIES

86. HQ6. What do you see as the most significant challenges to relationships and coordination between USG and other donors working on SilvaCarbon, including GFOI, CARPE, globally and regionally?

Most significant challenges to relationships and coordination between USG and other donors Respondents 12
Improving the coordination of capacity development activities to create more synergies and joint activities rather than multiple separate efforts. Some duplication and even inconsistency in approaches (e.g. recommendations on radar vs. optical remote sensing or software preferences e.g. ALU tool).
Duplication of program e.g. workshop content
Harmonize the message in the field of remote sensing techniques
Duplication of effort can be found between USG and other donors in some cases. However, I do not think this is necessarily bad - multiple groups working on a task that so far does not have a single best demonstrated solution can be beneficial. Coordination exists where parties are open to it, but sometimes this is not the reality. Some of the responsibility for managing multiple donor activities must reside with the countries themselves.
Coordination among many groups with similar causes. The engagement and activities within countries is diverse and unknown, in many cases.
Other international Cooperation/project are overseen and could contribute to the same goals than SilvaCarbon
No idea.
The result for forest monitoring and baseline.
Achieve continuous, efficient and self-sustaining MRV
Ineffective leadership at USAID and USFS with no vision.

87. HQ7. How well have SilvaCarbon and GFOI collaborated in their work (i.e. workshops, TA)?

Level of collaboration	Level of collaboration between SilvaCarbon and GFOI	
	N	%
Nonexistent	2	11%
Limited collaboration	0	0%
Solid collaboration	7	39%
Very high	3	17%
Don't know/not applicable	6	33%
*Explain	4	
Total responses	18	

*Explain
I think SilvaCarbon has made good efforts to try to achieve this. I am less sure that GFOI is as well coordinated as I am not aware of an overall clear project plan or confirmed funding stream.
As I see it, GFOI is a guidance organization so far, and SilvaCarbon tends more to implementation. I think these two fit well together.
Irrelevant question
It not the time to evaluate.

88. HQ8. How effective would you say SilvaCarbon and GFOI cooperation has been in contributing to the alignment of global sampling schemes of continuous satellite observations with in situ/field data collection? .

Level of effectiveness	Level of effectiveness of SilvaCarbon-GFOI cooperation in contributing to the alignment of global sampling schemes	
	N	%
Nonexistent	0	0%
2	2	13%
3	4	27%
Very high	3	20%
Don't know/no response	6	40%
*Explain	4	
Total responses	15	

*Explain
SilvaCarbon and GFOI have attempted this and efforts are worthwhile and having some benefits through to CEOS to improve global data availability. However, the data is still difficult to access and use for many developing countries.
This is still a work in progress, but this issue and associated methods are discussed at every meeting.
Support of the GFOI Methods and Guidance document is a perfect example
Time will tell.

89. HQ9. CAN YOU PROVIDE EXAMPLES OF SILVACARBON COUNTRIES USING GFOI DESIGNS FOR COMPARISON?

RESPONSE	ABILITY TO PROVIDE EXAMPLES OF SILVACARBON COUNTRIES USING GFOI DESIGNS	
	N	%
YES	4	29%
NO	10	71%
*EXAMPLE IF "YES"	5	
TOTAL RESPONSES	14	

*EXAMPLE IF "YES"
I RECALL SOME PROPOSALS FOR TANZANIA BUT AM NOT SURE OF THEY WERE IMPLEMENTED. THERE MAY BE SOME MORE BUT I AM NOT AWARE OF THE DETAILS.
COLOMBIA, PERU
YES AND NO - THESE DESIGNS ARE MORE GENERIC THAN GFOI ONLY.
THERE ARE MANY COUNTRIES USING THE GFOI METHODS AND GUIDANCE DOCUMENT (MGD) FOR REPORTING
AFFORESTATION MAP AT A COUNTRY LEVEL

90. HQ10. WOULD YOU SAY SILVACARBON SUPPORT IS WELL INTEGRATED INTO THE OVERALL CARBON MONITORING AND MEASUREMENT INITIATIVES ONGOING GLOBALLY? (I.E., R-PP, UN-REDD+ PROCESS?)

RESPONSE	SILVACARBON IS WELL INTEGRATED INTO CARBON MONITORING AND MEASUREMENT INITIATIVES	
	N	%
YES	10	67%
NO	5	33%
*EXPLAIN	8	
TOTAL RESPONSES	15	

*Explain
USFS is representing SilvaCarbon, and USFS is well integrated
I think SilvaCarbon is a good technical support project regionally and perhaps in some countries but not globally influential. I am not aware that the technical materials have been very widely picked up and they don't seem to have become standards or regularly referred to and used by global initiatives. The GFOI Methods and Guidance document is in the end a good product (after a long and difficult development). I'm not sure to what extent SilvaCarbon was involved in that but its a good resource, but again still not well known or used much by countries as far as I can see.
I think very well - SilvaCarbon is part of all such discussions at regional meetings, project planning, etc.
Can integrate global data and interpret global performance.
I think overall the program is great but several mistakes have been repeated across countries.
Emphasis on institutional arrangements and scientific foundations of MRV with national authorities.
Ineffective leadership at USAID and USFS with no vision.

91. HQ11. How effective have the SilvaCarbon activities been in addressing needs of targeted beneficiaries?

[Data unavailable due to programming error.]

92. HQ12. HAS PARTICIPATION IN THE SILVACARBON PROGRAM HELPED THIS COUNTRY MEET ITS INTERNATIONAL REPORTING REQUIREMENTS UNDER THE UNFCCC?

RESPONSE	PARTICIPATION IN SILVACARBON HELPED COUNTRY MEET REPORTING REQUIREMENTS	
	N	%
YES	8	67%
NO	4	33%
*EXPLAIN IF "NO"	6	
TOTAL RESPONSES	12	

*EXPLAIN IF "NO"
NOT CLEAR WHICH COUNTRY THIS QUESTION REFERS TO? I AM NOT AWARE THAT SILVACARBON HAS REALLY BECOME A MAIN COMPONENT OF ANY COUNTRIES CARBON MONITORING - PERHAPS INFLUENTIAL IN PERU FROM WHAT I'VE HEARD, BUT I'M NOT FAMILIAR WITH THE DETAILS.
MOST REPORTING REQUIREMENTS ARE NOT YET IMPLEMENTED BY THE COUNTRIES WHICH HAVE ASSISTED TO THE CAPACITY BUILDING.
YES, THROUGH THE MGD
WE CAN EVALUATE ONCE WE START THE SILVACARBON PROGRAM.

93. HQ13. HAS SILVACARBON PROGRAM CONTRIBUTED TO FACILITATING HIGHER QUALITY INTERNATIONAL REPORTING?

RESPONSE	SILVACARBON CONTRIBUTED TO FACILITATING HIGHER QUALITY REPORTING	
	N	%
YES	11	61%
NO	7	39%
*EXPLAIN IF "NO"	6	
TOTAL RESPONSES	18	

*Explain if "no"
Only just a marginal yes, but its a better choice than to say no. The efforts are well intentioned and of excellent quality technically, but getting national uptake and achieving impact is harder to demonstrate in national reporting at this stage. These things take time and hopefully national reports will show results in future.
Most reporting requirements are not yet implemented by the countries which have assisted to the capacity building
Irrelevant question
It is yet to start.

SECTION SWR: ALL RESPONDENTS

94. SWR1. WHAT WOULD YOU HIGHLIGHT AS THE MOST VALUABLE APPROACHES OF THE SILVACARBON PROGRAM FOR YOU AND/OR YOUR TEAM? (CHECK ALL THAT APPLY)

MOST VALUABLE APPROACHES	MOST VALUABLE APPROACHES OF THE SILVACARBON PROGRAM FOR TEAM	
	N	% (RESPONDENTS)
WORKSHOPS	35	74%
TECHNOLOGY TRANSFER THROUGH IN-COUNTRY TECHNICAL ASSISTANCE	29	62%
TECHNOLOGY AND KNOWLEDGE TRANSFERS THROUGH STUDY TOURS	22	47%
JOINT RESEARCH ACTIVITIES	20	43%
ENHANCING DATA ACCESS	20	43%
ENHANCING DATA USE	11	23%
OTHER	0	0%
TOTAL RESPONSES	137	
TOTAL RESPONDENTS	47	

95. SWR2. WHAT WOULD YOU SAY ARE WEAKNESSES OF THE SILVACARBON APPROACHES? (PLEASE EXPLAIN)

Weaknesses of the SilvaCarbon approaches Respondents 34
No weaknesses
Communication
Lack of ongoing communication
Lack of manual and concrete practical cases at the workshops.
Establish support and a line of work specific country

Weaknesses of the SilvaCarbon approaches Respondents 34
There are issues that require comprehensive analysis and cannot be handled in that way. For example, process of automating processes should be accompanied by those responsible for these issues and work exclusively on those issues
I think it's more efficient to have training through technical assistance and study tours in regional workshops; although it does not hurt to have regional meetings to standardize concepts
Understaffed
Improving the planning and coordination with the many other, donors and initiatives would help. I saw the early plan for SilvaCarbon aims to support GFOI but I have not seen or followed up to find out if there are annual work plans etc.
Poor planning and lack of coordination with the relevant partners
One time go workshops, no in-country help or follow-up
Training assistance
Linking monitoring capabilities to policy - policy is way ahead of the science. Communicating what can be done now, what we need to research, and what is not at all feasible is needed.
Unclarity about overall objectives, goals, principles.. Unclarity about its relationships with other agencies with roughly similar purpose
Some workshops are not focused on real needs of the countries.
Obtaining country feedback on approaches and techniques for continued improvement
The above approaches do not seem to have completely succeeded
It is not the time to evaluate.
Not enhancing data access, and not applying an open data policy when support was for all country but data is only used and has proprietary rights by a selected group. This is not helpful at the country level.
Time, Is very shot period for workshop.
None
Not much follow ups of what has been presented in the Workshops
Nothing
Better communication strategy is needed.
Short term training program
Maybe one of the weaknesses is that they need to communicate more what they can do, and what they have done.
The approach to the problem sometimes is not very integrated into the national reality. Is rather uneven and punctual.

Weaknesses of the SilvaCarbon approaches Respondents 34
Ineffective leadership at USAID and USFS with no vision.
Sharing communication
Budgetary supports for program implementation

96. SWR3. WHAT RECOMMENDATIONS WOULD YOU OFFER TO IMPROVE, STRENGTHEN, OR ENHANCE SILVACARBON SUPPORT? A. AT A COUNTRY LEVEL? B. REGIONALLY? C. GLOBALLY?

Recommendations, national level Respondents 38
Regular work shop
Workshop and training
Representations at national level
Transfer technology
Training on Land
Little involvement
Agreement on specific lines
Leave installed capacity in the country
More direct training
Develop workshops
More training and workshops
I haven't followed this enough to comment.
Coordinate with government and supporting or involved partners
No in-country help
Collaborate with universities offering training course
Thinking operationally - what can we do now to get answers.
A concrete plan.
Establish an approach to get detailed country feedback
Involve already established international cooperation partners
Time will answer.
Find, need more techniques for this level.
More communication
Have a clear focal point based in National responsibilities
Country
More frequent spaces for communication of nationally relevant actors.
Increase number of workshops and enhance awareness
National workshops
To enhance support, I recommend more technical workshops

Country level
Increase its stake in discussing questions concerning REDD in the country and put an emphasis on upgrading local skills pledge of some fine moves and durable.
A technical team support.
Capacity building
Do capacity building and assisting technically
Policy formulation
Focused specific capacity building

Recommendations, regional level Respondents 32
Nothing to report
Regional or Studios
Workshop exchange of expertise and cooperation
Availability of satellite images and ensure continuous training as required
Easy access to desired data.
Training workshops and exchanges of experiences
Little involvement
Spaces for discussing needs and requirement of countries
Search build synergies between the groups in each country that are working the same subjects
Specific workshops
Coordinate with supporting or involved partners
Better selection of the audience
More collaboration with OSFAC, ...
Sharing methods/data/etc. - this is a big potential efficiency.
Continue workshops, study tours
Workshops among the countries representatives to share common needs and technologies.
Continue regional workshops
Involve already established international cooperation partners
More communication
Enhance collaboration between similar countries
Generate regional studies/variables relevant to the state of forests
Increase opportunities for regional collaboration
Action research

RECOMMENDATIONS, REGIONAL LEVEL RESPONDENTS 32
PROMOTE REGIONAL KNOWLEDGE EXCHANGE
COORDINATION TEAM SUPPORT.
WORKSHOP
DO WORKSHOP AND SHARING
PARTICIPATION AND INVOLVEMENT OF MULTI-LEVEL REPRESENTATIVES
SHARING WORKSHOP

Recommendations, global level Respondents 28[c]
Spaces of Global Exchange
Coordinate with supporting or involved partners
Join platforms like GFW to share data and experiences
Using global data as a starting point for sampling, etc.
Improved public face
A well-known plan to share with all members.
Integrate closer with UNFCCC on reporting requirements
Involve already established international cooperation partners
Good, for the techniques is for global scale
More communication
Understand similarities and differences in each country
Enhance the documentation of best practices
Workshops
Make up voice about developing country needs and concerns according with climate change
Change leadership
Disseminate
Technical capacity building to represent in the global arena
Data coordination, method guidance,

c. The number of responses reported differs from the number of comments.

97. SWR4. HOW CAN SILVACARBON AND ITS PARTNERS ASSIST COUNTRIES IN BRIDGING THE GAP BETWEEN SCIENTIFIC/TECHNICAL ISSUES AND POLICY/DECISION-MAKING?

Assisting countries to bridge gap between scientific and policy issues Respondents 36
Through workshops
Perhaps to develop some well-written case studies or practical worked examples of how to collect, process and analyze a range of carbon related data such as forest inventory data as well as basic remote sensing data like Landsat.
Participatory planning and implementation of the program i.e. not in isolation
More hands-on exercises instead of theoretical workshops
Working together
Maybe we meet face to face with US policy makers and take lessons learned to partners.
Support the interest of mass media, and improve entry to mass media for scientists etc. Facilitate big event meetings with policy-makers / political leaders / opinion leaders
With successful experiences around the World.
Improved education through the MGD and regional workshops
Listen more to the needs of the countries
Through Reflective workshop.
Strengthening the technical and communication skills
Much
Participation of academy, NGOs and government agencies.
Increase collaboration
Joint research project
This gap is really big, but If SilvaCarbon could help the scientific/technical personnel to generate better communication with the policy/decision-making people, that could help both groups to understand their points of view so that each other could know where they stand.
We need to hold workshops for scientific/technical issues and policy/decision-making
By constant involvement of research organizations that have long remained on the sidelines in developing countries.
Workshops, retreats.
Improvement of capacity building
Change USAID leadership
Do workshop
Intensive training and financial assistance

Assisting countries to bridge gap between scientific and policy issues Respondents 36
Workshop for technical persons and separate workshop for policy decisionmakers to make them aware
By exchange of experiences
Continue exchanges
Closing gaps are achieved by formation-n FORMAL. The workshops are cheap, but do not solve the fundamental issues related to knowledge, which is acquired in formation programs-n-formal.
Working together
Partnership and exchanges of experience
Training ground engineers and resource persons
The program must choose right partner that can help the country move forward!
Frequency of workshops and trainings (3 and 3 thematic training workshops each year in the sub region
By involving these actors in different meeting to see how things go elsewhere
Training agents (by facilitating the transfer of technology)

98. SWR5. BASED ON YOUR EXPERIENCE WHAT MEASURES COULD THE SILVACARBON PROGRAM TAKE TO ENHANCE SUSTAINABILITY OF RESULTS?

Measures to enhance sustainability of results Respondents 30
Associate national expertise
Regular monitoring of land work
Communication,
Work with the countries concerned
An interactive portal results
Putting in its Financial and technical means in the process.
We need expertise
A long term work plan and continued steady modest stream of funding to provide ongoing flexible support to meet country needs for say 5 or even 10 years would be fantastic, rather than 2 or 3 year relatively short fixed project inputs.
Follow-up programs.
Impact of workshops

Measures to enhance sustainability of results Respondents 30
Country level assistance
Not expecting an end-to-end capability. Foster 'leapfrog' ideas, for example where mapping is the focus not pre-processing of data. Pre-processing should be centralized, and not performed by each country. This is a big deal and possible way to ensure sustainability on the monitoring side.
If it works, it is sustainable - Flexibility and responsiveness are key
Maintain the existence of the SilvaCarbon program with long-term funding and plans for workshops and products
Listen more to the needs of the countries
Continuous support and monitoring is needed.
Generating more technical capabilities
Have a medium and long term flexible plan for SilvaCarbon
More emphasis on institutional design based on sound technical / scientific processes.
Long term training and work.
Basically, if SilvaCarbon helps the technical staff to lessen the high turnover, this could allow the results to be maintained and improved over time.
Following the work to enhance sustainability of results
Work closely with the government (as is done at the time), but at an higher level (as GIZ is doing)
Joint research
Technical implementation
Approved policies and regulations in the national level, regular budgetary requirements to sustain the program for a long term basis and regular technical support
Institutionalization of the system, evaluation of the program, continuity of the program

99. SWR6. DO YOU HAVE ANY OTHER RECOMMENDATIONS RELATED TO THE SILVACARBON PROGRAM?

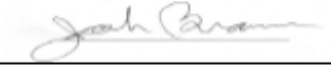
RESPONSE	RECOMMENDATIONS RELATED TO THE SILVACARBON PROGRAM	
	N	%
YES	9	23%
NO	30	77%
*EXPLAIN	17	
TOTAL RESPONSES	39	

*Explain
For me his address is already adapted to the needs of the country
Long-term training on REDD to fully popularize and fight against climate change in developing countries
Enough said
Yes - I recommend that SilvaCarbon continue the project and improve the coordination with other initiatives. You have access to a high quality team of experts and great data streams that are potentially very useful for countries struggling to meet their own domestic natural resource challenges as well as international reporting requirements and obligations of conventions. SilvaCarbon is a worthwhile initiative and I hope it will continue to contribute and possibly grow.
Not only workshop in nice cities would enhance sustainability but need to organize hands-on practices/training to the countries professional and end users. My organization and me are interested to work with SilvaCarbon in future.
Fine
I appreciate SilvaCarbon's activities. I did not appreciate this Survey - clumsy, irritating, too long
Workshops need to be more adjusted to real local needs.
We need more cooperation and need more capacity building in long term
Because my experience with their activities is minimal
Will be great if SilvaCarbon collaborates more with universities from Peruvian Amazon, to develop more capabilities
In different countries is different situations; the countries that have low capacity building have to support more of what already they have that no need
It's a little bit complicated to explain only by this survey. But for my professional experience, SilvaCarbon is doing a good work in DRC.
Change USAID and USFS leadership
Do program continuously
To involve communities in the grassroots level for effective partnership and sustainable program implementation.

ANNEX 17: DISCLOSURE OF ANY CONFLICT OF INTEREST

Name	Josh Brann
Title	Evaluation & Sustainable Landscapes Specialist
Organization	Development & Training Services, Inc.
Evaluation Position?	■ Team Leader ☐ Team member
Evaluation Award Number *(contract or other instrument)*	AID-RAN-I-00-09-00015, AID-OAA-TO-12-00001
USAID Project(s) Evaluated *(Include project name(s), implementer (IP) name(s) and award number(s), if applicable)*	Performance Evaluation of SilvaCarbon
I have real or potential conflicts of interest to disclose.	☐ Yes ■ No
If yes answered above, I disclose the following facts: *Real or potential conflicts of interest may include, but are not limited to:* *1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated.* *2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation.* *3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project.* *4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated.* *5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated.* *6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.*	

I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

Signature	
Date	August 1, 2014

Name	Karen Mecartney Joyce
Title Sr.	Sr. Technical Expert, Data Analysis, GCCM&E
Organization	Development & Training Services, Inc.
Evaluation Position?	☐ Team Leader ☒ Team member
Evaluation Award Number *(contract or other instrument)*	AID-RAN-I-00-09-00015, AID-OAA-TO-12-00001
USAID Project(s) Evaluated *(Include project name(s), implementer (IP) name(s) and award number(s), if applicable)*	Performance Evaluation of SilvaCarbon
I have real or potential conflicts of interest to disclose.	☐ Yes ☒ No
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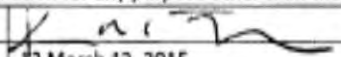
Signature	
Date	13 March 12, 2015

Name	Nils Junge
Title	Evaluation Specialist
Organization	Development & Training Services, Inc.
Evaluation Position?	☐ Team Leader ■ Team member
Evaluation Award Number *(contract or other instrument)*	AID-RAN-I-00-09-00015, AID-OAA-TO-12-00001
USAID Project(s) Evaluated *(Include project name(s), implementer (IP) name(s) and award number(s), if applicable)*	Performance Evaluation of SilvaCarbon
I have real or potential conflicts of interest to disclose.	☐ Yes ■ No
If yes answered above, I disclose the following facts: *Real or potential conflicts of interest may include, but are not limited to:* *1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated.* *2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation.* *3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project.* *4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated.* *5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated.* *6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.*	

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Signature	
Date	March 13, 2015

Name	Svetlana Negroustoueva
Title	Evaluation and Gender Specialist
Organization	Development & Training Services, Inc.
Evaluation Position?	☐ Team Leader ☐ Team member
Evaluation Award Number *(contract or other instrument)*	AID-RAN-I-00-09-00015, AID-OAA-TO-12-00001
USAID Project(s) Evaluated *(Include project name(s), implementer (IP) name(s) and award number(s), if applicable)*	Performance Evaluation of SilvaCarbon
I have real or potential conflicts of interest to disclose.	☐ Yes ☐ X No
If yes answered above, I disclose the following facts: *Real or potential conflicts of interest may include, but are not limited to:* *1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated.* *2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation.* *3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project.* *4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated.* *5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated.* *6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.*	

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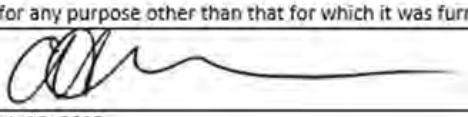
Signature	
Date	March 13, 2015

Name	Claudia Rossel
Title	Research Associate
Organization	Development & Training Services, Inc.
Evaluation Position?	☐ Team Leader ■ Team member
Evaluation Award Number *(contract or other instrument)*	AID-RAN-I-00-09-00015, AID-OAA-TO-12-00001
USAID Project(s) Evaluated *(include project name(s), implementer (IP) name(s) and award number(s), if applicable)*	Performance Evaluation of SilvaCarbon
I have real or potential conflicts of interest to disclose.	☐ Yes ■ No
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Signature	
Date	3/13/2015

Name	Marc Shapiro
Title	Project Leader, GCC M&E Project
Organization	Development & Training Services, Inc.
Evaluation Position?	Team Leader Team member
Evaluation Award Number *(contract or other instrument)*	AID-RAN-I-00-09-00015, AID-OAA-TO-12-00001
USAID Project(s) Evaluated *(Include project name(s), implementer (IP) name(s) and award number(s), if applicable)*	Performance Evaluation of SilvaCarbon
I have real or potential conflicts of interest to disclose.	Yes No
If yes answered above, I disclose the following facts: *Real or potential conflicts of interest may include, but are not limited to:* 1. *Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated.* 2. *Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation.* 3. *Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project.* 4. *Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated.* 5. *Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated.* 6. *Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.*	

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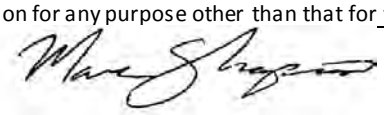
Signature	
Date	3/01/2014

USAID
FROM THE AMERICAN PEOPLE

SILVACARBON PERFORMANCE EVALUATION FINAL REPORT: ANNEX XVII – ONLINE SURVEY INSTRUMENT

March 13, 2015

This publication was produced for review by the United States Agency for International Development. It was prepared by Josh Brann, Nils Junge, Svetlana Negroustoueva, Claudia Rossel, and Marc Shapiro of Development & Training Services, Inc. (dTS).This

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Prepared for the United States Agency for International Development

USAID Contract Number AID-RAN-I-00-09-00015, Task Order Number AID-OAA-TO-12-00001

Global Climate Change Monitoring and Evaluation Task Order

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SILVACARBON PERFORMANCE EVALUATION **FINAL REPORT:** ANNEXES

EVALUATING CURRENT RESULTS AND FUTURE OPPORTUNITIES FOR THE SILVACARBON PROGRAM IN SUPPORTING CAPACITY DEVELOPMENT FOR FOREST AND TERRESTRIAL CARBON MONITORING

March 13, 2015

DISCLAIMER

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

AUTHORS

Josh Brann, Karen Joyce, Nils Junge, Svetlana Negroustoueva, Claudia Rossel, and Marc Shapiro.

1. Introduction

Dear participant,

Welcome to the on-line survey designed as part of dTS' evaluation of the SilvaCarbon program. dTS has been asked by the Office of Global Climate Change/E3 Bureau of the United States Agency for International Development (USAID) to conduct an independent evaluation of the SilvaCarbon for the purpose of finding out how well the program has been meeting the needs of internal and external stakeholders like you, and make recommendations for the program going forward.
SilvaCarbon, led by the United States government, is a capacity-building component of the GEO Global Forest Observations Initiative primarily implemented by the US Forest Service (USFS) and US Geological Survey (USGS) in several regions, including Central Africa, Southeast Asia and Latin America. In Central Africa, SilvaCarbon is a complementary component to the USAID/CARPE program that focuses on National Forest Inventory and Remote Sensing Forest Monitoring. In Latin America, the SilvaCarbon program is implemented by the US Forest Service (USFS) and US Geological Survey (USGS) and coordinates efforts with EPA, Smithsonian, NASA and other USG forest monitoring related programs such FCMC. In Latin America the regional workshops has been mostly defined as GFOI workshops, and other countries like Mexico and Brazil (GFOI countries) are welcome in this exchange. For the regional South and Southeast Asia program, please consider all SilvaCarbon workshops organized under the GFOI umbrella, as well as regional events organized with partners like UN-REDD and USAID LEAF. The country based SilvaCarbon activities has been led by either USFS, USGS or EPA.

You are invited to participate, on a free and voluntary basis. Depending on your role, you may be asked to answer up to 25 questions and it should only take you about 15 minutes to complete. If you don't know an answer to a question, or if it is not applicable to you, please select "Don't Know or N/A." For questions requiring numerical or dollar values, enter numbers with no spaces or punctuation except decimal points.

Your answers will be aggregated with all other survey respondents; there are no personal identifiers in this survey, and your name will not be identified or linked to any quotes unless you request it. The aggregated survey responses will be used for analysis by the evaluation team.

Following the survey, you will have a chance to contact the research team members with any concerns or questions. You will also be asked if you would like to participate in an individual interview.

The evaluation report is expected to be completed by March 2015 and will be circulated to the SilvaCarbon Program participating agencies, USAID/GCC, the U.S. Department of State, and other stakeholders shortly thereafter. The report can also be shared with all those interviewed, upon request.

By clicking "YES, CONTINUE" you will have agreed to participate in this survey.

*Do you want to continue?

- ○ Yes, continue.
- ○ No, thank you.

2. Background Information

BG1. What is your sex?

- ○ Male
- ○ Female

BG2. What is the timeline of your engagement in SilvaCarbon (including GFOI, CARPE) activities?

	More than 2 years	1-2 years	Less than 1 year
Initial involvement	○	○	○
Most recent involvement	○	○	○

*BG3. In which countries are you primarily involved in SilvaCarbon related activities? Please check all that apply.

- ☐ Brazil
- ☐ Colombia
- ☐ Costa Rica
- ☐ Ecuador
- ☐ El Salvador
- ☐ Guatemala
- ☐ Guyana
- ☐ Honduras
- ☐ Mexico
- ☐ Nicaragua
- ☐ Peru
- ☐ Bangladesh
- ☐ Cambodia
- ☐ India
- ☐ Indonesia
- ☐ Lao PDR
- ☐ Nepal
- ☐ Philippines
- ☐ Thailand
- ☐ Vietnam
- ☐ Japan
- ☐ Malaysia
- ☐ Singapore
- ☐ Democratic Republic of Congo
- ☐ Republic of Congo
- ☐ Cameroon
- ☐ Gabon
- ☐ Central African Republic
- ☐ Kenya
- ☐ Equatorial Guinea
- ☐ Burundi
- ☐ Chad
- ☐ Norway
- ☐ Italy
- ☐ Switzerland
- ☐ The Netherlands
- ☐ Germany
- ☐ Finland

Other (please specify)

BG4. What SilvaCarbon activities have you participated in?

- [ ] Conduct needs assessment
- [ ] Participate in regional workshop(s), including GFOI and CARPE
- [ ] Participate in study tours
- [ ] Participate in national workshop(s)
- [ ] Global oversight, coordination
- [ ] Work plan development
- [ ] Receipt of technical assistance, expertise and skills transfer from experts
- [ ] Provision of technical assistance in-country and regionally
- [ ] Program Implementation
- [ ] Organize/provide technical contribution to national workshop(s)
- [ ] Other (please specify)

3.

BG5. What are your key professional responsibilities? Check maximum 3 options.

- [ ] Advocacy
- [ ] Involved in national MRV system
- [ ] Coordination
- [ ] Forest management specialist
- [ ] Communications
- [ ] Government decision-making and policy
- [ ] Mapping
- [ ] Involved in REDD+, REDD desk/cell
- [ ] Involved in the national forest inventory
- [ ] Soil scientist
- [ ] Geographic Information Systems (GIS) specialist
- [ ] Program or institutional management
- [ ] Remote sensing specialist
- [ ] Other (please specify)

4.

*BG6. Please identify your primary professional affiliation in relationship to SilvaCarbon?

- Headquarters FAO
- Country government institutional partner
- Headquaters SilvaCarbon United States government (USG) agency (e.g. USAID, USFS, USGS, NASA, Smithsonian, Department of State)
- Country FAO office
- Country civil society organization, beneficiary of SilvaCarbon
- In-country SilvaCarbon United States government (USG) agency (e.g. USAID, USFS, USGS, NASA, Smithsonian, Department of State)
- Other UN, World Bank
- Country university / academia, beneficiary of SilvaCarbon
- Other non-USG bilateral donor
- Non-USG capacity building delivery/implementation partner (e.g. university, civil society, etc.)

5.

***CI1. Are you familiar with your country's forest and terrestrial carbon management goals?**

- Yes
- No

6.

*CI2. Does SilvaCarbon play a role in assisting your country to reach these goals? Explain

- [ ] Yes
- [ ] No
- [ ] Don't know/not applicable

If yes, please explain.

7.

CI3. To what extent do you expect the SilvaCarbon program to help the country achieve its forest and/or greenhouse gas inventory goals? (Q. 1b)

- 1 (Get us started)
- 2 (Self-sufficiency, where we need minimal input)
- 3 (Almost to the end)
- 4 (All the way to reaching objectives)

CI4. How effective have the SilvaCarbon activities been in addressing the needs of your country? (Q. 1b)

- 1 (least effective)
- 2 (somewhat effective)
- 3 (mostly effective)
- 4 (extremely effective)
- Not sure/not applicable

*CI5. How much progress has been made in reaching national forest inventory and MRV system goals since SilvaCarbon program started in your country? (Q. 1b)

- Reached our goal(s)
- Almost reached our goal(s)
- About half-way toward meeting our goal(s)
- We have only just started
- In the planning phase
- Not yet started
- Don't know/not applicable

***CI6. In your country, what group would you say has the most capacity to facilitate meeting the country's MRV goals and forest carbon monitoring and reporting needs?**

- ○ Government staff
- ○ Academic institutions
- ○ NGOs
- ○ International consultants, locally-based
- ○ Contracted technical staff in government
- ○ National consultants
- ○ Consultants, working regionally
- ○ Other (please specify)

***CI7. Are there enough trained individuals in your country to implement the methodologies and techniques introduced by SilvaCarbon? (Q.2a)**

- ○ Yes
- ○ No
- ○ Don't know

Please explain your answer

***CI8. Is there currently sufficient institutional capacity in your country to meet the country's forest carbon monitoring and reporting goals without outside support? (Q. 2a)**

- ○ Yes
- ○ No
- ○ Don't know

Please explain your answer

CI9. Does your institution need assistance and capacity building from SilvaCarbon to help your country reach MRV goals?

- Yes
- No

If yes, explain what kind of assistance?

***CI10. Has your organization received recommendations from SilvaCarbon on technical approaches related to forest carbon monitoring?**

- Yes
- No

8.

*CI11. Have these recommendations been used?

- Yes
- No

If "no," please explain why.

*CI12. Has SilvaCarbon program facilitated delivering good practice guides, manuals, and tools related to forest carbon monitoring, assessment and reporting to your organization? (Q.)

- Yes
- No
- Don't know

If yes, please provide example.

CI13. What has been the most effective way to deliver good practice guides, manuals, and tools related to forest carbon monitoring, assessment and reporting? (check maximum 3):

- [ ] Regional workshops
- [ ] Contracting technical staff to be based in government
- [ ] Visits by international consultants
- [ ] In-country mentoring/technical assistance
- [ ] National workshops
- [ ] Study tours
- [ ] Other (please specify)

***CI14. Have SilvaCarbon-supported meetings and workshops contributed to increased collaboration and greater consistency in technical understanding among the community of forest and terrestrial carbon technical experts?**

- Yes
- No

Please explain your answer.

***CI15. Has SilvaCarbon program implementation in your country directly or indirectly contributed to any changes in government or agency forest management policy? In any other policies?**

- Yes
- No

If yes, please provide example.

CI16. How do you (or your team) access Earth observation data related to forest and terrestrial carbon monitoring and management? (Q. 1c)
Please explain.

***CI17. Does the SilvaCarbon program facilitate your access to Earth observation data?**

- Yes
- No

If "no," please explain why.

***CI18. How does SilvaCarbon support your use of Earth observation data? Check all that apply.**

- [ ] Coordination
- [ ] Transparency of data collection systems
- [ ] Analysis of high resolution data
- [ ] Enhanced interoperability
- [ ] Integration of remote-sensing data and field data
- [ ] Other (please specify)

CI19. Do other international partners inititiaves facilitate your access to data? Please specify which one(s)

- [ ] GFOI
- [ ] FAO
- [ ] GOFC-GOLD
- [ ] CARPE
- [ ] Don't know
- [ ] Other (please specify)

CI20. Has your organization had experience partnering with other donors or international organizations to generate synergies with the SilvaCarbon program? (Q. 1b)

- ○ Yes
- ○ No
- ○ Don't know

If "yes", please describe

***CI21. Are you aware of any areas where there has been a duplication of efforts between SilvaCarbon and other programs or donors?**

- [ ] Yes
- [ ] No

If "yes," Please provide an example.

CI22. Overall, how satisfied are you with the:

	Effectiveness of support for access to Earth observation data by SilvaCarbon/CARPE/GFOI ? (Q.1c)	Level of access you (or your team) have to Earth observation data, facilitated by SilvaCarbon/CARPE/GFOI (Q.1c)	Capacity building and technical assistance relating to use of Earth observation data?	Technical guidance and methodologies shared by SilvaCarbon/CARPE/GFOI?	Your level of engagement and communication with SilvaCarbon/US government partner institutions?
Check all that apply.	☐	☐	☐	☐	☐

9.

IA1. What role does SilvaCarbon/ US government partner play in assisting your country to reach forest and terrestrial carbon management goals?

Explain

IA2. How effective have the SilvaCarbon activities been in addressing the needs of your country? (Q. 1b)

- 1 (least effective)
- 2 (somewhat effective)
- 3 (mostly effective)
- 4 (extremely effective)
- Not sure/not applicable

*IA3. How much progress has been made in reaching national forest inventory and MRV system goals since SilvaCarbon program started in your country? (Q. 1b)

- Reached our goal(s)
- Almost reached our goal(s)
- About half-way toward meeting our goal(s)
- We have only just started
- In the planning phase
- Not yet started

*IA4. How satisfied are you with your level of communication with SilvaCarbon program?

- 1 (not satisfied at all)
- 2 (somewhat satisfied)
- 3 (mostly satisfied)
- 4 (extremely satisfied)

If "1 or 2," provide example.

IA5. How satisfied are you with the relationships between USG implementing SilvaCarbon and other donors working with them on related activities in this country?

- 1 (not satisfied at all)
- 2 (somewhat satisfied)
- 3 (mostly satisfied)
- 4 (extremely satisfied)

If 1 or 2, provide example.

IA6. Please rate, how much SilvaCarbon support do you think this country needs in order to reach this country's MRV goals?

- 1 (none/Independent)
- 2 (minimum support)
- 3 (moderate support)
- 4 (very intensive support)
- Don't know/not sure

***IA7. Currently, are there enough trained individuals in your country to implement the methodologies and techniques introduced by SilvaCarbon? (Q.2a)**

- Yes
- No

If "no," please explain why.

***IA8. Is there currently sufficient institutional capacity in this country to meet the country's forest carbon monitoring and reporting goals without outside support? (Q. 2a)**

- Yes
- No

If "no," please explain why.

***IA9. In your country, what group would you say has the most capacity to facilitate meeting the country's forest carbon monitoring and reporting needs?**

- National consultants
- Government staff
- International consultants, locally-based
- Contracted technical staff in government
- Academic institutions
- NGOs
- Consultants, working regionally
- Other (please specify)

***IA10. Are you aware of instances, when participation in SilvaCarbon directly or indirectly effected any changes in government or agency forest management policy?**

- Yes
- No

If "yes," provide example.

IA11. Has your organization had experience partnering with other donors or international organizations to generate synergies with the SilvaCarbon program? If yes, please describe. (Q. 1b)

- Yes
- No

If "yes", please specify

***IA12. Does the SilvaCarbon program facilitate your country's access to Earth observation data?**

- Yes
- No

If "no," please explain why.

IA13. Which international partners and/or initiatives facilitate country's access to data?

- ○ GFOI
- ○ FAO
- ○ GOFC-GOLD
- ○ CARPE
- ○ Don't know/not sure
- ○ Other (please specify)

*IA14. How does SilvaCarbon program support country's use of Earth observation data?

- ○ Facilitating transparency of data collection systems
- ○ Enhancing interoperability
- ○ Integration of remote-sensing data and field data
- ○ Coordination role
- ○ Analysis of high resolution data
- ○ Don't know/not applicable
- ○ Other (please specify)

IA15. Has SilvaCarbon facilitated delivering good practice guides, manuals, and tools related to forest carbon monitoring, assessment and reporting to relevant institutions in this country? (Q.)

- ○ Yes
- ○ No
- ○ Don't know/no response

If "yes," please provide an example.

***IA16. What has been the most effective way to deliver good practice guides, manuals, and tools related to forest carbon monitoring, assessment and reporting? (check maximum 3)**

- Visits by international consultants
- Regional workshops
- In-country mentoring/technical assistance
- National workshops
- Contracting technical staff to be based in government
- Study tours
- Other (please specify)

***IA17. Have SilvaCarbon, including GFOI and CARPE-supported workshops and technical assistance contributed to increased collaboration and greater consistency in technical understanding among the community of forest and terrestrial carbon technical experts?**

- Yes
- No

Explain your answer?

10.

PC1. What role have you/your agency played in SilvaCarbon work planning? (Q. 1c) Describe

***PC2. Are you aware of any specific groups that have not been engaged in SilvaCarbon planning or other activities that perhaps should be? Check all that apply.**

- International bilateral or multilateral organizations
- Groups representing indigenous populations (Q. 3b)
- National government institutions
- Civil Society Organizations
- National institutions other than government (academia, research, etc.)
- Groups representing women
- Don't know/not sure

Please provide name and type of organization.

***PC3. Was a gender advisor, Ministry of Gender, or representative of any women's group included in the national work plan development or in any work planning since? (Q. 2a)**

- Yes
- No
- Don't know

If "yes," provide example of specific instances.

PC4. Are there mechanisms (if any) at your country(or regional) level to support donor coordination on climate change, forest management, and carbon measurement-related capacity building activities? (Q. 1b)

- ○ Yes
- ○ No
- ○ Don't know

If "yes," please provide an example.

***PC5. Would you say SilvaCarbon, including GFOI and CARPE, support is well integrated into the overall carbon monitoring and measurement initiatives ongoing in your country? (i.e., R-PP, UN-REDD+ process?) (Q. 3b)**

- ○ Yes
- ○ No

If "yes," please provide an example.

***PC6. Has participation in the SilvaCarbon program helped this country meet its international reporting requirements under the UNFCCC? (Q. 3c) (Q. 1b)**

- ○ Yes
- ○ No
- ○ Don't know

If "no," please explain.

PC7. In looking at the relationship between the SilvaCarbon program and partner country/ministry activities (forest inventory, MRV, etc.) in the country, how would you rate the following: (Q. 2a)

	a. Awareness of each other's entire program efforts (e.g., objectives, focus, scale)?	b.Level of engagement of national technical staff in program decisions and implementation?	c. Coordination and consensus on strategies and priorities?	d. Compatibility of procedures and processes?	e. Interoperability of format and computer systems?	f. Integration of remote-sensing data and field data?
Please rate all.						

***PC8. Would you say that SilvaCarbon currently strikes the correct balance between capacity building through workshops and in-country technical assistance?**

- Yes
- No

If "no," please explain.

11. Study Tour

ST1. Have you participated in a study tour?

- ○ Yes
- ○ No

12.

ST2. How many study tours organized by SilvaCarbon program have you participated in?

- 1
- 2-4
- 5+

*ST3. How satisfied were you with the technical content of the tour(s)?

- 1 (not at all satisfied)
- 2 (somewhat satisfied)
- 3 (mostly satisfied)
- 4 (extremely satisfied)

ST4. What were the most beneficial elements of the study tour? Explain.

ST5. Do you have suggestions for improvement(s) for study tour organizers? Explain.

- Yes
- No

Please explain (please specify)

ST6. Have you used knowledge and skills gained after the study tour(s)?

- Yes
- No

Explain: Please provide a concrete example for "yes," or reasons why "no."

***ST7. Would you say that study tours supported by SilvaCarbon have led to increased collaboration and greater consistency in technical understanding among the community of forest and terrestrial carbon technical experts?**

- ○ Yes
- ○ No
- ○ Don't know/not applicable

If "no," please explain.

13. Workshop(s)

WS1. Have you participated in a workshop(s), organized by SilvaCarbon and/or GFOI, CARPE?

- ○ Yes
- ○ No

14.

WS2. How many workshops organized by SilvaCarbon program and/or GFOI, CARPE have you participated in?

- 1
- 2-4
- 5+

WS3. Have you used knowledge and skills gained after the workshop(s)?

- Yes
- No

Explain: Please provide a concrete example for "yes," or reasons why "no."

*WS4. Would you say that meetings and workshops supported by SilvaCarbon (including those organized by GFOI and CARPE) have led to increased collaboration and greater consistency in technical understanding among the community of experts in your country and/or region?

- Yes
- No
- Don't know/not applicable

If "no," please explain your answer.

15.

***FTE1. Would you consider yourself a part of community of forest and terrestrial carbon experts?**

- Yes
- No

16.

FTE2. Have you been involved in learning exchanges, regional forums, and networks to enhance knowledge and expertise sharing among countries through this community? (Q.1d)

- ☐ Yes
- ☐ No

17.

FTE3: How effective have these opportunities been in enhancing knowledge and expertise sharing in strengthening the community of forest and terrestrial carbon technical experts?

- 1 (least effective)
- 2 (somewhat effective)
- 3 (mostly effective)
- 4 (extremely effective)

Please explain your answer

18.

FTE4. What would you say about gender balance in this community?

- Primarily men
- Primarily women
- Equal

FTE5. How would you describe the activity of female participants in the community?

- Equally active with men
- Less active
- More active

FTE6. What forest and terrestrial carbon measurement and monitoring methodologies does your organization currently use? (you, your team, institution or ministry) (Q. 1a) For example:

- DTIM information needs tool for selecting the metrics to monitor
- FRIED optimization tool
- University of Maryland algorithm for developing land cover maps
- Videography: Plot-level biomass estimation
- CLASlite: Approach to monitoring deforestation and forest degradation
- CLASlite + LiDAR Landsat: mapping carbon stocks directly
- Airborne Taxonomic Mapping (AToMS)
- Decision Tree Matrix: biomass est. (Amazon Basin) using remotely sensed data & ground plot data
- CATHALAC Tropicarms
- Normalized difference fraction index: Combining spectral and spatial data to map canopy damage
- DETER: Brazil's Real-time Deforestation Detection System
- Our Planetary Skin
- Terrestrial Observation and Prediction Program (TOPS)
- Other (please specify)

FTE7. Do these methodologies meet your needs for measurement, verification, and reporting (MRV)?(Q.1a)

- Yes
- No

Please explain how/why/why not?

FTE8. Has SilvaCarbon's support improved your team's ability to use forest and terrestrial carbon monitoring and management methodologies? (Q. 1b)

- Yes
- No

If "yes," please provide examples. If "no," please explain.

FTE9. How often have you or your staff used forest and terrestrial carbon monitoring and management methodologies and technologies developed/disseminated under SilvaCarbon in your daily work? (Q.1d)

- Daily
- Monthly
- Several times a year
- Once a year or less
- Never

***FTE10. Are there currently enough trained individuals in your country to implement the methodologies and related initiatives introduced by SilvaCarbon? (Q.2a)**

- Yes
- No

Please explain your answer.

***FTE11. Is there currently sufficient level of expertise and capacity in forest and terrestrial carbon monitoring in this country at this at this time reach national MRV goals without outside support, either financial or technical? (Q. 2a)**

- Yes
- No

Please explain your answer. Why/why not?

***FTE12. Have you and/or your institution been directly or indirectly involved in in affecting any changes in government or agency forest management policy, as a result of your involvement in SilvaCarbon (including GFOI and CARPE)?**

- Yes
- No

Please explain your answer.

FTE13. To what degree is SilvaCarbon support sufficient to train technical staff to learn and independently use the necessary tools and methodologies to meet your countries' forest and terrestrial carbon management needs?

- 1 (extremely insufficient)
- 2 (somewhat insufficient)
- 3 (relatively sufficient)
- 4 (extremely sufficient)
- Don't know/not applicable

***FTE14. Please rate how well SilvaCarbon strikes the balance between capacity building through workshops/trainings and in-country technical assistance?**

(not balanced at all)	(marginal balance)	(fine balance)	(perfect balance)
○	○	○	○

Please explain

***FTE15. Based on your experience what measures could the SilvaCarbon program take to strengthen the community of forest and terrestrial carbon experts?**

19. Headquarters

HQ1. What role have you played in SilvaCarbon program planning? Describe (Q. 1c)

*HQ2. Do you feel that SilvaCarbon's interagency relationships have helped attaining your agency mandate or interests within the program? [Q.3a] Why or why not?

- Yes
- No

Please explain your answer

*HQ3. What do you see as the most significant challenges to coordination among USG agencies implementing SilvaCarbon program? (Q. 2a) (check all that apply)

- Communication of regarding progress and challenges in the field travel the appropriate communication channels in order to reach the Technical Team, the Steering Committee, and to the USG agencies and externally?
- SilvaCarbon's internal programmatic decision-making process?
- Communication from the HQ level to reach all appropriate country partners?
- Other (please specify)

HQ4. Are you aware of any partnering with other donors and/or international organizations to generate synergies with the SilvaCarbon program? (Q. !B)

- Yes
- No

If "yes," please describe.

HQ5. Are you aware of any areas where there has been a duplication of efforts between SilvaCarbon and other programs or donors?

- Yes
- No

If "yes," please describe.

HQ6. What do you see as the most significant challenges to relationships and coordination between USG and other donors working on SilvaCarbon, including GFOI, CARPE, globally and regionally? Please explain your answer.

***HQ7. How well have SilvaCarbon and GFOI collaborated in their work (i.e. workshops, TA)?**

- 1 (nonexistent)
- 2 (limited collaboration)
- 3 (solid collaboration)
- 4 (very high)
- Don't know/not applicable

Please explain your answer

HQ8. How effective would you say SilvaCarbon and GFOI cooperation has been in contributing to the alignment of global sampling schemes of continuous satellite observations with in situ/field data collection? .

- 1 (nonexistent)
- 2
- 3
- 4 (very high)
- don't know/no response

Please explain.

HQ9. Can you provide examples of SilvaCarbon countries using GFOI designs for comparison?

- Yes
- No

If "yes," please provide an example.

HQ10. Would you say SilvaCarbon support is well integrated into the overall carbon monitoring and measurement initiatives ongoing globally? (i.e., R-PP, UN-REDD+ process?) (Q. 3b)

- Yes
- No

Please explain your answer

HQ11. How effective have the SilvaCarbon activities been in addressing needs of targeted beneficiaries? (Q. 1b)

☐	1 (least effective)	☐ Not sure/not applicable
☐	2 (somewhat effective)	☐ Not sure/not applicable
☐	3 (mostly effective)	☐ Not sure/not applicable
☐	4 (extremely effective)	☐ Not sure/not applicable

HQ12. Has participation in the SilvaCarbon program helped this country meet its international reporting requirements under the UNFCCC? (Q. 3c) (Q. 1b)

- Yes
- No

If "no," please explain.

***HQ13. Has SilvaCarbon program contributed to facilitating higher quality international reporting? (Q. 3c)**

- Yes
- No

If "no," please explain.

20. Strengths and Weaknesses, Recommendations

***SWR1. What would you highlight as the most valuable approaches of the SilvaCarbon program for you and/or your team? (check all that apply) (Q. 2)**

- ☐ Enhancing data use
- ☐ Technology transfer through in-country technical assistance
- ☐ Enhancing data access
- ☐ Joint research activities
- ☐ Workshops
- ☐ Technology and knowledge transfers through study tours
- ☐ Other (please specify)

SWR2. What would you say are weaknesses of the SilvaCarbon approaches? (Q. 2a) (please explain)

SWR3. What recommendations would you offer to improve, strengthen, or enhance SilvaCarbon support?
a. At a country level?
b. Regionally?
c. Globally?

At a country level?	
Regionally?	
Globally?	

SWR4. How can SilvaCarbon and its partners assist countries in bridging the gap between scientific/technical issues and policy/decision-making?

SWR5. Based on your experience what measures could the SilvaCarbon program take to enhance sustainability of results?

SWR6. Do you have any other recommendations related to the SilvaCarbon program?

- ○ Yes
- ○ No

Please explain your answer. How/why/why not?

THANK YOU VERY MUCH FOR YOUR PARTICIPATION! THE INFORMATION YOU HAVE PROVIDED WILL CONTRIBUTE TO THE EVALUATION OF THE SILVACARBON PROGRAM.

If you would like to participate in an individual interview or would like to recommend someone else for participation in this survey, leave your contact information below or you may contact any one of evaluation team members listed here: Svetlana Negroustoueva (SNegroustoueva@onlinedts.com); Claudia Rossel (CRossel@onlinedts.com).