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FROM THE AMERICAN PEOPLE

EVALUATION

Midterm Evaluation of Phase III of the USAID Central Africa Regional Program for the Environment

July 2017

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MIDTERM EVALUATION

PHASE III—USAID CENTRAL AFRICA REGIONAL PROGRAM FOR THE ENVIRONMENT

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ACRONYMS

ADS	Automated Directives System (of USAID)
AFR	Africa Bureau of USAID
AgCLIR	Agriculture Commercial Legal and Institutional Reform
AWF	African Wildlife Foundation
BIR	*Brigade d'Intervention Rapid* (Rapid Response Force)
CAFEC	Central African Forest Ecosystems Conservation
CAFI	Central African Forest Initiative (from Norway)
CAFEE	*Centre pour L'autonomisation de la Femme et de L'education*, Africa Capacity
CAR	Central African Republic
CARPE	Central Africa Regional Program for the Environment
CBO	Community-Based Organization
CBFP	Congo Basin Forest Partnership
CBNRM	Community Based Natural Resource Management Network
CC	Climate Control
CEFDHAC	*Conférence sur les Ecosystèmes de Forêts Denses et Humides d'Afrique Centrale* (Conference on the Ecosystems of the Dense Rainforests of Central Africa)
CIB	*Congolaise Industrielle du Bois* (Congolese Wood Industry, a logging concessionaire)
CNIAF	*Centre National d'Inventaire et d'Aménagement des Ressources Forestiéres et Fauniques* (National Center of Inventory and Management of Forest and Wildlife Resources, ROC)
CN–REDD+	National Coordination of Reduction of Emissions from Deforestation and Forest Degradation (DRC)
COCOCongo	*Coalition pour la Conservation au Congo* (Congolese Coalition for Conservation)
COCOSI	*Comité de Coordination de Suivi du Site* (Site Coordination Committee)
COMIFAC	*Commission des Forêts d'Afrique Centrale* (Central African Forests Commission)
COTREFOR	*Compagnie de Transport et d'Exploitation Forestière*
CSO	Civil Society Organization
CWT	Combating Wildlife Trafficking/Poaching
DIAF	*Direction d'Inventaires et d'Aménagement Forestiéres* (Directorate of Inventory and Forest Management, DRC)
DO	Development Objective
DRC	Democratic Republic of Congo
E3	Economic Growth, Education, and Environment Bureau of USAID

ECOFAC	*Programme de Conservation et Utilisation Rationale des Ecosystemes Forestiers en Afrique Central* (Conservation and Rational Use of Forest Ecosystems in Central Africa) EU-funded regional program
EMAPS	Environmental Monitoring and Policy Support
ER	Emissions Reduction
ER-PD	Emissions Reduction–Program Document
ERZs	Extractive Resource Zones
FAB	Forestry and Biodiversity Office (of E3 Bureau) USAID
FACET	*Forêts d'Afrique Centrale Evaluées par Télédétection* (Monitoring the Forests of Central Africa using Remotely Sensed Data Sets)
FAO	Food and Agriculture Organization of the United Nations
FARDC	*Forces Armées de la République Démocratique du Congo* (DRC Armed Forces)
FDLR	Democratic Forces for the Liberation of Rwanda
FSC	Forest Stewardship Council Certification
GCC	Global Climate Change Office, USAID
GHG	Greenhouse Gas
HFLD	High Forest Cover/Low Deforestation
HICD	Human and Institutional Capacity Development (a USAID Initiative)
HII	Human Influence Index
ICCN	*Institut Congolais pour la Conservation de la Nature* (Congolese Institute for the Conservation of Nature)
IGCP	International Gorilla Conservation Program
IP	Implementing Partner
IR	Intermediate Results
IUCN	International Union for Conservation of Nature
JGI	Jane Goodall Institute
KfW	German Government-Owned Development Bank and ICCN Sponsor
LandPKS	Land Potential Knowledge System
LSA	Landscape Support Applications
LTLT	Lac Tele -Lac Tumba (Landscape)
MAF	Ministry of Land Affairs
MAST	Mobile Application to Secure Tenure
MD	Missing data
MDDEFE	Ministry of Sustainable Development, Forest Economy, and Environment (ROC)
MENCT	Ministry of the Environment, Nature Conservation and Tourism (DRC)
MI	Measuring Impact
MLW	Maringa/Lopori/Wamba (Landscape)

MRV	Monitoring, Recording, and Verification
MTKB	Maiko-Tayana-Kahuzi-Biéga
NASA	US National Aeronautics and Space Administration
NC-REDD	National Coordination – Reduction of Emissions from Deforestation and Forest Degradation
NGO	Non-governmental Organization
NNNP	Nouabulé-Noloki National Park
NORAD	Norwegian Agency for Development Cooperation
NRM	Natural Resource Management
OCP	Okapi Conservation Project
OSFAC	Central African Satellite Observatory for the Congo Basin Forest
PA	Protected Area
PNKB	*Parc National Kahuzi-Biéga* (Kahuzi-Biéga National Park)
PPP	Public/Private Partnership
RDCS	Regional Development Cooperation Strategy
REDD+	Reduced Emissions from Deforestation and Forest Degradation (plus ancillary benefits)
RFO	Reserve Faunal Okapi (Okapi Faunal Reserve)
RIL	Reliance Industries Ltd.
ROC	Regional Office of Communications
ROC	Republic of Congo
SCAEMPS	Strengthening Central Africa Environmental Management and Policy Support
SFM	Sustainable Forest Management
SMART	Spatial Monitoring and Reporting Tool
SODEFOR	*Société de Développement Forestier* or Forest Development Corporation
TGCC	Tenure and Global Climate Change (a program)
TNS	Sangha Tri-National (Landscape)
ToC	Theory of Change
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
USAID/AFR	USAID's African Bureau
USAID/E3	Bureau of Economic Growth, Environment and Education
USAID/W	USAID/Washington
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
UNFCCC	United Nations Framework Convention on Climate Change

UGADEC	Union of Associations for the Conservation of Gorillas and Community Development, (eastern DRC)
WCS	Wildlife Conservation Society
WRI	World Resources Institute
WWF	World Wildlife Fund (in USA), otherwise Worldwide Fund for Nature

1. EXECUTIVE SUMMARY

1.1 Evaluation Purpose and Evaluation Questions

A team of twelve experts, organized by USAID contractor Integra Government Services International (Integra), undertook a midterm performance evaluation of USAID's Central Africa Regional Program for the Environment's third phase (CARPE III). The assessment took place from mid-October to the end of November 2016. This was a complex evaluation involving four analytical and technical support activities for eight field programs (the CARPE Landscapes), in four countries: The United States of America (USA), the Democratic Republic of Congo (DRC), Republic of Congo (ROC), and Rwanda. The Evaluation Team spent six weeks in the field (the itineraries are illustrated in Annex, Figures 10-14).

The team was composed of four experts from DRC, as well as experts from France, India, and the United States. Experts included a monitoring and evaluation (M&E) expert, three biodiversity experts (including a wildlife crime expert), two social scientists, an agronomist, and two climate change experts. The team met for a week in Kinshasa prior to fieldwork to finalize evaluation questions and cross-train thus ensuring consistent data collection across disciplines.

USAID provided evaluation questions are included in the Scope of Work (Annex 1). A midterm evaluation is generally intended to evaluate performance to date, however, USAID had supplemental requirements that address program impact (i.e. assessments of effectiveness). Given the scale of the CARPE program and the breadth of the activities, it would take a substantially greater period to collect the data necessary to fully evaluate the effectiveness of CARPE. The Evaluation Team was, nevertheless, able to generate and analyze enough information to identify those areas most likely to succeed, and those most at risk of not meeting goals.

1.2 Project Background

In 1999, the Heads of State from six Congo Basin countries met in Yaoundé, Cameroon to sign a declaration and action plan. The Yaoundé Declaration created a framework for shared conservation objectives, including transboundary cooperation.

The Congo Basin Forest Partnership (CBFP), underpinned by CARPE, and joined by South Africa and 27 other public and private partners, was announced as an initiative to support the Yaoundé Declaration.

USAID's CARPE was initiated in 1995. Phase 1 of CARPE ran from 1995-2002. It focused on understanding the legal, social, biological, administrative contexts of the Congo Basin forests, and on inventorying forest resources. Phase II, from 2003-2013, facilitated comprehensive regional land use planning to identify conservation and sustainable land use priorities.

USAID approved the Regional Development Cooperation Strategy (RDCS) in June 2011 to support CARPE. The goal of the RDCS is to accelerate Central Africa's transition to a climate-resilient, low emissions development through its single development objective (DO): The ecological integrity of the humid forest ecosystem of the Congo Basin maintained. In addition to aligning with USAID's Climate Change and Development Strategy and Biodiversity Guidance, the DO of the RDCS also supports the Congo Basin Forest Partnership's objectives to promote economic development, poverty alleviation, improved governance, and natural resources conservation in Central Africa.

Phase III, which was initiated in 2013, focuses on implementation of priority actions. CARPE III aims to achieve the DO through four intermediate results (IR): (1) targeted forest Landscapes sustainably managed, (2) threats to biodiversity in targeted forest Landscapes mitigated, (3) policy and regulatory environments supporting sustainable forest and biodiversity conservation established, and (4) capacity to monitor forest cover change, greenhouse gas emissions and biodiversity strengthened.

1.3 Evaluation Questions, Design, Methods, and Limitations

Evaluating questions were designed to cover four major areas: (1) program performance, (2) program design and implementation strategy, (3) program management, and (4) coordination and sustainability. The full set of questions and sub-questions is available in Annex I, Statement of Work.

Program Performance

Biodiversity conservation: Is CARPE on track to achieve its biodiversity conservation objectives?

Climate change mitigation: Is CARPE on track to achieve its climate change mitigation objectives?

Gender and minorities issues: How well does CARPE address issues concerning women empowerment, gender integration, and indigenous peoples?

Program Design and Implementation Strategy

What are the merits and shortcomings of the CARPE III strategic approach?

How valid are the development hypotheses and the assumptions outlined in the CARPE III RDCS and the strategic approaches and associated Theories of Changes as elaborated upon by partners with the assistance of the Measuring Impact (MI) Team?

What evidence exists that the strategic approaches developed for each implementing partner are (or are not) appropriate for effectively and efficiently achieving CARPE III objectives?

Program Management, Coordination, and Sustainability

How well are CARPE's activities managed and coordinated to achieve the program objectives and results?

What have been CARPE's relative strengths and weaknesses in ensuring the financial, social and institutional sustainability of USAID's investments after CARPE III implementation?

1.4 Findings and Conclusions

CARPE is instrumental in reducing rainforest loss in the world's second largest tropical rainforest ecosystem. CARPE is a critically important hedge against future greenhouse gas emissions and provides essential protection to threatened and endangered species.

As a long-term commitment to protecting the rainforests of the Congo Basin, CARPE provides an opportunity for the conservation and development communities to better understand ecological processes and effective conservation measures. The initial priorities were established in 1999, but over seventeen years, USAID and its partners have grown and improved their understanding of how sustainability can be achieved. They have also developed a deeper recognition of the ecological and economic importance of the Landscapes where CARPE and its

Implementing Partners (IPs) have invested resources. Much about the importance of the resources protected under CARPE remains to be discovered. Even at the time of writing this report, major new findings are emerging from research in the Cuvette Centrale, where the Lac Tele - Lac Tumba (LTLT) Landscape is located. The extent of the forest peatland is being quantified. The peatland is now understood to be the largest such complex in the world, and highly significant for future greenhouse gas emission reduction strategies (Dargie et al, 2017).

CARPE has a catalytic role in the development of new tools and approaches to forest monitoring that have benefited the global conservation community. It has influenced the establishment of Africa's first major forest carbon climate change mitigation program, the Maï-Ndombe REDD+ Program in and adjacent to the LTLT Landscape. CARPE promotes an unusual level of cooperation from historically competitive conservation partners, and leverages a substantial amount of resources, both in co-financing and in sharing of information and ideas. CARPE also identifies emergent issues through its collaborative learning environment, and has been able to generate results through its foundation in sound science. Notably, research undertaken in CARPE Landscapes has been instrumental in establishing the connection between biodiversity and carbon cycling in forests, and the implications of defaunation on the climate mitigation capacities of forests. This process of continuous learning will necessitate a rebalancing of conservation efforts to produce desired outcomes.

CARPE, however, is not without flaws. The evaluation found that there is substantial and critically important work to be done to integrate the social dimensions of natural resource management with conservation biology. Adaptive management in CARPE is weak, and inhibited by planning processes. Weaknesses in overall program design are also apparent, particularly in strategies to reduce emissions. For example, to meet urban energy demand, a major driver of deforestation in some Landscapes, a systemic approach is required that includes intervention outside the CARPE Landscapes. Such activities could be better accomplished through joint programming with other USAID operating units whose expertise is not available within CARPE. Integration with other USAID programs, and with other donors, would enable more strategic implementation of CARPE activities.

Biodiversity Objectives

CARPE is on track to achieve its biodiversity objectives, having successfully identified and mobilized to address threats under difficult circumstances. Given the complex array of economic, social, and political forces that drive biodiversity loss, most of which are outside of the remit of CARPE, this is a significant accomplishment. By comparing protected areas within CARPE Landscapes with areas having similar attributes, it is clear to see that many vulnerable species would be in much worse condition than they are without the support provided by CARPE.

The management authorities in all CARPE Landscapes have adopted the Spatial Monitoring and Reporting Tool (SMART), an open source data collection system for supporting data-driven patrols in protected areas. While not yet fully operational, its use is growing, and with it, the ability of authorities to collect detailed data for improved law enforcement monitoring and response. This is a very positive development, though the sustainability of the activity cannot be guaranteed, in part due to the costs of replacing the relatively inexpensive equipment.

The evaluation team found that livelihood alternative initiatives in CARPE are too limited in scope, under-conceptualized, and too poorly executed to be effective in reducing deforestation and forest degradation, as well as defaunation driven by high levels of bushmeat consumption and trade.

CARPE influences biodiversity policy and regulation by providing important decision support tools that influence and validate policy decisions. To a limited degree, CARPE is also advancing the capabilities that combat wildlife trafficking. There is potential to do more, particularly in promoting transboundary cooperation to disrupt trade routes for illegal wildlife products. The Evaluation Team identified positive developments in the ROC in building the capacity to combat wildlife crime, including poaching and wildlife trafficking. In the DRC, it found that there is a competent and motivated local partner that can help replicate the early successes in the ROC.

Climate Change Mitigation Objectives

Concerning climate change mitigation, CARPE's most significant interventions are still under development. CARPE does not yet completely address the identified drivers of deforestation and forest degradation. One root cause of deforestation in the Congo Basin is an urban energy shortage, which cannot be addressed solely through incremental improvements in existing wood and charcoal based energy systems. Where logging is concerned, CARPE's ability to influence the behavior of logging concessionaires is mixed, and often limited.

In the Sangha Tri-National (TNS) Landscape, where the Wildlife Conservation Society (WCS) has succeeded in influencing the behavior of logging concessionaires, measurable results have been obtained that demonstrate the potential of constructive engagement. However, this success was due, in large measure, on the strong sense of responsibility of the logging company that owned the concession. Replicability is hampered by the unwillingness of many concessionaires to invest in sustainable practices. And others who do prefer more sustainable production are only marginally profitable, which constrains their management options.

Leakage, or displacement of avoided deforestation to other areas, has only been addressed in a generalized, qualitative way. This is, in part, because of the design of mitigation activities, and the absence of a project based approach to addressing leakage risks. CARPE does do a good job in providing the necessary baseline data necessary for quantified approaches.

Those CARPE Landscapes with a forest/savanna mosaic are fire-adapted. Nevertheless, fire can be a key driver of forest degradation in these systems. Changes in the climate regime amplify the impact of fire on the ecosystem. An increasing population creates new demands for land cover change, and fire is the most expedient way of accomplishing the task. Consequently, the patchwork of forest and savannah is gradually converted into open savannah, with concomitant greenhouse gas (GHG) emissions and forest degradation. Thus, fire management is an increasingly important management strategy, both to prevent further degradation of existing forests, and to permit forest Landscape restoration. In all such Landscapes observed, the Evaluation Team concluded that the IPs have not yet developed a sufficient understanding of fire ecology or the role of fire in culture, and functional fire management approaches are lacking. There are some studies and awareness raising efforts, but these are not an adequate response to this threat. Efforts are coming underway to address fire, however, aided by data provided by EMAPS, which provides information on fire trends and the potential for early warning systems. Fire management will be of growing importance in some CARPE Landscapes, and could be a potential legacy of CARPE III.

Gender and Indigenous Issues

Implementation observed in CARPE Landscapes to promote women's empowerment and gender equality lack a systematic approach, and the analytical rigor that would lead to a strong basis for linking gender analysis and female empowerment to project goals. Married, elder Bantu-speaking men dominate society throughout central Africa. This is a reality that even the

best strategies would have difficulty in shifting. CARPE partners have had only limited success because there have not been sufficient efforts to address cultural dynamics. Thus ender analysis is not translating into effective programmatic responses.

Likewise, CARPE has been unable to effectively integrate indigenous people into its biodiversity conservation and climate change mitigation portfolios. CARPE needs clear strategies informed by social science and led by subject matter experts if it is to have any chance of having significant impact. A unified program spanning CARPE Landscapes with a dedicated staff trained and skilled to address the very delicate issues of relations with ethnic minorities (specifically "pygmies" – baMbuti, baTwa[1]) could yield better results.

Program Management and Coordination

The management systems of USAID can be a barrier to adaptive management and innovation. Bureaucratic inertia can hobble the ability of IPs to perform effectively. The Evaluation Team noted complaints of protracted processes for approval of management decisions. This can rob the IPs of the ability to manage adaptively and to respond effectively to changing conditions. Ultimately, it encourages a culture of compliance to initial terms and conditions of the cooperative agreements, rather than one of adaptation and learning. This can be prevented if the necessary approval processes can be streamlined and requests are addressed promptly.

Sustainability

Sustainability is the greatest challenge that CARPE, and all development activities in the Congo Basin, face. Government buy-in, as reflected in investment, varies from substantial participation in Rwanda, to limited and declining support in the DRC. The expectation of the government of the DRC is that the conservation community will finance the operations of the *Institut Congolais pour la Conservation de la Nature* (ICCN). As there are limitations to the degree that CARPE can support government institutions; the institutions that CARPE III has strengthened the most are the IPs themselves. Some IPs were active in the Landscape before CARPE, and they fully intend to be active after CARPE; they are essential to the goals of CARPE. Investment in the capabilities of the IPs is a logical response. Along a continuum, protected areas are typically advanced in their management planning, but in the RoC and DRC, the governments are not adequately supporting the protected area management authorities. Consequently, the protected areas are not fully sustainable. In some Landscapes, IPs are working to develop public/private partnerships (between the state and private sources of finance) to secure sustainable, and sustained, management of protected areas.

Land use planning is a central feature of CARPE's approach. Land use planning is a policy tool to optimize land uses according to different social needs such as conservation, food production, wood, or mineral production. In CARPE, land use planning has been difficult to implement in part because of the absence of data on the social dimensions of land use, including information on customary resource use. None of the CARPE zones (i.e., protected areas and community managed land units) has a detailed map of the customary territories of ethnic groups or clans. This gap is important because when management of a unit of land must be shared between multiple, possibly competing, social units it complicates governance, and could exacerbate tensions, increasing the potential for conflict. The lack of attention to local capacity to implement land-use plans and naïveté about local dynamics of land use and resource rights are examples

[1] For simplicity this report refers to all pygmy people as Mbuti, a Swahili term. We recognize however that there are distinct populations of forest-dwelling people with hunter-gatherer traditions, which differ by landscape.

of imperfect understanding of the problem set. This may have slowed progress towards sustainability. Other examples of community-managed conservation exist in the region that are not supported by CARPE, but which could provide useful insights, were CARPE Implementing Partners attuned to these efforts.

The Evaluation Team found that the proposed alternative livelihoods used in CARPE were in general (with some notable exceptions) poorly designed, and too small in scale to have an impact. Even if they were to be scaled up, there is no evidence that they would prevent unsustainable forest use. At best, they would supplement income from such uses. The experience provides important lessons for future attempts at sustainable economic development in and around the Landscapes. CARPE projects have shown the potential of community-based conservation as a sustainable approach to Landscape level conservation, notably in the fisheries compacts of Lac Tele communities.

1.5 Recommendations

The evaluation identified opportunities to capitalize upon success. CARPE III is poised to serve as an important laboratory for the use of community-based approaches to expand the area of forests managed for conservation and greenhouse gas emission mitigation, if it can support the governance of community forest concessions granted by the Community Forest Decree in the DRC. This decree presents a new opportunity to secure resource rights for well-managed communities. CARPE could demonstrate to other countries of the Congo Basin, some of which do not have a precedent for community resource rights, the potential of such a community-based approach. The decree allows for enhanced community resource rights in the form of community forest concessions. Security of resource rights will give communities an incentive to protect forests and restrict their exploitation, including through colonization of land. CARPE's Strengthening Central Africa Environmental Management and Policy Support (SCAEMPS) program is working with the DRC's Ministry of the Environment, Nature Conservation, and Tourism (MENCT) to operationalize *Arrêté 025, of February 9 2016*, constituting the administrative finding, of the Community Forestry Decree (Decree #14/018). This will provide the criteria for granting a concession to communities.

CARPE has good relationships with key national management authorities and provides valued support. Additional engagement with government representatives at the local and provincial levels could enhance CARPE's effectiveness.

CARPE should scale the lessons from early successes in combating wildlife crime and trafficking across CARPE Landscapes through cross-training among the Landscapes, IP, and host country partners. The Evaluation Team recommends that CARPE assess the feasibility of undertaking such an activity.

There are some technical issues yet to be resolved with the SMART technology, such as battery life adequate for long-term field patrols. It remains to be seen if SMART use can be sustained without the support of CARPE. A demonstrably high return on investment will be a compelling argument, and CARPE should be prepared to demonstrate the added value of this technology to authorities throughout the region. CARPE Landscapes provide a useful test of the tool for the consortium that is developing SMART. The benefits of large-scale use across the Landscapes should be identified as well.

CARPE should establish and use an alert system to monitor and report fires in the Léconi-Batéké-Léfini Landscape, and engage communities in active management of fires and reduction of fire risk.

USAID should streamline the request approval process to prevent delays in program implementation. If request approval delays are due to the failure of IPs to follow correct procedures or adequately document requests, it is recommended that USAID or Implementing Partners provide further instruction to responsible staff.

Where USAID approval of management decisions is necessary, USAID should determine a test of what constitutes a reasonable response time, and seek to ensure that IPs have their instructions in a timely manner.

IPs are engaged in efforts to create sustainable management mechanisms, in the form of public/private partnerships for individual protected areas, operated through a cooperative agreement with the State, and financed by external sources through trust funds. These efforts are laudable, but there is a risk of balkanizing the protected area estate by creating a dynamic of haves and have-nots. In the long-term, semi-independent trust funds to support the overall protected area estate may be a more balanced approach to ensuring sustainability of key biodiversity areas. IP efforts to support protected areas through public/private partnerships is a positive step if the partnerships avail themselves of important lessons from the Virunga Landscape, particularly insofar as effective engagement with local institutions and authorities is concerned.

CARPE should abandon investment in all but the most promising sustainable livelihood activities (such as the shade grown cacao program in the Ituri Landscape and fisheries in the LTLT Landscape), where important lessons can be learned. It should focus on effective governance and resource rights at the community level.

The Community Profile methodology used by the International Gorilla Conservation Program, in Rwanda's Virunga Landscape, provides a good way of "listening" to communities that would help to secure buy-in and sustainability. This approach may be profitably replicable in other Landscapes.

2. INTRODUCTION

2.1 The Congo Basin Forest

The Congo Basin is the drainage basin for the Congo River, the second largest river, by volume, in the world. The basin includes parts of Cameroon, the RoC, the Central African Republic, the DRC, Angola, and Zambia. The contiguous equatorial forest belt, known as the Congo Basin forest lies in the central Congo Basin (DRC and RoC) and spills over into other watersheds in Cameroon, Gabon, Equatorial Guinea, the Central African Republic, and the Albertine Rift border with Rwanda. This forest, the second largest tract of rainforest in the world, accounts for more than 12 percent of the world's tropical rainforest. The Congo Basin forest is critical to global climate regulation through its effects on rainfall in the North Atlantic.

The Congo Basin forest ecosystems consist of Congolian swamp forests in the central basin, including the LTLT Landscape and the Moringa-Lopori-Wamba (MLW) Landscape, the Northern Congolian forest-savanna mosaic, including the Sangha Tri-National (TNS) Landscape, Western Congolian forest-savanna mosaic, including the Batéké-Laconi-Léfini Landscape (Batéké Plateau), Central Congolian lowland forest, including the Salonga Landscape, and the Northeastern Congolian lowland forest, including the Ituri, Virunga, and the Maiko-Tayna-Kahuzi Biéga Landscapes. These ecosystems are derived from an intricate intermingling of forest and water—and human interaction. The forests of concern for CARPE III are considered generally to be high forest cover/low deforestation (HFLD) countries, which are of a lower risk of deforestation, and accordingly tend to attract fewer investments.

The primary source of greenhouse gas emissions varies by Landscape. The forests of the cuvette centrale are still isolated, and shifting cultivation is the major source of emissions. Other sources include logging, legal and illegal, and charcoal production. In the forest savanna mosaic of the western and northern parts of the Congo Basin forest, the dominant narrative of forest degradation is still logging, but in addition, the application of fire for clearing land is a growing problem.

The Congo Basin forest is a treasure trove of biodiversity. The DRC alone has approximately 10,000 plant species, thirty percent of which are endemic, 280 species of reptiles, 400 species of mammals, and 216 amphibian species. The Congo Basin is critical habitat for endangered great ape species, including bonobo (cuvette centrale), lowland gorillas (RoC, south Kivus), mountain gorillas (Virunga), and chimpanzees (all areas excluding the cuvette centrale). Okapi are found in the central and northeastern Congolian lowland forests.

The major direct threat to biodiversity in the Congo Basin forest is hunting for urban markets, which has resulted in defaunation of significant areas, primarily those within proximity to rivers (the main route for commerce) leading to Kinshasa and other major river towns in the DRC, as well as areas within reach of Pointe Noire and Brazzaville in the DRC. A live animal trade also exists, and the trade pathways, primarily to Rwanda and Uganda in the east, are intertwined with the illegal mineral trade.

Between 2002 and 2011, a 62 percent drop in the population of the forest elephant in Central Africa was documented, along with a loss of 30 percent of its geographic range. Illegal poaching for ivory drove this loss, with armed groups (including elements of the DRC's armed forces [FARDC] implicated in the trade). Pathways for the trade are north through South Sudan and east through Uganda.

Threats to biodiversity are numerous, including rising populations, road construction, illegal mining and logging, illegal land clearing for agriculture, use of fire for land clearance, and charcoal production. These threats to biodiversity have their roots in a common access system in which the State claims, but does not effectively enforce, ownership rights over resources. The absence of clear resource rights for customary occupants of the land makes it difficult for them to exclude outsiders or otherwise regulate resource use.

2.2 Social Dynamics

A generation of conflict in the eastern Congo Basin, including the two Congo civil wars and numerous outbreaks of lower intensity conflict, has resulted in at least two million internally displaced people. Continued demographic shifts, including the ongoing migration of Banyarwanda into North Kivu, and displacement of other groups such as the Nande, Hunde, and Nyanga, has led to in-migration in the forests of the eastern Congo Basin. This, as will be discussed further below, is a major threat to the biodiversity and forests of this part of the basin. It has also led to rapid urbanization for safety in numbers, and this in turn has created a huge energy demand, which is being met by charcoal production, including within protected areas such as Virunga, often by the same armed bands implicated in the aforementioned displacement.

Spiritual matters are given a very high priority by the inhabitants of the Congo Basin. This has direct consequences for social change endeavors, including governance and development initiatives, because of fatalistic attitudes and superstitions. People of the Congo Basin are reluctant to disclose their intentions—to marry, buy a plot of land, apply for a job, or take a trip — out of fear that the forces of the occult will interfere before their aims have been met. Secrecy is therefore a powerful cultural reality, and a political strategy as well. Political elites in Congo tend not to believe in transparency; on the contrary, they generally adhere to the belief that to wield power effectively, it must be done in secret.

Improving governance is a necessary, but insufficient, component of the DRC development agenda. Even a legitimate, democratically elected government with honest and competent leaders would not be able to move ahead without solving overwhelming obstacles (e.g., poor infrastructure, an inefficient public service sector, and rapid population growth). At the local level, however, effective governance is an essential condition for the CARPE objectives. Local governance shapes the social foundations upon which sustainable forest management and biodiversity conservation can be realized through its influence on human behaviors driving forest degradation and biodiversity loss. Women are largely responsible for family cohesion, and have become important protagonists in the dominant informal economy. They tend to be sidelined in decision-making processes at all levels, from within the family to the national political level. Improvements in local governance can empower women with participation in decision-making, promote transparency, and provide much-needed accountability in processes such as resource allocation.

Elites seem to be always one step ahead of the regulatory measures aimed at improving transparency and accountability. Private companies are complicit with Congolese elite networks as witnessed by their exploitation of complex corporate structures, non-transparent accounting practices, strategically orchestrated mergers and acquisition cabals. The fact that there is so much suspicion and so little real information about ownership of mining companies is an example.

While the traditional versus modern cleavage is becoming blurred, it still influences how people in the region live in the present, and how they perceive their future. Ethnic conflict is commonplace in the region. People originating in the large savannah kingdoms of the south tend to look down upon the smaller forest ethnic groups. The discrimination against forest-dwelling ethnic minorities (i.e. Pygmies or Mbuti) is the most flagrant example. Although there is extensive intermarriage and kinship ties that link ethnic groups, relations between them can be characterized by sentiments of rivalry, jealousy, and distrust, resulting in varying degrees of tension and conflict. This can be manipulated by elites. Although the cultural environment is always evolving, there are historically embedded and identifiable patterns. Solidarity networks based on the extended family, clan, and tribe is one example. They have developed to facilitate specific ethnic priorities such as job recruitment, political appointments, access to credit, housing for rural migrants, and university scholarships.

In the DRC, the central government has limited control over much of the national territory (i.e., the vast *cuvette centrale*). Efforts at control tend to overlap with immediately exploitable natural resources. By the same token, the motivations and powers behind armed groups are obscure. Conflict is a tool of power. Allowing or perpetuating social tension is a political strategy to reinforce the power of incumbents or to obscure ulterior motives, including geopolitical ones. This frustrates efforts to mitigate conflict and to protect the environment, because environmental protection potentially constrains access to desired resources.

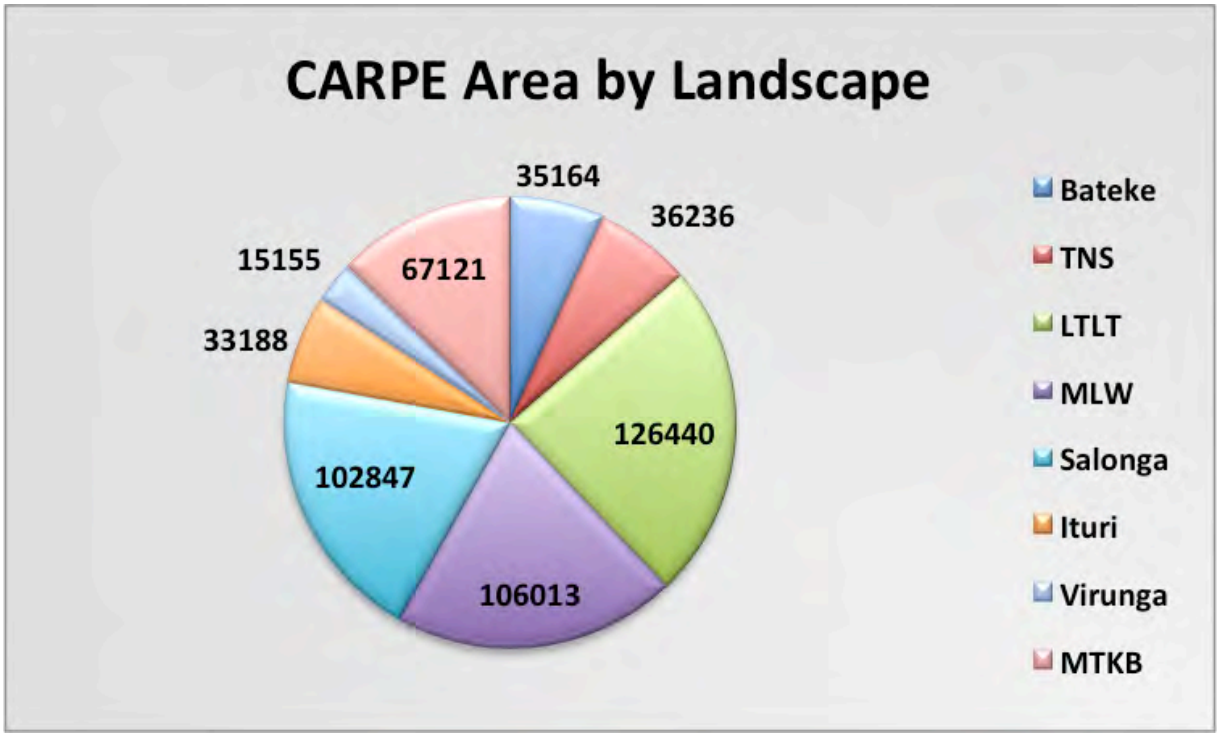

Figure 1

Subsistence farming, hunting, and fishing are the main activities of the majority of people in the DRC. In addition, there are an estimated one million artisanal miners, who support up to six to eight million people (Cuvelier et al, 2014). An estimated 600,000 people are involved in charcoal

production and trade, making it one of the country's major economic sectors. Petty trade (largely carried out by women) is a major urban livelihood activity (Schur et al, 2013).

Other regional approaches include the EU's program, Conservation and Rational use of Forest Ecosystems in Central Africa (ECOFAC), initiated in 1992; and USAID's Central Africa Regional Program for the Environment (CARPE) in 1995. Phase I of CARPE, from 1995-2002, focused on understanding the context and inventorying resources. Phase II, from 2003-2013, facilitated comprehensive regional land use planning to identify conservation and sustainable use priorities. Phase III, initiated in 2014, focuses on implementation of priority actions.

In 1999, the heads of state of six Congo Basin countries met in Yaoundé, Cameroon, to sign a declaration and action plan creating a framework for shared conservation objectives, including transboundary cooperation. CARPE was a major US government contribution to the World Summit on Sustainable Development (2002). The Congo Basin Forest Partnership (CBFP), underpinned by CARPE, and joined by South Africa and 27 other public and private partners, was announced as an initiative to support the Yaoundé Declaration at this summit.

3. THE DEVELOPMENT PROBLEM AND USAID'S RESPONSE

USAID has identified the development problem in the Regional Development Cooperation Strategy (RDCS) 2012-2020, as the challenge to satisfy the current needs of more than 80 million people of the Congo Basin (among the poorest in Africa) without undermining the resource base for future generations. These people depend upon the resources of the globally and regionally significant forest ecosystems of the Basin for their livelihoods.

The RDCS is optimistic that there are prospects of new and emergent financing through partnerships to sustain the ecological integrity of the Congo Basin. Such partnerships would include public/private partnerships for impact investing by socially responsible businesses, and biodiversity offset programs.

The RDCS identified critical assumptions upon which the strategy is predicated:

- Central African governments remain committed to climate change mitigation and increase emphasis on forest conservation,
- Regional and national stability and security continues to improve,
- Governments in the region are willing to participate in and comply with international Global Climate Change (GCC) Agreements,
- Corruption will be contained and reduced,
- The international framework under the United Nations Framework Convention on Climate Change (UNFCCC) will emphasize financial support for forest conservation.

USAID's strategic response to this challenge, also reflected in the RDCS, is the CARPE goal to accelerate Central Africa's transition to climate-resilient, low emissions development.

CARPE intends to meet this goal through its single Development Objective (DO): "The ecological integrity of the humid forest ecosystem of the Congo Basin maintained." CARPE aimed to achieve the DO through four Intermediate Results (IR):

- Targeted forest Landscapes sustainably managed (IR 1),
- Threats to biodiversity in targeted forest Landscapes mitigated (IR 2),
- Policy and regulatory environments supporting sustainable forest and biodiversity conservation established (IR 3), and
- Capacity to monitor forest cover change, greenhouse gas emissions, and biodiversity strengthened (IR 4).

USAID's response (in partnership with Norway) since October 2013 has been twofold. The Central Africa Forest Ecosystems Conservation mechanism (CAFEC) of CARPE III supports IRs 1 and IR 2 through on-the-ground conservation efforts in eight Landscapes or parts of Landscapes in three countries (the Republic of Congo, the Democratic Republic of Congo, and Rwanda). Three consortia, led respectively by the WCS, WWF, and the African Wildlife Foundation (AWF), implement work in these Landscapes. The Landscapes are:

- The Sangha Tri-National (TNS) Landscape (WCS), Republic of Congo

- Léconi-Batéké-Léfini Landscape (WCS), Republic of Congo
- Lac Tele-Lac Tumba “LTLT” Landscape (WCS), Republic of Congo/Democratic Republic of Congo
- Salonga-Lukenie Landscape “Salonga” (WWF), Democratic Republic of Congo
- Maringa-Lopori-Wamba “MLW” Landscape, (AWF), Democratic Republic of Congo
- Maiko-Tayna-Kahuzi-Biéga “MTKB” Landscape, (WCS), Democratic Republic of Congo
- Ituri-Epulu-Aru “Ituri” Landscape (WCS), Democratic Republic of Congo
- Virunga Landscape (WWF), Democratic Republic of Congo, Rwanda

The area of CARPE’s eight Landscapes is illustrated in Figure 1 above.[2]

The EMAPS portfolio supports IRs 3 and 4, and consists of:

- SCAEMPS, implemented by the World Resources Institute (WRI)
- Congo Basin Forest Monitoring Using Satellites, implemented by the US National Aeronautics and Space Administration (NASA) with the Central African Satellite Observatory for the Congo Basin Forest (OSFAC).
- Forest Resource Management, implemented by the US Forest Service and the Central African Satellite Observatory for the Congo Basin

[2] A ninth Landscape, the Garamba-Bili-Chinko Landscape of DRC and Central African Republic (CAR), began receiving CARPE support in October 2016 via an agreement with African Parks Network, which manages through public/private partnerships Chinko Reserve in CAR and Garamba National Park in DRC. This newest CAFEC Landscape was not included in the evaluation.

4. Evaluation Purpose and Evaluation Questions

Evaluation Purpose

The purpose of this midterm evaluation of the five-year CARPE III program, funded by USAID and Norwegian Agency for Development Cooperation (NORAD), is to assess the degree to which CARPE is on track to achieve its objectives, and what modifications are necessary to improve program effectiveness between now and the end of the program.

The evaluation is designed to help CARPE management, the Government of Norway and CARPE backstops in USAID's Africa Bureau (USAID/AFR) and Bureau of Economic Growth, Environment, and Education (USAID/E3) as they review and improve major strategic approaches, management systems, and allocation of program resources to scale up conservation and climate change mitigation actions. It will enable USAID and NORAD to assess the underlying assumptions and performance of CARPE III in the past two and a half years.

This evaluation focuses on program performance with respect to expected results and objectives, program design and implementation strategy, program management and coordination, the prospect of long-term sustainability, and practical recommendations for performance improvement and strategic planning. Evaluators are expected to use a series of questions under each of the above-mentioned major focus areas to establish the status of the program, identify gaps and bottlenecks, and recommend improvements.

The specific objectives of the mid-term evaluation are:

1. To assess the progress toward meeting CARPE III objectives,
2. To assess the continued validity of program strategies, approaches, and assumptions,
3. To assess program performance management of USAID and Implementing Partners,
4. To identify lessons learned and recommend actions for improving performance, and,
5. To make recommendations on how to broaden impacts based on findings of the assessments above.

A series of questions identify aspects of the program's performance to be considered under each major area. Evaluators are expected to assess the current status of the program related to each question, identify gaps and bottlenecks, and recommend improvements. The questions are located in Table 2 below.

5. Evaluation Methodology

The CARPE III midterm evaluation, appropriately, uses a non-experimental observational process involving that combines qualitative and quantitative research methods and analysis. This design allows for inquiries into the evolution of processes and the achievements of preliminary targets.

The data collected established, to the extent possible, quantitative changes in objective conditions, qualitative changes in resource management and stakeholder perception, and processes that have shaped the implementation of the project. USAID representatives accompanied the CARPE III Evaluation Team to some sites. Additionally, representatives of the Congolese Institute for the Conservation of Nature (ICCN), The National Coordinator of Reduction of Emissions from Deforestation and Forest Degradation for the DRC (CNREDD+) personnel. The Ministry of Environment was informed of the evaluation design and was encouraged to provide insights into the evaluation process as well. This was done primarily to provide them with an appreciation and understanding of the evaluation; however, particular attention has been paid to mitigate any risk or compromise in the validity of data collected due to their involvement.

The Evaluation Team met with CARPE management and Implementing Partner teams, national government representatives, civil society representatives working in the area of biodiversity and conservation, community members in the targeted Landscapes, and other donor representatives, to gather additional relevant information for triangulation of data of findings and results.

Table 1 is a triangulation matrix presenting the relations between the different components of the evaluation and the data collection tools.

Table 1: Data Collection by Topic

Evaluation Topic				
	Document Review	Key Informant Interviews	Focus Group Discussions	Direct Observation
Program Performance	X	X	X	X
Program Design and Implementation Strategy	X	X		X
Program Management and Coordination	X	X		X
Sustainability	X	X	X	

5.1 Preparation

The Evaluation Team met with CARPE management and Implementing Partner teams, national government representatives, civil society representatives working in biodiversity and conservation, community members in the targeted Landscapes, and other donor representatives to gather additional relevant information for triangulation of data of findings and results.

The matrix in Table 2 details how the evaluation questions were operationalized during the evaluation.

Annex III provides details on the team composition and organization, level of effort, and numbers of people consulted.

5.2 Field Data Collection and Synthesis

The Evaluation Team traveled to Kinshasa, DRC to finalize the evaluation methodology after gaining USAID approval for the work plan and design. Given the logistical challenges associated with travel in the DRC, we divided the Evaluation Team into three groups, one to cover Landscapes in Congo-Brazzaville, one to cover Landscapes in the Cuvette Centrale, and one to cover Landscapes in the Eastern DRC and Rwanda. This optimized the time to spend at each Landscape, allowing the evaluators to investigate each question with the required time and attention.

Sub-teams included prominent Congolese experts and international experts (from France, India, and the USA). Because the team would divide into sub teams to efficiently cover the large land area addressed in CARPE, it was important to train the teams to ensure a consistent approach to data collection. Four survey instruments were developed with the input of the subject matter experts. These provided the basis for the key informant interviews and focus group discussions. The team produced a rapid review of the findings for a briefing to USAID/CARPE at the conclusion of the fieldwork. Data compilation, cleaning, and analysis were conducted as part of the report production process.

The four instruments for data collection were surveys targeted to:

1. Implementing Partners senior and professional staff,
2. Project Partners (including governmental and non-governmental partners in CAFEC Landscapes),
3. Civil society organizations,
4. Communities (in CAFEC Landscapes).

5.3 Roles and Responsibilities

Team leaders were responsible for leading the synthesis of findings for the sub-teams, collate the results, and present the summary and final report to USAID.

Each of the sub-teams was composed of technical experts in biodiversity and climate change mitigation. A sub-team member was designated as the leader. Sub-team leaders were responsible for real-time quality control. Women participated in the Evaluation Team in each Landscape. Swahili or Lingala speakers were on each team as appropriate.

5.4 Assumptions, Constraints, and Risks

The Evaluation Team considered the questions' content, team composition, evaluation design, data collection, and analysis methods to produce the best possible performance evaluation.

Our first step toward obtaining quality data was to ensure that a representative sample of key stakeholders was identified and engaged, and that the engagement was free from influence by project implementers. We were not constrained from meeting individuals and groups in addition to the preferred respondents identified by Implementing Partners.

We triangulated information collected from multiple sources, including surveys, focus group discussions, observations during site visits, key informant interviews, and secondary data.

Assumptions taken into the evaluation were that key informants and focus group members were not coached, prompted, or otherwise influenced in their responses, and that the Evaluation Team had unfettered access to any key informant, including potential critics of the program.

The overriding constraints in conducting this evaluation were accessibility and security. CAFEC Landscapes are generally in remote locations, and some areas were off limits to the IPs because of poor security. These constraints were further complicated by the timetable for producing deliverables. Access to sites was, in some cases, impossible for the Evaluation Team (i.e., community reserves under development and Maiko NP in the Maiko-Tayna-Kahuzi Biéga Landscape) because no flights were available while there, and it was unrealistic (or unsafe) to approach by road, despite the team's and IP's best efforts.

Language was an anticipated constraint, and to address this, a selection criterion for members of the Evaluation Team was language proficiency, and team members were distributed to ensure that key technical competencies and relevant language capabilities were appropriately allocated. For example, in the sub-team for the Kivus, the languages used included Swahili, Lingala, French, English, KiNande, Kirega (dialectical Swahili), and Mashi.

The Evaluation Team was, to varying degrees, constrained by filtered information from the IPs, i.e., which areas were and were not accessible, which individuals and communities were project stakeholders, etc. The IPs were, however, generally very helpful in planning itineraries, and were sensitive to the team's need for independence.

The conclusions do have a bias of risk due to constraints that made obtaining a truly representative sample unfeasible, based upon the use of a sample frame.

Potential risks in conducting the evaluation, and measures taken to mitigate them included:

- Conflicts of interest on the part of the evaluators: Care was taken in the selection of evaluators to screen for overt conflicts of interest. To avoid any appearance of bias, assignments were made to minimize familiarity with CARPE actors. For example, one Team Leader had prior interactions with (non-CARPE) actors in one Landscape, so he was selected for a team that did not cover that Landscape. A Sub-Team Leader who had been previously employed by a former Implementing Partner was assigned to a Landscape where that organization had not been a participant. All team members submitted a conflict of interest disclosure form.
- Biases on the part of the evaluators: The Evaluation Team used triangulation techniques for data collection and analysis that served to control potential biases. The Evaluation Specialist also trained all team members in bias awareness. The Evaluation Team

benefited from a multidisciplinary approach to ensure that professional biases were controlled through triangulation.

- Biases resulting from unrepresentative sampling: As noted above, the nature of the CARPE Landscapes could not support the use of the gold standard for data collection, i.e., a random sample based upon the use of a sample frame. Care was taken to control for representational bias to the fullest extent possible. The data derived is sufficient for a performance evaluation, but does not meet the standard for an impact evaluation. This is important to note because the assigned evaluation questions do touch upon impact, so findings should be treated as preliminary. There remain practical challenges to conducting a proper impact evaluation until the security situation in the region is resolved.
- Unreliability of external data such as official statistics and reports by other NGOs: Where possible, the Evaluation Team sought to validate information from external sources, and gave greater weight to its own independent observations than to those of other observers.

Table 2: Operationalizing the Evaluation Questions

Evaluation Question	Data Collection Strategy	Origin of the data
1. Program Performance		
Biodiversity Conservation: Is CARPE on track to achieve its biodiversity conservation objectives?		
How well does CARPE address the identified threats to biodiversity? Are the interventions that focus on livelihood alternatives effective at reducing threats?	Document review, Key informant interviews, Focus group discussions, Direct observations	CARPE threat analysis, evaluations and assessments, planning documents, CAFEC staff, Direct project beneficiaries Verification by Evaluation Team of livelihood alternatives being implemented
To what extent is CARPE succeeding in building the capacity of local communities to actively participate in biodiversity conservation?	Document Review, Key informant interviews, Focus group discussions	CAFEC work and M&E plans, Local government officials, community leadership, CAFEC staff, Community members
To what extent is CARPE succeeding in building the capacity of government services and agencies to effectively manage protected areas and combat wildlife poaching and trafficking?	Document Review, Semi-structured interviews, Key informant interviews	CAFEC work and M&E plans, ICCN, OSFAC, RoC counterpart officials, Local government officials, community leadership, CAFEC and EMAPS staff
How effective are CARPE's efforts to influence the policy and regulatory environments for biodiversity conservation?	Semi-structured interviews Key informant interviews	USAID/W FAB, Africa Bureau, E3 and USAID/DRC staff ICCN, OSFAC, RoC counterpart officials, EMAPS staff
What is the prospect for the ongoing and planned activities to impact at sufficient scale to measurably mitigate the threats to biodiversity?	Key informant interviews Focus group discussions	Local government officials, community leadership, CAFEC staff, individuals in the scientific community, Direct beneficiary and community members
Climate Change Mitigation: Is CARPE on track to achieve its climate change mitigation objectives?		
How well does CARPE address the identified drivers of deforestation and forest degradation? Are the interventions, in particular livelihood alternatives, effective in reducing deforestation and forest degradation?	Document review, Key informant interviews, Focus group discussions, Direct observation,	CARPE reports, research by universities/NGOs (RRI, WHRC), World Bank reports, CAFEC staff, Direct project beneficiaries, Evaluators' direct observation of livelihoods uptake
Do the implementing partners consider leakage when designing implementation? How is the leakage issue addressed?	Document review, Key informant interviews, Direct observation	CARPE and CAFEC documents and reports, third-party validation and verification sources, REDD-focused consulting firms, Evaluators' direct observation of leakage

To what extent is CARPE succeeding in building the capacity of local communities to actively participate in climate change mitigation?	Key informant interviews, Focus group discussions, Direct observation	Local government officials, community leaders, CAFEC staff, Direct beneficiaries and community members, Evaluators' direct observation of community participation
To what extent is CARPE succeeding in building the capacity of government institutions at the national and local levels to develop and implement REDD+ strategy and action plans? Are efforts at the national, Landscape, and local levels effectively linked?	Document review, Semi-structured interviews, Key informant interviews	EMAPS reports, World Bank reports, other NGO supported documentation, World Bank FCPF, Ministry of the Environment, Ministry of Mining, Ministry of Agriculture, Ministry of Land, National REDD Committee, Local government officials
How effective are CARPE's efforts to influence the policy and regulatory environments for global climate change?	Document review, Semi-structured interviews, Key informant interviews	EMAPS and UNFCCC reports, Bilateral/multilateral donors, National REDD Committee, EMAPS staff
What is the prospect for CARPE's ongoing and planned activities to have impact at sufficient scale to measurably reduce deforestation and forest degradation?	Document review, Key informant interviews, Focus group discussions	Rainforest Foundation reports, Transparency International reports, CAFEC staff, Direct beneficiaries, and community members
Gender and Minorities Issues: How well does CARPE address the issues concerning women empowerment, gender integration and indigenous peoples?		
How effective is CARPE in promoting women's empowerment and gender equality in its biodiversity conservation and climate change mitigation activities?	Document review, Key informant interviews, Focus group discussions	Gender-specific data and reports, CAFEC and EMAPS staff, Direct beneficiaries
How effective is CARPE in integrating indigenous people in its biodiversity conservation and climate change mitigation activities?	Document review, Semi-structured interviews, Key informant interviews, Focus group discussions	Indigenous people-specific data and reports, RRI and other research institutes, Local government officials, community leaders, Direct beneficiaries, or community members
2. Program Design and Implementation Strategy: What are the merits and shortcomings of the CARPE III strategic approach?		
How valid are the development hypotheses and the assumptions outlined in the CARPE III RDCS, and the strategic approaches and associated Theories of Changes elaborated by partners with the assistance of the MI team?	Document review, Semi-structured interviews	RDCS and other project documents, USAID/W FAB, Africa Bureau, E3, and USAID/DRC staff
What evidence exists that the strategic approaches developed for each implementing partner are (or are not) appropriate for effectively and efficiently achieving CARPE III objectives?	Document review	Direct comparison of monitored data from indicators and models

3. Program Management and Coordination: How well are CARPE's activities managed and coordinated to achieve the program objectives and results?		
How effective is the management of CARPE's programs by implementing partners?	Semi-structured interviews	USAID/W FAB, USAID/DRC CARPE III COR, DEU/Kinshasa, World Bank, UN agencies, key national government ministries, FAO
Do CARPE's implementing partners have the staff, expertise, and capacity, particularly at the local level, to design and implement CARPE activities; with an emphasis on management of activities focused on creating livelihood alternatives?	Key informant interviews, Direct observations	CAFEC staff, Evaluators' direct assessment of staff skills and management capacity
How cost-effective are the management structures of CARPE implementing partners?	Document review	CARPE reporting documents
How effective is the collaboration between the CAFEC and EMAPS projects, as well as between CAFEC Landscapes, in contributing to the achievement of CARPE's objectives?	Key informant interviews, Direct observations	CAFEC and EMAPS staff Evaluators' direct assessment of structures and methods of collaboration
4. Sustainability		
What have been CARPE's relative strengths and weaknesses in ensuring the financial, social, and institutional sustainability of USAID's investments after CARPE III implementation?	Document review, Synthesis from data collection	CARPE performance and financial audits Evaluators
Where, along a trajectory of sustainability, are key institutions that CARPE is strengthening? Will they achieve expected goals by end of project?	Document review, Synthesis from data collection	Previous CARPE evaluation reports, current CARPE III reports, Evaluators

6. FINDINGS

CARPE's Development Objective is expressed through four Intermediate Results (IRs), as stated in the RCDS 2012-2020. These are:

1. Targeted forest Landscapes sustainably managed,
2. Biodiversity threats in targeted forest Landscapes mitigated,
3. Policy and regulatory environments supporting sustainable forest and biodiversity conservation established, and
4. Capacity to monitor forest cover change, greenhouse gas emissions, and biodiversity strengthened.

CARPE's program performance is tied to these IRs for results. This section reviews the progress toward achieving results, guided by specific questions posed by USAID.

6.1 Program Performance

CARPE III's operational area encompasses eight Landscapes in three countries. Respective Landscape issues and challenges prevent a *comprehensive* baseline from being established. That said, biodiversity monitoring by CARPE IPs sheds light on likely outcomes had CARPE not been present in the Landscapes. This provides a basis for comparison under different management regimes. Though these comparisons may not be scientifically valid, they suggest counterfactual scenarios that illustrate that biodiversity has benefited from CARPE interventions.

Biodiversity

CARPE receives regular time series of wildlife abundance and distribution in relation to human variables in five of the eight Landscapes from IP WCS, with matching funds from CARPE. WCS uses signs of human disturbance recorded in the macro zones of the Landscape (e.g., protected areas, logging concessions, and so on) as well as regional and global covariates obtained from WRI, the IP of SCAEMPS, (e.g., road networks, the Human Influence Index, the vegetation types, the canopy height, etc.) to see which factors are most important in predicting the density of different taxa. WRI data is also used in International Union of Conservation (IUCN) Red List assessments of species under threat.

The Wildlife Conservation Society (WCS) worked in the TNS (Sangha Tri-National) Landscape, Nouabalé-Ndoki National Park (NNNP) and most of its surroundings. WCS was involved in adjacent logging concessions run by *Congolaise Industrielle du Bois* (CIB) (as well as Mokabi during earlier phases of CARPE.) CIB worked with WCS to obtain Forest Stewardship Council (FSC) certification of sustainable production, but recently Mokabi was less interested. It was clear that the Mokabi concession had been heavily impacted by hunting, in contrast to the CIB concessions and the Nouabalé-Ndoki National Park (NNNP). The responsibly managed NNNP, and the adjacent CIB concession, contained respectable wildlife densities in 2006, indicating, if not proving, avoided loss. Key informant interviews and focus group discussions indicated some reduction in hunting and adherence to strict hunting regulations.

In 2013, WCS published its landmark study on the forest elephant range for the whole region (Maisels et al, 2013). WCS data sets for the region (human population density, proximity to the nearest road, etc.), and country-level variables like corruption in combination with a decade of field surveys (2002-2011), clearly illustrated that the CARPE Landscape protected areas, and

well-managed logging concessions, exhibit significant results for maintaining elephant populations.

In the case of Grauer's gorillas, living almost entirely within the Maiko-Tayna-Kahuzi Biéga Landscape, a recent study based on data from 1990s, as well as more recent data collection carried out under CARPE, showed a catastrophic decline across their most of the Grauer's gorilla range (Plumptre et al 2016). This decline is ascribed to habitat loss due to agricultural clearing and mining, subsistence hunting, the exotic animal trade, and the almost constant state of civil war in the Grauer's gorilla range. Security issues due to conflict have also caused an absence of government control. Where there has been effective protection (including parts of Kahuzi Biéga National Park), Grauer's gorilla population has increased.

Of the surveyed informants from CARPE IP professional staff, 81.1 percent said protected area management improved as a result of CARPE; missing data or unanswered questions (missing data - MD) = 24.5 percent. It was not possible to disaggregate perceived improvement by donor.

By far, the main improvement cited in protected area management was improved oversight of protected areas through greater patrolling, resulting in wildlife population increases. The second most commonly cited improvement was the community taking increased ownership, and being increasingly aware of conservation activities.

Poaching and Wildlife Trafficking

A formal effort to address wildlife crime in the forms of combating wildlife trafficking is a relatively new development in the CARPE Landscapes. An assessment of success or failure is therefore premature. However, the Evaluation Team did observe examples of progress that may provide a basis to build upon for the other CARPE Landscapes.

Actions to counter poaching focus on setting up and reinforcing ranger patrols, refining patrol strategies (often based on SMART data), law enforcement training techniques, provided equipment, and funding. WCS trained local law enforcement staff in Ouesso, ROC, to infiltrate poaching networks. More effective than outsiders, locals also have a stake in improving conservation in their community. By the time they have worked their way up from informant to investigator, they will have built up a solid network of informants. Provided that the project takes care to protect the identity of these investigators, WCS can get very strong intelligence from them.

In general, CARPE is effective in maintaining the integrity of protected-area boundaries. CARPE has the potential to become more effective in combating wildlife trafficking, poaching, and in expanding into the wider CAFEC Landscapes, by building upon the kind of success described in the sidebar.

The Evaluation Team observed greater successes in the ROC Landscapes than in those of the DRC due to key individuals in ROC government leadership, and the IPs' clear focus on the problem in TNS Landscape management. How this was accomplished is further explained in this report's "Capacity of Local Communities".

The pathway for transfer of wildlife products, including ivory and live animals, in eastern DRC, to international markets follows those of illegal gold and other valuable minerals in a complex, political economy controlled in part by armed rebel groups (informal Mai Mai militias and the Democratic Forces for the Liberation of Rwanda [FDLR]). There is also alleged collusion of some FARDC soldiers in eastern DRC.

Contraband is smuggled to buyers in Rwanda and Uganda. Uganda is the destination for ivory, where buyers evidently act with impunity, according to investigators with CARPE partner, Kinshasa-based environmental law NGO, Juristrale. Still, there is reason to be hopeful for success in combating wildlife crime and prevent poaching. Nouabalé-Ndoki NP successes in the ROC, and the efforts of Juristrale, with field operatives hold promise.

Successful situational crime prevention involves understanding the cultural and environmental conditions under which specific crimes occur. This approach is used in Ouesso of the TNS Landscape, and has gone to scale much quicker than the IP, WCS, expected. Here, the Evaluation Team observed an excellent combination of reactive and preventive work to combat wildlife trafficking, based upon collaborative management and adaptation. The staff was cohesive, motivated, and knowledgeable. Leadership of individuals in key positions in government and in the IP, and addressed these threats is a priority. WCS was quick to capitalize upon the opportunity and provide critical support. Taking this success to scale throughout CARPE will require the cultivation of similar individuals and institutions. The TNS experience provides a platform for demonstration and training.

In the DRC, the environmental law NGO, Juristrale, has successfully investigated poaching networks in several CARPE Landscapes, details of which cannot be documented here without compromising the security of their operations. Juristrale is a potential partner in the development of crime prevention strategies, should the TNS success be scaled to other Landscapes in the DRC.

The Nouabalé-Ndoki NP management is putting strong procedures and communication practices in place for Rangers (e.g., pre-mission forms and debriefings) to ensure a process of learning and continuous improvement. This iterative process has helped build the capabilities of the staff and improve institutional memory, according to informants interviewed (though no monitoring data has been collected to measure such progress.) Improvements in capacity allow for the park management to give the Rangers greater operational autonomy. The willingness of the Rangers to take this initiative indicates strong ownership of the activity.

In the near future, Nouabalé-Ndoki staff will use anti-poaching activities data collected with SMART technology to build predictive models of where future poaching events will happen. They are already using the concepts of hot spot policing, and will soon use situational law enforcement methods to disrupt poaching based on improved data analysis. CWT efforts are more reactive than preventative in the LTLT Landscape. Reactive policing requires a constant law enforcement presence, which is not possible with the available resources. Efforts to raise awareness of the impacts of poaching are underway (based upon key informant interviews), but no evidence of a resulting behavior change was witnessed. A loose informant network is in place, managed by one point-person. Lac Tele rangers[3] demonstrated strong initiative, intelligence, and independence. They report some deterrence because of their activities.

Cross training on situational crime prevention techniques with TNS personnel will aid the transition from reactive to preventative policing. Rangers are using good initiative in applying conflict de-escalation methods such as non-confrontational engagement and sympathetic listening to defuse interactions with agitated communities. They recognize that this is a stopgap measure, and that a long-term solution is required.

[3] The term “ecoguard” is also used to describe protected area enforcement officials; this report uses “ranger” throughout as a term in more common usage worldwide.

Besides human-wildlife conflicts, Lac Tele has other ongoing problems with the communities. Tension, due to local resentment of enforcement action, is high. Rangers have been ostracized by their own communities. This has eroded their morale and providing a strong disincentive to effective enforcement. Confrontation with communities is common. Female Rangers are taking the lead in interactions with the communities to defuse tensions, but some Rangers are requesting tear gas in case of extreme confrontation. This indicates the severity of the tensions, and the risks faced by law enforcement.

In the Léconi-Batéké-Léfini Landscape, there are inconsistencies between *Conservateurs* and WCS staff concerning anti-poaching needs and best practices. Capacity and understanding of the *Conservateurs* is low, with limited knowledge of protected area management overall, and no understanding of deterrence. Patrols follow the same route regardless of the direction of the threat. Ongoing conflicts between conservation programs and communities are mitigated with difficulty. This indicates the importance of conflict awareness early in conservation planning.

Security issues hamper patrols in the DRC Landscapes. More than 300 Rangers have lost their lives over the past decade in the course of their work. Consequently, the ICCN approach to law enforcement, while professional and producing results with limited resources, is heavily militarized. While warranted in the circumstances, the paramilitary function of the ICCN has had negative implications for community relations in some locales.

The Tayna Gorilla Reserve in the Maiko-Tayna-Kahuzi-Biéga Landscape is instructive of the potential downsides of militarized conservation. Tayna was gazetted as a Nature Reserve by the government of the DRC in 2006. Co-management arrangements were established between ICCN and the communities of Tayna. According to unverified reports, the relationship between ICCN and communities deteriorated as ICCN expressed its authority This resulted in a conflict situation causing engagement in Tayna to become problematic. Due to security concerns, the Evaluation Team was prohibited from going to Tayna, which is occupied by a *Mai Mai* militia. We were therefore unable to conduct interviews to validate what we were told elsewhere.

The Evaluation Team did independently verify troubled relations with ICCN in the Lomako Reserve in the MLW Landscape. The death of a poacher at the hands of ICCN rangers in September 2016, and subsequent severe beating of rangers by the local population exacerbated an already bitter relationship. This issue is raised because of the critical importance of good community relations, especially where community concessions can be established on the periphery of formally protected areas.

A major challenge in some DRC Landscapes is the high cost and distance to court to prosecute poachers. Our team learned of one instance where the cost of prosecution for a poacher arrested in Salonga NP, including transport to the nearest court within 48 hours as required by law, exceeds $US 10,000. This is clearly unsustainable either by ICCN or by CARPE itself.

In the Ituri Landscape, the Evaluation Team interviewed a military lawyer leading a newly created military tribunal to try wildlife crime. Any crime committed in the DRC using an automatic weapon is considered a hostile act and falls under the national code of military justice. Three accused poachers were recently convicted by this tribunal, which is based in Mambasa. There is optimism on the part of the ICCN and the Armed Forces of the DRC (FARDC) that this effort, if proven successful, can be scaled nationally. At this point, it is impossible to draw conclusions on the costs and benefits of such an approach. We note that this continues the trend of militarized conservation, with all the possible downsides in terms of community relations. At the same time, the fact of successful prosecutions, something difficult to accomplish in the DRC, is worthy of note.

The distribution of funding among CARPE Landscapes is illustrated in Figure 2. CARPE leadership and Implementing Partners have been able to fund technical advances leading to improved datasets on forest cover change. The information has also been integrated into resources like the FACET Atlases, and distributed to government agencies in ROC and DRC.

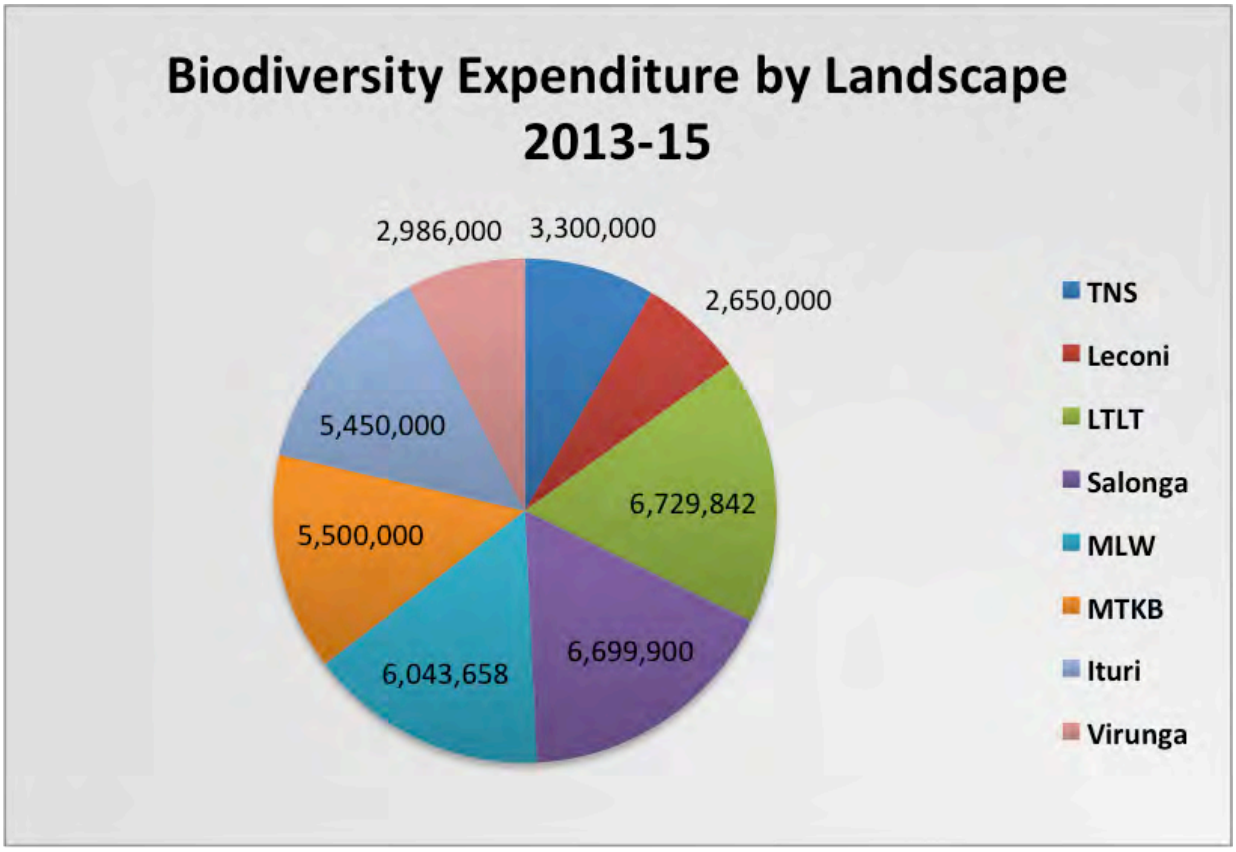

Figure 2

These advances in monitoring key land cover change indicators, which are quantified and reported annually, are possible due to EMAPS, NASA, and the University of Maryland. The SCAEMPS project under EMAPS, led by IP WRI, is developing Landscape Support Applications (LSA), which integrates field survey information and monitoring with remote sensing information on forest cover loss. These tools will make an important difference in the ability to capture key biodiversity metrics within the Landscapes.

Land Use Change

Surveyed IP personnel often cited the CARPE supported activities as the most impactful management strategies for forests. These strategies vary by location, but community involvement in forest management is a common theme. Several respondents also cited the shift from a repressive regime to national law as well as policy rooted in collaboration, involvement in regulatory decision making, and information exchange with patrols, as most beneficial changes in the management of a Landscape. The Maiko-Tayna-Kahuzi Biéga Landscape has mitigated

the impact of volatile security conditions by working through civil society intermediaries. CARPE may be able to take some important lessons from these variations to advance biodiversity and climate change strategies.

CARPE is still in the early stages of addressing community-managed conservation that will expand areas under protection, and prevent land use and land cover change. CARPE projects have shown the potential of community-based conservation as a sustainable approach to Landscape level conservation, notably in the fisheries compacts of Lac Tele communities. However, CARPE IPs, are not confident in the effectiveness of community-based conservation. They frequently underestimate the complexity of formal and informal decision-making processes.

The Evaluation Team found that IPs in some Landscapes often address the threats identified unevenly. Emerging acute threats, like mining, are often not being addressed as effectively as chronic threats, such as shifting agriculture. This is attributable to greater familiarity with the chronic problems. Here, the flexibility to assess the situation, adjust staffing, and work plans is essential to adaptive management. IPs cited delays in decision-making by USAID as a cause of inadequate responses to threats (see p. 60, and sections 6.2 and 6.3 in Annex VI).

The Evaluation Team found that in general CARPE is doing an inadequate job of addressing in-migration and illegal mining. This is understandable, given the drivers of migration, including insecurity and the political economy of artisanal mining, which is outside the control of CARPE. Nevertheless, the IPs recognize that ignoring in-migration and illegal mining is not an option.

The Evaluation Team also saw that CARPE IPs are slow to acknowledge the degree of threat resulting from land cover change. A key driver of which is in-migration from destabilized and insecure adjacent lands. Efforts by WCS in the Ituri Landscape, for example, to manage in-migration are not producing the necessary results. The activities here are primarily focused on boundary marking, education and outreach, and coordination with ICCN to combat poaching and illegal mining. Civil society representatives in Badengaido, the community at the epicenter of the gold rush in the southwestern quadrant of the RFO, complained that nothing was being done to control in-migration, and that the town Chef was selling occupancy rights to migrants, and pocketing the proceeds for his own use.

In-migration in the Ituri forest has been an issue for several decades (Cultural Survival Quarterly 14(4), Peterson 1990). However, the pressure appears to have increased substantially. According to CSO representatives, Badengaido has grown five-fold since the initiation of CARPE III. Inadequate attention is being paid in this Landscape to land and resource rights and customary tenure, including the means of defending customary rights against this onslaught. This inattention includes documentation of demographic change, which, as a growing threat, should be monitored and quantified.

The in-migration phenomenon is not unique to Ituri. Indeed, it is common throughout the eastern DRC where high population densities, fueled by rich volcanic soils, have led to soil depletion. Environmental insecurity resulting from resource depletion causes internal displacement of people, and is a compounding factor in the political instability of the region (Koko 2011). The issue of in-migration is even further exacerbated by the presence of high value minerals including gold, coltan, and cassiterite. Illegal mining is another threat to the integrity of the biodiversity of CARPE Landscapes. The efforts to combat illegal mining are patchy, and there is no evidence of collaborative learning and adaptation among CARPE Landscapes.

However, there are some positive results in CARPE Landscapes in the Itombwe Nature Reserve, part of the Maiko-Tayna-Kahuzi Biéga Landscape, the Bureau of Mines has, by decree, granted resource rights to a cooperative of miners under some restrictions. Miners interviewed by the Evaluation Team indicated that, because of their security of tenure for access to mineral rights, they were able to prevent in-migration of additional miners into the core zone of the Reserve. The minors were willing to invest more effort in sustainable mining practices, to cooperate with Itombwe management authorizes, to respect the core zone, and to limit hunting and other resource-depleting activities such as wood-cutting.

Granting of such rights in the sustainable use zones of Itombwe may have created a constituency that will defend the protected area. This hypothesis must be tested to confirm that it is real and can be sustained. And while it is possible that these miners could migrate to another conservation area, it is unlikely that they would exchange their limited resource rights in Itombwe for another situation in which they had no rights, unless and until mineral resources are depleted at the concession site. The representative for the Bureau of Mines in Mambasa, in the Ituri Landscape, indicated to the Evaluation Team that the Bureau of Mines is actively investigating the potential to create an artisanal mining concession outside of the Okapi Faunal Reserve (RFO), in the Ituri Landscape, the purpose of which would be to relocate illegal gold miners from RFO. The lesson from the Itombwe experience, that even limited resource security can mobilize stakeholders to self-regulate, may be instructive in addressing this particularly acute threat to biodiversity. The commercial center for the illegal gold miners concentrated along the Ituri River is the town of Badengaido. The *comptoirs*, or gold exchanges, concentrated there are controlled by people of the Nande ethnic group, a commerce-oriented culture based in and around the town of Butembo in North Kivu. Butembo is well known for cross-border trade with Rwanda and Uganda.

Scaling up resource rights in the artisanal mining sector could draw upon other USAID resources, such as the aforementioned USAID Land Tenure and Resource Rights team and the USAID DRC Responsible Minerals Trade Program.

SCAEMPS is working with MENCT in the DRC to develop the implementing regulations to operationalize the Community Forestry Decree. This includes defining the criteria for granting community forest concessions, and shaping the process through which communities apply for concessions. The legal basis for community-based management is strengthened through the Community Forestry Decree. The SCAEMPS focus on the Community Forestry Decree, takes advantage of the opportunity to provide community management efforts with official recognition. Once this work is complete, there will be strong demand for technical assistance from SCAEMPS to facilitate the successful implementation of their community-based conservation programs. If SCAEMPS is successful in supporting a decision-support system for the MENCT), the potential for expansion of a community conservation estate nationwide may be enhanced. However, these sites can be as large as 50,000 ha, and require substantial management capacity. CARPE Landscapes lag in building the capacity of communities to effectively manage large land areas. This is also the case in developing the governance mechanisms that will provide transparency, participation, and equity (including gender equity and ethnic equity) required to meet CARPE's overall objectives.

Another major extractive industry is charcoal production. Charcoal is a threat primarily in areas where the population density is high; for the CARPE Landscapes, this includes the major urban areas of Kinshasa, Pointe Noire, and Brazzaville, and North and South Kivu province on the border with Rwanda and Burundi. Figure 4 (below, p43) shows the prices for charcoal in the region; threats to biodiversity from land cover change are highest where the prices are highest.

In the evaluation survey, respondents commonly cited the participatory and multi-stakeholder approach as the most successful approach to addressing threats from land use change. The most common weakness cited was the difficulty in assessing threats because of the large scale of the Landscapes, and lack of control over Landscapes due to security concerns. Respondents also noted government counterparts' lack of capacity or willingness to collaborate.

Livelihood Alternatives

It is important to note that, while some livelihood interventions precede CARPE III, most are still in early stages of implementation, and their effectiveness at reducing threats have not had sufficient time to emerge.

Alternative livelihoods as practiced in CARPE III include the introduction of improved crop varieties, crop substitution, honey production, small livestock husbandry, fish farming, and cultivation of cacao and crafts. Several initiatives are locally successful; however, they are almost uniformly small-scale, with some outliers having potential to grow to a scale where it can achieve significant impact—the Ituri Landscape's cacao production activity being foremost among these.

Cacao production introduced into the Ituri Landscape is centered on Mambasa along the N4 road corridor east of the RFO. This activity has generated significant enthusiasm among farmers. Production doubled from approximately 1,000 to 2,000 metric tons between 2014 and 2015.

There are factors that will influence the ultimate contribution of cacao to reduce deforestation, which must be taken into account as the activity is scaled and replicated. First, the farmers engaged in cacao production in the Ituri forest appear to be migrants from the east, raising questions about land and resource rights issues Second, labor shortages for cacao cultivation are likely to lead to additional in-migration with its accompanying pressure on land. Third, the cacao farms being created in the Ituri forest involve land clearing; farmers interviewed prefer to plant their cacao on cleared farmed land. Once cacao is established, farmers selectively encourage regeneration of trees for shade. This implies a net loss of forest cover, albeit possibly less so than for other forms of agriculture. The Evaluation Team found that a greenhouse gas emission analysis to quantify the reduced emissions from land use change resulting from Ituri's cacao production choices is lacking.

Cacao production, as presently practiced, may slow the rate of deforestation, but at the risk of forest degradation. Care must be taken in making claims that cacao production avoids large-scale deforestation until emissions reductions are quantified and socio-economic impacts are documented. An impact assessment will be required to clarify the benefits of this approach.

The alternative livelihood strategy is predicated on the hypothesis that alternative livelihoods would substitute for existing, consumptive livelihoods. Instead, the Evaluation Team observed instances of alternative income generation strategies being employed as supplemental to existing practice. In some activities, livelihood interventions involve agreements that link the livelihood benefit with a responsibility to better manage biodiversity and natural resources. The best evidence of linkages between livelihoods and responsibility observed by the Evaluation Team was in Lac Tumba's fishery, where fishing communities have developed their own codes of conduct for responsible resource use, of their own volition. In the Ituri forest, support for livelihoods such as woodcraft and palm oil production was also linked to support for community forestry.

Unfortunately, the Evaluation Team also encountered cases where crop substitution in the LTLT Landscape was very poorly thought out and managed. Crops were introduced that were not part of the local diet, and for which there wasn't a market. Consequently, there was no buy-in by the targeted famers. They were planted against the advice of local agronomists at inappropriate dates, resulting in serial crop failure.

The IP monitoring of alternative livelihood activities varies by Landscape. In the Ituri Landscape, shade-grown cacao production is being carefully monitored. In the Lac Tele unit of the LTLT Landscape, management of the agricultural activities appeared, at best, *ad hoc*, and without a focus on results. The prospects for success in preventing habitat loss through land cover change are mixed. The Evaluation Team also observed the development of the microcredit activity in the margins of Kahuzi-Biéga NP with interest. Micro-loans are intended to help would-be entrepreneurs with start-up money. Although we were presented with success stories, there was insufficient data to determine of the overall program is successful.

Capacity of Local Communities

In poor rural areas where the State has, as expressed by one community representative in the DRC's Cuvette Centrale, "forgotten to send development," actions designed to bring about change need to be carefully thought through and coordinated.

These communities are poor, underdeveloped, and disconnected from the political process. This is not a set of problems that CARPE can resolve, but CARPE cannot easily meet conservation objectives in this context. In future iterations of CARPE, these weaknesses should be considered. This will be discussed further in conclusions and recommendations below.

The approach CARPE advocates for building community capacity biodiversity conservation combines direct and indirect methods. The direct approach includes the recruitment and training of community members, a significant number of whom are women, and through the engagement with communities on boundary demarcation and zoning. The indirect approach focuses on alternative livelihoods and on community-managed areas, with a long-range view of taking advantage of the Community Forest Decree to create formally recognized community forest concessions. The latter approach focuses on skill sets, and does not adequately address institutional capacity, including institutional sustainability, consistent with the mandatory references to ADS 201[4] (Box 1).

This is changing as attention shifts to community forest concessions, but will require a more holistic approach than is currently being practiced.

Nearly three quarters (73.9%) of answers received in interviews with IP professional staff indicated that they felt that CARPE's livelihoods strategy was appropriate, but 14.8 percent did not answer the question. Ninety-six (96.0) percent said they engaged the community in their efforts (MD = 7.4 percent). The most common form of community engagement cited was consultation (as distinct from direct participation in decision making). The main barriers cited by IPs to capacity building efforts were unrealistic expectations on the part of communities, lack of initiative on the part of communities, lack of government support and infrastructure, and security issues. The Evaluation Team determined that unrealistic expectations are an artifact of a larger problem. The absence of an effective government presence in many of the DRC Landscapes, in

[4] http://pdf.usaid.gov/pdf_docs/pnadt442.pdf, accessed 12/12/2016

which case the hopes and responsibilities are projected onto development projects. In some Landscapes, CARPE projects represent the outside world.

Box 1. Human and Institutional Capacity Development

USAID recognizes that training does not have an impact until the skills acquired have been applied through practice. Six performance factors shape capacity: information, resources and tools, incentives, knowledge and skills, capacity, and motivation.

USAID's Human and Institutional Capacity Development (HICD) initiative provides tools that assist partner organizations to achieve optimal performance organized around the six performance factors. The application of this behavioral change model can help organizations develop clearly articulated goals that can be successfully applied to any type of organization.

Sources:

USAID Learning Lab,
Human and Institutional Development Handbook

The IP, WCS, acknowledges that the Lac Tele Community Reserve is a community reserve in name only. The only role available to communities, 15 years after the reserve's establishment, is employment as a ranger. As illustrated in the responses cited in the data on participation in the previous paragraph, IPs and communities differ in their concepts of participation.

WWF management in the Salonga NP was dismissive of the need to engage with local communities. WWF in Lac Tumba Landscape and AWF in MLW Landscape showed only a superficial understanding of the intricacies of participatory approaches. IPs recognize the depth of expertise within some communities, such as indigenous groups, when it comes to biodiversity and forests, but have no vision for engaging traditional or local knowledge in conservation strategies.

The role of the IPs in protected area management can also make them the target of resentment in cases of resource conflict. Interviews with communities in the Léconi-Batéké-Léfini Landscape revealed deep-seated agitation with protected area managers over crop destruction by wildlife (primarily elephants). On examination, the community attributed their resentment to not being involved in conservation areas governance and lack of ownership of the process. The elephants, they claim, "belonged to the park" (with the implication that park is an IP development) so the park owes them compensation for their losses.

SCAEMPS supports MECNT in the operationalization of the *arrêté*, or administrative text, implementing the Community Forestry Decree. The establishment of community forest concessions in CAFEC Landscapes provides linkages between protected areas and secures land and resource rights for the residents of the Landscape. This may be the most important legacy of CARPE III. Putting systems in place for community governance of the concessions will take full advantage of the SCAEMPS efforts.

The Evaluation Team has established that CARPE has been partially successful in building capacity of local institutions against the established goals. The challenge is to establish

community governance in those areas of the forest under improved management, before the conclusion of the activity.

CARPE's efforts to influence the policies and regulations of its government partners have focused on providing information for sound decision-making, support in the DRC for the Community Forestry Decree implementation, and rethinking and redefining management strategies to meet biodiversity and global climate change objectives.

Government partners surveyed reported that the following things have been done differently as the result of CARPE influence:

1. Increased involvement of communities in their activities,
2. Adoption of better data collection and analysis, including using SMART as a management tool,
3. Shifting government activities to integrate with CARPE priorities through joint planning.

Under CAFEC, CARPE partners in some Landscapes have developed good working relationships with representatives of the State other than the protected area management authorities who are their direct counterparts. In most the Landscapes, IPs have done very little to engage with State Territorial Agents. For example, the local State representative in the village of Iyondji in the MLW Landscape claimed total ignorance of what was happening in the Landscape, and complained of being excluded from Landscape planning decisions. The same sentiment was voiced by the State Territorial Administrator in the town of Basankusu. Such weak relationships are exacerbated in cases where Landscapes overlap multiple provinces because of the need to coordinate with multiple authorities.

CARPE's Landscape approach requires that actors within and between the three "macro zones" (protected areas, community forests, and extractive areas) harmonize management practices with each other. This is not always done.

The Evaluation Team found that:

- The Landscape approach provides an organizational framework for strong cooperation between conservation organizations active in the region, including information and resources sharing, training opportunities, and lessons.
- The Landscape approach provides the framework for engagement with communities, which will grow in importance where government policy promotes community concessions.
- Landscape management had little influence on resource extraction within the Landscapes in most cases.

Examples include:

- Minerals in Ituri and Maiko-Tayna-Kahuzi Biéga,
- Livestock production in Lac Tele - Lac Tumba and Maiko-Tayna-Kahuzi Biéga,
- Logging in the Lac Tele - Lac Tumba and Léconi- Batéké-Léfini Landscapes.

Exceptions were observed in the TNS Landscape where WCS works with logging concessions to improve forest management. And a legal concession for miners working in the buffer zone of the *Réserve Naturelle d'Itombwe*, has been granted by the Bureau of Mines to regularize miners' activities in Maiko-Tayna-Kahuzi Biéga Landscape. This is discussed in more detail.

In the DRC especially, the Evaluation Team saw limited evidence of CARPE engagement with provincial and national level staff from Ministries of Agriculture, Environment, Primary Education, and Planning. Unreasonable requests and expectations of assistance unrelated to conservation priorities from territorial agents are common. This reflects the relative lack of support from the central governments in both the ROC and DRC for remote rural areas. By the same token, IPs are put under unrealistic pressure by communities to replace the State in service provision. In such circumstances, efforts to influence policy and regulatory environments are difficult.

Previous iterations of CARPE focused heavily on land use planning for Landscapes and macro zones. Under CARPE III, CAFEC's objective is to strengthen capacity for implementation of land use plans, and to undertake further planning. The foundation of the CARPE III technical approach is the CARPE Land Use Planning Guide developed by the US Forest Service (USFS).

Land use planning is the ordering and regulation of land use to prevent conflict, maximize benefits, and achieve social goals. It provides the blueprint for land use regulation. Like all policies, it requires institutions for effective implementation. Land rights and land tenure are institutions that define how society allocates the rights for the use of land. Institutions can be customary, or formal. In the Congo Basin, the institutions vary. In a CARPE Landscape, the State reserves land and most resource rights, and customary roles are negotiated. In general, customary land use is persistent even in the face of preeminence on the part of the State. Land use policy implies legitimation by the state, even though the state is viewed as an alien, often predatory, institution in most of the communities in the CARPE Landscapes. Significant effort will be required to create trust in State institutions.

The Community Profile methodology, used by the International Gorilla Conservation Program in the Virunga Landscape in Rwanda, provides a good way of "listening" to communities that would help to secure buy-in and sustainability. This approach may be profitably replicable in other Landscapes.

In achieving CARPE objectives, it is important to understand that mineral rights, wildlife rights, forest rights, water rights, etc. are often separate and distinct from land rights under the law. Land rights therefore do not automatically translate to rights to high value natural resources. However, addressing many of the threats to biodiversity, and the drivers of deforestation, depend upon resource rights as an enabling condition. These threats include:

1. In-migration and colonization of land by people displaced by insecurity, resulting in land use/land cover change, primarily for agriculture. This is particularly a problem in the eastern DRC.
2. Illegal resource extraction, including illegal logging, hunting, and mining.
3. Legal concessions that overlap with or otherwise impinge upon other, customary land uses (common in the Republic of Congo Landscapes).

The recognition of even rudimentary rights of management by communities under the Community Forestry Decree is an important first step in a long process of clarifying rights, because it is fundamental in controlling in-migration, colonization, and illegal extraction.

Deficiencies in CARPE land use strategies are reflected in several ways. CAFEC IPs have not become skilled at institutional strengthening for customary land rights undergirding effective land use planning. That makes transition to an officially recognized status in the DRC, where the

Community Forestry Decree provides the basis for establishing at least nominally sanctioned claims on land, difficult.

Contrary to claims made in CARPE II, this evaluation found little evidence of institutional strengthening at the local level to engage in land use planning. Sound land use planning requires an understanding of land and resource rights, including prior claims. However, no protected area or community managed land unit examined within CAFEC had a map detailing the customary territories of ethnic groups or clans and how they relate to the zoning.

The Community Forestry Decree defines communities, for purposes of a concession, as "a traditional population organized on the basis of custom, and united by clan or parental solidarity ties which are the foundation of internal cohesion." Management of a land unit by multiple, possibly competing, groups would complicate land governance, excite tensions and the potential for conflict. For purposes of state recognition, they would then be ineligible to participate in a community forest concession.

Under the SCAEMPS activity of EMAPS, implementing partner WRI has the skills needed for customary land rights mapping, but is heavily focused upon physical, rather than social and geographic issues. And WRI is not applying available tools to land rights. WRI's Forest Atlases maps resource rights (mining, timber concessions), including community forests, and some rights to land (protected areas). Outside SCAEMPS, WRI has the skills to produce maps of formally recognized or customary community-held lands. WRI's Land and Resource Rights team can, in principle, provide expertise on tenure, including the use of the LandMark tool for rights mapping.

EMAPS is an important long-term strategy to support decisions, and measure progress in the region over time. The information that these new tools will provide is critically important, and the products being produced through SCAEMPS, NASA, OSFAC, and the US Forest Service are vital to the effective management of the Congo Basin forests.

Remotely sensed data by satellites is best used in combination with ground based direct observations. The CAFEC projects have all adopted the SMART tool, an open-source application developed by a consortium of major conservation organizations, donors, and more than 40 government agencies worldwide. The SMART tool allows mobile data collection to track entities and report observations, including ecological survey and monitoring data. When the SMART application is run on a connected handheld device, it can transmit information in real time. The SMART consortium is developing a data aggregation tool to give managers real-time information on wildlife, wildlife threats, and management assets.

At the time of this evaluation, most Landscapes only had a handful of people trained to use SMART, and a limited number of units available. SMART is expected, by the conclusion of CARPE III, to be integrated with other EMAPS products. At present, SMART is being used in a largely reactive way, but as these tools come online, it will be possible to incorporate predictive modeling and intelligence-led policing, allowing managers to use limited resources more effectively to protect biodiversity.

Climate Change Mitigation Objectives

It is useful to recall CARPE's IRs, as detailed in RCDS 2012-2020 include:

1. Targeted forest Landscapes sustainably managed,
2. Biodiversity threats in targeted forest Landscapes mitigated,

3. Policy and regulatory environments supporting sustainable forest and biodiversity conservation established, and
4. Capacity to monitor forest cover change, greenhouse gas emissions, and biodiversity strengthened.

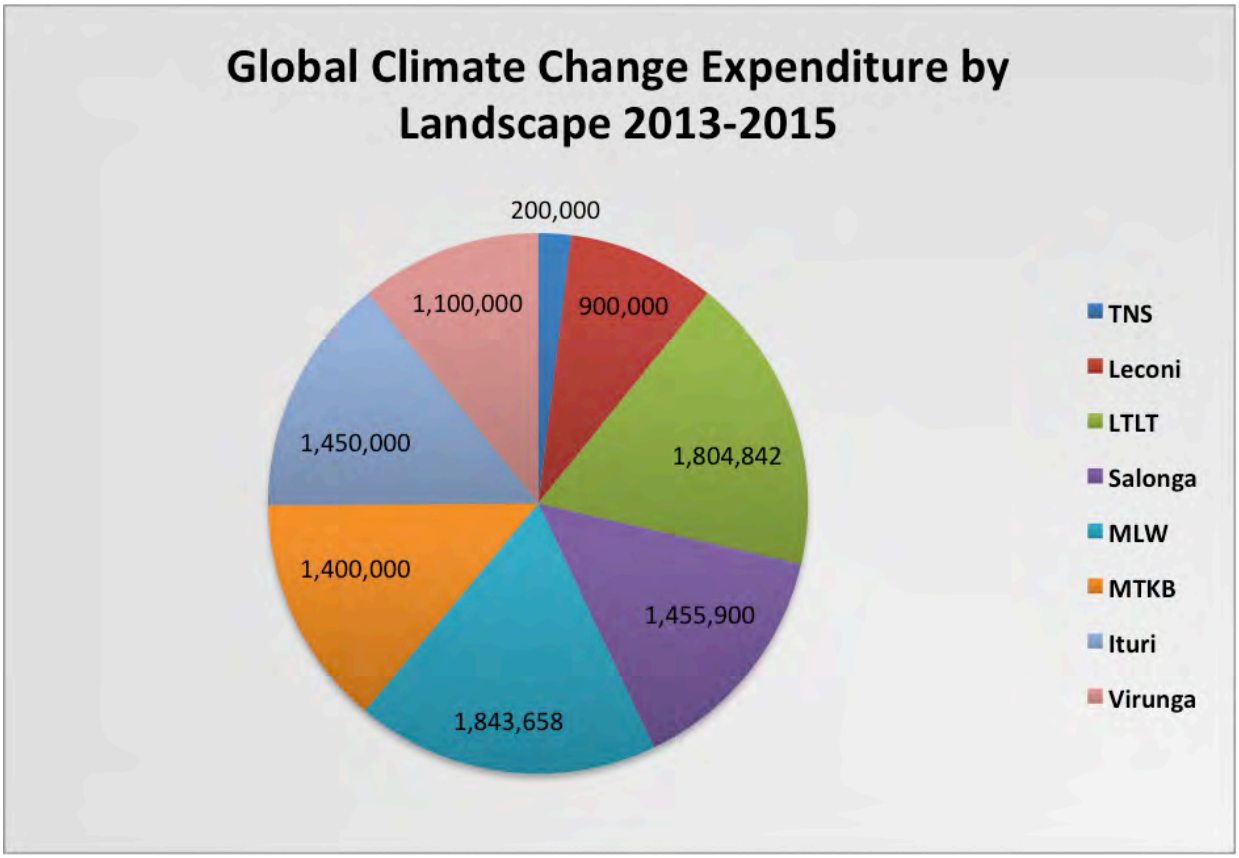

Figure 3

Climate mitigation objectives are drawn from these desired results. The distribution of CARPE GCC funds by Landscape is illustrated in Figure 3.

Drivers of Deforestation and Forest Degradation

The primary drivers of deforestation and forest degradation, identified through CAFEC Landscape threat assessments and forest monitoring data, are not comprehensively addressed in the CARPE Landscapes. Drivers vary among the Landscapes, and include logging (both legal and illegal), charcoal production, subsistence agriculture (shifting cultivation), and fire in the Landscape (e.g., for agricultural clearing, brush clearing, and hunting). In the DRC in particular these drivers are intensified by rapid population growth and urbanization.

The most important biodiversity regions do not generally coincide with the regions highest in greenhouse gases emission (from deforestation and degradation), in either the DRC or ROC. As a High Forest/Low Deforestation (HFLD) country, from the standpoint of REDD+, there will be limited emissions reduction potential until larger scale commercial commodities threaten to

drive up forest loss rates. Among the CARPE Landscapes, LTLT and Virunga suffer relatively higher emissions from fire or charcoal production.

The recent quantification of high carbon stocks in peat swamps in the *Cuvette Centrale* of the DRC, including the Lac Tumba component of the LTLT Landscape and the MLW Landscape (Dargie et al., 2017) raises the profile of the Congo Basin for climate change mitigation activities. Nevertheless, the alignment of mitigation actions with high forest degradation areas (and consequently, emissions) remains a significant challenge for CARPE. This is because the highest deforestation rates in the DRC are in Bas Congo and peri-urban Kinshasa, where charcoal production and illegal logging are primary drivers.

CARPE has never focused on these areas because of its overall program design. In the long term, addressing urban energy demand through alternative fuels is an indispensable strategy to ensure that degradation from charcoal demand is reduced, including in Landscapes some distance from urban areas. This is discussed further under the threat heading "charcoal production" below.

Shifting Cultivation

Implicit in the focus on alternative livelihoods is the assumption that the practice of shifting cultivation (in which an area of ground is cleared of vegetation, cultivated for a few years, then abandoned for a new area until its fertility has been naturally restored.) is undesirable. In areas of stable, low-density population, shifting cultivation may be the most expedient strategy for food production. In some cases, modifications to shifting cultivation to improve productivity may be the best option for preventing further land cover change.

Climate Smart Agriculture (CSA) is sustainable agriculture, based upon integrated management of water, land and ecosystems at Landscape scale. CSA sustainably increases productivity and system resilience while reducing greenhouse gas emissions.

CSA management practices are largely missing from CARPE's approaches to alternative livelihoods. CARPE's principal response to agricultural clearing as a driver of forest loss and degradation is addressed in detail in the discussion of alternative livelihoods, above.

Fire

In the Léconi-Batéké-Léfini and LTLT Landscapes, fire is an important deforestation and forest degradation driver. Fire management plans, monitoring and studies are underway with USFS support, though none of the Landscapes presently have a functional fire management activity.

No understanding of the ecology of fire in these Landscapes is evident. Fire management has important community and cultural aspects—such as use by farmers, pastoralists, or hunters. IPs have not incorporated this in strategies to reduce fire. A study on fire ecology is underway in the Léconi-Batéké-Léfini Landscape, and may influence subsequent phases of CARPE.

Logging

Logging concessions are present in several CARPE Landscapes, including the Léconi-Batéké-Léfini, TNS, and LTLT. In TNS, the major concessionaire, CIB, is Forest Stewardship Council (FSC) certified for employing sustainable management practices. It works closely with WCS to implement sustainable forest management. Other concessionaires like Thanrie do not have FSC certification, but there is very limited leverage/engagement with such companies to follow lower emissions logging practices.

The proposed Ogooué-Leketi NP in the Léconi-Batéké-Léfini Landscape is overlapped by multiple logging concessions that operate without approved logging plans. In this Landscape, there is no interest on the part of concessionaires to achieve sustainable management practices. IPs are not in a position to influence concessionaires to improve their logging practices absent pressure from the Ministry of Forest Economy on measures to improve forest management, including an approved logging plan. Even the removal of bridges and roads that are key access points to the forest after logging operations terminate cannot be accomplished until the protected area (PA) is officially gazetted, something that has not occurred despite the IPs best effort. If logging were better regulated, these Landscapes could provide large emission reduction benefits.

WCS has played a central role in advocating for the gazettement of the Ogooué-Leketi as a national park despite resistance from logging companies. They were close to achieving this goal, when, after the elections of 2016, the incoming government ministry suspended the gazettement process.

The scale of illegal logging in DRC Landscapes is not well-quantified as a source of emissions, CARPE is not focusing on illegal logging as a mitigation activity for these Landscapes, which include, among others, Salonga and Ituri.

Ituri is particularly vulnerable to illegal logging due to road access; the N4 highway, the major east-west route between Kisangani and Bunia, crosses the Ituri Landscape. A truck overladen with illegal wood caused a bridge over the Ituri River at RFO headquarters to collapse in 2009, and again in 2012.

Whether illegal logging is occurring in formally protected areas or community forests is immaterial from an emissions perspective. CARPE IPs have tried to help the timber companies maintain good community relations through cooperation in community development projects supporting their social agreements.

Charcoal Production

Charcoal production is another significant driver of deforestation and forest degradation in the Congo Basin, especially around major urban areas, such as the Kivus, around the Goma agglomeration. Charcoal is a fuel primarily used in urban areas. Reducing forest degradation from charcoal requires a transformation in urban cooking and heating fuel sources (Kammen and Lew 2005, Arnold and Persson 2003).

The CARPE strategy to reduce emissions from charcoal production is a combination of improved, higher efficiency cook stoves, and woodlots to replace charcoal production in mature forests. This strategy has been especially successful at providing alternative livelihoods for communities in the Virunga Landscape (production of stoves as a microenterprise and charcoal production in woodlots), but it is not clear whether this strategy will reduce forest degradation and emissions in the long term.

Figure 4 shows the costs of charcoal across the country: the higher the price of charcoal, the greater the pressure on the Landscape to produce it. In eastern DRC, armed groups such as the FDLR have long controlled charcoal production, but this may be changing. To date, effective intervention has been beyond the reach of CARPE implementing partners.

The use of woodlots to supply alternative sources of fuel for charcoal production is strategy employed in several Landscapes including Léconi-Batéké-Léfini, LTLT, and the Virunga Landscapes. Fast-growing species are the stock of choice for these woodlots because they can

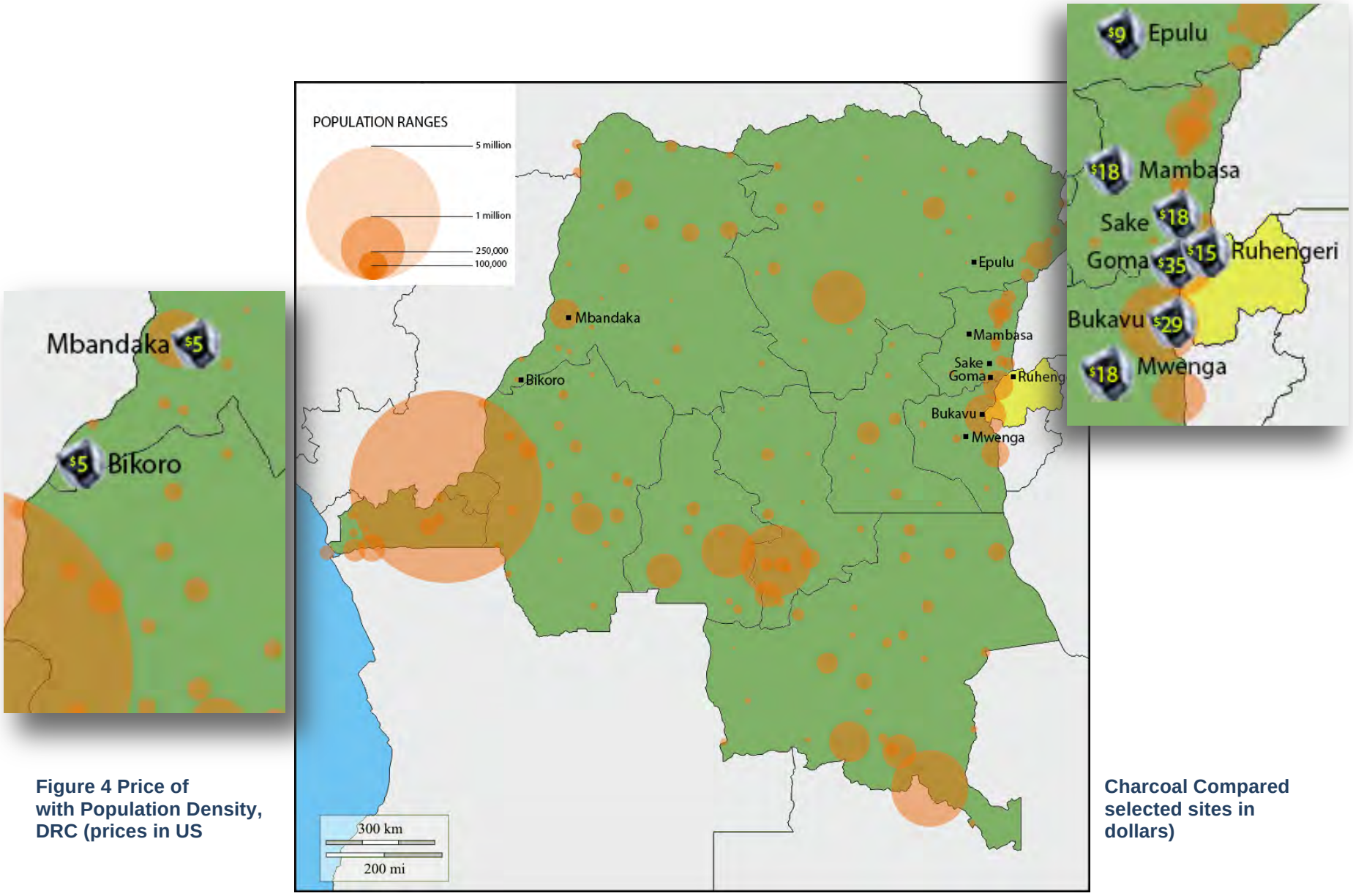

Figure 4 Price of Charcoal Compared with Population Density, selected sites in DRC (prices in US dollars)

Figure 2

be harvested on a short rotation. These species are, often pyrophytic (fire adapted) exotic species (Acacia and Eucalyptus) planted by communities. These woodlots are often observed adjacent to roads bisecting protected areas.

There are negative biodiversity and ecosystem service implications from the use of non-native species. The Initial Environmental Examination and Request for Categorical Exclusion for CARPE III (July 25, 2012), recommended that "… because of the potential for agricultural, agroforestry, and erosion control activities to introduce invasive species or result in clearing of native vegetation, the following activities are recommended for a Negative Determination with Conditions."

Conditions include:

1. Training in sustainable agricultural production practices is provided for project participants,
2. All proposed non-native crops are subject to a review to ensure that they will not become invasive in the introduced environment,
3. Agricultural intensification activities may need further environmental review, especially if involving the expansion of agrochemical inputs or the introduction of genetically modified organisms.

Annex 2 addresses medical waste. The evaluators assume that Annex 1 was the correct reference. This Note to USAID Staff, Consultants and Partners Regarding the Africa Bureau Environmental Review Form and Instructions indicates that "… actions determined likely to significantly degrade protected areas, such as introduction of exotic plants or animals" are high risk, and typically not funded by USAID, referencing 22 CFR 216. High-risk activities require a full environmental assessment.

In addition, despite abundant rainfall, the high evapotranspiration rate of eucalyptus has the potential to lower water tables and contribute to water stress. For this reason, the Government of Rwanda has banned the use of eucalyptus in agroforestry.

A complement to woodlots is improved charcoal cook stoves designed to require less fuelwood. WWF has supported the establishment of a charcoal stove production facility as the joint activity of 17 separate women's groups in Goma. These groups contribute labor for stove production, and manage the stove sales. The profits from these sales are invested in economic development opportunities for women through a microcredit facility. The project reports the production of more than 84,000 stoves since 2007. CARPE III support has provided subsidies to the stove production, including the purchase of machinery and tools.

WWF has conducted a study of the uptake and impact of improved cook stoves in Goma, which indicates that a majority of households own and use them, and that there is a strong demand based on the increased efficiency of these stoves (Mizinzi and Valette 2016). The study is based on limited data (0.7 percent of households were surveyed), and gains in the efficiency of individual stoves is partially offset by the "rebound effect" (a measure of how much the increased efficiency is offset by increased consumption), the rapid growth in urban population, and consequently, the demand for charcoal. The study does not adequately measure annual charcoal consumption differences between households using traditional vs. improved cook stoves. Studies in other parts of Africa indicate that the net reduction in charcoal demand is substantially lower than the gains in efficiency from improved cook stoves (Bensch and Peters 2013, Mwampamba 2007), and that detailed impact evaluations are necessary to attribute

reductions in charcoal consumption and forest loss from charcoal production to improved cook stove promotion.

WWF has supported the plantation of over 10,000 ha of woodlot plantations within the Virunga Landscape. Estimates that nearly 40,000 ha of plantations would be needed to supply the current demand for charcoal in the Goma agglomeration. It is not clear whether increasing woodlot plantations by a factor of four is a realistic or sustainable target, or whether the entire demand for charcoal can be sustainably produced in Virunga. WWF's study indicated a preference by households in Goma of charcoal from mature forests, which is a denser fuel than that of fast-growing woodlot species. There is no evidence that woodlots of fast-growing species actually reduce forest clearing; it is entirely possible that they supplement rather than substitute for charcoal from mature forests. This has the potential to artificially suppress prices, effectively subsidizing the charcoal industry and delaying the day when substitutes need to be found.

This is presently under study, and findings should be carefully reviewed.

The demand for charcoal in even larger urban areas like Kinshasa points to the chronic problem across the Congo Basin of urban household energy shortages, which cannot be addressed solely through more efficient stoves and woodlots without increasing emissions.

To ensure the survival of forests threatened by charcoal production, a strategy will be required to transition away from wood-based fuels. It is important to consider alternative fuels such as natural gas (methane), LPG, and electric stoves that have been tested in other parts of Africa in efforts to transition away from charcoal (Bailis et al. 2005).

Leakage

There is poor understanding and quantification of leakage among the staff of the IPs in the Landscapes. Consequently, in CARPE III, leakage has only been addressed in a generalized, qualitative way, and the Landscapes are not well suited for addressing leakage risks as would be addressed in a mitigation project methodology. Addressing leakage would require site-level data, and an estimation of activity displacement risk beyond the boundaries of a mitigation project or activity to quantify and account for the reduction in emission reduction (ER) mitigation benefits.

IPs have undertaken a limited number of studies on the risk of leakage. For example, in the Léconi-Batéké-Léfini Landscape, where fire is a major driver of GHG emissions, leakage studies were supported by CAFEC, but are not linked to project activities or ER estimation.

Accounting for leakage in the case of activities like agroforestry woodlots and improved cook stoves is complicated by the drivers of degradation being in urban settlements. Estimating leakage for these activities is more challenging than in forested areas. The reduction of fuelwood demand due to improved cook stoves is not well studied in the context of CAFEC Landscapes.

As CAFEC Landscapes begin to address GHG emissions reductions, EMAPS data could help support leakage calculations. CARPE also seems to lack a program-level strategy for implementing mitigation activities. Instead, the approach during phase III was initially to deploy GCC funding equally, regardless of the potential for climate control (CC) mitigation benefits. However, The Evaluation Team saw no evidence that CAFEC is producing data that will be useful in advancing the climate change agenda. CAFEC stands to contribute to global climate change efforts through the development of effective methodologies for management of formally protected areas and of community-managed lands.

REDD+ Strategy

CARPE continues key contributions in forest monitoring and integration of data on forest management, policy, and governance that support the REDD+ strategy in DRC and ROC under EMAPS. OSFAC provides data on forest cover change and deforestation rates. SCAEMPS' work on building the capacity of the DRC's Ministry of Land Affairs (MAF) focuses on integrating with other line ministries.

This is key to developing REDD+ capacity. Support for MAF has involved a series of door-to-door meetings with ministries with sectoral responsibilities, to show land use planning in a favorable light, and the role of MAF is as a coordinating body, not competition. The FACET Forest Cover Monitoring Atlases produced by OSFAC and the University of Maryland provide important baselines and information resources. This could have positive implications for the REDD+ process by helping to ensure transparency and accountability.

CARPE lacks a comprehensive strategic approach to the development and implementation of national REDD+ strategies. CARPE provides important data for the development of REDD+ MRV systems and plans, but it is not providing important lessons learned from CARPE activities into national REDD+ programs directly. In some of the Landscapes, CARPE land use planning, mapping and forest monitoring has supported the development of REDD+ activities, such as the Maï-Ndombe project adjacent to and within parts of the LTLT Landscape. However, in other Landscapes like TNS, there are weak linkages between the development of REDD+ projects and capacity-building activities and CARPE. National REDD+ activities are being supported by other donors and are on an apparently parallel track with CARPE activities.

EMAPS' challenge is to create capacity so that the governments use the monitoring system to improve NR governance in the Directorate for Inventory and Forest Management (DIAF, DRC) and National Center of Inventory and Management of Forest and Wildlife Resources (CNIAF, ROC). Approaches have been identified and technical assistance provided through OSFAC and SCAEMPS. CARPE, with technical assistance from the USFS, supports development methods for estimating and reducing degradation emissions in the Congo Basin.

Recent studies like Pearson et al. (2017) indicate the degradation emissions may account for half or more of the total emissions in certain regions of the Congo Basin. Substantial technical work on better quantifying and reducing these emissions could be achieved under CARPE. Better integration between CAFEC and EMAPS data will be made possible through the SCAEMPS Land Use Planning Atlas and Portal and the Landscape App, which will integrate field level data with remote sensing data products; this will promote the estimation of degradation impacts on forests.

CARPE has the potential to make significant additional contributions to REDD+ in both countries by providing lessons learned from our work to improve forest management, develop community-based Natural Resource Management (NRM) strategies, provide better data on fire, shifting cultivation, and other degradation emissions, support of community and local institutions' capacity to participate, and receive benefits from REDD+. Efforts are only hampered by the fact that national REDD+ committees don't use the CARPE Landscape approach. That makes land use planning from previous phases difficult to adapt for REDD+ strategies.

Policy and Regulatory Environments

CARPE has provided critical information on the state of forests, forest governance institutions, and challenges to sustainable forest management in the Congo Basin. But, CARPE has not led to major innovations in policy or regulatory environments for global climate change.

CARPE welcomes EMAPS developing technology to quantify and compare land use and land cover change, between managed and unmanaged Landscapes, and compare the differences in GHG emissions by management regime.

Also under SCAEMPS, a road map has been developed in collaboration with United Nations Development Programme (UNDP) to launch their land use planning approach. This process aims to articulate a national vision of what land use planning can achieve for the country. Helping the government agencies to understand the potential of land use planning for sustainable Landscapes is a key part of this strategy. In support, WRI is building a new Land Use Planning Atlas and related portal based on the Forest Atlas developed under CARPE in 2006-7. The goal is to move away from static data provision to tools designed for scenario development and planning.

WRI is working with ministries to harmonize data and explore planning scenarios using spatially explicit data. This will be used to prioritize land-use decisions and understand land-use trade-offs. It will be supported by an app for handheld devices, called the Landscape Application (LSA), which will improve not only collection and data management, but will advance sharing of information across Landscapes and between nations.

The prospect for measurably reducing deforestation and forest degradation across the CARPE Landscapes is unclear, and the evidence for impact to date at sufficient scale to stop deforestation and forest degradation is inconclusive. The strategy for addressing charcoal production is based upon assumptions not yet supported by credible data. The approach to addressing fire is inadequate to the risk.

The strategy for promoting best practices in legal logging concessions is successful in one Landscape (TNS), but such cooperation depends upon the goodwill of concession owners, which does not exist some Landscapes, especially the Léconi-Batéké-Léfini. Efforts were made by WWF to promote RIL and FSC certifications in Lac Tumba, working with SODEFOR, the logging company. The support was considerable and included training and technical assistance to produce procedures and guidelines, but, sustainable forest management, in terms of logging operations, remains largely unrealized. Companies such as SODEFOR have, until recently, experienced economic difficulties due to a soft global timber market. For a company to comply with SFM or RIL standards, they may need financial assistance, which is difficult for many donors to provide. The improvement in economic prospects may well increase the prospects for promoting best practice in legal logging.

The Extractive Resource Zone (ERZ) designation is not being developed by commercial interests. In the Léconi-Batéké-Léfini Landscape, for example, there is no pathway to implementing a sustainable management plan within existing logging concessions.

There is potential for officially recognized community forest concessions to expand the forest area under management. However, the institutional basis for advancing the reduction in deforestation and degradation of forests is weak, with limited efforts toward institution building, and no benefit sharing mechanisms. Reducing deforestation and degradation through community forest concessions will require substantial effort and is by no means guaranteed.

The best prospect of achieving large scale measures to reduce deforestation rests with these efforts because rights can be transferred to communities that incentivize stewardship. Building the capacity of communities to govern collective rights for sustainable forest management is much easier to take to scale than either stricter protection or alternative livelihoods approaches, and it creates a firmer foundation for performance-based payment schemes for ecosystem services. CARPE has the potential to make additional contributions to the development of REDD+ through work in these areas. There is limited time remaining in CARPE III to work toward effective institutional capacity at the local level. The measures required are elaborated upon in Recommendations.

Women's Empowerment, Gender Integration and Indigenous Peoples

More than eighty-four percent (84.6%) of civil society members surveyed believed women and indigenous people were aware of the resources CARPE offered (MD = 18.8 percent). A third (33.3 percent) of respondents surveyed felt measures to empower women were somewhat adequate, but missed key needs. Half (50.0 percent) felt the measures were on average successful, and 16.7 percent felt the measures met women's needs completely and with great creativity. For indigenous people, those numbers were 55.6 percent, 44.4 percent, with no measures truly meeting their needs (MD = 43.8 percent). There was no opportunity to follow up with questions after the surveys were tallied, as this took place only after the three teams reconvened in Kinshasa. However, there are indications from interviews that indigenous people felt that CARPE could better meet their needs through protecting their resource rights—and significantly—through respectful treatment.

Table 3

Perceptions of Quality of Practice Concerning Women and Indigenous People by Local Partners and Implementing Partners				
Quality of practices in survey response:	**Indigenous (Local Landscape partners)**	**Women (Local Landscape partners)**	**Indigenous (IPs)**	**Women (IPs)**
No practices in place	24.1 percent	20.0 percent	10 percent	5 percent
In place but not useful	20.7 percent	26.7 percent	40 percent	30 percent
Practices average	51.7 percent	43.3 percent	50 percent	45 percent
Practices working well	3.4 percent	10.0 percent	20 percent	20 percent

Common practices of CARPE partners to improve indigenous and women's participation cited in surveys were to improve literacy, soap making, sewing, and training as Rangers. Several respondents cited agriculture or husbandry support to indigenous or women-only associations. Only one respondent mentioned the need for field staff to be aware of women's specific vulnerabilities. In the ROC, the Evaluation Team regularly encountered a lack of awareness or reflection on this (one respondent went so far as to say that no activities were in place because of the attitudes of the vulnerable populations themselves.) IP activities appeared to be incorporated in CARPE activities because they were a requirement, without much reflection on priorities for women or indigenous people. IP responses to the evaluation survey suggested that

not much thought had gone into evaluating these populations needs, including statements such as “we include them in everything”, and “a lot of beneficiaries are from these populations.”

According to civil society organizations, women and indigenous people were aware of CARPE’s efforts generally through the activities put in place for them. For women, these were focused on literacy and supporting women’s associations in various activities (livestock raising, agriculture, soap-making, sewing). One respondent mentioned that their organization had trained a woman to head the *Centre pour L'autonomisation de la Femme et de L'Education*. Notably, this was the only mention of women in a leadership role. The most common activities for indigenous people cited by civil society organizations included provision of improved cook stoves, support for agriculture/apiculture, and livestock raising.

Specific efforts have been made to address gender in the context of national policies and legal documents through SCAEMPS, or such as ensuring that women are included in the composition of governance structures in the arrêté language that spells out management procedures for community forestry concessions. In addition, the process to develop the DRC’s national community forestry strategy, in which most CARPE partners participated, included a sub-group on gender that was led by WWF.

The Evaluation Team observed that the strategies being implemented in the CAFEC Landscapes[5] by the target women’s’ groups in livelihood and resource governance issues, do not reflect a comprehensive approach to women’s empowerment. The Evaluation Team reviewed the gender analysis undertaken for a subset of the CAFEC Landscapes. These studies reflect an attempt at a systematic approach; they share almost identical content and recommendations. They reflect a very superficial review of the gender dynamics in these Landscapes. The program recommendations for each Landscape reduce the complexities of women’s empowerment and gender equality to livelihood interventions and equal access to project benefits.

Gender analysis was undertaken in the planning of CARPE III (Russell and Vabi, 2013) This report suggested following the recommendation of the final evaluation of CARPE II as a near term action:

1. Strengthen civil society (including gender and indigenous peoples) participation in conservation governance through capacity building, information sharing, and communications programs. Also, identify appropriate contracting mechanisms to provide high-level Community Based Natural Resource Management (CBNRM) expertise and social science expertise with resource tenure specialization. The social scientist should become the point person for the integration of gender and indigenous people into [the next phase of] CARPE (CARPE II Evaluation p. xii).
2. Carefully review proposals and work plans to gauge depth of knowledge about gender and participation of women. There should be awareness of feasibility of actions, especially with respect to “alternative livelihood” activities that depend upon women’s labor.
3. Craft and adopt indicators that go beyond sex-disaggregation to measure changes in levels of inequality, both quantitatively and qualitatively.
4. Develop and implement results-oriented practical gender training for diverse audiences.

[5] Lac Tumba/Salonga, Virunga, Itombwe

5. Create a gender "help desk" function to help solve dilemmas that typically emerge with the implementation of gender action plans.
6. Encourage a gendered approach to key threats to biodiversity, the bushmeat and wildlife trade, as well as to forest degradation, by incorporating cultural, livelihood and food security dimensions.

The Evaluation Team did not find evidence of implementation of these recommendations. Instead, it observed well intended, but poorly constructed efforts at improving women's livelihoods, which do not address the fundamental issues of how power is structured within families and communities. Empowerment cannot be reduced to more available cash, while ignoring the relationships of power to make decisions about natural resources. The Team was left with the impression that, except at the highest management levels, gender was a compliance box to be checked. For example, one Landscape reports that it identified four women to send to gender training.

Gender issues are not effectively integrated into monitoring and evaluation plans. Gender-disaggregated data is a passive response to a serious problem of social inclusion. Throughout the region, power is overwhelmingly held by married, elder Bantu men. A deep understanding of power dynamics as it impacts gender is necessary to even begin to address cultural dynamics and promote social inclusion. Gender analysis is not translating to effective programmatic responses because, for the most part, the management of CARPE programs is organized according to the dominant social patterns. As a result, CARPE is not systematically promoting women's empowerment, particularly in relating to resource rights and allocation decisions.

Where there are signs of success in promoting women's empowerment, they are inadequately linked to the overarching project goal. For example, in the case of women's associations making and distributing cook stoves in Virunga, there is little evidence that economic opportunities created have an impact on conservation objectives.

There is a strong push by the IPs to hire more women and treat them equally, but there are signs of institutional barriers on the part of local managers. For example, in Lac Tele, we observed that in peer-to-peer work relations, their male counterparts treat women equally. However, at the administrative level, patrol assignments are differentiated depending upon gender. The management rationale given was that family concerns would arise from long field assignments for female Rangers. The women Rangers themselves did not express these concerns. A lack of equality was also observed in training, where women are given fewer opportunities.

The forest dwelling indigenous[6] people of the Congo Basin, the BaTwa or BaMbuti, formerly known as Pygmies, are traditional hunter-gatherers. They have been the victims of discrimination by colonists and Bantu peoples, frequently treated like second-class citizens or sub-humans. As is often the case with other forest-dwelling peoples, Mbuti have an intimate connection to the forest, yet no formal recognition of their land or resource-rights. This has resulted in their displacement from forests or the degradation of their customary lands by industrial resource extraction throughout the Congo Basin.

[6] The concept of "indigenous people" is problematic for the region; for purposes of this report, the forest-dwelling people with a hunter-gatherer heritage formerly known as pygmies are the intended subject of references to indigenous people, and are referred to by the Swahili term Mbuti for simplicity (recognizing that there are distinctly different peoples represented in this class).

CARPE has made efforts to integrate these indigenous people in its biodiversity conservation and climate change mitigation portfolios. Efforts to engage them so far, have not been well organized, and have been based upon a weak understanding of the cultures and economies of these communities, and unclear about the ultimate objectives of these efforts. Literacy efforts for example, in the Ituri Landscape, aimed at Mbuti women, satisfy in principle, project requirements to promote women's empowerment and indigenous integration, but IPs lack a clear understanding of the implications of such efforts in terms of the changes that this may bring to a community. The motivations, as far as the Evaluation Team could discern, for bringing development to the Mbuti was to satisfy requirements of USAID, rather than the well-articulated needs of the communities themselves.

Focus group discussions with Mbuti consistently led to the question of their perceived lack of respect by Bantus; Mbuti have very little material culture, and the major benefit that they seek is greater recognition of their rights and interests. Mbuti interviewed expressed concern over the behavior of the IP's Bantu staff, and their attitudes toward them. They related preferential treatment of Bantu groups over Mbuti. Distrust and cultural discord were manifested in the behavior of project staff, e.g., of the staff in the Lac Tele Community Reserve who kept the Mbuti honey production project under lock and key, because they "can't be trusted with honey".

6.2 Program Design and Implementation Strategy

The development hypothesis of the USAID Regional Development Cooperation Strategy is that:

(1) If sustainable and sound natural resource management stabilizes deforestation and forest degradation and mitigates threats to biodiversity in the targeted Landscapes, then the greenhouse gas emissions from the forests will be stabilized to conform to reference scenarios, and keystone biodiversity species will be conserved in these Landscapes; and

(2) If CARPE succeeds in achieving the results envisaged through building sustainable Landscape management capacity, an enabling policy and regulatory environment, systems for monitoring forests, GHG emissions, and biodiversity, then the ecological integrity of the humid forest ecosystem of the Congo Basin will be maintained.

In Summary: Increased capacity at the regional, national, and local levels together with a strengthened, enabling policy environment will lead to large-scale greenhouse gas emission abatement. This will result in the conservation of biodiversity and the ability of regional countries to transition from environmental degradation and poverty to climate resiliency and low emissions.

Validity of hypotheses and assumptions

Land use and land cover change, with concomitant habitat loss, are understood to be major drivers of biodiversity loss. The Evaluation Team observed, however, areas where significant biodiversity loss occurred primarily due to intense hunting pressure without associated land cover change. This was particularly apparent in Salonga NP. Although in such cases land cover change might not be the driver of biodiversity loss, such loss, in the form defaunation of large seed dispersers, may have long-term negative implications for forest carbon storage (Bello et al 2015). Either way, biodiversity and deforestation appear to be inextricably linked, confirming the general validity of the hypothesis.

The question of validity in specific contexts of the Congo Basin is one of emphasis. Without awareness of specific cultural contexts, policy formulation and improved regulation, combined

with improved capacity, will not be successful. It is precisely at this point that CARPE execution is weak.

The RDCS identified critical assumptions upon which its objectives are predicated:

1. Central African governments remain committed to climate change mitigation and increase emphasis on forest conservation,
2. Regional and national stability, and security, continue to improve,
3. Governments in the region are willing to participate in and comply with international GCC Agreements,
4. Corruption will be contained and reduced,
5. The international framework under the UNFCCC will emphasize financial support for forest conservation.

The governments remain committed, in principle, to climate change mitigation and forest conservation. There has been important progress in the DRC in the creation of new protected areas (though some paper parks remain), and in the creation of community forest concessions.

Regional and national security is tenuous, and shows little sign of improvement. Stability is tenuous, and the future is uncertain in the ROC and DRC.

The governments continue to participate in international global climate change agreements. Commitments do not extend to the appropriation of funds for conservation objectives by the government. Local officials often see international funding as a way to capture rent rather than as a way to advance objectives. Commitments notwithstanding, the relative weakness of the state is a problem, especially in the DRC. Corruption is not being brought under control.

The UNFCCC continues to emphasize financial support for forest conservation, and the international community is responding, not only through CARPE, but also especially through Norway's Central African Forest Initiative (CAFI).

The notion that forested ecosystems can simultaneously provide sustainable livelihoods, biodiversity, and greenhouse gas emissions reduction benefits, rests upon the assumption that synergies can be achieved for multiple outcomes. In other words, that they are not mutually exclusive. Yet, existing scholarship offers limited guidance on effective strategies (Persha et al, 2011) to achieve multiple outcomes that address social and conservation objectives. The enabling environment would require conditions that are difficult to realize in the Congo Basin. These include security and the rule of law, property and resource rights, political stability, and access to markets.

The USAID Measuring Impact (MI) project worked with CARPE III IPs to define and align the CAFEC approach proposed by each of three IPs with CARPE's overall goals and objectives. This is summarized in the development hypothesis above. Eight overarching strategies were identified. For each of these strategies, a theory of change (ToC) was developed. This provided CARPE with a coherent set of indicators with which to assess progress. A ToC is an algorithm illustrating the logic of the chosen strategy, in the form of an "if, then" statement leading from goal, through intervention, to result.

The eight strategies are:

1. Strengthen protected area management capacity

2. Strengthen the implementation of land use management plans
3. Enhance enforcement and prosecution
4. Promote sustainable agriculture, energy, and livelihood alternatives as substitutes for unsustainable practices
5. Promote ecologically sustainable artisanal harvest of natural resources
6. Facilitate access to family planning and health services in communities where health sector partners are active
7. Reduce impacts of industrial-scale production and extraction (mining, logging) by promoting best management practices
8. Promote tourism and REDD+ financing mechanisms as payment for ecosystem services.

Of the eight strategies adopted, some were broadly effective, some problematic for achievement of CARPE III objectives, and some were infeasible as designed.

Strategy 1. Strengthening protected area capacity was broadly effective, especially insofar as sustainable financing strategies could be attached to them, with the caveats identified in the Virunga Foundation discussion in section 6.4 below. Under CARPE, ranger training has improved, and new skills are under development (anti-poaching efforts in particular). Additional equipment has been provided, enabling a stronger field presence. New tools for data collection, through the SMART program, are increasing the ability of managers to analyze conditions and plan effective management responses. Overall, morale appears to be high in the DRC, despite the high risk involved in many Landscapes due to the security situation, and the remoteness and isolation of the assignments. Awareness of and appreciation for CARPE support was widespread. (The evaluation did not measure morale, and the evidence is strictly anecdotal). Efforts to develop public/private partnerships to support individual protected areas are underway. Such mechanisms show promise for securing gains made over a longer term.

Strategy 2. Land use planning implementation is problematic. Previous iterations of CARPE focused heavily on land use planning, primarily at the national level. Under CARPE III, CAFEC's objective is to strengthen capacity for land use planning, and the implementation of the resulting plans. The foundation of the CARPE III technical approach is the CARPE Land Use Planning Guide developed by the US Forest Service (USFS).

Although the CARPE II final evaluation identified land use planning as a major achievement, this evaluation found inconsistent relevance on the ground. As one community member told the Evaluation Team, "the park boundaries come from satellites, but we live here on the ground, and see things differently."[7] In other words, the approach to land use planning and zoning overall was top-down, consultations with communities notwithstanding.

[7] The 2016 PROLAND report, for example, states "(a)s currently conceived and implemented, CARPE zoning activities do not substantially increase farmer incentives to stop the process of clearing the forests. Micro-zoning plans may eventually serve as a basis for further participatory village level land use planning for specific uses. But until then, the zones serve as a virtual, and likely ineffective, "fence" around community forests." (USAID 2016b)

In the Itombwe Nature Reserve, on the other hand, there was local participation in zoning, which secured support for conservation measures from local resource extractors, including hunters and miners.

Land use planning, the regulation of land use to prevent conflict, maximize benefits, and achieve social goals, offers a blueprint for land use regulation. The land rights and land tenure institutions define how society allocates the rights for use of land. Institutions can be customary, or formal. In the Congo Basin, the institutions vary, but in general, the State reserves the right of land use. State and customary roles are negotiated. In general, customary land use is persistent even in the face of pre-eminence on the part of the State. Land use policy implies legitimation by the State, even though it is distrusted in the communities of most of the CARPE Landscapes.

Contrary to claims concerning CARPE II, this evaluation found only limited evidence of institutional strengthening at the local level to engage in land use planning. For example, no community managed land unit understood the ethnic groups or clan boundaries of customary territories. Management of land units by multiple, possibly competing, groups would complicate land governance, and could exacerbate tensions, and increase the potential for conflict.

USAID is not drawing upon its own resources to capitalize upon opportunities to improve land rights. E3's Land Tenure and Property Rights office offers a suite of tools for land rights formalization that are not being used by CARPE, including their Mobile Applications to Secure Tenure (MAST). MAST tools are applications designed to run on smartphones and other handheld devices, and are highly reminiscent of SMART in terms of deployment strategies. Using mobile data collection with MAST, USAID's Land Potential Knowledge System (LandPKS), mobile phone, and cloud computing technologies can be used to globalize access to scientific, local knowledge, and information about land potential. Anyone with a mobile phone can identify their land/soil type, access relevant information about it, and connect with people working with similar land and challenges to share learning and experiences, thereby creating a valuable network of support.

Finally, the Tenure and Global Climate Change (TGCC) program is piloting land tenure interventions that strengthen land rights as an enabling condition for promoting the adoption of "climate smart" land-use practices, including strengthening women's property rights under climate mitigation activities.

Strategy 3. Enhance enforcement and prosecution. This strategy is applied to wildlife crime, including poaching and trafficking. Progress is being made in the development of situational law enforcement approaches suitable to a wildlife crime deterrence goal. Notwithstanding that, Landscapes are dissimilar, and the enabling conditions may not always be present. Still, there is potential to scale the approach. Prosecutions, on the other hand, are problematic due to the high costs of successful prosecution. Although important work has been done to inform and educate the judiciary in wildlife related law, there is no effective strategy in place to address the problem of costs and the requirements for transport of prisoners to courts within the stipulated timeframes.

Strategy 4. Promote sustainable agriculture, energy, and livelihood alternatives as substitutes for unsustainable practices. A critical assumption, also reflected in the USAID Measuring Impact project's analysis of conservation enterprise (USAID, 2015e), is that substitution will occur once benefits are realized. The reality is that supplementation can just as easily occur. And based upon the observations of the evaluation team, this appears to be the rule rather than the exception. To diminish bushmeat sales, AWF supported women's associations in Basankusu to engage in sewing and soap-making activities. They did take on the new activities, but did not

refrain from being involved in bushmeat marketing. According to informants, women engaged in alternative livelihoods sometimes passed their role in bushmeat markets on to daughters or neighbors, while maintaining a role in managing the process.

Livelihood strategies were not fully elaborated and contained unidentified, untested assumptions about causality. Effective social, political, institutional and stakeholder analysis was not undertaken systematically, consistent with best practice (Ashley and Carney, 1999). Succinctly stated, random experiments with livelihood alternatives without a clear understanding of economic growth strategies should not have been expected to yield positive outcomes; at best, important lessons have been learned.

Strategy 5. Promote ecologically sustainable artisanal harvest of natural resources. The Evaluation Team encountered a very limited set of interventions targeting artisanal harvest. These included weak attempts at honey production in the Ituri and LTLT Landscapes, targeted at indigenous groups. More promising was the work supporting fisheries in the Lac Tele component of the LTLT Landscape. Here, stakeholder self-regulation was observed, including the creation by communities of *chartes de peche*, or fisheries charters, whereby communities adopted voluntary codes of conduct for responsible fishing. If successful, there should be strong potential for replication of this model in other local resource use contexts. The implications for local resource governance for sustainable use could be very positive.

Strategy 6. Facilitate access to family planning and health services in communities where health sector partners are active. There is no data to support that there is a direct causal link between access to family planning and health services and CARPE objectives. There is, however, evidence to suggest that the approach is problematic because it is incompatible with cultural perceptions, and gives the appearance of being a top-down imposition from without. Investment in family planning promotion is an example of programming that is based on insufficient social science understanding of worldviews of target audiences.

In the Maiko-Tayna-Kahuzi Biéga Landscape, the Jane Goodall Institute takes a slightly different approach; the family planning focus is on empowering women to make decisions, not only concerning reproductive choice, but also economic choice and social participation. While it is premature to discuss results, the logic is compelling, and has the potential for indirect but positive impacts on the program goals.

Strategy 7. Reduce impacts of industrial-scale production and extraction (mining, logging) by promoting best management practices. The assumption here is that concessionaires are receptive to information about best management practices. Information obtained by the Evaluation Team indicates that, apart from CIB in the Sangha Tri-National Landscape and SODEFOR in the cuvette centrale, the willingness of logging companies to engage with the IPs cannot be relied upon. The alternative to voluntary compliance with best management practices is better regulation of the sector by government, which is largely outside the manageable interests of CARPE.

Strategy 8. Promote tourism and REDD+ financing mechanisms as payments for ecosystem services. Tourism markets are predicated upon stability, security and infrastructure, and REDD+ upon functioning markets. For reasons outside of the control of CARPE, these preconditions have not materialized, and, as a result progress is not being made in most Landscapes. In Virunga, the IP and local Landscape partners do not have much interaction with the Virunga NP gorilla tourism program, but on the Rwanda side, Landscape partner the International Gorilla Conservation Program (IGCP) has a solid track record of developing job-creating ecotourism lodges. They continue to work with and support the government and private sector in promoting

benefit sharing for adjacent communities. In the Maiko-Tayna-Kahuzi Biéga Landscape, WCS is also supporting Kahuzi-Biéga National Park's gorilla tourism program through biomonitoring, training, and equipment for Rangers. This program suffers from the general instability in South Kivu province, including the occupation of large areas of the park by armed groups now engaged in artisanal mineral exploitation. TNS has been closed to tourism by the IP while they upgrade facilities, however, the viability of a tourism industry is limited by the remoteness of the location.

During Phase III, CARPE provided support for the development of Maï-Ndombe REDD+ project's investment plan under the Emissions Reduction Program Document (ER-PD). The CARPE zoning process and planning of CBNRM models within the adjacent LTLT Landscape also informed the development of the project. The role of WWF as an IP under CARPE, and in the development of the Maï-Ndombe project, was key to CARPE's contribution to the project. The Maï-Ndombe project is globally one of the most significant REDD+ projects, and made the DRC one of the first REDD+ countries to go through the ER-PA negotiations. While CARPE contributions have been important for this project, the only REDD+ projects in CARPE Landscapes are in abeyance (Ituri) or early stages of development (Mt Hoyo in Virunga, which could not be visited due to security concerns). REDD+ remains an important option for generating payments and benefits for local communities in forested regions of the Congo Basin, and CARPE can provide important lessons learned and strategic guidance for the development of REDD+.

6.3 Program Management and Coordination with IPs

CAFEC's IPs are effective in the core area of protected area management and biodiversity. They are gradually introducing SMART monitoring technology to improve field data for management. While it is not fully operational, as reported in some cases, the technology has generated some enthusiasm from ICCN users. ICCN stands to benefit in the long term from near-real time operational and actionable data for law enforcement and resource monitoring.

This does not necessarily translate into effectiveness in addressing threats. IPs are slow to address new threats and opportunities. This is particularly vivid in the Ituri Landscape where in-migration has been a threat to the biodiversity of the region for a generation. This is a result of instability largely beyond the manageable interests of CARPE. However, the impacts are not. Open access and lack of land and resource rights by inhabitants of the Landscape creates the "pull" to complement the "push" of depleted soils, geopolitical tension, and internecine conflict. Compounding open access with gold mining opportunities in the RFO, in-migration has increased sharply. The project collects no data on demography, but according to community members of Badengaido, at the epicenter of the gold rush, the town has increased five-fold in size since CARPE III began. The Ituri Landscape has no strategy and no capacity to address this emerging threat.

In the Maiko-Tayna-Kahuzi Biéga Landscape, the management was highly problematic until taken over by WCS. But there is little or no evidence of the claimed activities in years one and two. Additionally, local Landscape partner UGADEC, which is responsible for building the management capacity of local communities, was suspected of irregularities in beneficiary selection. Their budget is now frozen until they meet management benchmarks set by the Landscape leader. This is a management setback because the advancement of community-managed sites was a core strategy for the Landscape.

In the Ituri Landscape, WCS is making progress in developing a business alliance to create market access for its emerging cacao production program. In the MLW Landscape, AWF has developed a promising partnership with the International Institute for Tropical Agriculture to develop new agricultural products and practices. (It is unclear where the market is for new products, an example of the aforementioned lack of analytical rigor).

In general, the Evaluation Team observed that Landscape managers tend to stick to their scripts, and do not strongly embrace adaptive management. The Evaluation Team finds indications from interviews with management staff that, at least in part, this is due to the difficulty they claim to encounter when making programmatic changes to their Assistance Officer's Representative.

IP capacity to design, implement, and manage activities, including livelihood alternatives

CARPE IPs have strong skills in conservation biology, protected area management, land use planning, and forest carbon mitigation. They have uneven, but growing, skills in combating wildlife crime and trafficking.

CARPE IPs generally lack skills to advance conservation enterprises. This includes the ability to create an effective, enabling environment, and the capacity to assess profit potential (identify markets, market access, transaction costs and opportunity costs). Instead, Strategy 4 activities largely dissipate their energy on small-scale enterprises without consideration for scaling them up to a level that will have sufficient impact to advance CARPE's goals. These are often haphazard efforts without follow up.

For example, in the Ituri Landscape, a honey production facility was developed to support livelihoods by an Mbuti community, which has no hives. There has been no monitoring of the program since construction so the problem has gone undiagnosed.

In the Lac Tele section of the LTLT Landscape, the Landscape manager, WCS, has promoted a crop substitution program that has repeatedly failed. The crops being introduced are not part of the local diet, and there is little enthusiasm for them; they have no investment in the outcome, but will continue to plant as long as they are paid, but they would not of their own volition, plant these crops. And apparently, the project manager has consistently disregarded the advice of a local agronomist concerning planting times.

Even where livelihood strategies are successful, they may not be causally linked to the intended project goals, as is the case of the woodlots and cook stoves discussed in pages 46-48.

Notable exceptions with potential to directly impact project goals are the cacao production in the Ituri Landscape and the improved fisheries management and post-harvest production techniques developed for the LTLT Landscape. These approaches, despite some flaws (discussed above) do show potential for scaling up for positive impact on biodiversity, forest carbon mitigation, and sustainable land and natural resource management.

Cost-Effectiveness

The cost-effectiveness of CARPE Implementing Partners' management structures would be better addressed through a financial audit. The Evaluation Team had no access to financial data with which to quantify cost-effectiveness, nor did we have financial experts on the team.

The extreme remoteness, long distances between sites, and the poor security environment in some Landscapes makes cost-efficacy a relative concept. In general, CARPE programs were observed to be professionally managed at an appropriately high level. The senior management was, in almost all cases, highly cooperative, responsive to requests from the Evaluation Team, and obviously knowledgeable about their projects.

EMAPS/SCAEMPS could be better integrated with CAFEC Landscapes through coordination of travel (the cost of travel via charter aircraft being a reported constraint to more direct engagement in the field).

Questionable choices about the selection of office location were observed; the program office for Itombwe Nature Reserve in the Maiko-Tayna-Kahuzi Biéga Landscape was in Bukavu, four hours away from the town of Mwenga, where Itombwe's park headquarters is located. This is a four-hour drive in ideal conditions, and there did not seem to be a clear rationale for locating the project office so far away.

One management problem reported by ICCN concerned lack of coordination in planning and budgeting cycles of USAID and ICCN in the DRC. This makes it difficult and time-consuming for the implementing partner to effectively align interventions with ICCN priorities. This, it was argued, creates additional management overhead and reduces the potential for optimal levels of cooperation.

The Evaluation Team established that some of the Landscape managers have failed to transfer the financial fundamentals of the pilot alternative livelihoods projects that they support to the farmers, (e.g., operating costs, returns on investment) which would shape prospects for sustainability. This is a function of ownership—a farmer using her own capital would have a very good idea of the expected return on investment. This suggests that the alternative livelihoods programs may not be cost effective even when otherwise functional.

The Lac Tumba fisheries program on the other hand had limited external inputs, and developed its own governance structures. It appears to be well on its way to being self-financing and sustainable, and its lessons for resource governance are transferrable to other Landscapes.

The difference between these examples is that the Lac Tumba fishermen had skin in the game; they were committing their own resources rather than playing with other people's money. Beneficiaries of free money lack the incentives to sustain the activities if they do not internalize the loss if an investment does not produce results. By the same token, they would be unlikely to participate in alternative livelihood schemes that they did not believe would work. A missing element is the role of the private sector.

Collaboration between CAFEC and EMAPS projects can be substantially improved. EMAPS work plans and activities are not planned in coordination with CAFEC activities. Despite their having some common IPs (WCS, AWF), aside from periodic meetings between Chiefs of Party for the IPs, many opportunities for the two components to have better strategic coordination are missed. The main implementers of EMAPS activities include:

1. OSFAC, providing forest monitoring data.
2. USFS supporting the development fire management studies in the Bateke plateau and LTLT Landscapes.
3. WRI and partners implementing policy support, informational tools and capacity development at the ministerial level.

In the case of SCAEMPS, the Evaluation Team attributes poor field engagement to several factors. First, project start-up was slow, with inadequate staffing in Kinshasa, leading to delays in implementation. Second, the SCAEMPS work plan and budget did not adequately account for the need for site visits to CAFEC Landscapes.

A third factor is that in the DRC, SCAEMPS is working with the MENCT to develop implementing regulations for the Community Forestry Decree. Once this work is completed, there will be strong demand for technical assistance from SCAEMPS for Landscapes in the DRC to facilitate the successful application of their community-based conservation programs. It is therefore premature to conclude that current weakness in collaboration is indicative of poor performance overall in this case.

Collaboration between CAFEC Landscapes is also weak. While IP Chiefs of Party meet monthly with the CARPE management team, Landscape leaders and other specialists across the eight Landscapes only meet once or twice annually. On the other hand, collaboration within CAFEC Landscapes is an important achievement of CARPE III, producing strong synergies and bringing out the best of many Landscape partners.

Cross-Landscape learning is a problem in the region due to the high cost of travel and poor communications. Options are limited. The growing presence of mobile network operators, however, does mean that many personnel have at least some connectivity. The health sector has been particularly adept in exploiting technology to improve communication among dispersed health workers, and may have solutions that are relevant to CARPE. The USAID mSTAR program, implemented by FHI 360, has developed new mobile and digital technology that specifically supports USAID in building partnerships to create enabling policies and regulations, develop new business models and provide relevant local content that makes mobile technology accessible to underserved populations.

6.4 Sustainability

There are examples of community-managed conservation in regions not supported by CARPE, but which could provide useful insights. CARPE staff needs to recognize that there are, formally recognized protected areas in the DRC co-managed by community organizations such as *Vie Sauvage*, led by Albert Lokasola. Dr. Lokasola has been involved in community-managed conservation areas in the MLW Landscape for a decade, yet efforts such as his have been systematically ignored. CARPE IPs need to reach out to organizations in their area as well as other IPs.

Informants among IP professional staff do not fully grasp the nuances of effective, systemic capacity development (as defined by USAID) beyond equipment procurement for alternative livelihoods and workshops. Capacity building has not yet translated into governance. This was surprising, and suggests a weakness in the orientation of IPs in both governance and livelihood development; two key factors for the successful outcome of CARPE III.

Financial and Institutional Sustainability

Sustainability is the greatest challenge for CARPE and every other development program in the region. CARPE interventions are compromised by (i) continued inadequate capacity of State institutions, (ii) lack of progress in modifying agricultural practices, and (iii) poor understanding of the conceptual and cultural challenges to the alternative livelihood model.

Emergent self-organizing behavior consistent with project goals is a strong indicator of sustainability post-project. Outside of the protected area agencies, there is too little evidence of

such behavior. However, 64.7 percent of IP survey respondents were optimistic that CARPE would have lasting impacts (MD = 37.0 percent). Some reported seeing increases in community motivation to conserve forests. The most common recommendations to improve CARPE's long-term impacts were to improve the collaboration between stakeholders, and to continue and even increase funding.

The concept of sustainability was not well understood by survey respondents overall. IP representatives had the best understating of the concept. Twenty-five (25.0) percent of professional staff among IPs thought that the CARPE would not be sustainable after funding was withdrawn. Fifty-eight point three (58.3) percent indicated that the measures taken would be somewhat sustainable, provided there was additional investment by USAID or other donors. Sixteen point seven (16.7) percent felt that measures would be sustainable in the short-term.

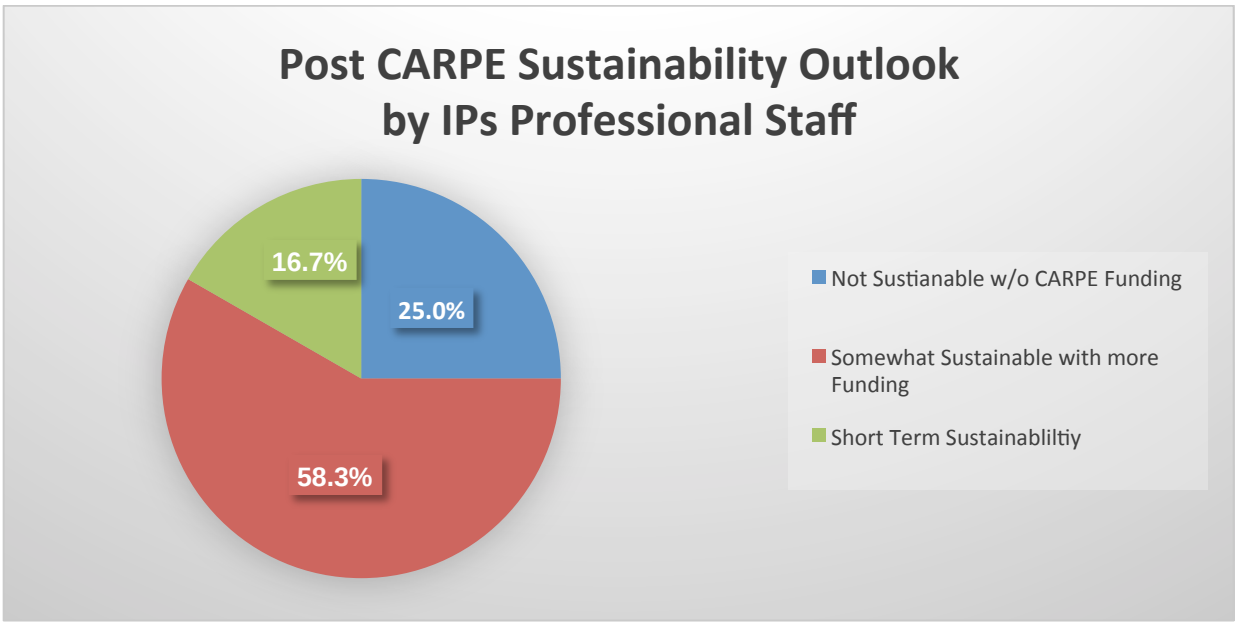

Figure 3

No respondents felt that the interventions were sustainable over the long-term (MD = 11.1 percent). See Figure 5.

Recommendations made by key informants and focus groups to improve sustainability was first and foremost was to continue and increase funding and build capacity of ICCN and other government entities to manage protected areas. Law enforcement respondents noted that there was no defined end point to law enforcement, and that if protected area and law enforcement activities could not be sustained, the community would return to bush meat hunting and poaching would continue. For them, the prospect of continuation post-CARPE is a function of the availability of financial resources. This is why IPs are working in several Landscapes towards the establishment of public/private partnerships to support protected area management.

Among local Landscape partners interviewed, 39.4 percent of respondents indicated that CARPE would have lasting impacts (MD = 37.0 percent). However, in recommendations for

more lasting impacts, continuation of support for activities, including funding was commonly, discussed (with only one mention of self-financing, through tourism).

The difficulty in scaling up activities was identified as an impediment to sustainability. Several respondents also thought that sustainability would not be achievable unless the government took over management of CARPE activities.

Social Sustainability

Social sustainability speaks to buy-in and a willingness to continue enterprises initiated under CARPE. Civil society organizations cited the late provision of funds and unfulfilled promises as CARPE's most common shortcomings (also mentioned was an inability to meet all the needs of local populations, and unequal distribution of benefits). Poor follow-up and monitoring of activities to ensure continuity was also noted. This indicates skepticism by local communities in regard to CARPE's approach.

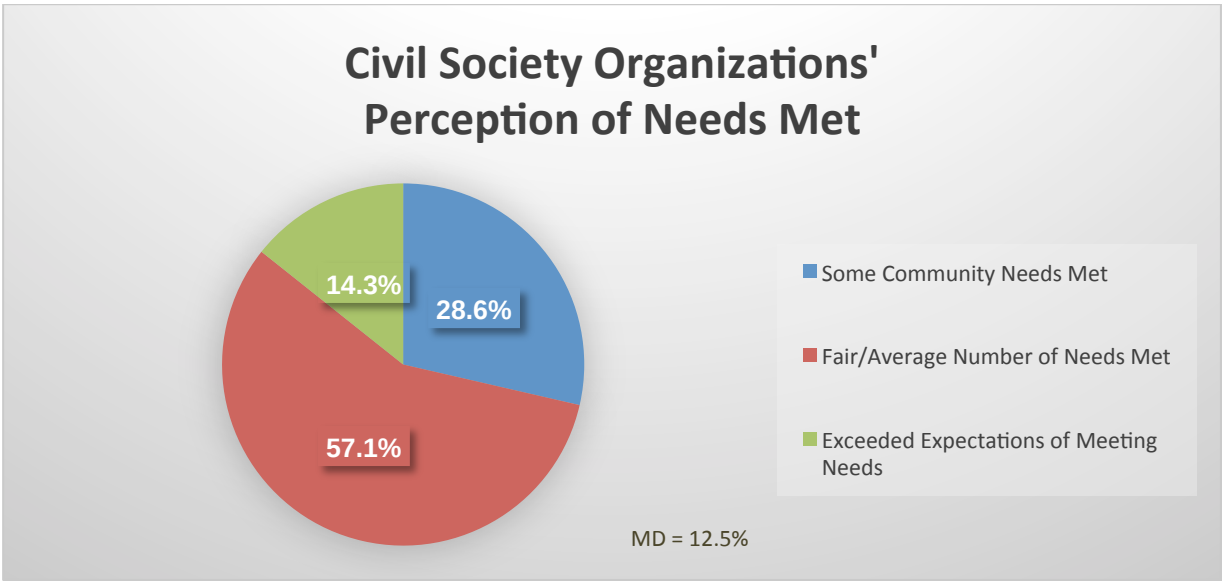

Figure 4

CARPE's most common cited strengths by civil society were its participatory approach, the IP's role as mediator between community and government institutions, and (in one Landscape) the choice to support cacao. Another strength mentioned was the technical competence of staff.

No civil society respondents felt that the program completely failed to address community needs. Twenty-eight point six (28.6) percent felt that CARPE met at least some community needs, 57.1 percent a fair/average number of needs, and 14.3 percent reported that it exceeded expectations in meeting communities' needs (MD = 12.5 percent). See Figure 6.

Fifteen point four (15.4) percent reported that CARPE's implementation was poor, 69.2 percent that it was average, while 15.4 percent considered CARPE's implementation excellent (MD = 18.8 percent). See Figure 7.

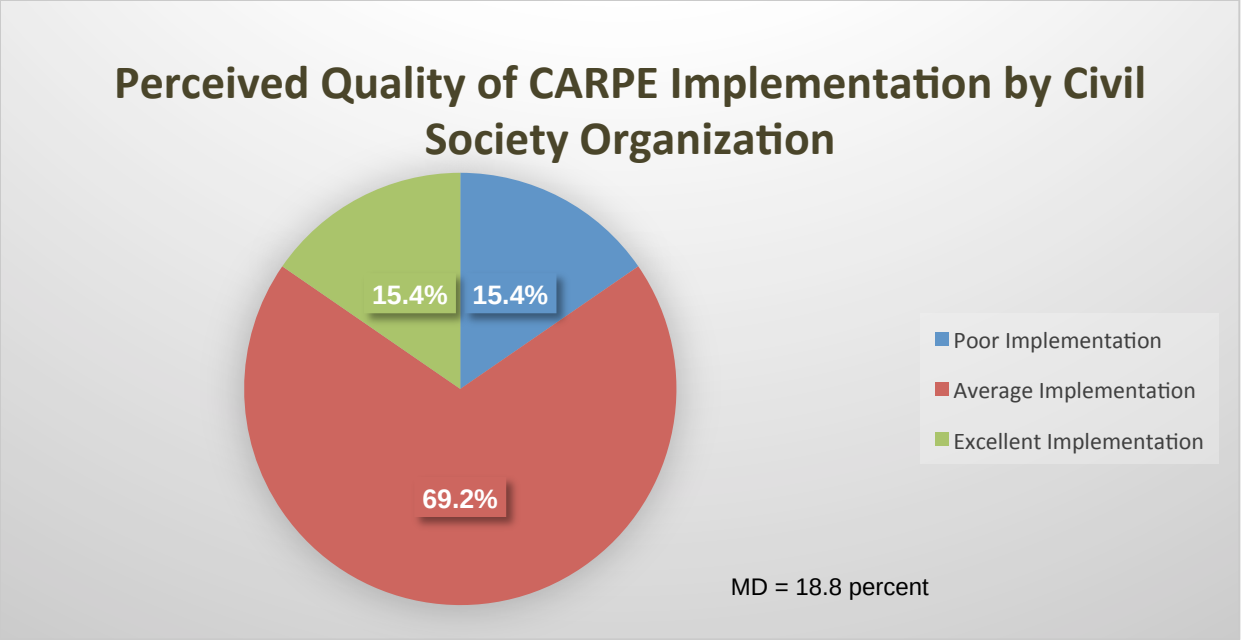

Figure 5

CSOs, local Landscape partners, and IPs were all brought up the failure to effectively engage youth in CARPE's work through job opportunities and specialized activities.

Review of Sustainability by Strategy

Strategy 1: Strengthen protected area management capacity. CAFEC partners work closely with their state counterparts to improve management capacity. This partnership is showing results in terms of better monitoring, data collection and analysis, and in improved techniques, i.e., combating poaching and wildlife trafficking in the TNS Landscape. CAFEC partners are also providing important technical assistance in biomonitoring and boundary demarcation, i.e., work undertaken in Virunga NP under WWF leadership.

The main constraints to protected area management cited by informants included security issues and lack of government support (buy-in, effective legislative frameworks, and jurisdictional issues). Community conflicts (ranging from low-level tensions to full-fledged violent confrontation) with protected area management authorities were frequently identified as an impediment to long-term sustainability.

Ninety-five point seven (95.7) percent of IP representatives surveyed said protected area management had improved as a result of CARPE (MD = 14.8 percent). The main improvement cited was an increase in patrol coverage of park leading to decreases in poaching (and subsequent rebound of wildlife populations). The resolution of park boundary conflicts by the IPs also increased acceptance of conservation by communities.

IPs report that they use a consistent, logical, stepwise process of assessment of management capacity, i.e., through the Management Effectiveness Tracking Tool developed by WWF and the World Bank. This tool includes using a scorecard that helps identify trends in management, including self-organizing behavior independent from donor direction. The Evaluation Team encountered no scorecard results or other evidence of such use in the field, including in discussions of adaptive management strategies.

In the absence of support from USAID, ICCN is unlikely to be able to sustain progress and other key donors such as KfW. The donor presence has had a perverse effect on financial sustainability. The greater the donor support, the weaker State's budgetary support of the management authority. This was particularly in evidence in the State budget allocation for ICCN in the DRC (Pastor Cosma Wilungula Balongelwa, Director General, ICCN, pers. comm.). In response, several donors, including CAFEC implementing partners, plan to create a public/private partnership (PPP) to which the State can delegate the management of a protected area. The PPP mechanism is in development for Nouabalé-Ndoki and Salonga NPs, is in an advanced state of development for the TNS Landscape, and is an accomplished fact for Virunga NP.

The experience of Virunga is instructive for all involved in the development alternative management mechanisms for protected areas in the Congo Basin. Their experience shows not only the advantages, but also some critical disadvantages of the approach, which IPs should ignore at their own peril. Virunga NP is supported by a PPP with the Virunga Foundation, which has very strong international donor support (including the European Union and the Howard G. Buffett Foundation). The Virunga Foundation has created Virunga Energy with this support. They plan to build a hydroelectric generation facility, the revenues of which are intended to support the Park in perpetuity, as well as provide a contribution to the general operations of ICCN. The main motivation for the construction of the hydropower facility is the need to reduce the dependence on charcoal for the nearly one million people living in nearby Goma. In addition, the availability of clean energy will attract investment, for example, private investment for a soap factory that will use locally produced palm oil, and a papaya enzyme factory.

Management of this PPP is largely concentrated in the Chief Warden of Virunga NP, who is answerable to the Director General of the ICCN and the board of the Virunga Foundation. The Virunga Foundation has displayed little interest in cooperation with other actors in the Landscape. Notably, the Chief Warden has not convened a *Comité de Coordination de Suivi du Site* (COCOSI) since CARPE III was initiated. The COCOSI is the coordinating committee for local and international conservation partners convened by the Chief Warden of each protected area in the DRC. Interactions between the Virunga Foundation and the CAFEC local Landscape partners can best be described as lukewarm, according to interviews with program managers. The fact that the Virunga Foundation is well-funded paradoxically appears to have led to a "go-it-alone" approach to conservation.

The Evaluation Team was not able to meet with the Chief Warden or Foundation representatives at Virunga despite multiple attempts. We did meet with an individual familiar with the process whose identity will not be disclosed, who confirmed that the program is uncooperative with other actors and not accountable to the ICCN.

The Virunga experience demonstrates that too much independence can also sever interdependencies that should be encouraged between a protected area and the surrounding Landscape, resulting in a lack of accountability to local institutions and alienation from those communities. A protected area cannot be run like a principality.

Much of the work undertaken by IPs to improve protected area management occurs in the periphery, through threat abatement work with communities. In addition to sustainable livelihoods, is the creation of community-managed areas within the Landscapes to reduce threats and provide connectivity between core protected areas. For example, on the eastern side of the Virunga Landscape, at the periphery of Volcanoes National Park, Virunga Landscape partner, the International Gorilla Conservation Program (IGCP), is working closely with the

protected area management as well as with a range of government agencies to promote development and sustainable livelihoods in the park. This is important because Volcanoes' borders have been redrawn multiple times to respond to successive waves of colonization, usually associated with periods of political instability, as threatened populations sought refuge the forest. From 34,000 ha in 1960, its area has been reduced by more than 50 percent to 16,000 ha (UNEP, 2011).

Because the strong and authoritative central government in Rwanda supports sustainable development and economic growth through tourism, coordination between agencies, donors, and communities is assured. With this backing, the IGCP has established a range of income-generating activities plus sustainable and use practices that have been embraced at the state and community levels. While the sustainability of these efforts is dependent upon continued backing from the government of Rwanda, there is little to indicate that a dramatic change of policy or of government is probable for the foreseeable future.

There are important lessons from both top-down and bottom-up approaches that will be discussed in Lessons Learned below.

Strategy 2. Land use planning implementation. At the present, the prospects of sustainability are low, for reasons discussed above. Much could change by the conclusion of the program if there is sufficient time to implement the Community Forestry Decree and establish the system and structures necessary to advance community forest concessions. CARPE partners will need to track developments in community forest concessions carefully and respond to new needs and challenges with creativity and flexibility.

Strategy 3. Enhance enforcement and prosecution. In Rwanda, enforcement in protected areas is the responsibility of the military. In the DRC, the ICCN is itself a paramilitary institute of the MENCT. In each case, the strong assertion of the States' rights (and to a significant degree, the role of international NGOs) in management alienates the protected area communities. This is a problem to sustainability because biodiversity conservation, to be effective, must work at Landscape scale; target species seldom remain within protected areas. Conflicts between humans and wildlife (for example, raids on crops) are growing, and communities increasingly assign responsibility for loss to the protected area and the State. The Evaluation Team identified a tendency on the part of communities to characterize their hunting, even if illegal, as warranted in the interests of self-protection. It is clear that human-wildlife conflicts are a barrier to cohabitation.

The significant progress observed in the ROC's Nouabalé-Ndoki National Park is scalable and may be sustainable if CWT skills can be transferred to other management authorities before the conclusion of CARPE III. Measurable results are possible with little money, using social awareness and situational law enforcement techniques.

In the Ituri Landscape, the Army of the DRC (FARDC) has established a military tribunal to try crimes committed with the use of military weapons such as assault rifles. Such crimes fall under the jurisdiction of the Army in the DRC. The commitment of the military will advance a sustained enforcement and prosecution effort in a country where the court system is administratively weak and poorly funded. In the DRC, the high costs of successful prosecution are a serious constraint to effective enforcement of wildlife laws. The Evaluation Team estimated that the costs of transportation of a prisoner apprehended in Salonga NP to the nearest Parquet (public prosecutor's office) plus court costs can exceed $US 10,000. This is clearly not sustainable.

Strategy 4. Promote sustainable agriculture, energy and livelihood alternatives as substitutes for unsustainable practices. The prospects for the sustainability of intervention in agriculture, energy, and livelihood alternatives are extremely low. Even if the interventions were sustained, in most cases, they are unlikely to scale sufficiently to have an impact. Initiatives promoted by CARPE are not sustainable because of erroneous assumptions about markets, costs of production, and local demand. Once funding stops, most initiatives will cease and their messages will be forgotten.

Strategy 5. Promote ecologically sustainable artisanal harvest of natural resources. In the LTLT Landscape, self-organization takes a contrasting form. Here, in the Lac Tele component of the Landscape, in the Republic of Congo, communities have, with support from WCS, begun taking control of the resources apparently overlooked by the State during the authoritarian Marxist-Leninist period, which are aquatic resources. Communities are forming voluntary compacts through which a fisheries code of conduct aims to ensure sustainability of the fisheries resources. Because these agreements are self-generated, and not imposed externally, they are less tightly coupled to project support, and could persist after the project is over.

Also in Lac Tele, work on more energy efficient ovens for fish processing has addressed several local needs and the prospects for uptake are strong. These ovens reduce the costs of production (for example, less fuelwood), and improve the taste, texture, and quality of the product. There is demand for this fish in urban markets. In this case, the combination of reduced effort and increased revenue strongly supports the prospects for spontaneous uptake. When combined with the improved resource governance described above, the potential for sustainability is increased. WCS is documenting the fish catch, and establishing a baseline to better understand the effects of improvements in production on the stock.

Strategy 6. Facilitate access to family planning and health services in communities where health sector partners are active. Promoting access to family planning as practiced in the CARPE III Landscapes is an externally imposed approach that does not do an adequate job of trying to understand the cultural context in which behavior change is being promoted. Without a more sophisticated understanding of family and reproductive strategies and decision-making processes in the targeted communities, there is no chance that this will be sustained. It may take a generation before it is possible to evaluate the success or failure of this strategy.

Strategy 7. Reduce impacts of industrial-scale production and extraction (mining, logging) by promoting best management practices. The WCS had already worked for many years prior to CARPE III on promoting best management practices in the TNS Landscape. CIB, the logging concession holder in TNS, remains committed to best management practices, as are others. *Société de Développement Forestier* (SODEFOR) and *Compagnie de Transport et d'Exploitation Forestière* (COTREFOR) in the DRC have also expressed a commitment to sustainable forest management. Economic pressures, however, mean that margins on forest products are low, and the sustainability of the firms that have adopted best management practices is not guaranteed. In other Landscapes, there has been little interest of implementing best management practices on the part of the concession-holders who are now active in production.

Strategy 8. Promote tourism and REDD+ financing mechanisms as payments for ecosystem services. Tourism, particularly great ape based tourism, has strong attraction and potential. However, security, an issue beyond the control of the CARPE IPs, is the determinant of sustainability in the eastern DRC. In the dynamic political environment of the DRC, security is impossible to predict.

In the Cuvette Centrale (MLW, Salonga, and Lac Tumba component of LTLT Landscape, inaccessibility and the high cost of transportation is a barrier to most tourism for the foreseeable future. The only prospects are adventure travel and high-end travel. The Evaluation Team found no evidence of plans to advance either strategy. Benefit-sharing mechanisms were absent from any of the accessible great ape sites (gorilla sites in TNS, Virunga, and Maiko-Tayna-Kahuzi Biéga).

One of the most important challenges to marketable carbon credits in CARPE Landscapes is that they do not, for the most part, coincide with the highest emission regions required by REDD+. There is limited emissions reduction potential in the near term across the majority of the Landscapes, making the credits from REDD+ less valuable than those from areas with a high rate of deforestation. Paradoxically, the potential for REDD+ is therefore in inverse proportion to success in avoiding deforestation.

Sustainability of Institutions that CARPE Strengthens

According to the CAFEC and EMAPS project appraisal documents, CARPE is intended to focus on enhancing the capacity of the institutions with the greatest potential impact on biodiversity and forest conservation such as the Ministry of the Environment, Nature Conservation and Tourism (MENCT) in DRC, the Ministry of Sustainable Development, Forest Economy, and Environment (MDDEFE) in ROC, the ICCN, the National Coordination–Reduction of Emissions from Deforestation and Forest Degradation (NC–REDD+), COMIFAC, OSFAC, and *Conférence sur les Ecosystèmes de Forêts Denses et Humides d'Afrique Centrale* (CEFDHAC).

MENCT, primarily supported by SCAEMPS, is a unit under the Forestry Department that will be responsible for implementation of the Community Forest Decree. SCAEMPS appears to be on track to develop a decision–support system for the use of this unit. But, the larger issues of staffing levels adequate to provide oversight and technical assistance have not been addressed. Ongoing donor support for this unit will be essential to capture the benefits for biodiversity conservation and greenhouse gas emissions reductions post CARPE III.

OSFAC, likewise, has developed into a leading institution for remote sensing, GIS technology, and forest monitoring capabilities in the Congo Basin, but the capacity within DIAF, the government agency, is essential for long-term sustainability for forest monitoring capabilities in DRC. The contributions of CARPE to build OSFAC's capabilities have been critical, and a key source of information and capacity for developing the REDD+ system in DRC and ROC.

National REDD+ Coordination (CN-REDD) is supported by other donors and CARPE is not strongly involved in its development. CARPE, through SCAEMPS, NASA and OSFAC, do provide critical forest monitoring data necessary for effective implementation of a national REDD+ strategy, including baseline data.

CARPE III was also to identify other regional and national NGOs and local CBOs where specific organizational support will be provided. A CARPE-wide systematic assessment is not in evidence, but each of the CAFEC Landscapes and EMAPS activities did develop its own relationships. The small grants program in support of CEFDHAC subsidiaries was not continued under CARPE III, and there is little evidence that they were given much continued attention or support. This was raised several times in interviews as a missed opportunity to support important work underway through this intergovernmental body.

The institutions that CARPE III is most concerned with strengthening are the implementing partners themselves. This may be appropriate for an assistance agreement where the continued presence of the IPs is a bulwark against resource degradation.

There is a mixed record in terms of support for local NGOs under CARPE. The environmental law NGO, Juristrale provided important services for combating wildlife trafficking and poaching (CWT) in the Virunga and LTLT Landscapes with some direct support from CARPE. In the Maiko-Tayna-Kahuzi Biéga Landscape, the IPs encountered significant challenges in working with local NGOs. Landscape partner UGADEC's funds were frozen after irregularities were encountered in its operations. UGADEC is now in a probationary period, and will not be reinstated unless landmarks in management reform are achieved. This is problematic because UGADEC is to lead the development of the community based conservation efforts that may be eligible for certification as community forest concessions. Should UGADEC be debarred, it will have to be replaced, and until this happens it will severely limit the Landscape's ability to meet community conservation goals.

In other DRC Landscapes, there is no analogue to UGADEC; IPs have a long-term commitment to the Landscapes where they work, and work directly with community groups to realize the opportunities that are provided through the community forest decree. The commitment of the IPs to the Landscapes is laudable. However, the provision of technical assistance and support to community-based conservation efforts by local institutions may prove to be more robust over the long-term, especially in light of the politically dynamic environment of the region.

6.5 General findings from CARPE National Partners

Awareness and support of CARPE among partners, as identified through key informants and focus groups, is an indicator of institutional strength. Experiences with CARPE among national partners were generally average. Two respondents (4.2 percent) had never heard of the program. Thirty-one point three (31.3) percent had a generally negative view of it, 50.0 percent reported an average experience, and 14.6 percent were genuinely impressed by the program. Missing data (MD) = 2.0 percent. See figure 8.

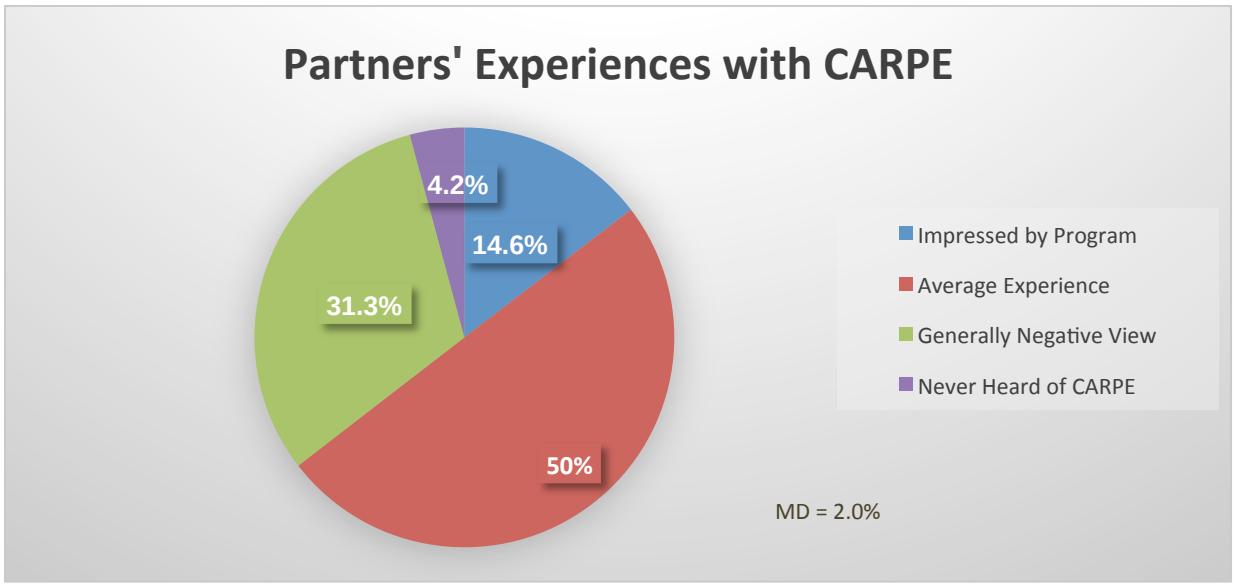

Figure 6

Among civil society organizations, experiences with CARPE were also generally average (figure 9). There were no respondents who had not heard of the CARPE or some element of it. Six point seven (6.7) percent had a generally negative view of the program, 66.7 percent reported an average experience, and 26.7 percent were genuinely impressed by the program (Missing data (MD) = 6.3 percent).

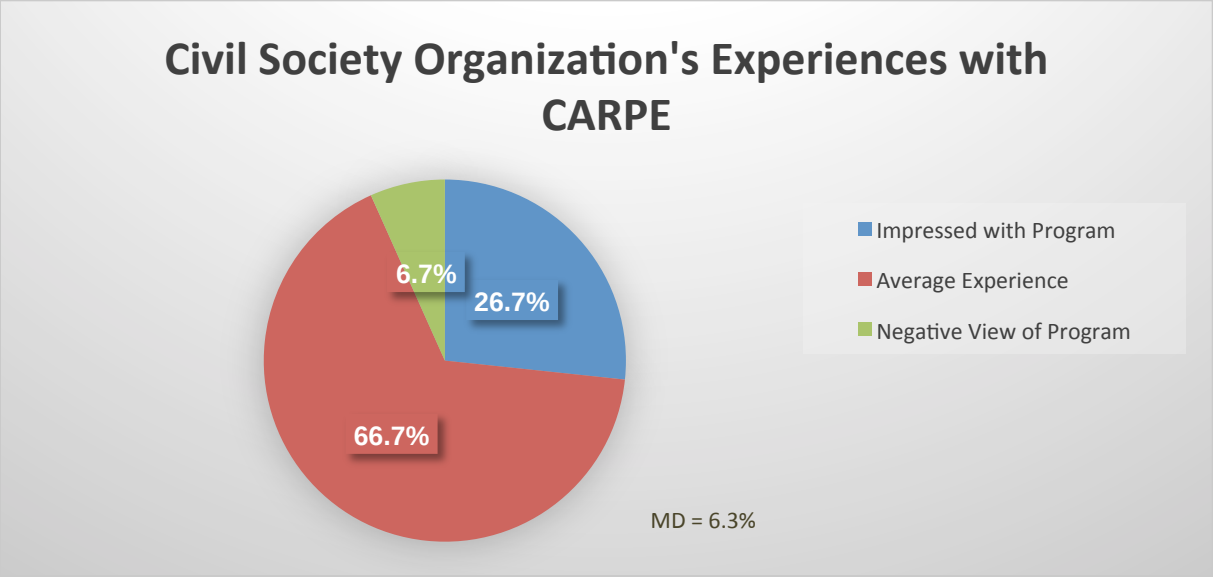

Figure 7

CARPE's most common strengths cited were its participatory approach, how it has built up ICCN's capacity, how conservation efforts are allied with development, and how it has provided much needed strategies (including data centralization and patrol structure/strategy) and equipment for anti-poaching efforts.

Common weaknesses cited by partners, other than late arrival of funds, was sporadic nature of training (meaning activities are interrupted), inadequate explanation of laws to communities, poor communication between IPs, CARPE, and local partners, and CARPE's inability to meet all the communities' expectations.

Suggestions by survey participants to improve protected area management centered on reinforcement and expansion activities across the board, increased funding, and there was some discussion of improving communication between protected area managers, IPs, and communities. There was also regular mention of need for better transportation to provide access by the IPs to remote areas, including additional vehicles.

7. CONCLUSIONS

The nations of the Congo Basin are in the process of rebuilding and have oriented conservation and development in ways that are not always optimal. Both the IPs and the communities can be resilient and creative.

It is important to recognize that, even at the heart of apparently anarchical situations, there is always social organization. In the Congo Basin, social organizations generally take the form of kinship communities, trading networks, and non-state organizations. CARPE needs to take these assets into account.

The IPs of CARPE III are doing things right, but not necessarily doing the right things. Specifically, CARPE is not adapting with sufficient agility to emerging threats, and not pivoting rapidly enough to take full advantage of opportunities to extend Landscape-level protection using the Community Forestry Decree in the DRC. IPs need to employ a coherent strategy to the adoption of alternative livelihoods to reduce pressure on the resources of concern. They should focus on improved governance at the community level, and improving land and resource rights, because open access to resources is central to the issue of sustainable use of natural resources.

CARPE provides a solid foundation for most objectives. Although not designed to provide a control for impact evaluation, there is enough evidence to suggest that the biodiversity of the region would be worse, perhaps much worse, if CARPE III had not existed. It is difficult to tell, since there isn't a complete baseline or controls against which to compare.

If a community forest concession strategy can be implemented that assigns resource rights, that will help slow and ultimately prevent large-scale land use change within the CARPE Landscapes in the DRC.

CARPE III design suffers from many false assumptions. The one of most concerning is that alternative livelihoods will by default substitute for current resource uses. Although many people in CARPE recognize the flaws in the assumptions, the program continues to expend resources, suggesting that there is inadequate learning and adaptive management.

Partnerships within the Landscape promote coherence, but the Landscape approach itself is stronger in theory than it is in practice. Conceptualization of the approach is incomplete from a social science perspective. To date, CARPE III does not display strong commitment to community-managed areas.

The success or failure of CARPE's work is contingent on establishing relations of trust. As hard as CARPE IPs have worked to establish these relationships, they are limited by their inadequate social understanding, improvement to which will benefit them greatly. This extends also to CARPE III's approach to gender and to indigenous communities, where performance was lackluster.

CARPE has variable, usually poor, engagement with some State actors in the Landscape. IPs have not successfully managed the conflictual relations between protected area management authorities and communities who see them as an obstacle to their livelihood strategies. Likewise, IPs have not done a good job of dealing with diverging perceptions of legality and illegality when it comes to resource use.

8. LESSONS LEARNED

CARPE's unusual temporal and spatial scales reflect the complexities of its task; the low level of knowledge of long-term ecological processes, associated social dimensions within the region, and the necessity of data to document and analyze change. CARPE is a long-term sustained effort at monitoring, acting, evaluating, and learning about how to sustain biodiversity and ecological processes in a globally significant resource.

Through CARPE, important lessons have been learned about how to achieve, and how not to achieve, results in biodiversity conservation. These valuable lessons include the following:

1. Community opinions matter. It is important to get the partnerships with local entities right. This requires a multidisciplinary approach from a range of social scientists, physical scientists, biologists, and the full range of local actors. CAFEC managers need to keep informed of innovations in a range of disciplines. The evaluation found that IPs were often unaware of innovation happening within the DRC, including particularly in community co-management of natural resources, where CARPE funding was not involved.
2. Social understanding is a core component of conservation program design. CARPE still has a way to go in incorporating social understanding into the planning process. The imbalance between conservation biology and social science mental models can be a barrier to achieving goals. Gender issues appear to be an afterthought to satisfy a requirement. Yet, women are key actors in resource use and in solutions to resource degradation. CARPE has substantially improved the knowledge of ecological processes and the status of species in the regions. Still, it is the complexities of local institutions for resource rights and allocations, and their central roles in constraining or advancing a conservation agenda still looms as an important step in achieving long-term sustainability.
3. Attention to how stakeholders can and do benefit is critical. As CARPE achieves more, it is increasingly in need of a strategy for identifying benefits and beneficiaries, as well as a rigorous process for testing the strategy's assumptions. Where benefits have become more apparent because of CARPE's interventions, a commonly asked question in community focus group discussions is, "what is the rationale for selecting who benefits from a project input?" Poor beneficiary selection can create rivalries and tensions between local communities. Because CARPE is often the sole development presence in a remote Landscape, it has a high profile, and will increasingly be held to a high standard.
4. Agile management is necessary in a dynamic environment. CARPE needs to recognize and act swiftly to face new challenges and new opportunities. USAID's exacting planning procedures and deliberative decision-making process may not lend itself to agile management. Incentives to innovate can suffer.

5. An implementation strategy should ensure a basic understanding of the costs, risks, and benefits of the innovations being introduced. Economic activities such as agriculture are socially embedded. CARPE's experiences with alternative livelihoods illustrates the importance of making it understood how markets are structured and function, how to gain access to land, labor and inputs; and what recourse producers have to remedy grievances. The adoption of new practices depends upon a strong understanding of initial and long term costs, transaction costs, the ability to mitigate risk, the role of institutions, and the impact of the innovations offered on social and economic, as well as ecological resilience. The complex interplay of factors that goes into a livelihood decision is best addressed through demand-driven approaches. Where CARPE finds the best successes in promoting sustainable livelihoods, demand is already high. This is seen in the adoption of cacao production in Ituri, and in the self-organization of fisheries management in Lac Tele. Supply-driven solutions may attract interest, but real commitment follows demand.

Seen through the multiple lenses of the Evaluation Team, CARPE is revealed to be a large social and behavioral change program designed to modify attitudes and behaviors relating to natural resource use—but overall, the understanding of the problem and conceptualization of solutions is incomplete, especially concerning the approach to alternative livelihoods. Also, the full suite of skills required to achieve the desired results in CARPE are not yet in place. Much could change by the conclusion of CARPE III, if there is sufficient time to implement the Community Forest Decree in the DRC and establish the systems of trust and structures necessary to advance community forest concessions. Agility in responding to this opportunity and a similar push in the ROC may well define the legacy of CARPE III. The timing is critical for a push to capitalize upon the opening provided by this decree in terms of land and resource rights for communities. It may not be possible to fully capitalize upon this by the conclusion of CARPE III but failure to take advantage could represent a missed opportunity for conservation in the region.

This is a complex and time consuming task, which requires commitment beyond five-year project cycles. An important lesson of CARPE is in the value of the long-term commitment being made by USAID and its implementing partners to institute the conditions that will make long-term survival of this globally important resource possible.

9. RECOMMENDATIONS

9.1 Program Performance

Overall, CARPE will benefit from a holistic, systems approach that integrates social considerations. During CARPE III, IPs have opportunities to continue to improve social understanding:

1. Increase the coherence of the approach to alternative livelihoods through a focus on economic growth strategies. For the remainder of CARPE III, IPs should identify what is working and has potential to scale for sustainable livelihoods in the near term, and focus on these activities.
2. Sustain efforts to operationalize the community forest decree in the DRC, and identify the potential in the DRC for community forest concessions to provide a positive impact on biodiversity and low emissions development, i.e., by strengthening resource rights and preventing in-migration, attendant land use/land cover change, and improving ecological connectivity between anchoring protected areas. EMAPS, led by SCAEMPS should continue to receive the full support and backing of CARPE to support the operationalization of the DRCs Community Forestry Decree. Working closely with SCAEMPS, CAFEC should build the capacity at the community level to put forth successful applications for community forest concessions. CARPE can draw upon existing community co-management activities in the region for lessons on what works and what does not work. By the end of CARPE III a clear strategy should be in place for supporting co-management with buy-in from the relevant national authorities and civil society organizations that identify the constraints to adoption, including a critical assessment of land, resource rights, and strategies to address these challenges.
3. Map customary territories in CARPE Landscapes, and develop a more unified, comprehensive approach to indigenous people.

For future programming:

1. Adapt the program plan in each Landscape to the opportunities and constraints of women, and clearly integrate gender issues into monitoring and evaluation plans.
2. Strengthen the capacities of IPs to be comfortable with the concept of gender and ethnicity, and the particular needs of women and indigenous people as drivers of positive change.
3. Develop a more comprehensive strategy to improve social understanding including:
4. Identifying solidarity networks based on the extended family, clan, and tribe that exert power over resource use. For example, it is possible to clarify the role of solidarity networks in the political economy of resource extraction (e.g., the role of the Nande people in mineral and wildlife value chains in the eastern DRC).
5. Engaging with key actors within the region who are not CARPE beneficiaries but which have important experiences and lessons that are highly relevant to CARPE, especially those involved in community-based natural resources management.

6. Undertaking a systematic analysis of gender relations in each Landscape in relation to the governance of natural resources, ecological systems, and attitudes towards conservation. A useful example would be the GirlHub[8] program's work with the SenseMaker research methodology in Rwanda, Nigeria, and Ethiopia.
7. Adapt the program plan in each Landscape to the opportunities and constraints of women, drawing upon the above analysis,
8. Clearly integrate gender issues into monitoring and evaluation,
9. Promote transnational cooperation to combat wildlife trafficking, with financial support, and political will, in partnership with other donors,
10. Invite women to take important roles as peacekeepers in enforcement, building upon positive experiences in the TNS Landscape. This should be reviewed for potential to scale to other Landscapes,
11. Link community awareness-raising and education to specific management outcomes (e.g., in the case of fire management)
12. Strengthen the land and resource use institutions in CARPE, drawing upon the tools and resources of the IPs and USAID, including WRI's LandMark and USAID's E3/Land's tools for community mapping of land rights such as MAST.
13. Implementing partner, WRI, has the skills required for customary land rights mapping, but is heavily focused upon physical, rather than social, geography, and is not yet applying available tools (under SCAEMPS activity with EMAPS) to land rights.
14. The IPs must augment their staffing and knowledge base, or bring in new partners to adapt to the emerging opportunity for successful implementation of the Community Forestry Decree.

9.2 Program Design and Implementation Strategy

I. Review the eight strategies developed in consultation with MI. Refine strategies by integrating emerging opportunities, and eliminating strategies with little possibility of a lasting impact.

2. Investment in strengthening local associations and civil society organizations—especially those with real support for women—should be an ongoing priority in the framework of governance initiatives. Environmental governance (meaning the ways power over nature are structured) needs to consider the wide array of stakeholders who have varying (and often conflicting) claims to this biodiversity wealth.

3. A stakeholder analysis of who has the right to do what with natural resources is a necessary pathway to improved resource governance.

4. For future alternative livelihood activities, it is recommended that USAID undertake an Agriculture Commercial Legal and Institutional Reform (AgCLIR) diagnostic and a

[8] GirlHub is a joint program of the United Kingdom's Department for International Development and the Nike Foundation. Information is available at www.wikigender.org/wiki/girl-hub/. Information on SenseMaker is available at http://www.sensemaker-suite.com/

market/value chain analysis to identify key barriers and a roadmap for development of product value chains.

5. Intensive production can be located in areas with strong market demand, as previously recommended in the PROLAND report (USAID 2016b).

6. The Evaluation Team observed important missed opportunities for other US government investments to leverage CARPE's investment (e.g., to link land rights, demobilization of armed bands occupying protected areas, and the State Department's Security Sector Reform program; alternative livelihoods and the Feed the Future Initiative). CARPE should continue to identify and communicate the opportunities for synergies to USAID/Africa Bureau, USAID/Kinshasa, and the Department of State.

9.3 Program Management and Coordination

1. Streamline management processes on USAID's side, and institutionalize continuous learning and adaptation on the part of the IPs, to improve agility and maximize efficiency in CARPE.
2. Create a strong management environment for collaborative learning and adaptation that optimizes learning and adaptive management in each landscape through participatory approaches.
3. To the extent possible—recognizing limitations of geographical focus, earmarks, and limitations of funding—harmonize CARPE and USAID/Kinshasa objectives. Capture opportunities now being missed, and integrate USAID and USG objectives in key Landscapes. Through improved communication and forward planning, find synergies in:
4. Disarmament, demobilization and reintegration activities for rebel groups in protected areas of the eastern DRC,
5. Food security, including Feed the Future investments, linked with alternative livelihoods, and alternative protein sources.
6. Reassess the potential for impact within each Landscape, and make appropriate adjustments in work plans.
7. Review siting of offices, with a view to ensuring that project offices are located within two hours of the project area (where security permits).
8. For EMAPS, SCAEMPS should visit each CARPE Landscape at least twice a year if at all possible for consultations and technology transfer.
9. In capacity building, IPs can draw upon USAID's human and institutional capacity development approach, and local systems framework approach.

9.4 Sustainability

1. Scale up the ICGP Community Profile methodology for prioritization of interventions at the community level, and build the capacity of the IPs to implement this approach.

2. Take a critical look at proposed public/private partnerships for protected area management to clarify risks and opportunities, and encourage IPs to develop an effective strategy for the use of such mechanisms that includes benefit-sharing mechanisms for communities.

10. THE FUTURE OF CARPE

CARPE is a major contribution to biodiversity conservation and potentially a major contribution to low-emissions development, as such, it is a USAID success story that should continue.

Despite achieving significant results, the systems for land management and governance, wildlife management, and rule of law are not yet fully sustainable. The changes required to protect the Congo Basin resources require a long-term commitment. USAID is justified in being proud of its foresight by taking an exceptionally long-term view of conservation and forest management in the Congo Basin. This commitment should continue. Withdrawal of support from CARPE after CARPE III would be premature, and would put over $200 million in investments at risk, as well as substantial biodiversity and forest resources of global significance. For the future, CARPE should consider the following:

Going forward, CARPE should improve the balance between environmental NGOs and organizations having culture and economic growth skill sets. CARPE should not be confined to only the domain of those NGOs that have, to their credit, worked hard to ensure support for this program. CARPE will require a set of partners capable of building upon the successes achieved so far. There is a need for social scientists working with cultural sensitivity methods, and partners who can help IPs effectively promote sustainable livelihood schemes. There is a need for better business planning, market development, risk assessment, and financial management among the local population. This means new faces with new ideas to institutionalize CARPE's objectives. For example, energy is a critical, underdeveloped necessity; in order to disrupt the political charcoal economy, and introduce substitute urban energy sources, the economy of charcoal production in the East and population centers must be better understood. The blind pursuit of alternative sources of wood should yield to a new strategy to counter the demand for wood. This is easier said than done, and may be best achieved through parallel programming by USAID/Kinshasa, e.g., through engagement with Power Africa.

The keys to addressing illegal mineral exploitation lie in understanding the chain of custody of minerals (which has a cultural [tribal] dimension), and securing land rights and tenure for communities and for miners. Improved social understanding may help to provide better tools for mitigating this threat in the future.

The next generation of CARPE needs to anticipate changes to the Congo Basin's status as a high forest/low deforestation region before it happens, as it inevitably will. A vision for how to address the new reality will be essential to the ongoing success of CARPE.

Renewed attempts to address sustainable livelihoods should involve a comprehensive assessment of the enabling environment for production, including agricultural policies, value chains, markets, and institutional architecture. Implementing partners should bring expertise in development innovation and scaling to the table, and be better prepared to identify opportunities for success and mechanisms for operationalizing those opportunities. As part of the planning process for future iterations of CARPE, joint fact-finding missions and other planning between CARPE and USAID/DRC, the US Fish and Wildlife Service, the Department of State, and the Department of Defense should be considered.

In summary, based upon the lessons learned in the CARPE experience, the future iteration of CARPE could look considerably different than CARPE does today. The IPs should bring important new opportunities, technological advances, new skills in poverty alleviation, economic growth, social understanding, and behavior change dynamics.

ANNEXES

Annex I: Evaluation Statement of Work

SECTION C -DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK

I. INTRODUCTION

As the third phase of the Central Africa Regional Program for the Environment (CARPE III) is halfway through its five-year implementation, USAID intends to conduct a mid-term evaluation. This evaluation will focus on: (1) program performance with respect to expected results and objectives; (2) program design and implementation strategy; (3) program management and coordination; (4) the prospect of long-term sustainability; and (5) lessons learned and practical recommendations for performance improvement and strategic planning.

II. OVERVIEW OF CARPE III

Regional Development Cooperation Strategy: In June 2011, USAID approved the Regional Development Cooperation Strategy (RDCS) to support the third phase of CARPE (CARPE III). The goal of this RDCS is to accelerate Central Africa's transition to climate-resilient, low emissions development through its single Development Objective (DO): "The ecological integrity of the humid forest ecosystem of the Congo Basin maintained." In addition to aligning with USAID's Climate Change and Development Strategy and Biodiversity Guidance, the Goal and DO of the RDCS also supports the Congo Basin Forest Partnership's1 objectives to promote economic development, poverty alleviation, improved governance, and natural resources conservation in Central Africa. CARPE aims to achieve the DO through four Intermediate Results (IR): (1) Targeted forest Landscapes sustainably managed; (2) Threats to biodiversity in targeted forest Landscapes mitigated; (3) Policy and regulatory environments supporting sustainable forest and biodiversity conservation established; and (4) Capacity to monitor forest cover change, greenhouse gas emissions and biodiversity strengthened.

According to the RDCS, "the causal relationship between the CARPE Goal and the Development Objective is based on the following hypothesis: maintaining a healthy forest ecosystem directly supports the conservation of the Congo Basin's globally important biodiversity, mitigates climate change by stabilizing greenhouse gas emissions from deforestation and forest degradation, improves the livelihoods and food security of forest communities and enhances ecosystems services, which benefit the local, regional and global communities. USAID's experience in conservation has demonstrated that no one approach is successful on its own, especially when the areas to be protected span national boundaries and ecosystems, involving the actions and collaboration of a wide range of stakeholders."

The achievement of the RDCS DO required two distinct but interdependent projects, each with a range of implementing mechanisms: Central Africa Forest Ecosystems Conservation (CAFEC) and Environmental Monitoring and Policy Support (EMAPS). CAFEC focuses on sustainable management of targeted Landscapes (IR1) and mitigation of threats to the biodiversity of targeted forest Landscapes (IR2). EMAPS, through a series of complementary measures, contributes to achieving IR3 and IR4 in promoting national and regional policy and regulatory advances and delivering monitoring tools that inform policy and support forest and biodiversity conservation.

CARPE III's Implementing Mechanisms and Partners: Below are two tables summarizing the names, lead implementers and location of on-going activities under CAFEC and EMAPS.

CAFEC Portfolio: CAFEC includes eight Landscape activities implemented by three international nongovernmental organizations – Wildlife Conservation Society (WCS), World Wildlife Fund (WWF), and African Wildlife Foundation (AWF).

The Sangha Tri-National Landscape is located in the Republic of Congo (RoC), Cameroon and Central African Republic. However, CARPE III's activities are limited to the RoC portion of the Landscape. Conservation International, from October 1, 2013 to August 31, 2015, implemented the Maiko -Tayna -Kahuzi Biéga (MTKB) Landscape program. WCS assumed the lead implementer responsibility for the MTKB Landscape program on September 1, 2015.

EMAPS Portfolio: The intended priority focal areas of EMAPS activities are within RoC and the Democratic Republic of Congo (DRC). When technically and financially feasible, these activities also maintain involvement with regional and national policy coordination bodies and provide assistance with the application of innovative mapping and remote sensing tools developed during CARPE Phase II that support climate change mitigation and biodiversity conservation throughout the Congo Basin.

NORAD Co-Financing for CAFEC: On June 5, 2013 the Norwegian Agency for Development Cooperation (NORAD) signed an agreement with USAID to co-finance CAFEC with a funding of 140,000,000 Norwegian Krone (NOK), equivalent to approximately USD 22 million. This funding is for the first three years, and has been allocated to the budgets of all CARPE Landscape activities except Sangha Tri-National. The use of the NORAD funding is limited to global climate change activities that support the National Reduction of Emissions from Deforestation and Forest Degradation plus conservation, sustainable management of forests and enhancement of forest carbon stocks (REDD+) Framework Strategy in DRC and the REDD+ program in ROC.

External Evaluation of CARPE II: The development of the RDCS was informed by the findings and recommendations of the external evaluation of the CARPE Second Phase (CARPE II) that USAID conducted in 2011 to assess progress against the stated goals and objectives. Major findings of this evaluation include:

The Landscape approach and Landscape-level land use planning was one of CARPE II's greatest achievements, which brought diverse stakeholders together to develop a common vision for their lands and a set of strategies and plans for their realization;

The success of this approach leveraged substantial additional financing from other donors, strengthened the management of protected areas, reduced illegal logging, and increased the area of humid forest under certified forest management plans; and

CARPE succeeded in facilitating international agreements and establishing mechanisms for the collaborative management of trans-boundary Landscapes and protected areas; contributed to a wide range of policy and regulatory reforms; and developed effective remote-sensing-based forest cover change monitoring systems and built conservation capacity.

The evaluation recommended that CARPE be extended to 2020 to:

Continue to focus on forest and biodiversity conservation systems with increased emphasis on implementing local sustainable natural resource management systems

Increase efforts on climate change mitigation by testing field-level systems to avoid deforestation, and building national and regional readiness and capacity to implement REDD+ programs

Assist in forest monitoring and modeling related to climate change; and

Support reasonable allocation of forest carbon revenue that respects the rights of indigenous peoples and local communities.

The evaluation report defined a series of steps USAID could take to more explicitly incorporate and support the evolving global climate change policies surrounding REDD+.

Strategic Planning with Measuring Impact[9]: In collaboration with USAID's Bureau of Economic Growth, Environment and Education (USAID/E3), USAID/CARPE benefited from the services of Measuring Impact (MI) to improve implementing partners' capacity in strategic work planning and monitoring and evaluation during the first 18 months of CARPE III. Through a series of USAID/CARPE partner workshops, MI led a strategic planning exercise that identified eight specific strategies implemented by CARPE partners. For each strategy, MI assisted USAID and CARPE partners to develop theories of change and helped finalize a broad suite of indicators against which to measure progress. MI also worked with USAID and partners to identify proposed evaluation questions for CARPE III's mid-term and particularly, final evaluations). These evaluation questions were used to add to and refine the indicators used by USAID/CARPE, with the intention of ensuring that they would provide sufficient information to answer each of the priority questions.

III. SCOPE OF WORK

A. Purpose

The purpose of this task order is for the contractor to provide evaluation services that focuses on:

Program performance;

Program design and implementation strategy;

Program management and coordination;

The prospect for sustainability; and

Lessons learned and practical recommendations for performance improvement. It is designed to help CARPE management, the Government of Norway and CARPE backstops in Africa Bureau (AFR) and E3 to review and improve major strategic approaches, management systems and allocation of program resources.

CARPE is the largest biodiversity program and one of the largest Sustainable Landscapes (SL) programs within USAID. It is poised to influence major policies and practices of multiple actors in Central Africa. New threats have emerged such as increased ivory poaching and rapid expansion of both small and large-scale extractive industries, with concomitant infrastructure, in and around CARPE Landscapes. Opportunities have also sprung up since the design of CARPE III, notably enabling legislation for in DRC, ongoing investment in REDD+ and global attention to wildlife trafficking that has brought new tools and resources.

Despite increased investment and relative peace, countries in the region, especially DRC, rank near the very bottom of key social and economic indicators. Many of the sites selected by

[9] Measuring Impact (MI) is a support program working for USAID implemented by Environmental Incentives and Foundations of Success to design clear intervention strategies and develop monitoring and evaluation plans.

USAID for biodiversity and climate change interventions are in areas where local communities are most isolated from services and have little voice. USAID conservation and climate change activities in these areas are also intended to convey development and governance benefits. This evaluation will help identify promising actions and opportunities as well as constraints and inefficiencies, and recommend steps for CARPE to accelerate and scale up conservation and climate change mitigation actions for the benefit of the population, central African states and the international community. The guiding principle is that the evaluation should assess the degree to which CARPE is on track to achieve its objectives and recommend modifications that can be made between now and the end of the program to improve its effectiveness.

B. Evaluation Objectives

This mid-term evaluation has the following objectives:

1) To assess the progress toward meeting CARPE III objectives. 2) To assess the continued validity of program strategies, approaches and assumptions. 3) To assess program performance management of USAID and implementing partners. 4) To identify lessons learned and recommend actions for improving performance and broadening impacts based on findings of the assessments above.

C. Evaluation Questions

The evaluation includes questions in the following four major areas:

1) Program performance (disaggregating biodiversity conservation and climate change mitigation)
2) Program design and implementation strategy
3) Program management and coordination
4) Sustainability

Under each major area, a series of questions identify particular aspects of the program's performance to be considered. Evaluators are expected to assess the current status of the program related to each question, identify gaps and bottlenecks and recommend improvements.

1) Program Performance
    a) Biodiversity Conservation: Is CARPE on track to achieve its biodiversity conservation objectives?
        i) How well does CARPE address the identified threats to biodiversity? Are the interventions that focus on livelihood alternatives effective at reducing threats?
        ii) To what extent is CARPE succeeding in building the capacity of local communities to actively participate in biodiversity conservation?
        iii) To what extent is CARPE succeeding in building the capacity of government services and agencies to effectively manage protected areas and combat wildlife poaching and trafficking?
        iv) How effective are CARPE's efforts to influence the policy and regulatory environments for biodiversity conservation?
        v) What is the prospect for the ongoing and planned activities to impact at sufficient scale to measurably mitigate the threats to biodiversity?

b) Climate Change Mitigation: Is CARPE on track to achieve its climate change mitigation objectives?

   i) How well does CARPE address the identified drivers of deforestation and forest degradation? Are the interventions, in particular livelihood alternatives, effective in reducing deforestation and forest degradation?

   ii) There are concerns about the risk of leakage of carbon sequestration benefits that need to be addressed. Do the implementing partners consider leakage when designing implementation? How is the leakage issue addressed?

   iii) To what extent is CARPE succeeding in building the capacity of local communities to actively participate in climate change mitigation?

   iv) To what extent is CARPE succeeding in building the capacity of government institutions at the national and local levels to develop and implement REDD+ strategy and action plans? Are efforts at the national, Landscape, and local levels effectively linked?

   v) How effective are CARPE's efforts to influence the policy and regulatory environments for global climate change?

   vi) What is the prospect for CARPE's ongoing and planned activities to have impact at sufficient scale to measurably reduce deforestation and forest degradation?

c) Gender and Minorities Issues: How well does CARPE address the issues concerning women empowerment, gender integration and indigenous peoples?

   i) How effective is CARPE in promoting women's empowerment and gender equality in its biodiversity conservation and climate change mitigation activities?

   ii) How effective is CARPE in integrating indigenous people in its biodiversity conservation and climate change mitigation activities?

2) Program Design and Implementation Strategy: What are the merits and shortcomings of the CARPE III strategic approach?

   a) Development Hypotheses and Assumptions: How valid are the development hypotheses and the assumptions outlined in the CARPE III RDCS, and the strategic approaches and associated Theories of Changes elaborated by partners with the assistance of the MI team?

   b) Implementation Strategies and Approaches: What evidence exists that the strategic approaches developed for each implementing partner are (or are not) appropriate for effectively and efficiently achieving CARPE III objectives?

3) Program Management and Coordination: How well are CARPE's activities managed and coordinated to achieve the program objectives and results?

   a) Program Management: How effective is the management of CARPE's programs by implementing partners?

      i) Do CARPE's implementing partners have the staff expertise and capacity, particularly at the local level, to design and implement CARPE activities; with an emphasis on management of activities focused on creating livelihood alternatives?

ii) How cost-effective are the management structures of CARPE implementing partners?

b) CAFEC-EMAPS Coordination: How effective is the collaboration between the CAFEC and EMAPS projects, as well as between CAFEC Landscapes, in contributing to the achievement of CARPE's objectives?

4) Sustainability:

a) What have been CARPE's relative strengths and weaknesses in ensuring the financial, social, and institutional sustainability of USAID's investments after CARPE III implementation?

b) Where along a trajectory of sustainability are key institutions that CARPE is strengthening? Will they achieve expected goals by end of project?

D. Evaluation Methodology

Comprehensively review relevant documents and data; develop and review (both peer and USAID) proposed evaluation methodologies, including interview protocols; interview of key informants in USAID, US Forest Service and Fish and Wildlife Service in Washington, D.C. (approximately 2 weeks from award).

Conduct structured interviews with key informants (Kinshasa and Brazzaville) (approximately 2 weeks; divided team)

USAID/CARPE Management team

CARPE III implementing partners

National government representatives (key ministries)

National park authorities

National civil society representatives

Other donor representatives working on biodiversity and climate change

Private sector where appropriate

Academic institutions engaged with CARPE (e.g., University of Kinshasa) that support biodiversity and climate change programs

Representatives of regional structures (*Réseau des Aires Protégées d'Afrique Central* -RAPAC, Central African Forests Commission -COMIFAC, Congo Basin Forest Partnership – CBFP) in Kinshasa[10].

UNREDD Forest Carbon Partnership Facility (FCPF) implementing institution

Visit all eight Landscapes in DRC and RoC (divided into teams; approximately 4 weeks)

[10] The CBFP is a multi-stakeholder initiative of more than 60 government, research, private sector, and NGO partners, with the shared goal of promoting the conservation and sustainable management of the Congo Basin forest ecosystems. The CBFP has 30 member states including the U.S. and 11 African states.

Use of core interview/data collection guide for all sites and tailored guides for specific sites visited. To the extent possible, the specific sites (villages/activities) visited should be at least partially random.

Sex-disaggregated and where appropriate independently facilitated (and interpreted) focus groups

Documentation of significant investments made at sites and how these are linked to strategies (e.g., dedicated staff, infrastructure, tools, training materials)

Verify and validate findings; integrate and reconcile conflicting views; produce draft for review; revise and finalize full report; complete clearance process and present/publish findings (approximately 5 weeks).

E. Evaluation Team Composition and Qualifications

The contractor must provide a core team consisting of a Team Leader and four specialists as follows:

Monitoring and Evaluation Specialist (Team Leader). At least 10 years' experience in evaluation of development programs with significant experience managing and/or evaluating environment-related programs, Africa experience, excellent English writing and speaking skills, professional-level knowledge of appropriate technical French (reading, writing and speaking). Masters level required, PhD preferred. The Monitoring and Evaluation Specialist is the Team Leader.

Biodiversity Conservation Specialist. At least 10 years' experience in research, evaluation or program management of biodiversity/wildlife projects. Practical experience in protected area management, project implementation, knowledge of wildlife trafficking and the Central Africa context. Masters level required, PhD preferred. Working knowledge of French required.

Climate Change Mitigation and Adaptation Specialist (REDD+/mitigation focus). At least 10 years' experience. Focus on mitigation and REDD+, Measuring, Reporting and Verification and/or policy (DRC, Congo Basin preferred). Practical experience in project implementation as well as demonstrated knowledge of climate policy, including familiarity with issues related to UNFCCC negotiations. Masters level required, PhD preferred. Working knowledge of French required.

Resource Rights, Governance and Policy Reform Specialist. At least 10 years of experience, knowledge of francophone/Central Africa regional policy environment, particularly DRC, preferred. Background in political science, law or environmental policy. Experience with conservation and/or climate change projects. Masters level required. Working knowledge of French required.

Social scientist (local hire, preferably DRC national). Experience in addressing social, cultural and demographic issues, including gender and indigenous people. Experience of linking socio-economic interventions with conservation objectives. Masters level required. Fluency in French and working knowledge of English required.

Individual team members must have technical qualifications and experience as described above. USAID reserves the right to reject proposed candidates for any individual position based on identified gaps in the candidate(s) credentials. No member of the Evaluation Team should have had any prior input to the design or implementation of any CARPE activities.

USAID may add other personnel to the team as observers and resource people, including:

USAID representative(s)

NORAD representative(s)

Personnel of the Congolese Institute for the Conservation of Nature (ICCN) (or RoC counterpart)

Personnel of CNREDD+ or *Direction d'Etudes et Planification* /Ministry of Environment and Sustainable Development

USAID will meet all costs of these additional team members.

F. Funding and Logistical Support

The Contractor is responsible for all offshore and in-country administrative and logistical support, including identification and fielding of appropriate international and national consultants. The Contractor and its partners must arrange and schedule field visits, meetings, translation services, international and local travel, hotel bookings, working/office spaces, computers, printing, and photocopying.

The Contractor and its partners are responsible for all logistic arrangements, including vehicle arrangements for travel, and must not expect any logistic support from USAID/DRC. The team must also make its own arrangement on space for team meetings and equipment support for producing all documents, including the final report.

G. Ethical Guidelines

Every member of the evaluation team must adhere to ethical guidelines as outlined in the American Evaluation Association's Guiding Principles for Evaluators. A summary of these guidelines is provided below. A more detailed description can be found at

http://www.eval.org/p/cm/ld/fid=51

Systematic Inquiry: Evaluators conduct systematic, data-based inquiries.

Competence: The Evaluation Team possesses the education, abilities, skills and experience appropriate to undertake the tasks proposed in the evaluation. Evaluators practice within the limits of their professional training and competence, and decline to conduct evaluations that fall substantially outside those limits. The Evaluation Team collectively demonstrates cultural competence.

Integrity/Honesty: Evaluators display honesty and integrity in their own behavior, and attempt to ensure the honesty and integrity of the entire evaluation process.

Respect for People: Evaluators respect the security, dignity and self-worth of respondents, project participants, clients, and other evaluation stakeholders. Evaluators regard informed consent for participation in evaluation and inform participants and clients about the scope and limits of confidentiality.

Responsibilities for General and Public Welfare: Evaluators articulate and take into account the diversity of general and public interests and values that may be related to the evaluation.

H. Conflicts of Interest

All Evaluation Team members must provide a signed statement attesting to a lack of conflict of interest, or describing an existing conflict of interest relative to the project being evaluated. USAID/DRC will provide the conflict of interest forms.

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Annex III: Team Composition, Level of Effort, and Maps

Team Members		
Name	Nationality	Role
Waugh, John	**USA**	**Team leader Sub-Team leader, Kivu team**
Makuch, Katrina	USA	Team Evaluation Specialist, Team member, Kivu Team
Kabamba, Patience PhD	DRC/USA	Team member, Kivu Team
Mwanza, Nicolas PhD	DRC	Team member, Kivu Team
Das, Rishi, PhD	**India**	**Sub-Team leader, RoC Team**
Madika, Many, PhD	DRC/ Belgium	Team member, RoC
Viollaz, Julie, PhD	France	Team member, RoC Team
Trefon, Theodore PhD	**USA**	**Sub-Team leader, Cuvette Centrale Team**
Nteimbo, Bibiche	DRC	Team member, Cuvette Centrale Team
Mbangi, Norbert, PhD	DRC	Team member, Cuvette Centrale Team
Cohen, Brian	USA	Team member, Cuvette Centrale Team

Discipline	Expert
Biodiversity	Dr. Mwanza, Dr. Mbangi, Dr. Das
Climate Mitigation	Dr. Das, Mr. Waugh
Culture	Dr. Kabamba, Dr. Trefon
Evaluation	Mr. Waugh, Ms. Makuch
Gender	Ms. Makuch, Ms. Madika
Governance	Dr. Trefon, Mr. Cohen
Livelihoods	Dr. Madika, Dr. Kabamba, Dr. Mbangi, Dr. Trefon
Protected Areas	Mr. Waugh, Dr. Mwanza, Dr. Mbangi
Tenure	Mr. Waugh, Dr. Trefon, Mr. Cohen
Wildlife Crime	Dr. Viollaz, Mr. Waugh, Mr. Cohen

Target Audience	Key Informant Interviews
Local Partners	40 Key Informant Interviews
Implementing Partners	21 Key Informant Interviews
Civil Society Organizations	10 Key Informant Interviews
Communities	12 Key Informant Interviews
Total	**83 Key Informant Interviews**

Target Audience	Focus Group Discussions (average = 8 people)
Local Partners	6 Focus Group Discussions
Implementing Partners	6 Focus Group Discussions
Civil Society Organizations	6 Focus Group Discussions
Communities	34 Focus Group Discussions
Total	**52 focus Group Discussions (Approximately 416 individuals)**

Distances Covered	
Travel mode	**Distance**
Air (commercial and bush plane)	>7300 km
Road (4x4)	>3000 km
Trail (motorcycle, bicycle, foot)	>450 km
Boat (pirogue)	>200 km
Boat (speedboat)	>600 km
Boat (ferry)	>200 km

Languages Used in Data Collection					
Team	**Lingala**	**kiSwahili**	**French**	**English**	**Other**
RoC	X		X	X	
Cuvette Centrale	X		X	X	
Kivus	X	X	X	X	kiNande Mashi kiKongo Kirega Kinyarwanda

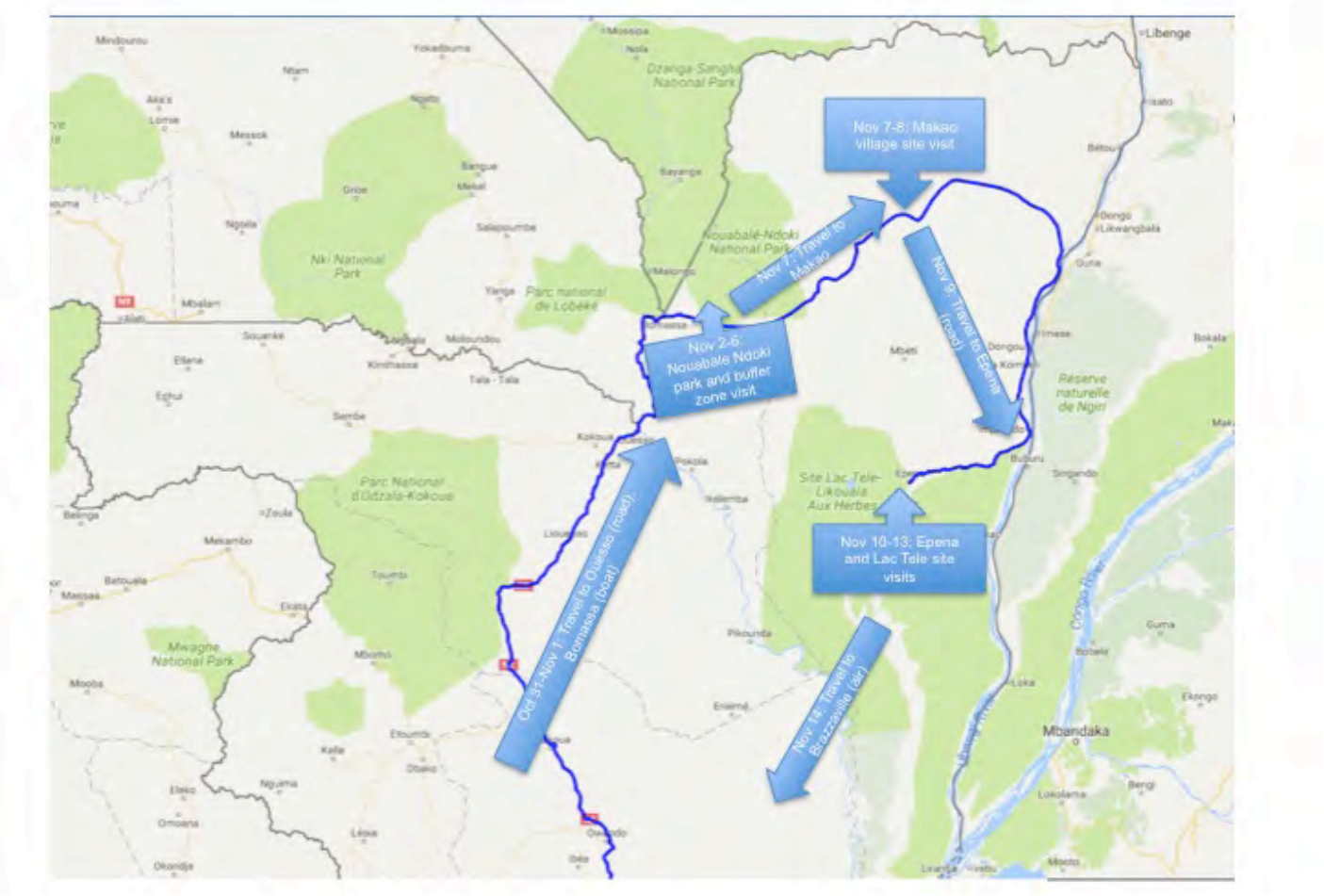

Figure 8: Republic of Congo north transect

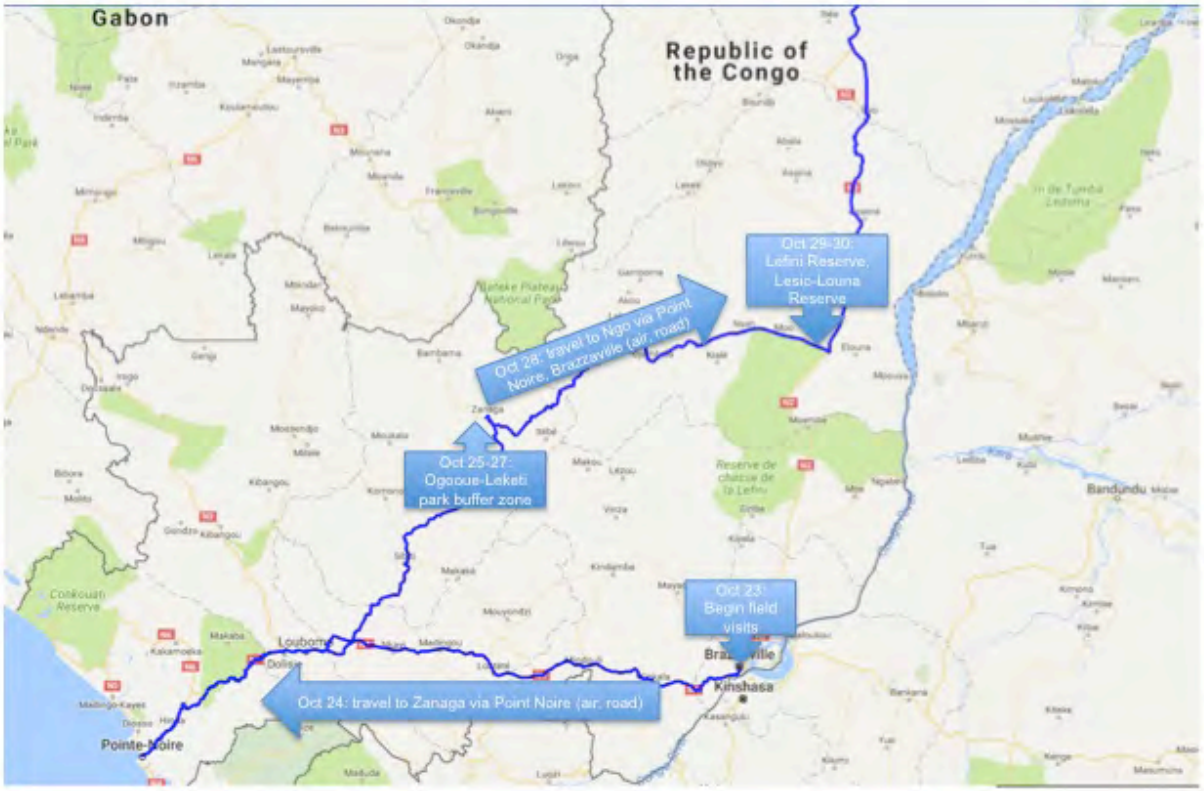

Figure 9 Republic of Congo west transect

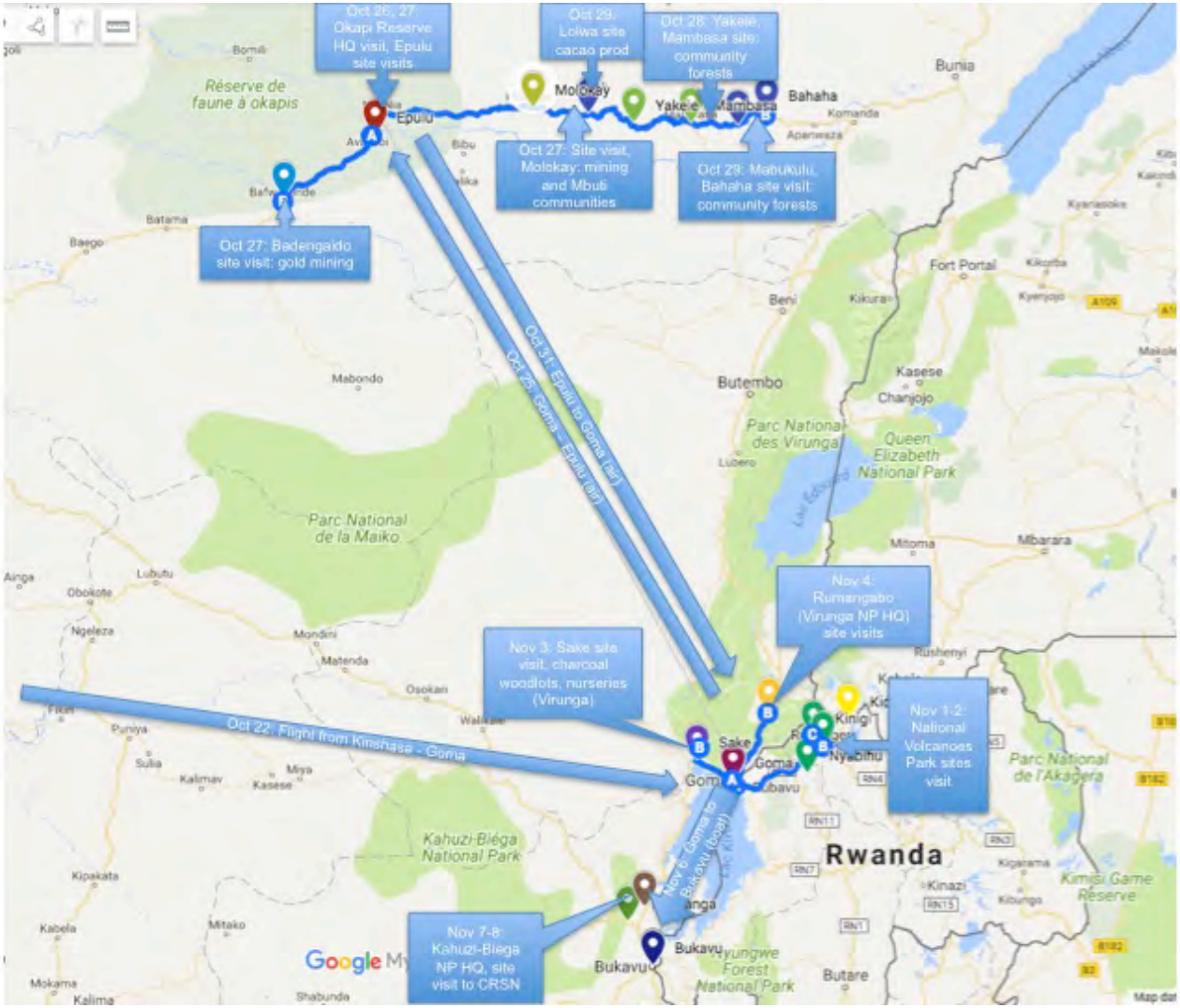

Figure 10 Ituri/Virunga transect

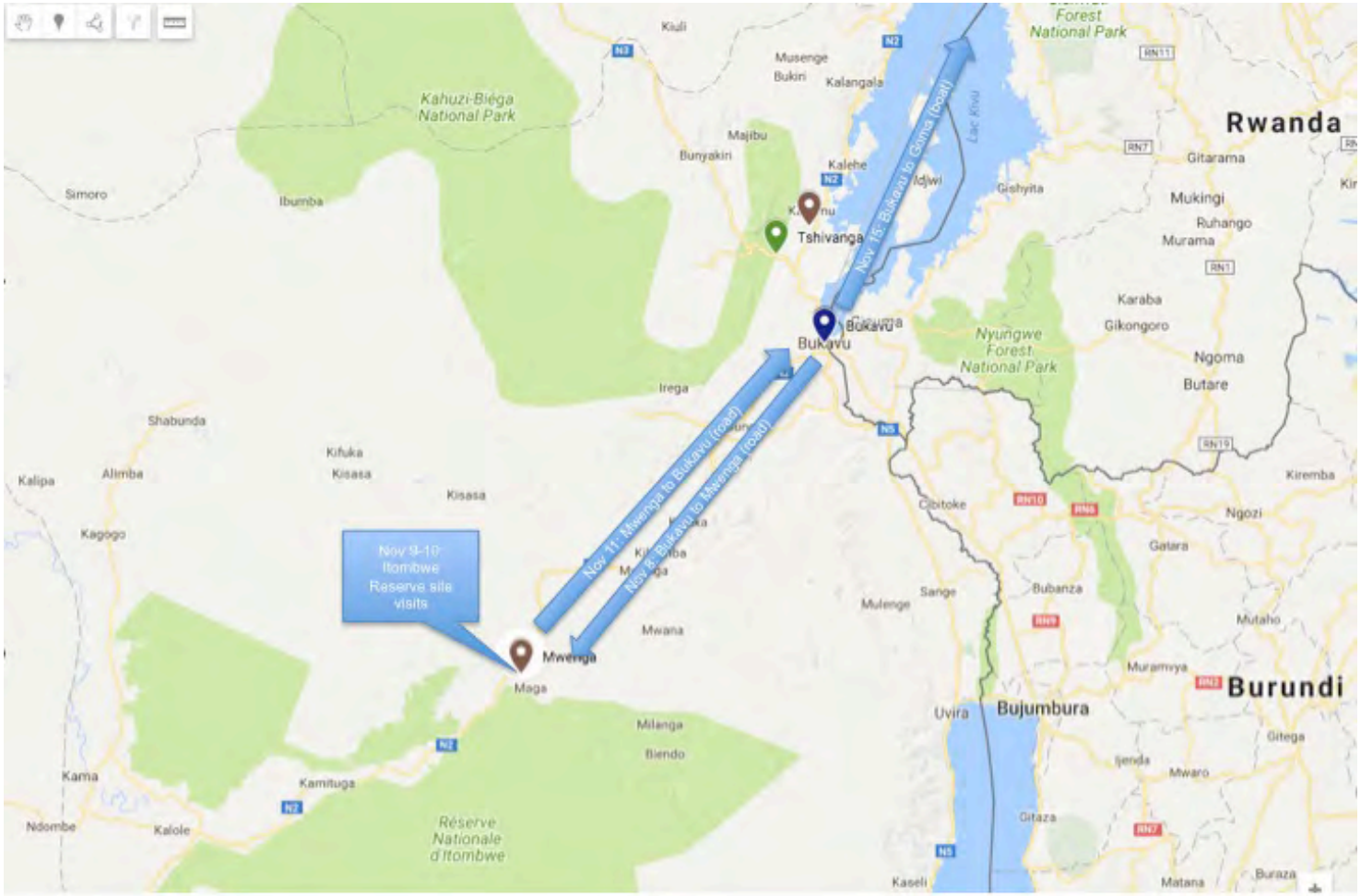

Figure 11 Itombwe/Maiko-Tayna-Kahuzi Biéga transect

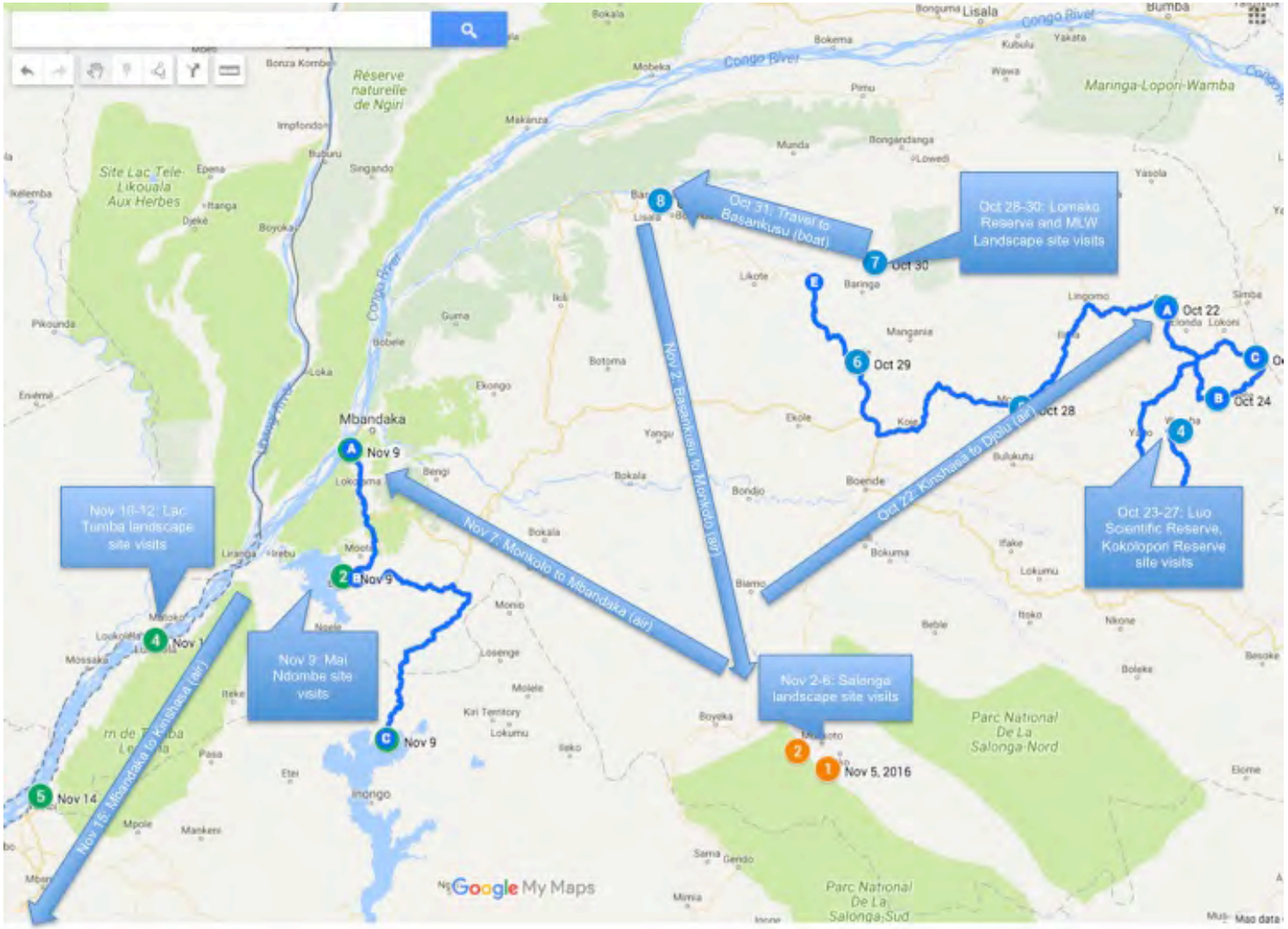

Figure 12 MLW, Salonga, Lac Tumbu transect

Annex IV: Data Collection Instruments (Survey Forms)

Civil Society Representative Interview Questions

1. Quelle est votre expérience avec CARPE III (WWF, WSC)?

2. Quel type d'appuis avez-vous reçu de ce projet ?

   2a. Avez-vous participez à l'élaboration du plan des activités qui se déroulent dans le paysage ?

   2b. Est-ce que ce plan répond aux besoins ou aux attentes de la communauté locale ?

3. Comment décrieriez-vous la mise en œuvre de la stratégie de CARPE III ?

   3a. Quels sont les points forts et les faiblesses de l'approche de CARPE III ? \

   3b. Quelles solutions proposeriez-vous pour remédier aux faiblesses de cette approche ?

4. Est-ce que vous coordonnez avec d'autres groupes, partenaires et institutions pour la protection des forêts sous CARPE III?

5. Quelles actions le gouvernement national a t-il pris pour améliorer la gestion du paysage au cours des deux dernières années ?

   5a. Et pour le gouvernement provincial ?

   5b. Les autorités locales ?

   5c. Le projet ?

6. Avez-vous constatez des efforts de la part du autorités politiques pour encourager la population locale a protéger les forets ? Y a-t-il eu des campagnes de sensibilisation, des émissions radio diffusées, et des rencontres organisés par le gouvernement ?

7. Pensez-vous qu'il y a d'autres stratégies pour gérer les aires protèges qui pourraient être plus efficaces aujourd'hui et dans le future ?

8. Y a-t-il une prise de conscience parmi les personnes vulnérables (les femmes et les populations autochtones) que CARPE III a des ressources disponibles pour eux pour qu'ils puissent s'engager d'en d'autres activités économiques ?

   8a. Ya-t-il des mesures actions ou activités particulières que vous connaissez qui on tété mises en place pour soutenir les personnes vulnérables dans ce paysage ?

9. Selon vous, est ce que ces mesures ont répondus aux besoins des personnes vulnérables? Si non, pourquoi?

10. Pensez-vous que les changements apportés par CARPE III auront des effets durables? Si non, comment résoudre ce manque à gagner dans le paysage ?

10 a. Y a-t-il d'autres choses que vous voudriez ajouter ?

Community Representative Interview Questions

7. Racontez-nous un peu comment cette communauté (C) et vous en particulier (P) utilisez les ressources de la forêt dans votre vie de tout les jours ?
8. Comment utilisez-vous les ressources de la forêt dans le passé d'après vos traditions et est-ce que vous utilisez toujours les ressources de la forêt de la même façon ?

D'après vos traditions (avant CARPE III)

Bois (exploitation forestière) Bois (de chauffage) Bois (charbon)

Pâturage Agriculture Autres

De nos jours

Bois (exploitation forestière) Bois (de chauffage) Bois (charbon) Pâturage Agriculture Autres

9. Avec quelle fréquence achetez-vous ce produit? Chaque jour, semaine, ou mois
10. Quel prix payez vous par unité?
11. Racontez-moi un peu votre expérience avec CARPE III.
12. Comment la forêt a t-elle changé depuis que CARPE III a commencé ?
13. Est-ce que votre communauté a été consultée avant l'annonce de changements dans la gestion du paysage? Qui a présenté le point de vue de votre communauté durant cette consultation ? Décrivez le processus de consultation.
14. Qu'est-ce que CARPE III vous a appris sur la meilleure gestion des forets ?
15. Pensez-vous que les gestionnaires de la foret répondent de façon approprie à vos besoins ?
16. Que font-ils ?
17. Que pourraient-ils faire mieux ?
18. Dans le contexte de CARPE III, avez-vous remarqué de nouveaux efforts de la part des autorités pour encourager le public à changer leur utilisation du foret ?
19. Quels sont les bénéfices que ces efforts apportent ou les blocages qu'ils causent ?
20. Avez-vous ou les membres de votre famille déplacez vos activités à une autre partie de la forêt à cause de ces changements dans ca gestion ?
21. Quelles sont les difficultés liées à l'exercice de vos activités dans la nouvelle partie de la foret où vous vous êtes déplacé?

22. Etes-vous inquiet que ces changements dans la gestion du foret vont avoir un effet sur votre subsistance? Comment auront-ils un effet ?

23. Y-at-il d’autres choses que vous voudriez ajouter ?

Seulement pour les femmes

24. Ces jours-ci, êtes vous inquiètes pour votre sécurité personnel dans la foret ?

25. Pensez-vous qu’assez de choses sont faites pour aider les femmes de votre communauté à surmonter les difficultés économiques aux qu’elles elles font face ?

Implementing Partner Staff Interview Questions

1. Avez-vous réalisé une évaluation des menaces pour ce paysage? Comment avez-vous identifié les menaces à la biodiversité et les causes de la déforestation/dégradation dans ce paysage ?

   1.1. Quels étaient les points forts et les faiblesses de ce processus ?

2. Est-ce que la mise en œuvre de la stratégie CARPE III était appropriée en ce qui concerne la méthodologie?

   2.1. Qui étaient les personnes influentes au niveau local et comment les avez-vous impliquées dans la méthodologie ? Comment ont-elles participées à l'élaboration de CARPE III et sa méthodologie ?

   2.2. Comment avez-vous engagé la communauté locale dans le processus?

   2.3. Quels étaient les facteurs ayant freiné la mise en œuvre ?

3. Quelles actions et activités, spécifiquement par CARPE III, ont atténué au mieux les menaces identifies dans les aires protégées?

   3.1. Quels étaient les facteurs qui ont contribué aux succès de ces actions et activités ?

4. Est-ce que vous coordonnez avec d'autres groupes, partenaires et institutions pour la protection des forêts sous CARPE III ?

5. A ce stade de CARPE III (a) dans ce paysage quelle est la menace la plus importante selon vous (votre expérience) et (b) est ce que vos actions agissent d'une manière adéquate sur cette menace ?

6. Pourriez-vous indiquer, sous CARPE III, les pratiques ou les procédures nécessaires pour améliorer la gestion dans le paysage?

7. Avez-vous remarqué une amélioration dans la gestion des APs ?

8. Quelles sont les réussites de ces pratiques de gestion dans les APs ?

9. Quelles sont les blocages à l'amélioration de ces pratiques de gestion ?

10. Pensez-vous que ces changements pourraient avoir des effets durables ou pas ? Comment améliorer la situation ?

11. Avez-vous constatez un cas de déplacement du problème ? Si oui, qu'avez-vous fait sous CARPE III pour le résoudre ?

12. En général quel est le principal blocage pour résoudre le problème du déplacement ?

13. Sous CARPE III, pourriez-vous indiquer les pratiques ou les procédures nécessaires pour améliorer la participation des femmes et des peuples autochtones ?

14. Quelles sont les réussites de CARPE III pour faire participer les personnes vulnérables dans le projet ? Quelles sont les blocages à cette participation?

15. Comment la forêt a-t-elle changé depuis que CARPE III a commencé ?
16. Pensez-vous que les changements apportés par CARPE III auront des effets durables? Si non, comment résoudre ce manque à gagner dans le paysage ?
17. Y-a-t-il autres choses que vous voudriez ajouter ?

Program Partner Interview Questions

1. Quelle est votre expérience avec CARPE III?
2. Comment décrirez-vous la mise en œuvre de la stratégie de CARPE III ?
3. Quels sont les points forts et les faiblesses de l'approche de CARPE III?
4. Que proposeriez-vous pour répondre aux faiblesses de cette approche?
5. Pensez-vous que les activités de CARPE III renforcent la capacité des acteurs impliqués dans les APs à améliorer... La gestion redevabilité L'engagement communautaire
6. Pensez-vous que ces activités ont une forte probabilité de continuer après la fin du projet?
7. Comment le programme de CARPE III a t'il fait évoluer la politique de votre institution ? Donnez des exemples.
8. Y-a-t-il des choses que vous faites différemment aujourd'hui suite à votre expérience avec CARPE III?
9. La gestion des APs est-elle meilleure ou moins bonne qu'avant votre participation à CARPE III ? Comment et pourquoi ?
10. Est-ce que CARPE III a apporté de nouvelles initiatives ou procédures qui ont amélioré la gestion des paysages?
11. Décrivez les pratiques de gestion qui sont les plus importantes à la protection durable des forêts.
12. Quels changements avez-vous remarqué dans la manière de gérer les paysages? Sont-ils suffisamment indispensables et établis pour perdurer dans le temps ?
13. Que proposeriez-vous pour améliorer la gestion des APs ?
14. Y-a-t-il des mesures, actions ou activités qui ont été mises en oeuvre par CARPE III pour répondre aux besoins des personnes les plus vulnérables ? Si non, pourquoi ?
15. Pensez-vous que les activités mises en oeuvre ont été efficaces?
16. Pensez-vous que les changements apportés par CARPE III auront des effets durables? Si non, comment résoudre ce manque à gagner dans le paysage ?

Annex V: CARPE III MTE Evaluation Results – Questionnaire Data Analysis

General Findings

Problem of access to markets was a something that came up regularly in answers across the board. Linked to this was ongoing need for better transportation, especially for patrol activities (including transport of poachers to magistrates after arrest).

No true understanding of the concept of sustainability. Too many answers were people stated CARPE's efforts were sustainable but then told us that the activities would stop if the funding didn't continue or people would return to old forest uses if Rangers weren't present.

Security issues discussed as a major hindrance to implementation of activities, their expansion, and their sustainability. Likewise for in-migration.

Human-wildlife conflict cited regularly in different ways: requests for help protecting crops, mentioned as impediment to livelihoods work.

Several examples in data of serious grudges toward AWF where communities felt cheated by the NGO and believed it created conflicts within the community. Recurring theme of how unequal distribution of CARPE benefits or non-transparent beneficiary selection led to conflicts within community. Ongoing tensions between community and ICCN also discussed.

50/50 on whether Landscape approach is really working. Suggestions that it is not practical on the ground but good in theory because theoretically allows the tackling of all threats.

A number of respondents (of all types), including women, stated that they wanted the IPs to hire local people to do needed work instead of outsiders. This lack of local hiring had caused conflicts with IPs in the past, to the point where village chiefs had to intervene to reduce tensions.

Community Questionnaire Findings (sample size = 46 focus group discussions with an average of 8 persons per group)

The majority of respondents noted that the forest helps them meet their daily needs. They indicated that apart from the forest uses described below, they collected things like vines and leaves (often for construction house roofs), caterpillars, traditional medicine, honey, mushrooms, wild fruit and vegetables (including yams and gnetum). They also get fish from the forest. One respondent indicated his community used the forest for sacred rituals.

Forest resource use breakdown:

Resource	Currently using (percent)	Missing data (percent)
Timber	75.9	37.0
Fuelwood	91.9	19.6
Charcoal	45.5	28.3
Pasture	29.2	47.8
Agriculture	91.4	23.9
Bushmeat	87.1	32.6

52.4 percent of respondents indicated that traditional forest resource use continues today (MD = 8.7 percent).

Respondents indicated that traditional uses had sometimes been unsustainable (especially timber harvesting and slash and burn agriculture). But many respondents also described traditional practices, like not hunting bushmeat or fishing during the breeding season, which did not fit this label.

Generally speaking changes in forest use were mainly a shift from traditional uses for consumption to same type of use but for commercial resale. Some respondents also indicated a shift to different hunting/fishing methods: from bows and snares to guns (and occasional snares); move to nets and hooks for fishing.

A number of respondents explained that they had more difficulty finding resources in forest today than in the past. Many described no longer hunting in forest or now following strict hunting regulations.

Community members' experiences with CARPE were generally average. 1 respondent (2.3 percent) had never heard of the program. 20.9 percent had a generally negative view of it, 62.8 percent reported an average experience, and 14.0 percent were genuinely impressed by the program (Missing data (MD) = 6.5 percent).

Main types of support received were:

Awareness raising on forest conservation and laws and regulations.

Training on improved agricultural methods, aquaculture, livestock raising, apiculture, and agroforestry. Several communities complained about lack of follow up resulting in crops failing because the communities weren't provided enough technical support to grow or harvest properly.

Helping address human-wildlife conflict through fencing, use of beehives near fences.

Help to create associations and development and conservation committees, draft community action plans (communities generally found these helpful), and delineate land use zones.

Provision of improved seeds, agricultural tools, equipment for Rangers, ameliorated cook stoves.

86.7 percent of community respondents indicated IPs had consulted them when setting up CARPE activities (MD = 2.2 percent). The most common form of consultation was the IPs communicating what they planned or were doing to the community by talking with community leaders (village chiefs primarily, but also traditional authorities). 2 respondents indicated that the community drafted a community action plan with the help of the IPs.

When asked what CARPE had taught them in terms of best forest management practices, the majority of respondents answered: importance of protecting forest (ways cited to protect included land use zones, sustainable timber harvesting, corridor agriculture), not to hunt protected species, and to avoid brushfires.

46.5 percent of interviewees felt CARPE managers where partially responsive to community needs but not responsive enough. 14.0 percent felt they were not response at all, while 34.9 percent stated they were responsive but not particularly creative in their response. Only 4.7 percent indicated that managers responded to their needs with extremely well with innovative solutions (MD = 6.5 percent).

Some interviewees indicated that managers did not respect them.

Many respondents highlighted the need for managers to deliver on promises made and build the capacity of the community so management of resources can transition to them.

Respondents held managers accountable for the conflicts they experienced with wildlife and expected them to come up with better solutions to protect their fields.

Overall, communities expected many, many things from managers, especially when it came to technical and equipment support for agriculture. So many expectations, essentially wanted managers to replace the state in meeting basic needs (including infrastructure).

46.5 percent of community members stated that government authorities made no effort to encourage the public to change the ways they use the forest to more sustainable practices (MD = 6.5 percent).

If government made efforts it was primarily in the form of awareness raising or verbal encouragement to support conservation. Occasional provision of seeds and fertilizer.

A number of community members noted that the government actively encouraged illegal forest use by allowing outsiders to come in and exploit resources and by releasing arrested poachers. One response indicating that community pressure to protect forest was putting corrupt government officials on notice in that location.

35.9 percent of the respondents indicated that their activities were displaced to another part of the forest as a result of protected area management changes (MD = 15.2 percent).

46.9 percent of community members interviewed worried about how management changes would affect their subsistence (MD = 30.4 percent).

Main concern was fear that remaining forest would be turned into a park (after a protected area had already been created) and that people would be forced out of their homes entirely. Several respondents already mentioned difficulties in finding food and other necessities in designated land use zones because of high population pressure. This was also true of people who had been displaced.

Our interviews of women found that 50.0 percent worried about their personal safety in the forest. The most common reasons for this were fear of rape or violence from armed groups and

attacks by wildlife (both of which a number of communities had experienced). 70.3 percent of women interviewed also felt that not enough was done to help them. They wanted additional help with agriculture, especially mechanizing agricultural work and transformation agricultural products like manioc. Also wanted more micro-credit to start small businesses (with goal of being self-sufficient) and continued education to increase women's literacy.

In additional comments:

Several respondents mentioned increasing jealousy between CARPE beneficiaries and non-beneficiaries that was causing community conflicts. Many respondents wanted benefits expanded to include everyone to avoid these issues.

Gold extraction, in migration, and human-wildlife conflict (especially the latter) were also recurring problems mentioned by interviewees. No IP efforts seemed to address human-wildlife conflict effectively or at a large enough scale.

Lack of access to basic infrastructure (schools and water first and foremost but also health clinics) was a recurrent concern.

Communities also expressed a wish to be given titles to the land they farmed and lived on.

Additional comments also noted interesting solutions to poaching and human-wildlife conflict: hiring of unemployed youths to watch fields and livestock, and the tradition of a family totem animal that they could not hunt.

Overall communities expressed a wish for more support with agriculture and livestock raising (which they saw as a profitable activity), especially more advanced techniques to increase yield and revenue.

IP Questionnaire Findings (sample size = 27)

96.2 percent stated a risk assessment had been done (Missing data (MD) = 3.7 percent).

Most common risk assessment methods were: studies of individual threats (especially studies of patrol data from anti-poaching efforts), field observations, and consultations with community members or surveys of community needs. Few respondents consulted other stakeholders or partners about ongoing threats.

The most common risk assessment strength cited was its participatory and multi-stakeholder approach. The most common weakness cited were the difficulty of assessing threats because the Landscape was so vast and not always under IP's control because of security issues. Respondents also noted ICCN's lack of capacity or willingness to collaborate.

The most common influencers for the methodology were village chiefs and local authorities (including traditional authorities), but a range of actors were involved (primarily at various levels of government). They were mainly consulted and participated in awareness raising activities.

The main constraints to CARPE's implementation were communities' high expectations (so many needs) and lack of initiative, lack of government support and basic infrastructure, slow signing of contracts/work agreements, land tenure issues, and security issues. Human-elephant conflict also hampered implementation because it stoked community resentment towards IPs.

The majority of actions undertaken under CARPE addressed only two threats: poaching (both internal and external threat) and land use changes (mostly). These actions for poaching focused

primarily on setting up or reinforcing ranger patrols (often based on SMART data) through training, providing equipment, and funding for additional hiring. Actions for land use changes focused on improving alternative livelihoods methods with some efforts to better delineate protected areas and do reforestation.

73.9 percent of respondents felt CARPE's strategy was appropriate (MD = 14.8 percent).

96.0 percent said they engaged the community in their efforts (MD = 7.4 percent). Problem with this was that most common form of community engagement was consulting them (not actively having them involved in decision making). Not to mention that a lot of respondents simply didn't mention how they engaged the community.

96.0 percent of IPs stated they coordinated with other entities (MD = 7.4 percent). The most common entities were police and other "forces publiques", ICCN, provincial authorities. Also mentioned other local NGOs like Juristrale and PALF.

Adequacy of response to threat: 7.1 percent not at all, 64.3 percent yes but not enough, 28.6 percent yes but no innovation, 0 percent yes with great creativity (MD = 48.1 percent). Bushmeat hunting is prevalent and constitutes the main threat (next to unsustainable agriculture) in most Landscapes.

95.7 percent said protected area management improved as a result of CARPE (MD = 14.8 percent).

Main improvement was increase in patrol coverage of park leading to decrease in poaching (and subsequent return/increase of wildlife populations). Also increased acceptance of conservation by communities partly through resolution of park boundary conflicts with communities.

Main constraints to protected area management included security issues in region and lack of government support/buy-in (also lack of effective legislative framework, jurisdiction issues). Community conflicts with ICCN also noted as an impediment.

Concept of sustainability is not well understood by most respondents overall but IPs had the best understanding. Sustainability of measures put in place by CARPE: 25.0 percent none, 58.3 percent somewhat sustainable but requires more investment to be sure, 16.7 percent sustainable in the short-term, 0 percent sustainable long-term (MD = 11.1 percent)

Recommendations made to improve sustainability were first and foremost to continue and increase funding and build capacity of ICCN and other government entities to manage protected areas. Most of the respondents involved in law enforcement noted that Rangers could never stop working or the community would return to bushmeat hunting and poaching would return full force.

63.6 percent indicated displacement was occurring (MD = 18.5 percent).

Note the responses talked about all forms of displacement, i.e. people being forced out of park when park boundaries delineated, migration outside of forest because can't find resources in it, displacement of poaching activity due to patrols etc.

Actions taken to reduce displacement were limited and mostly involved building rapid response capacity for when Rangers obtain law enforcement intelligence on poaching. One respondent mentioned that they were doing conflict resolution work to decrease tensions between displaced people coming to a new area and pre-existing residents. Most respondents did not really have the capacity to address this issue.

Forest change (MD = 37.0 percent):

How has forest changed?	Valid Percent
Serious deterioration	5.9
Mild deterioration	11.8
No change	35.3
Mild amelioration	41.2
Great amelioration	5.9

Forest change corresponded mostly of increases in wildlife populations (with more animals coming near villages and causing human-wildlife conflict) and decreases in deforestation. Deterioration usually from increased deforestation.

Practices in place to improve indigenous peoples and women's participation:

Indigenous people: 10.0 percent no practices, 40.0 percent practices but not useful, 50.0 percent pedestrian effort (maybe positive impact but noting amazing), 0 percent excellent practices (MD = 25.9 percent)

Women: 5.0 percent no practices, 30.0 percent practices but not useful, 45.0 percent pedestrian effort, 20.0 percent excellent practices (MD = 25.9 percent)

This question got a mixed bag of responses with many of them showing more of a pedestrian effort than anything else. Not clear that anyone went out of their way to evaluate these population's needs. A lot of responses were simply "'we include them in everything' or 'a lot of beneficiaries are from these populations.'" The main practices put in place for both women and indigenous peoples were hiring them as Rangers and doing literacy work. Women also received support agricultural and husbandry activities. One respondent mentioned doing awareness raising on gender issues with communities.

The main blockage to improving indigenous people and women's participation seemed to be IP's unwillingness to go against the traditional treatment of indigenous peoples as inferior/subordinate to Bantus and women as subordinate to men. Another often cited blockage was these groups' lack of education.

64.7 percent of respondents indicated that CARPE would have lasting impacts (MD = 37.0 percent). Were already seeing increases in community motivation to conserve Landscapes. Most common recommendation to improve CARPE's long-term impacts was improving collaboration between stakeholders, followed by continuing and even increasing funding. Also noted was the need to engage youths in CARPE's work through job opportunities and specialized activities also came up several times throughout the interviews (not just IP interviews).

In additional comments, several respondents mentioned that logging opens up roads that allow poachers to poach wildlife and reported increases in poaching after logging exploitation of an area.

Project Partners Questionnaire Findings (Sample size = 49)

Experiences with CARPE were generally average. 2 respondents (4.2 percent) had never heard of the program. 31.3 percent had a generally negative view of it, 50.0 percent reported an average experience, and 14.6 percent were genuinely impressed by the program (Missing data (MD) = 2.0 percent).

The recurring CARPE strategies discussed by respondents were:

Ranger patrol support (funding, equipment, rations, personnel) and training on SMART data collection

Some support for development and judicial follow-up of poaching cases, training of magistrates in environmental law

Support for agricultural activities (technical training, provision of seeds and tools), aquaculture, livestock raising, and agroforestry

Occasional provision of infrastructure like offices, office supplies.

CARPE's most common strengths cited were its participatory approach, how it has built up ICCN's capacity, how conservation efforts are allied with development, and how it has provided much needed strategies (including data centralization and patrol structure/strategy) and equipment for anti-poaching efforts.

CARPE's most common weaknesses were late arrival of funds and training (meaning activities not continuous), insufficient explanation of laws to communities, poor communication between IPs/CARPE and local partners, broken promises to communities (linked to CARPE's inability to meet all the communities' needs because these are so great).

Recommendations to improve CARPE's strategy focused on improving communication, reinforcing training, a better funding model to avoid delays and provide money directly to ICCN, expanding activities/support to reach more beneficiaries.

91.2 percent felt that CARPE activities had reinforced stakeholders' capacities for management (MD = 30.6 percent). That number was 74.1 percent for accountability (MD = 44.9 percent) and 82.8 percent for community engagement (MD = 28.6 percent).

Respondents didn't seem to fully understand the concept of capacity building (as going beyond discrete examples of support). They mostly cited the activities/equipment that CARPE helped them with as capacity building. Otherwise they cited the trainings received (more on point). As for accountability, most examples of capacity building for this involved now knowing one's rights and responsibilities, being more transparent in how one worked, and reporting back about achievements and activities. Two interesting examples of community capacity building were the hiring of local residents as Rangers and the use of locals as informants.

CARPE's impacts on partners' policy centered mostly on the organization taking CARPE's priorities more seriously, valuing partnerships more, and rethinking and redefining management strategies to meet CARPE objectives and be more effective generally. A number of respondents, though, mentioned no change in policy. That was also the case with changes in practice as a result of CARPE.

Partners mainly did the following things differently as a result of CARPE: involved communities further in their activities, adopted SMART as a management tool, and shifted their activities to reflect CARPE priorities.

31.7 percent felt that CARPE's activities were entirely unsustainable, while 36.6 percent thought they might be sustainable with additional investment. 19.5 percent thought they were currently sustainable in the short-term and 12.2 percent in the long-term (MD = 16.3 percent).

81.1 percent said protected area management improved as a result of CARPE (MD = 24.5 percent).

By far, the main improvement in protected area management was better oversight of protected areas, primarily through improved patrolling, resulting in increases in wildlife populations. The second most commonly cited improvement was the community taking increased ownership and being increasingly aware of conservation activities. New initiatives discussed fell first and foremost under anti-poaching efforts with SMART and help with judicial follow-up and transportation of arrested poachers. Another commonly cited new initiative was better technical support for alternative livelihoods (primarily agriculture).

Respondents often cited the activities supported by CARPE as the most important management strategies for forests. These strategies varied widely based on the location, but community involvement came up repeatedly. Several respondents also mentioned a shift from a repressive regime (enforcement of law, regulation) to a more collaborative and participatory approach (awareness raising, involvement in decision making for regulations, information exchange with patrols) as a common change in the Landscape's management.

Suggestions to improve protected area management centered on reinforcing and expanding activities and funding, with some discussion of ameliorating communication between stakeholders. There was also regular mention of need for better transportation (see general comments).

13.3 percent of interviewees felt these changes in Landscape management were not sustainable while 46.7 percent believed they might be sustainable with additional investment. 26.7 percent thought they were sustainable in the short-term and 13.3 percent in the long-term (MD = 69.4 percent).

Quality of specific practices in place to improve the participation of vulnerable populations:

Quality of practices	Indigenous people (percent)	Women (percent)
No practices in place	24.1	20.0
Practices but not useful	20.7	26.7
Practices = pedestrian effort	51.7	43.3
Excellent practices working well	3.4	10.0
Missing data	40.8	38.8

Common practices to improve indigenous people's and women's participation were literacy work, soap making, sewing, and training as Rangers. A lot of respondents also cited agriculture or husbandry support to 'd or women-only associations. One respondent appropriately mentioned the need for field staff to be aware of women's specific vulnerabilities, which was refreshing. In the RoC, we regularly came across a relative lack of awareness or reflection on this (one respondent went so far as to say that no activities were in place because of vulnerable

populations' attitudes). Activities were just put in place or women included in regular CARPE activities because they had to be without much reflection on priorities for women.

39.4 percent of respondents indicated that CARPE would have lasting impacts (MD = 37.0 percent). In recommendations for more lasting impacts, continuing activities and funding was commonly discussed (only one mention of auto-financing through tourism), as was the problem of insufficient infrastructure in Landscapes. The small scale of activities also came up as an impediment to sustainability. Several respondents also thought that sustainability would not be achievable unless the government took over management of CARPE activities.

In additional comments, mining and in-migration came up as problematic issues in the Landscapes, as did human-wildlife conflict.

Civil Society Organization Questionnaire Findings (Sample size = 16)

Experiences with CARPE were generally average. No respondents reported being unaware of the program, 6.7 percent had a generally negative view of it, 66.7 percent reported an average experience, and 26.7 percent were genuinely impressed by the program (Missing data (MD) = 6.3 percent).

Main types of support received were:

Help with agriculture (taught better agricultural techniques, provided seeds and tools), livestock raising, apiculture, aquaculture, and reforestation efforts.

Building of infrastructure, particularly health clinics, and provision of improved cook stoves.

Trainings of alternative livelihoods and forest management (some mention of conflict resolution training).

Creation of land use zones and awareness raising on poaching.

CARPE's most commonly cited strengths were its participatory approach (noting that there was not always agreement on what this meant), the IP's role as mediator between community and government institutions, and in the Ituri landscape, the decision to support cacao (due to strong market for crop). The technical competence of staff was also cited.

CARPE's most common weaknesses were the late provision of funds and unfulfilled promises (also mentioned an inability to meet all the needs of local populations and unequal distribution of benefits). Poor follow-up of activities was also noted.

Recommendation to improve CARPE's strategy focused on improving follow-up with communities and avoiding late funds dispersal. One respondent noted that supporting individuals versus associations might be best given that many associations failed.

92.9 percent of respondents had participated in the development of the program (MD = 12.5 percent).

Hard to get a clear picture of CSOs participation in the development of plans for the Landscape because many did not specify the type of participation. Of those that did, the main form of participation was attending planning meetings (some of which delineated land use boundaries). One respondent said the community chose the implemented activities in the Landscape, another mentioned trainings they received, and two mentioned participating in the creation of the action plan.

No respondents felt that the program did not meet any of the communities needs. 28.6 percent felt CARPE met a few of the communities' needs, 57.1 percent a fair/average number of needs, and 14.3 percent reported that it exceeded expectations in meeting communities' needs (MD = 12.5 percent).

15.4 percent reported that CARPE's implementation was poor, 69.2 percent that it was average, while only 15.4 percent considered CARPE's implementation excellent (MD = 18.8 percent).

92.3 percent of CSOs stated they coordinated with other entities (MD = 18.8 percent). They coordinated with a mix of stakeholders including ICCN and government entities (FARDC, police, territorial authorities) and several local organizations or platforms (ex: COPAK - Kivu Agricultural Product Association, CAFEE - *Centre pour L'autonomisation de la Femme et de L'education*, Africa Capacity).

78.6 percent of interviewees indicated that the government engaged in awareness raising campaigns (MD = 12.5 percent). Most common awareness raising activities by political authorities were radio shows, followed by public meetings.

Most common actions by different levels of government:

National: Signed laws and created regulations; Gave titles to land.

Provincial: Participated in awareness raising and attended committee meetings, helped delineate land boundaries.

Local: Mainly awareness raising and encouragement of local communities' efforts (occasional participation in those efforts); some mention of local authorities participating or being tricked into forest degradation.

When it came to how to better manage protected areas the focus of most answers was on continuing to support existing activities or tweaking them to increase the benefits. There was also general discussion of the importance of participatory methods with an emphasis on giving communities and local organizations more decision-making and managerial power (should be leading efforts not outsiders).

84.6 percent of CSO respondents believed women and indigenous people were aware of the resources CARPE offered (MD = 18.8 percent). In terms of the adequacy of measures for women, 33.3 percent felt measures were somewhat adequate but missed key needs, 50.0 percent felt the measures were on average successful, and 16.7 percent felt the measures met women's needs completely and with great creativity. For indigenous people, those numbers were 55.6 percent, 44.4 percent, with no measures truly meeting their needs (MD = 43.8 percent).

Women and indigenous people were aware of CARPE's efforts generally through the activities put in place for them. For women, these were focused on literacy and supporting women's associations in various activities (livestock raising, agriculture, soap-making, sewing). One respondent did mention their organization had trained a woman to head CAFEE (*Centre pour L'autonomisation de la Femme et de L'education*, Africa Capacity). Notably, that was the only mention of women in a leadership role. The most common activities for indigenous people included provision of ameliorated cook stoves, support for agriculture/apiculture and livestock raising. Mention of family planning activities for both populations.

Problem with many of these measures is that their reach is limited and they meet only part of these vulnerable populations' needs/demands (which are huge).

In terms of sustainability, 43.8 percent of respondents felt CARPE's interventions were sustainable in the short-term, 25 percent in the long-term, while another 25 percent felt they were somewhat sustainable but required more investment to be sure. 6.3 percent felt they were entirely unsustainable (MD = 0). Common points included the need for more follow up and reinforcing of capabilities to truly be sustainable and how security issues could get in the way of sustainability.

Interesting comments made in "other things to add" section:

Problems of lack of schools nearby discussed several times.

Want support capturing rainwater or getting access to water.

Some distrust of international NGOs and government. Complaints that government personnel are illegally exploiting local resources. Distrust of what NGOs motives in helping them are.

Annex VI: Summary of Findings by Landscape

	TNS	Batéké	LTLT	Salonga	MLW	MTKB	Ituri	Virunga
6.1 Program Performance								
6.1.1 Is CARPE on track to achieve its biodiversity conservation objectives?	Yes	No	No	Yes	No	No	No	No
6.1.1.1 How well does CARPE address the identified threats to biodiversity? Are the interventions that focus on livelihood alternatives effective at reducing threats?	Threats are well identified; livelihood alternatives are not effective	Threats are largely identified; livelihood alternatives are not effective	Threats are largely identified; livelihood alternatives are not effective	Threats are well identified; livelihood alternatives are not effective	Threats are largely identified; livelihood alternatives are not effective because they are under-conceptualized and tend to be based upon an inadequate consultative process	Threats are partially identified; livelihood alternatives are not effective	Threats are partially identified; livelihood alternatives are not effective	Threats are well identified; livelihood alternatives are not effective
6.1.1.2 To what extent is CARPE succeeding in building the capacity of local communities to actively participate in biodiversity conservation	Poorly	Poorly	Poorly, with some successes	Poorly	Poorly	Poorly, with some successes	Poorly, with some successes	Poorly
6.1.1.3 To what extent is CARPE succeeding in building the capacity of government services and agencies to effectively manage protected areas and combat wildlife poaching and trafficking	Good progress in CWT, moderate progress elsewhere	Poorly	Poorly	Moderately, but support of ICCN often translates into poor relations with communities	Poorly	Mixed en-gagement with ICCN, strong in PNKB, weak in Itombwe, otherwise extremely limited due to security	Very strong engagement with ICCN in RFO.	Important work by Juristrale, otherwise highly limited

6.1.1.4 How effective are CARPE's efforts to influence the policy and regulatory environments for biodiversity conservation	Across the Landscapes, and supported by EMAPS, data collection (e.g. SMART) and data management and analysis provides critical monitoring tools for biodiversity decision-support. New approaches and tools being developed in TNS Landscape show strong promise of influencing policy and regulatory environments for biodiversity if taken to scale across CAFEC programs. Direct efforts to influence policy are not in evidence; substantial effort to operationalize the Community Forestry Decree will have direct benefits to biodiversity by improving linkages in the Landscape between protected areas through community managed conservation areas.							
6.1.1.5 What is the prospect for the ongoing and planned activities to impact at sufficient scale to measurably mitigate the threats to biodiversity	Strong within protected areas, and moderate in areas under logging concessions	Weak for key components unless gazettement occurs	Mixed	Mixed with potential for improvement with stronger approaches to poaching	Largely dependent upon the ability to engage local communities in conservation given remoteness of areas from external threats	Poor, except insofar as progress can be made on community reserves with enhanced land rights	Poor, except insofar as progress can be made on community reserves with enhanced land rights	In DRC very poor given current security situa-tion, lack of COCOSI for coordination, and poor level of coopera-tion with other key actors; in Rwanda very strong

6.1.2 Is CARPE on track to achieve its climate change mitigation objectives?	Few initiatives	No	Few initiatives	Few initiatives	Few initiatives	Few initiatives	Few initiatives	No
6.1.2.1 How well does CARPE address the identified drivers of deforestation and forest degradation? Are the interventions, in particular livelihood alternatives, effective in reducing deforestation and forest degradation?	CARPE has little impact on the major driver, which is commercial logging. Some success with certification. Livelihood alternatives are irrelevant	CARPE has little impact on the major driver, which is commercial logging. Some success with certification. Livelihood alternatives are irrelevant	Lots of fragmented postage stamp actions with little broader impact on the environment	Little deforestation and relatively few drivers due to the remoteness of the location	There are patches of visible deforestation and areas where CARPE has limited impact on poaching.	Primarily drivers are not addressed. Livelihood alternatives are new and may prove to have limited effectiveness but not at sufficient scales to have necessary impact.	Primarily drivers are partially addressed. Livelihood alternatives, particularly cacao production, are new and may prove to be effective; it is unclear at this point whether it can scale to have major impact.	Primary drivers are not addressed in an effective manner. Livelihood alternatives may prove to have limited effectiveness but not at sufficient scales to have necessary impact.
6.1.2.2 Do the implementing partners consider leakage when designing implementation? How is the leakage issue addressed?	Poor understanding of the concept of leakage; leakage issues are not effectively addressed.							

6.1.2.3 To what extent is CARPE succeeding in building the capacity of local communities to actively participate in climate change mitigation	Awareness raising is the main activity, no role for communities in emissions reductions from land use	Woodlots and fuelwood activities are community-based interventions, some awareness raising. No action to enforce fire management practices with community role	There are limited efforts to engage communities in fire management but this is largely limited to awareness building	Unsuccessful; discourse has not translated into concrete action	Unsuccessful; discourse has not translated into concrete action	There are no explicit efforts to participate in mitigation; per se, the emphasis is on development of community reserves, q.v.	There is an important experiment in the develop-ment of shade-grown cacao - which may be scaleable; the emphasis on mitigation via REDD+ is in abeyance pending more favorable conditions and the focus is on community management of lands for sustainability	There is strong ongoing efforts in community woodlots and fuel efficient charcoal stoves; there is no evidence however that these activities translate to reduced GHG emissions
6.1.2.4 To what extent is CARPE succeeding in building the capacity of government institutions at the national and local levels to develop and implement REDD+ strategy and action plans? Are efforts at the national, Landscape, and local levels effectively linked?	Limited direct engagement with national REDD+ strategy because of other donor work to support government institutions. CARPE plays a coordinating role at best. EMAPS provides critical decision support tools for national REDD+ strategies.							
6.1.2.5 How effective are CARPE's efforts to influence the policy and regulatory environments for global climate change	There is no CARPE national team to engage relevant ministries on climate change policy; CARPE does provide forest-monitoring services. CARPE is not a thought leader on Landscape approaches at the global level.							
6.1.2.6 What is the prospect for CARPE's ongoing and planned activities to have impact at sufficient scale to measurably reduce deforestation and forest degradation	Because CARPE does not address the primary drivers in many Landscapes, prospects are weak.							

6.1.3 How well does CARPE address the issues concerning women empowerment, gender integration and indigenous peoples?	
6.1.3.1 How effective is CARPE in promoting women's empowerment and gender equality in its biodiversity conservation and climate change mitigation activities	The capacity of CAFEC programs to promote women's empowerment and gender equality was poor across the Landscapes. Some desultory efforts to engage women's groups were observed, but interventions were not based upon a profound understanding of the relations between men and women and the implications of these relations in biodiversity and land use activities.
6.1.3.2 How effective is CARPE in integrating indigenous people in its biodiversity conservation and climate change mitigation activities	By "indigenous" the Evaluation Team interprets USAID to mean "autochthones" or pygmies. There is no clear strategy within CARPE to effectively integrate autochthones into biodiversity and climate change strategies; the efforts observed were ad hoc and not based upon a clear understanding of the culture; moreover, because project staff are overwhelmingly majority (Bantu) CAFEC projects are liable to the same cultural divisions as the society as a whole; this was reflected strongly in our engagement with pygmy communities.
6.2 Program Design and Implementation Strategy: What are the merits and shortcomings of the CARPE III strategic approach?	
6.2.1 How valid are the development hypotheses and the assumptions outlined in the CARPE III RDCS, and the strategic approaches and associated Theories of Changes elaborated by partners with the assistance of the MI team?	The RDCS objectives, CARPE goal, and development hypothesis are weak. All RDCS assumptions have not been borne out; moreover, causal relationships between alternative livelihoods and improved biodiversity conservation and low emissions development have not been effectively established. In particular, there is an assumption that alternative livelihoods would substitute for consumptive behavior that has no basis in fact. A major problem in design is the imbalanced reliance on environmental NGOs with inadequate community development expertise.
6.2.2 What evidence exists that the strategic approaches developed for each implementing partner are (or are not) appropriate for effectively and efficiently achieving CARPE III objectives?	In part due to delays in workplan and budget approvals by USAID, the implementation of strategic approaches is behind schedule; it is therefore difficult to determine appropriateness or effectiveness. What is evident is that implementation is patchy, and there is no strategy in place to take successful innovations to scale during the life of the project, and that the IPs do not have the skills required to do this.
6.3 Program Management and Coordination: How well are CARPE's activities managed and coordinated to achieve the program objectives and results?	
6.3.1 How effective is the management of CARPE's programs by implementing partners?	In general, IP management was found to be highly professional, but operating with significant constraints. These include: substantive involvement in management by USAID at a level in excess of what is appropriate for cooperative agreements, resulting in substantial delays in routine decision-making; slow turnaround time for workplan and budget approvals by USAID, leading to delays in implementation; difficulty in long-term planning due to constantly shifting security conditions in Eastern Landscapes, and distances/poor mobility.

6.3.2 Do CARPE's implementing partners have the staff expertise and capacity, particularly at the local level, to design and implement CARPE activities; with an emphasis on management of activities focused on creating livelihood alternatives?	Across the board, CARPE IPs have strong staff expertise for core activities in biodiversity and climate mitigation; however, staff expertise in CAFEC Landscapes is weak in governance, gender, indigenous peoples, and alternative livelihoods. Although many Landscapes have well qualified individuals responsible for alternative livelihood programs, the organizational structure and overall programmatic focus of the Landscape programs does not provide the capacity to implement these activities at necessary scales.							
6.3.3 How cost-effective are the management structures of CARPE implementing partners?	NNNP management structure is effective and overseen by independent foundation, remote location makes logistics challenging/ expensive	LS is spread out and access difficult, requiring two field offices. Well managed and coordinated staff	Not effective due to split in management between countries	Moderately effective, but constrained by high cost of transport and poor overall mobility	Moderately effective, but constrained by high cost of transport and poor overall mobility	Choice of location of offices for some functions is questionable	Effective, with tight integration between partners, weak M&E and poor follow up on projects	Not effective due to poor coordination with Virunga Foundation, security issues
6.3.4 How effective is the collaboration between the CAFEC and EMAPS projects in contributing to the achievement of CARPE's objectives?	Poor; e.g., SCAEMPS doesn't get into the field to interact							
6.3.4 How effective is the collaboration between CAFEC Landscapes, in contributing to the achievement of CARPE's objectives?	Poor	Poor	Poor	Poor	Poor	Limited collaboration with Ituri	Limited collaboration with MTKB	Poor
6.4 Sustainability								
6.4.1 What have been CARPE's relative strengths in ensuring the financial, social, and institutional sustainability of USAID's investments after CARPE III implementation?	CARPE's strengths lie primarily in supporting international conservation organizations to maintain a continued presence; there is some positive engagement with local authorities in eastern Landscapes.							

6.4.1.1 What have been CARPE's relative weaknesses in ensuring the financial, social, and institutional sustainability of USAID's investments after CARPE III implementation?	NNNP will be sustained by a diversity of funding sources, although CARPE remains the single largest donor. Local communities are dependent (handout mentality) on park, but see park as vital for employment	Unlikely that Ogooué-Leketi park and Léfini reserve will be sustain-able protected areas without CARPE investment. Very few community based organi-zations and little commu-nity capacity to manage	Difficult to assess due to the differences between the two sections, some significant progress in governance in Lac Tele may be replicable	Poor engagement with local authorities	Poor engagement with local authorities	Project suffered from lack of program delivery from original Landscape manager, and is in recovery mode; strong management team suggests grounds for optimism	Insufficient attention to governance capacity in community conservation areas, poor monitoring and follow up, no clear strategy to address migration as major threat	Lack of evidence that intervention strategies are effective in achieving results; no sense of sustainability in the absence of subsidies; general lack of engagement with Virunga Foundation
6.4.2 Where along a trajectory of sustainability are key institutions that CARPE is strengthening? Will they achieve expected goals by end of project?	WCS Congo will likely continue work on Ogooué-Leketi park as a program, but LS is highly unlikely to be sustainable without CARPE support. LS remains extremely threatened in many ways	Lac Tele: PA is highly dependent on CARPE funding, but progress seems very limited after 15 years of community reserve. Management improvements necessary for stronger results	Sustainability prospects without continued outside funding are extremely poor. ICCN depends upon outside finding; there is little evidence of CARPE strengthening of other key institutions	Sustainability prospects without continued outside funding are extremely poor. ICCN depends upon outside finding; there is little evidence of CARPE strengthening of other key institutions	Sustainability prospects without continued outside funding are extremely poor. ICCN depends upon outside finding; there is little evidence of CARPE strengthening of other key institutions	Efforts to strengthen community reserves almost non-existent; rebuilding underway post change in Landscape leadership is recovering lost ground	The COCOSI is strong, and there are efforts to support community based conservation areas, but these are unlikely to be sustainable by the end of CARPE III.	In Rwanda, there are very strong efforts underway to support cooperatives with government backing; in DRC, there are limited efforts that are subsidized with uncertain prospects of sustainability

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