

2016 ANNUAL REPORT



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AFRICA BIODIVERSITY COLLABORATIVE GROUP

December 31, 2016

Africa Biodiversity Collaborative Group

2016 ANNUAL REPORT

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COVER PHOTO: Emiliana Ezekiel Kaboya uses a tippy tap at her home in Nkongwa near Lake Tanganyika, Tanzania
PHOTO CREDIT: Ami Vitale, The Nature Conservancy

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ACRONYMS

ABCG	Africa Biodiversity Collaborative Group
ANDM	Alfred Nzo District Municipality
AFR/SD	Bureau for Africa/Office of Sustainable Development
AWF	African Wildlife Foundation
CAFEC	Central Africa Forest Ecosystem Conservation
CCC	Community Conservation Committee
CCRO	Certificate of Customary Right of Occupancy
CI	Conservation International
CLG	Comité Locale de Gestion
CSA	Conservation South Africa
COP	Community of Practice
FY	Fiscal Year
FZS	The Frankfurt Zoological Society
DRC	The Democratic Republic of the Congo
FOCAC	Forum on China Africa Cooperation
GCI	Global Change Impacts
JGI	The Jane Goodall Institute
LRTR	Land and Resource Tenure Rights
LUM	Land Use Management
NGO	Non-governmental Organization
PHE	Population, Health and the Environment
PFM	Participatory Forest Management
PLUM	Participatory Land Use Management
RDCS	Regional Development Cooperation Strategy
REDD	Reducing Emissions from Deforestation and Forest Degradation
SSA	Sub-Saharan Africa
SOW	Scope of work
TNC	The Nature Conservancy
USAID	United States Agency for International Development
WASH	Water, Sanitation and Hygiene
WCS	Wildlife Conservation Society
WRI	World Resources Institute
WUC	Water Management User Committee
WWF	World Wildlife Fund
YALI	Young African Leaders Initiative
VLFR	Village Land Forest Reserve
VLUP	Village Land-Use Plan

I. EXECUTIVE SUMMARY

This report by the Africa Biodiversity Collaborative Group (ABCG) covers the annual period from October 1, 2015 to September 30, 2016 of the United States Agency for International Development (USAID) Cooperative Agreement No. AID-OAA-A-15-00060. ABCG is a consortium of seven U.S.-based international conservation non-governmental organizations (NGOs): African Wildlife Foundation (AWF), Conservation International (CI), the Jane Goodall Institute (JGI), The Nature Conservancy (TNC), Wildlife Conservation Society (WCS), World Resources Institute (WRI) and World Wildlife Fund (WWF).

ABCG's overarching goals of a) mainstreaming biodiversity in human well-being and development agendas; b) promoting good conservation practices; and (c) strengthening the role of social and development institutions in biodiversity conservation and human well-being, are being pursued within the context of five thematic foci. This report provides an overview of progress made on these thematic tasks and include:

1. Land and Resource Tenure Rights
2. Land Use Management
3. Managing Global Change Impacts
4. Global Health Linkages to Conservation: Population Health and Environment; Water Sanitation and Hygiene
5. Emerging Issues

Technically, ABCG's programmatic approach involves conducting analyses of critical issues affecting efforts to conserve Africa's biodiversity; designing and implementing pilot projects to assess and demonstrate the feasibility of innovative approaches for addressing those issues; and leveraging output to promote data-driven decision-making and viable trade-offs associated with using and managing land and natural resources. Further, ABCG aims to build strong partnerships with local African institutions as the foundation of communities of practice (COP). ABCG members cooperate through those COP to improve best practices across the relevant conservation, development and rights stakeholders, whose activities affect, and are affected by, biodiversity conservation efforts.

Land and Resource Tenure Rights (LRTR): The LRTR task group refined its objectives, identified specific activities, and began implementation at target landscapes including the Democratic Republic of the Congo (DRC), and Southern and Western Tanzania. Key highlights thus far include completing village land use plans for Western Tanzania, developing a draft report of the analysis of mechanisms and frameworks for granting community rights over land and natural resources in Tanzania and completing stakeholder consultations with the Provincial government in DRC to create Kabobo National Park by the end of 2016.

Land Use Management (LUM): The LUM task group commenced by reviewing case studies in four landscapes located in: Republic of Congo, DRC, Tanzania and Madagascar. A coordination workshop was held in March to thoroughly outline activities, such as spatial modeling. An analytical framework has been drafted to help guide the case studies and a

series of capacity building seminars was held for field teams in order to aid implementation of the case studies across sites. Within all of the four landscapes clear planning goals and objectives have been identified. Three of these landscapes have held workshops with stakeholders and experts to validate these and a fourth workshop is planned in February for the remaining landscape.

Managing Global Change Impact (GCI): As the initial activity, the GCI task group reviewed concepts and components for a survey design, then hired an expert consultant to design a comprehensive survey. Further, the group has begun work on a literature review of human coping responses to climate change. The group members also established priorities for data collection, an activity timeline, and field-tested the survey in Kenya before finalizing it for implementation in early Year 2.

Global Health Linkages to Biodiversity Conservation—Population, Health and the Environment (PHE): The PHE task group held regular meetings to define scope and process for a literature review on integrating population with other health and environment sectors. It also worked to identify best practices and promising approaches for analysis and implementation of integrated PHE projects at the regional and national scales.

Global Health Linkages to Biodiversity Conservation—Fresh Water Sanitation and Hygiene (FW-WASH): Task group members began with a review of deliverables, clarifying roles and responsibilities and shared progress on each of the components including a *Google Drive* portal to exchange information at the task level and among the organizers of the FW-WASH Community of Practice (COP). Pilot studies in South Africa and Uganda have advanced significantly with notable achievements including eight restored natural springs and five installed water points at primary school locations, respectively. In addition, invitees have adhered to the FW-WASH COP and are preparing to convene an inaugural meeting in early Year 2.

Emerging Issues (EI): The Steering Committee selected three Emerging Issues themes after an identification process by ABCG's extensive network of field teams and local partner NGOs: 1) Wildlife Trafficking, 2) Infrastructure Development, and 3) Strengthening African Civil Society. The chosen themes represent topics that ABCG member organizations are not currently addressing, a new dimension to an existing conservation issue, or a sizable challenge where an ABCG-funded intervention would compel scaling of activities.

The Steering Committee selected two of the four proposals submitted, awarding approximately \$115,000 in funding. The winning proposals were: TNC/WRI: Piloting Mechanisms for Strengthening African Conservation Leadership and Organizational Capacity; and WCS/WWF: A Scalable Approach to Engaging Chinese Overseas Enterprises to Mitigate Impacts of Wildlife Trafficking in Africa.

As part of enhancing ABCG visibility and fostering broader outcomes for the overall program deliverables, ABCG has begun activities on a strategy to ramp up engagement with African stakeholders including local, national and regional actors with mutual interest in biodiversity conservation. The Secretariat has compiled a preliminary list of contacts at the individual, institutional and civil society levels, primarily based in Kenya and East Africa. This activity feeds into a goal of building relationships for the exchange of cross-cutting ideas for broad adoption of ABCG outputs by target audiences.

2. INTRODUCTION

2.1 PROGRAM OVERVIEW

ABCG continues as a thought leader in identifying and developing strategies to address high-priority threats to biodiversity in Africa by generating new knowledge, fostering COPs, and sharing best practices with stakeholders including local communities, conservation professionals, NGOs, and policy and decision makers in Africa, the US, and beyond. In so doing, ABCG provides support in program planning, implementation, evaluation, knowledge management and outreach to USAID-supported biodiversity conservation programs in Africa.

ABCG's mission is to tackle complex and changing conservation challenges by catalyzing and strengthening collaboration, and bringing the best resources from across a continuum of conservation organizations to effectively and efficiently work towards a vision of an African continent where natural resources and biodiversity are securely conserved in balance with sustained human livelihoods.

Achieving ABCG's vision requires: a) mainstreaming biodiversity in human well-being and development agendas; b) promoting good conservation practices; and (c) strengthening the role of social and development institutions in biodiversity conservation and human well-being. ABCG's overall objectives are to:

- Promote networking, awareness, information sharing among U.S. conservation NGOs working in Africa, to encourage information exchange and idea sharing with African partners;
- Identify and analyze critical and/or emerging conservation issues in Africa as priorities for both future NGO action and donor support;
- Synthesize collective lessons from field activities and share them with the broader multi-sector community in the United States and Africa; and
- Support USAID in implementing the Bureau for Africa, Office of Sustainable Development (AFR/SD)'s Regional Development Cooperation Strategy (RDCS) and USAID's Biodiversity Policy in Africa, focusing on: a) conserving biodiversity in priority places, and b) integrating biodiversity as an essential component of human development. To this end, ABCG will foster COPs that provide effective support to the US Government and to USAID country and regional missions, and to African governments and African civil society.

The AFR/SD RDCS Development Objectives align with ABCG's strategies for linking learning to communities of practice, generating new knowledge, and influencing partners to demonstrate a results chain for knowledge management to develop its capacity to identify, create, represent, distribute, and enable adoption of information and experiences critical to the strategy's success.

2.2 THEMATIC TASK ACTIVITY AREAS

In partnership with USAID/AFR/SD, ABCG focuses on four key issues that strongly influence the effectiveness of biodiversity conservation efforts: a) land and resource tenure rights, b) land use management, c) understanding the impacts on biodiversity of change processes operating at a global scale, and d) understanding the linkages between global health and biodiversity. Working groups are composed of the ABCG partners' staff members with relevant expertise. Further, a fifth working group was formed to identify and develop strategies to respond to emerging issues affecting biodiversity conservation in Africa, primarily through a small grants program.

3. SUMMARY OF PROGRAM IMPLEMENTATION

3.1 TASK ACTIVITY I: LAND AND RESOURCE TENURE RIGHTS

3.1.1 Task Activity Description

Land and resource tenure rights influence the achievement of biodiversity conservation objectives and comprise: (a) the rights accorded individual landowners to manage private lands and (b) the recognition of collective (community or customary) rights of people living on state lands. They represent fundamental assets—primary sources of livelihood, nutrition, income, wealth and employment. Land and resources are a basis for security, status, social identity and political relations, and, for many rural people, they have historical, cultural and spiritual significance. Strong rights and secure tenure are central to families and communities maintaining their land and resources, including biodiversity.

The LRTR working group is developing and testing strategies and tools that place greater land and resource management authority in the hands of local resource users, thus creating incentives for them to exercise their authority in ways that are consistent with biodiversity conservation and sustainable use of renewable resources. The task members are piloting new approaches for securing tenure in three critical ecosystems: Greater Mahale Ecosystem, Tanzania (TNC, JGI); Kilombero Valley, Tanzania (AWF, WRI); and Kabobo Reserve, DRC (WCS, WWF). These ecosystems are anchors for biodiversity that support livelihoods for growing local populations. Strengthening rights and securing tenure,



Kabobo National Park, DRC. Photo Credit: Michelle Wieland, WCS

especially over the community lands managed as common property, are central to the conservation of this biodiversity. The findings and outcomes of these pilot studies will have important implications for other communities and conservationists working across the continent.

3.1.2 Activity Implementation and Achievements

3.1.2.1 Implementation progress

Five LRTR Task participating organizations—AWF, JGI, TNC, WCS, and WRI—have activities scheduled in Year 1; WWF’s activities under this Task begin in Year 2. As a result, this report includes only the activities and progress made by AWF, JGI, TNC, WCS, and WRI.

Initially, the participating organizations worked to clarify the objectives, identify specific activities, and fine-tune the target geographies. They also linked with their field staff to verify and ground-truth the proposed work plans, and to identify target stakeholders to be engaged in the work. This information was used to adjust the work plans. Since receiving the sub agreements, the participating organizations launched planned activities that resulted in completion of village land use plans in Western Tanzania, and analysis of tools used for land management across most regions in Tanzania. The analysis will be used to guide plans for in depth village surveys in the Kilombero Valley in the first quarter of Year 2. In DRC, community engagement has resulted in women and indigenous peoples being incorporated into a representative governance committee that is working towards reserve gazettement.

AWF and WRI – Southern Tanzania

AWF, JGI, TNC, and WRI hired a consultant – Andrew Williams - to conduct research on the principal approaches, mechanisms, and tools that are available and/or used by villages to support the implementation and enforcement of Village Land-Use Plans (VLUPs). The findings will be captured in a publishable-quality written document. The consultant conducted a systematic review of the various approaches available to and/or used by villages to help implement and enforce their VLUPs, especially village efforts to secure and protect the common property in their Village Land. The focus of the review was to:

- Identify the pros and cons of each approach from the perspective of securing common property;
- Document the experiences and outcomes of each approach; and
- Identify the conditions/circumstances when each approach might be the best option for protecting and securing common property.

In addition to reviewing the available and used approaches, the consultant considered other approaches that could support VLUP implementation and should be made available by new laws/regulations. For example, should the government and villages consider establishing a “Village Grassland Reserve” akin to the Village Land Forest Reserve (VLFR) to protect communal grazing areas on Village Lands?

TNC and JGI - Western Tanzania

The main activities that were implemented include land use planning and capacity building in terms of training to District staff and donation of equipment to the Departments of Land and Natural Resources of Mpanda and Uvinza districts. The details of the activities are as outlined below:

Completion of VLUP

TNC completed land use planning work in one village known as Kasangatongwe village which has a total land size of 38,856 Ha and an estimated number of 590 households. Of this land size a total 26,489 Ha (69%) of the village land was earmarked for agriculture purposes, 6,942 Ha (17%) for grazing and 4,387 Ha as VLFR. Settlement area size is 1,036 Ha (2.7%) and the rest is earmarked for other land uses, such as wildlife corridors. Land use planning work is a prerequisite activity before embarking on issuing Certificates of Customary Rights of Occupancy (CCROs) to land owners. The VLUP for Kasangatongwe village was approved by Mpanda District Council in December 2015.

Capacity Building of District Staff

A total of 28 staff (26 men and two women) from Mpanda District (14) and Uvinza District (14) were trained on Participatory Land Use Management (PLUM), Participatory Forest Management (PFM) and on the process of issuing CCROs from 29th August - 2nd September 2016 in Kigoma Municipality. The training was organized and funded jointly by TNC and JGI. The Frankfurt Zoological Society (FZS) was involved in the identification of two experienced Facilitators/Trainers from the National Land Use Planning Commission and Ministry of Natural Resources and Tourism. After the training in Kigoma Municipality, TNC organized and funded practical trainings on how to issue CCROs using GIS software for 13 district staff that were selected from the above-mentioned group of trainees (5 in Mpanda District and 8 in Uvinza District). Practical trainings were held in Mpanda and Uvinza Districts from 5th – 12th September 2016 and 13th – 21st September 2016, respectively. After these trainings, the Districts are now ready to implement the remaining activities under the ABCG project.



*Participants of the training for PLUM, PFM, CCRO at the JGI Office in Kigoma, Tanzania.
Photo Credit: Petro Masolwa, TNC*

Donation of Equipment to Districts

In order to improve Districts' capacity in the management of land and other natural resources data and information, TNC donated one high storage capacity desktop computer, one laptop computer and one color printer to each district of Mpanda and Uvinza. TNC also donated three Garmin GPS units to each district for collecting spatial data.

WCS and WWF – DRC, Kabobo National Park

Identify and engage local communities to support legal gazettement of the proposed Kabobo National Park

The Kabobo gazettement process is thought to be one of the most participatory of gazettement processes that has taken place in the DRC. The process started with consultations with social and professional groups from the village level to the national level. These meetings aimed at obtaining community/government consent to protect the forest, developing boundaries and zoning, and creating local committees. After creating local conservation committees (CLC), community conservation committees (CCC) at local levels, and finally the community conservation management committees at the regional level (CGCC), it was important to understand the dynamics and relationships between various key players and actors. Therefore, a stakeholder analysis was conducted and a stakeholder map produced. This stakeholder analysis was developed as USAID funds became available to improve the governance of the committees that were created.

Ninety percent of the protected area zone boundaries have now been covered through participatory mapping. 150 signboards were installed within community areas around Kabobo, and nine meetings were held involving 117 men and 10 women. More than discussing boundaries, meetings also included discussions on resources to be accessed and key conservation challenges. WCS matching funds were used to implement these activities.

Engage stakeholders to create a representative stakeholders coordination board



Batawa hunters, DRC. Photo credit: Michelle Wieland, WCS

During the development of the Conservation Action Plan (CAP) for the Kabobo-Luama Landscape, stakeholders identified a need for the establishment of a local board (CLG, comité locale de gestion) to ensure local involvement in the management of the proposed Kabobo National Park. In May 2016, the CLG was established and included traditional chiefs, civil society, the Forestry Department and the local administration. Members of the CLG signed an agreement which was filed with the Territorial Administrator for legalization. WCS advocated for a more inclusive committee, bringing in women, indigenous people, and general community members to the second meeting of the CLG in August 2016 where the committee created three seats to improve its inclusiveness. In early September, the CLG visited the field to assess the level of human impacts on biodiversity. This visit catalyzed the Provincial government to speed up political steps to establish the Provincial

Consultative Counsel for Forests (CCPF), the government body that has to approve the gazettelement of the area before that can be legalized by the Governor. During FY 2016, two meetings were held in Kalemie and one field visit by the CLG. Regarding engagement with communities, WCS held regular meetings through CCCs to discuss conservation issues, communities and challenges (see 3.1.9).

Facilitate process that results in local representation and resource use rights/rules for the national park

Since 2008, there have been three socio economic surveys conducted in the Landscape (Plumtree et al. 2009; Crawford & Kujirakwinja 2016). The aim was to ensure that key issues related to communities are monitored and considered in management interventions. The communities identified different resources that they would like to access within the gazetted area and who should be involved. Therefore, the key resources to be accessed have been identified, and issues of rights and access will be discussed in the CLG meeting in October.

WCS conducted a study to assess resource access and rights of indigenous peoples in key areas where they live. The resulting report identifies interventions by indigenous peoples (Batwa) to enable their access to resources and improve their livelihoods.

Engage the DRC parks agency, Institute Congolais pour la Conservation de la Nature (ICCN) to ensure adoption of the integrated board into the future management

Three meetings were held with ICCN to discuss the ongoing process and challenges, including a discussion on integrating the newly-created CLG into the protected area management structure. Although in-depth discussions have not yet been held, ICCN is supportive of the innovative idea. ICCN has requested equity (different social groups being represented) and equitable power sharing between ICCN and communities. This will avoid conflicts between ICCN and the CLG, and also avoid conflicts within the communities. ICCN's reservations regarding co-management, which need to be addressed, are how to balance power and rights sharing with communities, while effectively conduct law enforcement in conservation zones for protected species.



Makeshift "refugee" camps in the Kababo National Park. Photo credit: Michelle Wieland, WCS

The detailed process for co-management will be discussed in FY 2017 through a national strategic technical meeting that includes WCS, ICCN and the National Ministry in charge of Environment. The draft executive decision (*arête*) to create Kabobo is currently under discussion. It will incorporate co-management as the governance model and include the CLG as a partner to be involved in both decision making and the implementation of interventions on the ground.

Participative system for monitoring project progress

The monitoring system has not yet been developed, though there are regular meetings at the field level to assess the implementation of key interventions and identify challenges. A monitoring visit by the head of ICCN to the Kabobo Landscape was planned for December 2016 to evaluate key achievements, challenges, and future interventions.

3.1.2.2 Key achievements

AWF and WRI – Southern Tanzania

AWF and WRI undertook a number of activities and achievements including:

- Clear definition of objectives of the work;
- Clear definition of Kilombero Valley as the area of geographical focus in Southern Tanzania where AWF will conduct in-depth village surveys embedded within their ongoing program;
- The consultancy SOW for reviewing the mechanisms and frameworks for granting community rights over land and natural resources was finalized and the work commissioned, and;
- A complete draft report of the analysis of mechanisms and frameworks for granting community rights over land and natural resources in Tanzania was completed and is set for presentation before the ABCG task group in early FY 2017.

TNC and JGI - Western Tanzania

- Given the similarity of proposed activities for FY 2016, JGI joined forces with AWF and WRI to support the consultancy assignment to review the mechanisms and frameworks for granting community rights mentioned above. This report will guide JGI activities in FY 2017, especially on the utility of CCROs (both communal and individual) in securing title to community forests in Western Tanzania. This work is being implemented alongside the USAID funded Landscape Scale Community Centered Ecosystem Conservation in Western Tanzania Project;
- The VLUP for Kasangatongwe village has been completed and approved at the district council level. PFM processes are underway with support from FZS to help villagers in Kasangatongwe legally own the VLFR;
- Improved Districts' staff capacity in undertaking PLUM and land titling using CCROs, and;
- Improved Districts' capacity in data collection, storage, processing and dissemination as a result of the donation of six Garmin GPS units (three per district), computers and printers.

WCS and WWF – DRC, Kabobo National Park

- All stakeholders have been consulted and are supportive of the process to create co-managed protected area. Local structures have had their representation strengthened through the inclusion of women and indigenous people. The Provincial government is motivated to create the protected area by the end of 2016.

3.1.3 Integration of Crosscutting Issues

3.1.3.1 Gender

WCS and WWF – DRC, Kabobo National Park

With the encouragement of WCS, the local governance committee has included two seats on the committee for women and indigenous people representatives. This inclusivity will improve minority representation on the region's natural resources governance, and increase possibilities that rules and regulations put in place for resource and land use will be equitable and agreed to by all members of the community.

3.1.3.2 Wrap around activities (HIV/AIDS)

NA

3.1.3.3 Public private partnership / Global development alliance

NA

3.1.3.4 Sustainability mechanisms

NA

3.1.3.5 Environmental compliance

NA

3.1.3.6 Climate change (adaptation and/or mitigation)

TNC and JGI - Western Tanzania

Through supporting VLFR and the development and enforcement of by-laws to protect VLFRs from encroachment, this project is promoting climate change mitigation (e.g., better protected forests in a VLFR will serve as carbon sinks as well as provide additional forest services, such as water and medicine plants).

3.1.3.7 Policy Support

NA

3.1.4 Best Practices and Lessons Learned

TNC and JGI - Western Tanzania

While undertaking training for district staff in Participatory Land Use Planning, PFM and steps involved in issuing CCROs, TNC and JGI decided to use Facilitators/Trainers from both organizations (TNC & JGI) and from the National Land Use Planning Commission and the Ministry of Natural Resources and Tourism. Involvement of senior trainers/officials from Government institutions proved to be effective incentive for trainees/participants from the districts to take the training workshop seriously, because the Government officials told them that they will be monitoring the performance of each district in order to evaluate the impacts of the training. This led to active participation in the training by all 28 district staff as they knew that their performance would be monitored by their supervisors and that they would be held accountable for any failure.

WCS and WWF – DRC, Kabobo National Park

Decentralization within the DRC led to project implementation delays, however the end result of more decentralized government now in place has been extremely beneficial. The new provincial government is now close to the proposed PA, and as a result, has much stronger buy-in to the co-management project. Local government wants to fast-track the Kabobo creation process, and participation by government officials has been very high. Thus, decentralization in this instance has been a powerful force for resource tenure processes.

3.1.5 Challenges and Constraints

TNC and JGI - Western Tanzania

Although the TNC project in Western Tanzania initially planned to issue CCROs to individual households or farmers in order to enhance ownership of land and other resources on the land, the project has realized that issuing individual CCROs may in essence lead to or enhance land fragmentation as some farmers or households may sell their land, thus becoming landless and/or the land being developed in an unsustainable way. TNC is in favor of issuing CCROs to groups of resource users, such as pastoralists. However, since most of the pastoralists in Western Tanzania are migrants from neighboring regions, it may be challenging if the project starts supporting them to get CCROs without supporting individual small scale farmer and/or households who are native residents of western Tanzania. TNC is waiting for the report from the consultant (Dr. Andrew Williams) who visited Western Tanzania in September 2016, to learn and document the different experience of land tenure in Western Tanzania. The report will provide recommendations and a way forward, to TNC and other partners on whether they should support issuance of CCROs to groups and/or individual resource users.

WCS and WWF – DRC, Kabobo National Park

Appropriation of the northern half of what was to be Ngamikka National Park by non-aligned interests denotes how tenuous land processes are in the DRC. In addition, decentralization of what is now Tanganyika Province led to a seven-month delay in the project while the project team waited for a new government to be appointed.

3.1.6 Stakeholder Engagement

WCS and WWF – DRC, Kabobo National Park

Engagement of the CLG has been a highlight of FY 2016, as the provincial and territorial government leaders and local chiefs are enthusiastic about co-management of the national park. Concurrently, the creation and participation of CCCs ensure voices and involvement of more democratic and community oriented structures outside traditional power structures.

3.2 TASK ACTIVITY 2: LAND USE MANAGEMENT

3.2.1 Task Activity Description

Historically, conservation has been a reactive discipline, and land-use planning utilized as a tool for achieving conservation outcomes has often been reactive as well. As problems arise, the conservation sector often initiates a new planning process to assess impact and identify solutions. This piecemeal approach to conservation planning is insufficient to address the complex realities and conservation challenges of today. The Task group has found that every target landscape is being reshaped, not by a single driver, but by a suite of drivers including population growth, changing resource utilization patterns, economic development and climate change. Conservation planning frameworks need to recognize this reality and incorporate the current and forecasted future cumulative impact of these drivers of change to identify more robust conservation interventions.

This task group will develop a methodological approach to conservation and land use planning based on scenario analysis, and guidelines for its application, to incorporate equitable and climate-smart alternatives into land use decisions for conservation. The methodology will be used in four sites to replicate a landscape-level planning process with multi-sectoral stakeholders in order to better understand drivers of landscape change. Ultimately the group will develop alternative scenarios for sustainable development and conservation of biodiversity.

3.2.2 Activity Implementation and Achievements

3.2.2.1 Implementation progress

Overall the LUM task is on track in its implementation. Within all of the four landscapes (northern Republic of Congo, eastern DRC, western Tanzania and Madagascar) clear planning goals and objectives have been identified that will drive the analyses. Three of these landscapes have held workshops with stakeholders and experts to validate these and a fourth workshop is planned in April 2017 for the remaining landscape. As outlined in the next section, many of these goals and objectives are linked towards clear policies and management strategies to ensure the outputs of this task are as practical as possible. Contributions by task collaborators, partners and others to a database characterizing each landscape are ongoing in all four landscapes. The database builds upon existing work in each landscape and by centralizing this information it will be critical for the planning processes. Various spatial analyses and models have also been identified to support planning in the each of the landscapes. Each land use planning analysis is tailored to the planning objectives in the landscape, and includes unique performance metrics to measure the likely outcomes of alternative future scenarios.



Participants in planning workshop, Goma, DRC. Photo Credit: Marc Fourier, JGI

3.2.2.2 Key achievements

Perhaps the biggest accomplishment has been designing the project to meet the needs of on-the-ground planning processes around land-use management. Often these types of analyses are done without thinking first about implementation opportunities. For example, both teams in Congo and Madagascar are designing the analysis and linking the results to low carbon development strategies and REDD+ payments. The ABCG Congo team is also considering how to identify areas of high conservation value within forestry concession plans, and some early results have been presented to the Forestry Stewardship Council (a certification scheme for sustainable forestry). The task group is working with FSC on how the

approach might be used throughout concession planning and management in the Congo Basin.

With large scale industrial agriculture as a key driver in some of the landscapes, both ABCG teams in Congo and Tanzania are tailoring work towards informing the placement of conservation strategies that account for these drivers, allowing for socio-economic development in addition to biodiversity objectives. All of these landscapes would benefit from human development strategies and conservation, and development needs such as linear infrastructure and human access to forests for community subsistence (e.g. hunting, logging) are being considered in all four landscapes, particularly DRC. Another key achievement is the level of collaboration this task has fostered - collaboration between the partner NGOs and collaboration across stakeholders in all the landscapes. There are already lessons learned within these landscapes that are informing the other landscapes, such as how to conduct a workshop on understanding landscape objectives.

3.2.3 Integration of Crosscutting Issues

3.2.3.1 Gender

In Madagascar, activities during this FY 2016 year were focused on the stakeholders' workshop to define the vision and the characterization of the landscape. The gender issue itself was not addressed as a specific theme during this first workshop, but participation of women in discussions and data analysis was encouraged. Several ministries at the central level (Environment, Mines, Decentralization and Land Use Planning, Agriculture) were represented by women. Women represented one third of the total participants of the workshop and the upcoming data analysis and scenario development phases will involve more women. This level of representation was similar in Congo and DRC.

3.2.3.2 Wrap around activities (HIV/AIDS)

NA

3.2.3.3 Public private partnership / Global development alliance

NA

3.2.3.4 Sustainability mechanisms

NA

3.2.3.5 Environmental compliance

NA

3.2.3.6 Climate change (adaptation and/or mitigation)

Republic of Congo

In view of the recent fires in northern Congo during the most recent El Nino event, vulnerability to fire could be a factor in the selection of future conservation set asides. In January of 2016, an area totaling more than 40,000 ha of moist rainforest was burned due to an anthropogenic fire (most likely a campfire set by hunters that went out of control). This type of fire event is highly unusual and has not been seen for over a generation. However, it is thought by some experts that the open forest types on the southern margin of the northern Congo planning region may have been influenced by fires in the past. In this most recent fire event, fire penetrated into parts of the forest that were thought 'impenetrable' to fire. It is strongly suspected that logging activity, and in particular, the drying effect along the edges of logging roads could have rendered the forest more accessible to fire. It is likely under a changing climate that these events will become more frequent in the future. The Congo team has identified that one potential land-use management scenario in the northern Congo landscape is to focus protection from forestry and other extractive activities towards ecosystems vulnerable to degradation or loss resulting from changed fire regimes. This is expected to ensure that fire-sensitive ecosystems continue to support the people who depend on them for resources, and should enable climate change adaptation through increased ecosystem resilience.

Madagascar

A climate change survey is planned for December 2016. The objective of the survey is to investigate how communities in African countries are responding to changes in weather and climate and the effect of these responses on the wider environment and biodiversity. The questionnaire, drafted by CI HQ and CI Madagascar, includes closed and open-ended questions to be posed to key informants, who are community leaders in positions of responsibility. They can typically give an overview of community circumstances, as well as particular insights based on their position. Key informants may be traditional leaders, pastors, teachers, or leaders of civic groups, such as women's associations.

Final comments on this questionnaire are expected from WWF, before starting the survey in the field. Survey implementation is planned in October 2016 before the rainy season commences. Four enumerators per site will be hired to conduct the survey in Malagasy. Survey sites are currently in Maroseranana and Didy commune in Ankeniheny-Zahamena Corridor (CAZ).

3.2.3.7 Policy support

Understanding the policy environment within each of the planning landscapes is critical to informing potential land-use strategies. These have been explored for each case study during workshops and regular project team meetings. The policy context for land-use planning in each landscape are presented below.

Republic of Congo

The policy context for land-use planning and key land-use strategies in the Republic of Congo can be summarized as:

- Conservation instruments
 - Carbon payments to reduce deforestation
 - Protected area expansion
 - Conservation set asides in logging concessions, particularly those with FSC certification
 - Sustainable forestry
- Development schemes
 - Palm oil and other industrial crops expansion
 - Improved infrastructure particularly main roads and a potential railway for mining
 - Smallholders and their growing population, increasing land needs for helping reduce poverty, looking at Cocoa

Democratic Republic of Congo

The policy context for land-use planning and key land-use strategies in the DRC can be summarized as:

- Conservation instruments
 - Protected area expansion that increases connectivity
 - Carbon payments to reduce deforestation
 - Conservation set asides in artisanal mining zones
 - Sustainable mining
 - Soil and hydrographic network conservation
- Development schemes
 - Effective industrial and household agroforestry expansion
 - Improved infrastructure particularly roads
 - Development of tourist zones and attractions

Madagascar

The policy context for land-use planning and key land-use strategies in Madagascar can be summarized as:

- Conservation of watersheds and protected areas: strengthening the enforcement of existing laws and capacity building (e.g. compliance with the limits and the zoning of CAZ; Respect of cutting authorization issuance, use of frozen larvae and luxury products);
- Improving the resilience of the agricultural population to climate change;
- Access to safe water and health security;
- Effective payment of the ecosystem services (distribution of the REDD + revenues, payment for water);
- Reforestation and restoration of degraded lands and watersheds;
- Strengthening local management systems of natural resources (Dina, management transfer, community management agreements);
- Reinforcement of the agricultural productivity (agriculture, livestock, fisheries): technical support, partnership, and market development;
- Promoting responsible mining for the environment (compliance with legislation) and beneficial for the communities (issuing professional cards for gold miners);

- Improving infrastructure (dams, roads);
- Promote the tourism sector: Establishment of tourist land reserve / lease mechanism for service providers in the tourism sector;
- Use of renewable energy sources;
- Strengthening Information, Education and Communication and exchanges between Decentralized Authorities, Decentralized Technical Services (Regional offices for Agriculture, Environment, Interior and Decentralization, land-use planning), and local populations;
- Improved land management (land title, registration, cadaster, occupation);
- The effectiveness of measures against insecurity following specific arrangements in place at various levels;
- Mitigating the impact of the degradation of natural ecosystems due to the rural exodus and the demographic explosion in the two regions, and;
- Special attention to the future highway project, linking Antananarivo and Toamasina. The impact assessment is being discussed at the highest level and its operationalization will be defined within Government council.

Tanzania

The policy context for land-use planning in Tanzania can be summarized as:

- Conservation
 - Inform the development of a National Chimpanzee Conservation Strategy for Tanzania;
 - Inform potential protection of wildlife resources, habitat, and critical wildlife corridors under the Wildlife Conservation Act, 2009;
 - Carbon payments to reduce deforestation, and;
 - Sustainable plantation forestry.
 - Inform design of potential Wildlife Management Areas and development of village land use plans.
- Development
 - Agricultural development goals dovetail with the aims of SAGCOT, Big Results Now (BRN), and the Tanzania's Agriculture Sector Development Strategy, 2006;
 - Effective infrastructure focused on the rail, road and power 'backbone' that runs from Dar to the northern areas of Zambia and Malawi (relates to SAGCOT and BRN) to 'open up' relatively poorly accessible region for economic development, and;
 - Water resources management relates to SAGCOT and BRN aims to sustain agriculture and hydropower in face of climate change.
 - Inform sustainable development of Tanzania's 'Southern tourism circuit'.

3.2.4 Best Practices and Lessons Learned

The main lessons learned so far are drawn from understanding the goals of each landscape for biodiversity and people. For the workshops we asked participants for a vision for their landscape. Following this broad visioning session it was then natural to start thinking more specifically about the goals and how to move towards this vision. From here the different land use strategies are being identified and explored using spatial prioritization and alternative scenarios.

While a work in progress, we have synthesized the broad steps for scenario analysis and drafted some best practice guidelines for ensuring planning activities are useful and relevant to the stakeholder needs (Table 1). These currently guide the methodology in each case study and will be adapted as they are tested.



Planning workshop breakout sessions, Goma, DRC. Photo Credit: Marc Fourier, JGI

Table I | Draft steps to undertake scenario analysis based on best practice

Broad Steps	Key Activities
1. Define context for scenario development	Identify vision, planning issues and landscape objectives/values identified in consultation with planning landscape stakeholders (i.e. desired outcomes)
	Determine drivers and actors of change on landscape objectives/values
	Create landscape characterization (data), trends in landscape objectives/values)
2. Develop and assess scenarios	Draft potential land-use planning strategies and their objectives developed in consultation with planning landscape stakeholders
	Determine spatial prioritization of land uses
	Develop and assess scenarios with landscape performance metrics
	Seek feedback from planning landscape stakeholders, adapt scenarios if required
3. Recommendations	Summarize findings
	Make key recommendations

3.2.5 Challenges and Constraints

The top challenges for this task are the following:

- Data collection can take much longer than expected. It is time-consuming to identify and prepare datasets and to organize data sharing agreements.
- Obtaining data on trends in ecological or socio-economic issues is very difficult, and even if long-term trend data are available these are rarely collected to inform broad-scale land-use planning so are ill-suited to the task.
- Identifying landscape objectives is another challenging task. It is very difficult to get stakeholders to identify clear objectives for conservation in the face of other socio-economic objectives perceived to have greater need for current action. We used a workshop format for this and it was challenging to be able to get consensus on these.

- Understanding the policy context is key to informing the land-use planning strategies used within prioritization and scenarios. This consensus-driven process can take longer than expected

3.2.6 Stakeholder Engagement

Republic of Congo

This project is in support of other, parallel efforts from members of the consortium (notably WRI and WWF in Congo) to promote spatial planning concepts and processes with Congolese government institutions. WRI, with support from the World Bank have engaged the planning and public works ministry to support a national land use plan (PNAT). The objectives of the project, which are ongoing in parallel to ABCG efforts, are:

- Share findings from stakeholder engagements in developing a roadmap to strengthen land use planning in the Republic of Congo;
- Summarize existing and proposed spatial planning efforts and associated capacity;
- Outline the main components of a draft roadmap; and
- Identify major activities and outputs of a proposed implementation plan.

In June 2016, as part of this support for the PNAT, WRI organized a workshop with stakeholders involved in the national land use planning process. Participants included members of civil society groups and representatives of key government ministries (notably forestry, agriculture, mining and public works). The objective of the workshop was to present and validate an analysis of stakeholder interests and priorities that WRI has been preparing with support for the World Bank.

Democratic Republic of Congo

In July 2016, JGI organized a workshop with 20 stakeholders from 12 local and international organizations/agencies in North and South Kivu provinces in eastern DRC. Participants included members of civil society groups and representatives of key government ministries, notably the DRC National Park Service and the Institut Congolais pour la Conservation de la Nature (ICCN), collaborating on the implementation of the Conservation Action Plan for Great Apes in Eastern DRC ¹. The objective of the workshop was to present and validate stakeholder interests and priorities for land use planning.

Participants defined the scope and objectives of LUM interventions, and characterized the state of the environment in eastern DRC. Relevant government agencies and private sector, local and international conservation organizations settled on the goal of understanding the factors of change and develop alternative scenarios for sustainable development and biodiversity conservation in the area delineated by “Landscape 10” of the Central Africa Regional Program for the Environment (CARPE) in eastern DRC.

Conservation features (or targets) were identified and discussants focused on elaborating the principal drivers to biodiversity loss and brainstorming on key datasets and reviewed their availability. A planning tool was developed to identify important partners and

¹ Maldonado O and Fourrier M. 2015. Conservation Action Plan for Great Apes in Eastern Democratic Republic of the Congo.

stakeholders and to assign the roles and responsibilities for the technical work and outreach needed leading up to the second land-use planning workshop meeting in 2017. Marginalized members of the community and an equitable representation of men and women were considered in developing the planning tool.

Madagascar

CI organized a workshop on August 2-3, 2016 gathering representatives of different technical sectors and regional decision-makers (chief of regions and their respective staff, chiefs of districts, mayors, communities), to present the project and debate on landscapes objectives.

In the workshop, plenary sessions were organized to discuss how to construct a database of information on future development and conservation scenarios. The two sessions were:

- “Visions, Schemes and Plans of Territorial Developments in the two Regions concerned”. Discussions included likely human development needs such as agricultural expansion and infrastructure development in the planning region
- “Visions, Schemes of Conservation Plans”. Discussions centered around the key species and ecosystems of conservation concern, and the biggest threats to biodiversity

Group work was also organized in the form of exchange and discussion, stressing the various stages leading to the common vision.

The main issues discussed were:

- What are the main issues in the landscape that are addressing barrier to sustainable development?
- What are the worst scenarios for 2030?
- What is the most likely scenario following the current trends (business as usual)?
- How to characterize the vision for an ideal future in 2030?
 - How do you see sustainable development?
 - What are the key areas for sustainable development?
 - What are the conservation strategies?
 - What are the interactions / dependencies on ecosystem services?
- What are the key governance systems in relation to land use?

Tanzania

AWF and WCS will host a stakeholder workshop in Mbeya, Tanzania on April 3-4.

3.3 TASK ACTIVITY 3: GLOBAL CHANGE IMPACTS

3.3.1 Task Activity Description

A major oversight of most assessments of climate change has been the inadequate consideration of indirect impacts on biodiversity due to human responses to climate change (e.g. changes in human use of natural resources). This working group will document coping responses of human communities to climate change in a number of African countries, and the impacts of these responses on biodiversity. It will map these responses to observed and projected changes in climate, and provide guidance regarding adaptation strategies that are most likely to be successful for people while also benefiting biodiversity conservation efforts. Tools and guidance will be developed for use by governments, NGO's and the communities themselves.

3.3.2 Activity Implementation and Achievements

3.3.2.1 Implementation progress

Refine survey design and data collection approach

The GCI team worked extensively to design and field test the completed survey instrument. The initial phase was conducted by Kulima, a South Africa based consultancy. The task group further refined the survey instrument after numerous group discussions and field testing in Kenya. The survey was recently approved for implementation on 18 October, 2016 by WCS's Institutional Review Board, who reviewed it for use with human subjects and for collection of sensitive information.

The survey design is now complete, including the data collection approach. The survey and guidelines are included in Appendix 4.3 and 4.4. Data will be collected from a total of 21 sites (3 per org), with 45 key informant interviews conducted at each site. Within each site, interviewers will strive to sample across as many communities as possible. All field surveys will be completed in FY 2017.

Survey sites (including estimated completion date) are as follows:

AWE

DRC: Maringa Lopori Wamba, a CAFEC landscape (Dec 2016-Feb 2017)
Tanzania: Kilombero Valley (Dec 2016-Feb 2017)

CI

Madagascar: East side of Ankeniheny Zahamela Corridor (November 2016 or April 2017)
Madagascar: West side of Ankeniheny Zahamela Corridor (November 2016 or April 2017)

JGI

Western Tanzania: Kigoma (Jan-Feb 2017)
Western Tanzania: Kigoma (Jan-Feb 2017)

TNC

Tanzania: Terat (December 2017)
Tanzania: Monduli (December 2016)

WRI

Mozambique: Matutuine District, Maputo Province (November-December 2016)
Mozambique: Chockue District, Gaza Province, (November-December 2016)

WCS

Cameroon: Mbam Djerem National Park (March 2017)
Gabon: Ivindo National Park (Feb 2017)
Gabon: Loango National Park (Feb 2017)

WWF

Kenya: Masaaai Mara (August 2016)
Zambia: Sesheke (November 2016)
Zimbabwe: Hwange NP (January 2017)



Community interview, Maasai Mara, Kenya. Photo Credit: Nikhil Advani, WWF

Literature review of human coping responses to climate change and how those responses may impact biodiversity

This activity, led by WWF, is well underway. The task group has completed reviews of countries' NAPAs (National Adaptation Programmes of Action), are currently reviewing a subset of peer reviewed papers (approximately 2,000 out of an initial 22,000), and will be adding grey literature and popular press articles. WWF aims to have the data uploaded and the database ready by the end December 2016. This database will provide a comprehensive overview of climate impacts on communities, how they have responded, whether the impact has already occurred or is projected to occur, and most importantly, observed or suspected impacts to biodiversity.

In addition, WCS is leading outreach efforts with development organizations working in Africa, which are dealing with the effects of climate change in the communities in which they work. With data from a series of interviews, the task group will draft a white paper on climate change impacts and human responses from the perspective of practitioners in the poverty reduction and economic development sectors.

Map human responses in relation to climate and conservation impacts

Figure 1 | Nine countries where community surveys on human responses to climate change and subsequent impacts on biodiversity are being administered



TNC has conducted the contemporary climate analysis for the nine countries where the human response field surveys are being conducted. The results are currently being analyzed, summarized, and mapped in preparation for the climate impact assessment report by December 2016. TNC has also conducted a future projected climate analysis for the 9 countries where the human response field surveys are being conducted. The results are currently being analyzed, summarized and mapped in preparation for the climate impact assessment report by December 2016.

To satisfy the requirement of mapping projected climate changes beyond target sites TNC will perform a projected future climate change analysis for the entire African Continent. The results will be complete by February 2017 and serve to describe the regional context of country scale climate change anomalies.

The mapping human responses in relation to climate impacts activity will be led by WRI and TNC and will begin after the human response field surveys are complete and climate analyses are complete. The task group will then create a matrix correlating various types of human responses (typology) reported from the surveys to discrete modeled future climate change signals reported in the above-mentioned climate impact analyses.

3.3.2.2 Key achievements

The key achievement to-date is the development of the survey instrument to investigate human responses to climate change. This tool is the product of field testing during the ABCG I funding cycle, analysis of those results, further refinement, pilot field testing, and eventually review by an Institutional Review Board. A number of survey methods exist for investigating the impacts of climate change on communities, but none allow investigation of impacts to biodiversity. This survey therefore represents a novel tool that should have wide application well beyond ABCG partners.



Rangeland retention, Maasai Mara, Kenya. Photo Credit: Nikhil Advani, WWF

3.3.3 Integration of Crosscutting Issues

3.3.3.1 Gender

Extensive gender guidelines have been integrated into the survey and the survey guidance for our interviewers in the field. See Appendix 4.3. In order to achieve gender sensitivity, the first step was to ensure that the data collected was sex-disaggregated, i.e. it is clear whether a man or woman answered the questions. This enables the collection of robust data on gender differences, but is also good practice to ensure the voices of both men and women are heard (and thus contributing to gender equality). Having a good understanding of gender differences with regards to impacts and adaptations will support the development and implementation of plans that improve the situations of both men and women in the communities in question.

3.3.3.2 Wrap around activities (HIV/AIDS)

NA

3.3.3.3 Public private partnership / Global development alliance

NA

3.3.3.4 Sustainability mechanisms

WWF is incorporating data collected into its online crowdsourcing platform, WWF Climate Crowd (<https://www.wwfclimatecrowd.org/>). This will make the data collected freely available to others to use. For at least some of the organizations involved, data collection for this project is seen as a capacity building exercise for our field offices. The intention is that they will continue to collect this vital information, and integrate it into their programming and planning.

3.3.3.5 Environmental compliance

NA

3.3.3.6 Climate change (adaptation and/or mitigation)

NA

3.3.3.7 Policy support

Data collected from this project will be used to support key institutions, including governments, in their adaptation planning efforts. The outputs from this activity will be used to promote adaptation strategies that do not harm biodiversity, and instead help people and nature thrive in a changing climate.

3.3.4 Best Practices and Lessons Learned

The main focus of the past year has been refining our data collection approach, and selecting sites. The initial survey for interviewing key informants was tested towards the end of the ABCG program phase I. The task group had previously gathered useful data, but it was clear that the survey lacked structure. Responses gathered by different groups varied widely in their content and quality. For ABCG II, the task group began by re-engaging the former consultants from Phase I (Kulima), and providing detailed guidelines on the intent of the study and characteristics of the survey instrument. It was also key to bring in people with a social science background, as most of us on the task group lack that expertise. The new survey was edited to address our key research question (how human responses to climate change impact biodiversity) field tested, and again revised. Finally, the survey was reviewed by WCS' Institutional Review Board for use with human subjects.

The key lessons learned were the need to field test the survey, and keep it simple. You can come up with the most detailed survey you like, but if the interviewers using the tool do not have a strong background in the topic, or if the interviewees speak another language, you will not get the level of detail you seek. Instead, the survey has been designed to allow easy translation to multiple languages, and use by interviewers from a variety of backgrounds.

3.3.5 Challenges and Constraints

The biggest challenge to date has been delayed implementation. Given the extended survey development period, including field testing and Institutional Review Board approval, data collection is behind schedule. However, the surveys will be completed within FY 2017, and activities are on track for completion within the overall timeframe.

3.3.6 Stakeholder Engagement

To date, stakeholder engagement has involved site selection and key informant selection. All of the surveys will be conducted in local communities in Africa. This of course involves significant interaction with local government and local organizations, and this will be detailed in the data collected through the survey effort. In Kenya for example, WWF will work closely with the Mara Siana Conservancy in its data collection efforts. WRI has partnered with a local NGO, Centro Terra Viva, in Mozambique.

3.4 TASK ACTIVITY 4: GLOBAL HEALTH LINKAGES TO BIODIVERSITY CONSERVATION: POPULATION HEALTH AND ENVIRONMENT

3.4.2 Task Activity Description

The PHE task activity is based on an integrated vision of health that links the health of wildlife populations, humans, domestic animals, and ecosystems. The main goal of the PHE approach is to improve ecosystem health and conservation outcomes in tandem with improved human health for communities living in and around areas of key biodiversity.

The objective of this task is to pilot a PHE integrated approach in two different geographical areas, Western Tanzania and Southeastern Cameroon, to improve biodiversity conservation and human well-being by implementing and promoting effective approaches that integrate biodiversity with actions that contribute to improving global health. The expected outcomes are to: 1) build multi-sectoral partnerships to ensure biodiversity conservation and human well-being outcomes are achieved in tandem, 2) strengthen the evidence base for USAID and others of successful examples that integrate

biodiversity conservation and development, and 3) incorporate the PHE approach into conservation and development planning.

The main activities to achieve the task objective are to: 1) analyze existing PHE integrated approaches and identify best practices and promising approaches in this field through a literature review and interviews with PHE practitioners and experts in the field, and; 2) pilot activities in two sites to explore the interrelationships and interdependencies between PHE, combining actions to reduce deforestation, while improving food and nutrition security and conserving watersheds. Throughout these activities, the participation and integration of women and marginalized populations, such as the poor and youth in decision-making processes is particularly important in relation to health and ecosystem services, and will be a key component of piloting and promoting best practices around PHE activities. The resulting information will contribute to assessing the efficiency of a PHE approach, including how actions taken in one sector influence the other two, to ultimately conserve the health of the ecosystem and that of humans who depend on it.

3.4.3 Activity Implementation and Achievements

3.4.2.1 Implementation progress

Information Gathering and the Literature Review

The PHE task group convened three meetings with key PHE practitioners, in December 2015, February 2016, and March 2016 to launch the literature review process and related activities. At these meetings, task team members discussed the literature review process, and agreed to identify and analyze existing projects that integrate population with other health and environment sectors. The literature review will identify best practices and promising approaches regarding implementation of integrated PHE projects at the regional and national scales.

Following the first meeting convened by the PHE task group with colleagues from the PHE Policy & Practice Working Group (DC-based PHE COP composed of several health, family planning and reproductive health and conservation NGOs), PHE activities (analysis of approaches and pilot project implementation), were revised to streamline the questions and impact that this project has envisioned. Consequently, the scope of the literature review was revised from the initial workplan, which enabled focused efforts to identify existing gaps in research to further demonstrate the value-add of integrated approaches in conservation programs.

Over the course of this reporting period, each partner organization contributed to the literature review process by compiling information from a variety of relevant literature in their field of expertise in PHE. We identified a set of keywords to facilitate our research of relevant resources and direct our interviews with PHE practitioners. A list of potentially useful resources (project/program reports, scientific articles, previous reviews of PHE projects, etc.) was developed along with a list of key informants, following the meetings held with practitioners in the field of PHE integrated approaches and ABCG Global Health PHE task partners. This helped better align the literature review with the conservation and PHE community

and beyond, in order to advocate for this approach among influential policy- and decision-makers, and other stakeholders.

The first draft of the literature review was completed in late September 2016 and is presently being reviewed by six PHE experts for their comments and advice, to contribute to the final version of the literature review, which should be completed at the end of 2016.

Pilot Projects – Southeast Cameroon and Western Tanzania

WWF – Lobéké National Park (LNP), Southeast Cameroon

During this reporting period, implementation of the pilot project in LNP focused on introducing the objectives of the project (see section 3.4.1 for the objectives of the pilot project) to the various project stakeholders through meetings, engaging the various authorities in sectors not previously engaged with WWF in the project area, such as the health, nutrition, and agriculture authorities. Activities included gathering data on perceptions, attitudes and practices around food and nutrition security, training of 35 Health Scouts to conduct campaigns on WASH and new topics (WWF works with a total of 60 Health Scouts, 15 of whom are women), and launch awareness campaigns on WASH and nutrition and the relevance of these sectors to the protection of the environment.

Informational meetings with various partners and stakeholders

From the beginning of the project, two informational meetings were held at the LNP level. The first meeting informed all staff about the project's main objectives, expected results and performance indicators. The second meeting increased understanding of the various activities, implementing actors, the timetable of activities and implementation strategies. A total of 15 eco-guards, five leaders of business components, the LNP Conservator and the project manager were involved in this start-up phase meeting. Additionally, an informational tour was organized to reach out to other key stakeholders of the project (36 people), namely the administrative, health, municipal, and sub-divisional officers of Moloundou and Salapoumbé villages, where they were informed of the existence of the project, the role of each stakeholder in the implementation of activities, technical and strategic approaches and expected results.

Awareness-raising missions for the promotion of hygiene, sanitation and the environment were conducted in three major intersections in the project area (Nguilili, Koumela and Momboué), with the support of two local NGOs - *Appui à l'autopromotion de la femme de la Boumba et Ngoko* (AAFEBEN) and *Centre d'information et de formation pour l'environnement et le développement* (CIFED) - who have been WWF partners for several years and have conducted outreach activities for similar projects. The topics addressed during these campaigns included the promotion of best practices on hygiene and sanitation, disposal of wastewater, household garbage disposal (including plastic bottles/objects) to keep waterways and the environment clean. The awareness sessions consisted of discussions around images shown from large posters of the unhealthy and unsustainable practices against the best practices, as well as demonstrations of proper hand-washing techniques, garbage disposal, etc. A total of 412 people received the messages of awareness (161 women and 251 men). In terms of ethnic groups present at these sessions, we recorded 180 Bantu men and 71 Baka men (Indigenous People in the area). Similarly 101 Bantu women and 60 Baka women were present. Apart from the support received from the two local NGOs during these sessions, eight traditional authorities, ten municipal

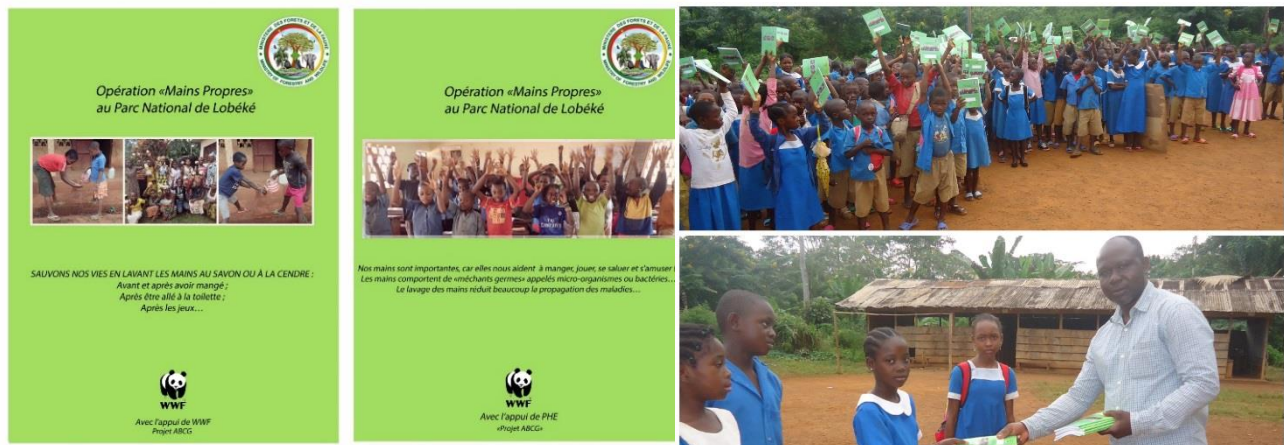
authorities and four managers of health facilities significantly contributed to the smooth running of the various activities.



From left to right: an example of a slide relating to garbage disposal (1), a garbage pit dug to raise awareness (2), proper hand washing demonstration (3) and people attending a sensitization meeting (4). Photo Credit: WWF

Information, education and communication materials

In order to build on the proper hand-washing practice campaign that has taken place from previous years in the project area (school-based FW-WASH project with funding from Johnson & Johnson and the Borrego Foundation) we rallied students around the slogan: "The Clean Hands Operation at the Lobéké National Park". Therefore, we produced 4,500 student notebooks and 500 notepads containing highlighted integrated messages on hygiene, sanitation and the environment, which focus on the importance of hand washing, the dangers of poor hand washing practices, how to protect the environment, and the well-being benefits of hygiene and health. According to the headmaster of the Moloundou high school, these notebooks are very efficient as a teaching tool, because students learn good hygiene practices while simultaneously learning to read. Books were distributed to over 60% of students in 30 schools and colleges in the project area.



From left to right: Example of the first and fourth grade cover notebooks (1 & 2) and an example in the distribution of the handwashing awareness notebooks for students (3 & 4). Photo Credit: WWF

Additionally, 450 posters on the promotion of adequate nutrition and feeding practices for children, were produced in collaboration with the Moloundou Health District and major health facilities in the peripheral zone of the Lobéké National Park. These posters highlight the impact of poor nutrition on the psycho-motor development of children.

Strengthening of women's capacity and knowledge on food and nutrition

From the start of the project implementation phase, a KAP survey was conducted in a sample of households on topics relating to WASH, nutrition, and the environment. This survey helped to frame the educational sessions that were subsequently conducted in the following months during this reporting period. Among these sessions, over ten awareness days were offered to mothers of young children on topics addressing best infant and young child nutrition and feeding practices. These sessions included cooking demonstrations using locally sourced nutritious foods, and practice at making nutritious meals and improving knowledge of participants about nutrition and proper feeding practices. Three integrated health centers of the locality were associated with this activity. A quick test before each demonstration session showed that about 75% of mothers feed large portions of staple foods of low nutritional value, combined with very small quantities of protein-rich foods, fruits and vegetables, resulting in a diet that is very poor in nutritional value and lacks diversity. Only 15% of participants were knowledgeable about local foods that are rich in proteins and micronutrients. Local taboos and traditional beliefs are thought to be in part responsible for restricting consumption of foods such as eggs, fish, meat, certain vegetables, etc., for children before they reach school age, which according to the local health authorities contributes to the high levels of child malnutrition observed in the project area. Approximately 500 women participated in these demonstration sessions. A sample of mothers who participated were tested for knowledge retention several days after the demonstration, where 73% were found to be able to name two or more nutrient-rich foods to include in their child's diet when preparing meals at home.

TNC – Western Tanzania

The main activities implemented and achieved during the period under review include TNC's Model Household Motivator trainings, awareness-raising for recruitment of new model households and household food security training. The details of the activities are as outlined below.

Model Household Motivator Training

TNC conducted five days of training in June 2016 to build the capacity of 30 model household motivators (14 women and 16 men) from six villages, namely Kashagulu, Kalya, Sibwesa, Katumbi, Nkokwa and Buhingu/Mgambo. The purpose of the training was to provide knowledge and skills on PHE integration and show participants how to intensify interventions and increase the recruitment of new households to meet the ambitious project target of 1,100 households by December 2016. The training covered topics that enabled the model household motivators to accomplish the following:

- Educate and counsel community members on PHE
- Link Population, Health and Environment interventions
- Integrate the cross-cutting aspect of gender equality and role of women in sustainable development

- Understand the threats to the ecosystems in their community and how to better conserve the environment and improve people’s lives through resource mapping
- Create/set up alternative livelihoods options in the community that are environmentally friendly
- Deliver family planning and health interventions for women and children



Participants mapping resources within their village during model household motivator training. Photo Credit: TNC

Awareness raising for recruitment of new households

The project, with the collaboration of model household motivators, raised awareness among community members by communicating the benefits of this approach through positive reinforcement and by reflecting the model household’s criteria. A total of 691 new model households were established. TNC and Pathfinder International conducted four days of training to orient the newly recruited model households on the integrated PHE approach. Demand to be part of the Model Household Initiative has increased significantly after successfully awarding first class model households with 80-watt solar panels.

To increase buy-in of the district council, the project involved district officials during the training of the newly recruited households. At the end of every training, each household received a container to make a tippy tap and, as part of the training, watched a demonstration on how to construct a tippy tap so that each model household will be able to construct one and then help neighbors who will, ideally, adopt the approach. Two fruit seedlings to be planted in home surroundings were also provided to each household.

Facilitate Farmer Field Schools through operating agricultural demonstration plots

A total of 76 farmers from Mgambo, Buhingu and Nkonkwa villages attended Farmer Field Schools (FFS) Training Sessions at Mgambo village (see Table 3). Through the FFS, farmers were able to learn about agronomic practices for horticultural crops including seedbed preparation, sowing, transplanting,

spacing, weeding, pests and diseases management and watering. Table 3 presents a summary of the number of individuals involved per village. Another demonstration plot was established at Katato sub-village in Mgambo where there is plenty of water for irrigation.

A total of 48 smallholder farmers attended theoretical training on Climate Smart Agriculture (CSA), of which 23 were men and 25 were women. Table 3 summarizes the number of individuals involved per village. Further, 11 smallholder farmers adopted CSA in horticulture, of which eight were men and three were women.

Table 2 | An analysis of smallholder farmers' involvement in CSA training

Village	Men	Women	Total
Attended Farmer Field School Sessions at Demonstration Plots			
Buhingu	10	18	28
Katumbi	0	0	0
Mgambo	16	20	36
Nkonkwa	8	4	12
Total	34	42	76
Attended theoretical training in Climate Smart Agriculture (CSA)			
Buhingu	4	8	12
Katumbi	6	4	10
Mgambo	6	9	15
Nkonkwa	7	4	11
Total	23	25	48
Farmers adopted Climate Smart Agriculture			
Buhingu	2	1	3
Katumbi	3	1	4
Mgambo	2	1	3
Nkonkwa	1	0	1
Total	8	3	11

JGI – Western Tanzania

JGI did not implement the PHE pilot activity this year. A decision was made to wait on the literature review and its recommendations, so as to ensure that the key activities proposed are validated through the results of this work. JGI currently does not have other funding and/or activities focused on integration of PHE into our work and want to ensure that we specifically target the use of these funds to respond to the report. However, in an effort to build capacity for outreach to key decision makers and donors on increasing their knowledge of the benefits of integrated PHE approaches, JGI's Mary Mavanza participated in a policy communication training organized by Pathfinder for members of the ABCG PHE Task Group, of which JGI is a part of. The training aimed at building capacity of participants of the PHE network to communicate PHE research and programs to policymakers. The training was led by representatives from Population Reference Bureau and Policy Advocacy Communication Enhanced. As a direct result from this training, JGI has organized a meeting with institutions implementing PHE, our partner TNC, as well as key district and regional representatives, to introduce them to the concept, encourage them to integrate activities and join the Tanzania PHE Network. This meeting has provided us with an opportunity to reach out to non-conservation NGO's working in the area.

3.4.2.2 Key achievements

During this reporting period, the PHE task team researched and drafted a literature review to identify the best PHE practices and lessons learned from previous and current PHE research and projects, with a focus on adding such sectors as sustainable agriculture, food and nutrition security to the population and environment sectors commonly integrated in PHE approaches. This literature review is currently under peer review by several PHE practitioners and will serve as an essential tool to advance the implementation of the pilot projects, which aim to evaluate the value-added of such an approach on the conservation objectives in the two sites.

WWF - Lobéké National Park - Southeast Cameroon

The development and adoption of the various awareness tools

All the teaching materials developed were readily accepted by local communities, the educational community and the leaders of major health facilities, because they were designed with images taken locally, highlighting the reality in the communities that people experience daily. Furthermore, these materials give the opportunity to a wide range of people to learn and transmit knowledge, where these types of educational materials were not available before. Already, within a short period of time, the project has started disseminating PHE knowledge and has demonstrated some best practices. Some villages (Moumboué and Nguili) have reported a decrease in haphazard garbage disposal and in open defecation around the community. Moreover, the notebooks available to students have been perceived very positively by teachers, students, administrative authorities and even by parents as effective teaching tools.

Women who participated in the food and nutrition workshops learned and accepted that they can improve the content and quality of the food offered to their children from local foods readily available in their environment. These workshops were well attended, women participated in great number and requested to have more sessions conducted to continue their learning on this topic and others relating to health and the environment. These sessions were a very efficient way to engage women in particular and due to its success, this model will be used in the future for similar mass educational campaigns.

The data gathering exercise on knowledge, attitudes and practices among households in the project area is proving to be very useful to develop well targeted awareness campaigns, appropriate education and communication materials and to align the PHE integrated messages with the level of knowledge of the target groups and the outcomes we are seeking in the pilot project.

Mobilizing leaders of the main health facilities and collaboration among various sectors

District Health authorities' engagement in and receptivity to the project has so far been very positive and the will and commitment of the various leaders of the main health facilities is very encouraging, which has facilitated collaboration among the project stakeholders, information exchange and communication, as well as greater community engagement. Their knowledge of target villages has helped to understand that food and nutrition security are actually major health issues among households in the project area and that it will take a multi-sectoral approach to solve these issues.

TNC & JGI- Western Tanzania

The results obtained after successful accomplishment of the above mentioned activities are showcased by the following main outputs/deliverables:

- Thirty model household motivators trained on PHE linkages, mobilization and facilitation skills to recruit new households.
- A total of 691 new model households have been sensitized and recruited to take part in the Model Household Initiative. A total of 76 farmers from Mgambo, Buhingu and Nkonkwa villages attended FSS Training Sessions at Mgambo village.

As a result of the training provided by Pathfinder, JGI now has built capacity to strategically communicate PHE to policy makers. These skills are extremely useful and will continue to be applied as we reach out to key government and partner institutions on PHE, and results from our pilot projects.

3.4.4 Integration of Crosscutting Issues

3.4.3.1 Gender

WWF - Lobéké National Park - Southeast Cameroon

The PHE project alongside the conservation interventions being implemented in Southeast Cameroon strive to reach equal access to resources and opportunities for women and men, girls and boys. High levels of involvement of women in the educational campaigns organized in the project area and the participation of women in informational meetings and in training sessions for Health Scouts, where 15 women and 45 men are present and active in the decision making processes of interventions, are just one part of the engagement to reach this gender equality goal. Both women and men are given equal opportunity to gain knowledge and practice as it relates to health, NRM, alternative livelihoods, and women are given support to increase their capacity to gain expertise to know how to develop sustainable livelihoods either as part of groups/associations or individually.

TNC – Western Tanzania

A successful Model Household Initiative requires the full and equal participation of women and girls and men and boys. In order to address the urgent, interconnected challenges in the Greater Mahale Ecosystems in Western Tanzania—poor maternal and child health, a lack of access to contraception, declining fish supplies, deforestation, and more—project interventions must also work towards gender equality.

Women must be able to exercise their right to sexual and reproductive health care services, including their ability to choose if or when to have children. They must be able to participate in income-generating activities, which improve their economic situation and better equip them to protect their families and the natural resources they depend on. This project prioritizes gender equity to ensure women are fully participating and are empowered to harness various opportunities within their environment. Moreover,

the project expects to increase male involvement in family planning, and is working to create and empower young mother's groups and women groups.

3.4.3.2 Wrap around activities (HIV/AIDS)

NA

3.4.3.3 Public private partnership / Global development alliance

NA

3.4.3.4 Sustainability mechanisms

JGI – Western Tanzania

JGI is a member of the National PHE Task Force in Tanzania, which is hosted by the Ministry of East Africa Cooperation. As part of this network, the group will ensure that policy makers and other key government partners understand PHE and are part of the process of supporting its implementation. Additionally, while continuing to work with government partners in western Tanzania and engaging additional partners, is striving to build a network that support PHE activities into the future.

3.4.3.5 Environmental compliance

NA

3.4.3.6 Climate change (adaptation and/or mitigation)

TNC – Western Tanzania

A total of 48 smallholder farmers attended theoretical training on CSA, of which 23 were men and 25 were women. Table 3 presents an analysis of the number of individual involved per village. Eleven smallholder farmers adopted CSA in horticulture, eight of whom were men and three were women.

3.4.3.7 Policy support

NA



Smallholder farmer learning how to use recommended plant spacing during one of the FFS training sessions at Mgambo village, Tanzania. Photo Credit: TNC



Some of the crops grown at demonstration plots where FFS sessions are conducted at Mgambo village, Tanzania. Photo Credit: TNC



Cucumber fruit in one of the demonstration plots operated by Tuungane program at Mgambo village, Tanzania. Photo Credit: TNC

3.4.5 Best Practices and Lessons Learned

WWF - Lobéké National Park, Southeast Cameroon

Activities involving actors with various technical competencies

At several stages of our work we found that the administrative authority's letters of introduction were important for the village meetings, to open the discussions on the project. Thereafter, WWF staff having very little expertise in health, nutrition and food security, the skills of health post managers in this sector was precious to have when conducting the meetings in partnership with WWF. In addition, the presence of local NGO officials allowed communication with villagers in their local language, facilitating the villagers' understanding of the messages conveyed during the sensitization campaigns.

The use of local facts and pictures

Images taken within the communities to use in developing communication materials were powerful, tangible tools to convey messages to community members. This seemed to resonate more with the target population in these communities, as they see images of their daily practices, it is more efficient to improve their understanding of the different messages. In addition, we find that any educational session or information communication campaign conducted by Health Scouts, who are members of the community, have a much greater impact at the community level compared with campaigns conducted by project staff. This is an encouraging observation that may lead to greater sustainability of activities in the project area, as we increase the capacity and skills of these local actors to continue their actions at the community level once the project is over.

TNC – Western Tanzania

Community buy-in of Model Household Initiative

Effective communication of the monetary benefits that individual households can obtain have increased the buy-in of the community to participate in the model household initiative. Below is the success story from one of the model household motivator trainees.

Mama Shukrani Shaban (50) is a mother of 5 children (3 boys, 2 girls) who lost her husband 10 years ago.

Two years ago, she volunteered to join the Model Household Initiative. When she joined, she was not sure how it would help to improve her life.

Through participating in various tailor-made trainings of the model household that addressed several components of PHE, she learned about and joined a Community Conservation Bank (COCOBA) and subsequently started a sardine business.

My life has changed, she said, (with smile on her face). She has started building her new brick house, from the profit she makes from the business. She can afford school fees for her son who is studying at Buhingu secondary school.

Mama Shukrani, communicates her success to the neighbors to inspire them to join the model household initiative despite their current social -economic situation. She tells them how her health situation has been improved and she asks them to visit her home to see various things that have helped her improve her family health. She communicates positive behaviors that a household needs to have to be like her family.

Mama Shukrani has managed to recruit over five new households who are now working on improving their household environment and adopting positive behavior to acquire more criteria of model households. She has become a good advocate of how the Model Household Initiative can transform one's life. She has become the talk of the village.

She is very thankful to the Tuungane project for providing this opportunity to all people in the community despite their economic status. If the Tuungane project could ask village government officials to propose names of household to participate as a model household, none of them would have known or remembered me. I quote "Thanks, God bless you," (tears in her eyes) she concluded.

Below is her new house in construction and the old one that she is living in.



Mama Shukrani Shaban, a Model Household motivator trainee with her daughters in front of their new house under construction in Buhingu. Photo Credit: Nelson Mmari, TNC



Mama Shukrani Shaban with her daughters in front of their old house in Buhingu. Photo Credit: Nelson Mmari, TNC

3.4.6 Challenges and Constraints

WWF - Lobéké National Park, Southeast Cameroon

Increase knowledge to circumvent cultural resistance to improve nutrition and other local practices

We found that there are several food and health-related taboos within the traditional/cultural systems of the target population, which make the promotion of a sustainable and nutritious diet more challenging and requires creative and practical approaches to achieve this goal.

The food security and nutrition workshops for mothers are very popular and efficiently reach the masses with integrated messages on best practices. There is no question that they improve knowledge and capacity. However, to reach our goal of promoting a sustainable and diversified diet, more local knowledge gathering will be required to find locally acceptable high-protein and nutritious food to promote in the place of the usual legumes such as soybeans and peanuts, since these foods are not commonly part of the target groups' traditional diet.

Additionally, the period allotted for the implementation of activities was challenging as it was difficult to reach some target groups due to their seasonal migration to isolated areas in the forest to pursue their traditional lifestyle. These target groups are scattered into small settlements at the Park's periphery and are too remote for the project to reach out to them for interventions. This has resulted in reducing the time duration of activities within some areas and villages, and women, in particular, and traditional authorities as well feeling disappointed, about the missed learning opportunities.

TNC - Western Tanzania

The project is continuing to build awareness and mobilize the community to take part in the Model Household Initiative. However, although the old model households visited have shown positive progress, there continue to be socio-economic challenges, which have slowed our progress on reaching the target number of model households within the original timeframe. The project has realized the importance of strengthening the economic development component (livelihood) of the Model Household Initiative based on the expectation that behavior change requires consistent and reliable means of livelihoods.

3.4.7 Stakeholder Engagement

WWF - Lobéké National Park, Southeast Cameroon

During this reporting period, we conveyed to the various administrative and municipal departments how important their commitment and engagement is to the success of the project. With their commitment, the project was able to achieve several activities in a short time frame over the course of the last two quarters of the project. Various representatives of the territory administration worked directly or indirectly to add value to the work, and their dedication and enthusiasm greatly facilitated the progress of activities.

JGI – Western Tanzania

Through our continued engagement with stakeholders as we implement the Gombe Masito-Ugalla Program, JGI has identified institutions who are key for sensitization and participation in PHE. As part of this process, they will be participating in a meeting planned for October, which will be facilitated by the Secretary of the PHE Task Force in Tanzania who sits in the Ministry of East Africa Cooperation. Engagement of stakeholders at multiple levels is important in garnering their support of this approach and helps sustain activities.

Discussions are underway on incorporating this activity as part of the meetings planned with the PHE Task Group in Tanzania to reach out to key leadership. This will also be an opportunity to share results from our ongoing identification of best practices and lessons learned. The team will schedule a meeting once they receive feedback on what dates work best for key decision makers.

3.5 TASK ACTIVITY 4: GLOBAL HEALTH LINKAGES TO BIODIVERSITY CONSERVATION: FRESH WATER SANITATION AND HYGIENE

3.5.2 Task Activity Description

This task will generate information on the impacts of infrastructure developments on watersheds in Sub-Saharan Africa, as well as the impacts of freshwater conservation in meeting FW-WASH goals. By linking freshwater conservation and FW-WASH, ABCG expects reduced watershed degradation and pollution will improve the health of freshwater ecosystems and species. Building on successful project activities under ABCG I, pilot projects in South Africa (CI and Conservation South Africa, CI's local affiliate office) and Uganda (JGI) will involve local stakeholders and authorities to ground-truth the effectiveness of implementing integrated development and conservation projects. The task will also share learning and build capacity in Sub-Saharan Africa for advancing integrated freshwater conservation and FW-WASH projects through the creation of an Africa-based COP co-led by AWF and CI, and anchored in Nairobi.

3.5.3 Activity Implementation and Achievements

3.5.2.1 Implementation progress

CI/Conservation South Africa (CSA) - South Africa Pilot

CSA, with technical assistance from CI, is piloting the ABCG FW-WASH guidelines and M&E Framework in four sites, located in the Alfred Nzo District of South Africa's Eastern Cape Province. Key partners in this project include the Alfred Nzo District Municipality (ANDM), which has the governmental mandate to provide FW-WASH services, local water operators – individuals employed by ANDM to monitor FW-WASH infrastructure and water sources - traditional courts in each of the villages, and local community members. This area is part of the Maputaland-Pondoland-Albany Hotspot and is the headwaters of the Mzimvubu River, South Africa's last free-flowing river that supplies water to over one million people.

During this reporting period, CI and CSA made significant gains, thanks to additional grants secured to complement the ABCG activities. A grant from the Starwood Foundation provided additional funds for CSA to rehabilitate natural springs, where many community members source their water when water taps are not functioning properly, along with the ABCG promoted integrated freshwater and FW-WASH practices. In January 2016, the ABCG FW-WASH sub-task lead and CI point person, Colleen Sorto, spent a week with the CSA team to narrow down the site selection criteria, review the ABCG tools, and use the guidelines as a framework for designing the overall project workplan. Following her visit, CSA staff designed the gender analysis methodology, conducted two rounds of key-informant interviews, and used the data collected to inform project activities. This activity was useful, not only for the information the analysis presented, but also for growing CSA staff capacity and confidence in mapping gender analysis more broadly within their work. The analysis was also used to complement the baseline

information collected in the first half of the year and create a “living” Performance Monitoring Plan (PMP) for the overall “One Health Initiative.”²

CSA also focused on community engagement and capacity-building for local volunteers during this time period. After local stakeholders contributed to the data-gathering process for the baseline analysis and PMP, implementation officially began. Achievements include: working with community volunteers to map the natural springs where community members had previously sourced their water, but could no longer because the springs were degraded and the water quality was too poor; researching best practices for rehabilitation of degraded springs; and conducting one hygiene awareness activity, in coordination with ANDM. In addition, water monitor volunteers were trained to monitor the infrastructure and raise awareness on water conservation and FW-WASH. They also help CSA gather the information needed to communicate to ANDM the connections between FW-WASH, land use and climate, to apply this understanding to their policymaking and operations.

Finally, there were three significant gains in terms of leveraging ABCG’s support of the One Health Initiative. In July, the Starwood Foundation committed to another year of funding for the One Health Initiative, even though the foundation will officially close its doors in October of 2016. Funding was also secured through CI’s internal Millennium Innovation Lab to design and test the use of a mobile technology application to improve the speed and quality of data collection. During this period, the CI HQ-based team conducted a needs assessment with the CSA team and were preparing for in-the-field testing in October 2016. CI anticipates this will significantly help efforts to monitor activities planned and share results with ANDM during Year 2 of ABCG support. Finally, CSA’s Municipal Support Coordinator, Nolu Kwayimani, won a Mandela Washington Fellowship for Young Africa Leaders. The Mandela Washington Fellowship for Young African Leaders is the flagship program of President Obama’s Young African Leaders Initiative (YALI)³. This gave CI the opportunity to highlight the One Health Initiative on CI’s blog Human Nature ([here](#)) and holds great promise for sharing the impacts and lessons learned from One Health through this network of emerging African leaders.

JGI - Uganda Pilot

JGI is piloting FW-WASH activities in 10 villages in the Albertine rift region of Hoima and Masindi Districts. This area, which includes critical chimpanzee habitat, is referred to by the project as the Budongo-Bugoma Corridor. JGI is working with the Hoima and Masindi district councils, as well as the local sub-counties and parishes as part of this activity. Additionally, local institutions such as Kidoma-Kabaale Community Development Association (KACODA) will be engaged in outreach activities. The pilot is also working with 10 schools to reach primary school children (age range 7-14) with awareness-raising campaigns and education messages on water conservation and improved sanitation.

² “One Health” is a multi-donor initiative that integrates WASH, livestock improvement and conservation activities to improve the health of people, animals and ecosystems.

³<https://yali.state.gov/washington-fellowship/>

Activity 1: Renovation of five protected springs

Four protected springs in the villages of *Ambaka, Ekarakaveni I, Siiba* and *Nyabigoma* were developed. The earlier plan was to renovate 5 protected springs, but a thorough assessment of the water sources showed that the springs needed full development rather than renovation. As such, only 4 springs were developed using program funding, and the fifth spring is being developed through support (approximately USD2,000) leveraged from The Water Trust (TWT)⁴ in collaboration with the local government.



In Siiba Village, Budongo Sub County, Masindi, UGANDA, women and girl children are still playing a leading role in fetching water. Photo credit: JGI

Men are now slowly getting involved in fetching water due, in part, to improved water access points. Fetching water has typically been women's and children's roles in the project area, as shown in the gender analysis prior to water source protection efforts.

Activity 2: Construction of five community rain water harvest points

Rainwater harvesting points were identified in 5 Primary schools in the project area. Three of the schools are government aided, while 2 are community and church founded schools. The selected schools had no water source within the school premises. As such, at least 5 water tanks were installed in 5 schools reaching 2,450 school children and at least 1,500 community members.



Students at Karongo Primary school washing their hands at the newly installed water tank at their school. Photo credit: JGI

The provision of water sources has greatly improved sanitation and hygiene in the beneficiary schools. This will be documented in the coming quarters as stories are obtained on the impact of providing access to clean water to the schools.

⁴The Water Trust (TWT) was founded in 2008 by three longtime advocates for safe-water access: finance executives Ted Huber and Jeff Kaplan, and Andrew Pearson, director of U.K.-based Busoga Trust. Initially operated as a Busoga Trust satellite, The Water Trust is now an independent NGO with American leadership.

Activity 3: Water Quality Assessments for water facilities

JGI, in partnership with the Directorate of Water Development Laboratory (Government of Uganda), conducted an extensive water quality assessment of all main water points in the target project area. The water tests focused on *insitu* analysis of physical parameters including PH, electrical conductivity (EC), turbidity, dissolved oxygen, as well as microbial analysis, for and total coliform.

Analysis of the physical characteristics (PH, electrical conductivity, turbidity and dissolved oxygen) showed that all the water sources show typical characteristics of ground water with PH lower than six and electrical conductivity well below 65us/cm.

Analysis of the chemical characteristics (phosphates, nitrates and nitrites) noted that the nitrates concentrations in the sampled sources are typical of natural ground water sources without any induced pollution from human activity. The other ground water sources showed very low concentrations of phosphates, which is assumed to be naturally occurring in the ground water aquifers.

Table 3 | Results of Water Testing in Comparison to Recommended Standards from Uganda National Bureau of Standards (UNBS)

No.	Sampling	PH (PH Units)	EC (us/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Po ₄ (mg/l)	No ₃ (mg/l)	No ₂ (mg/l)	Total Coliform (CFU/ml)	Ecoli (CFU/ml)
1	Ambaka spring I	5.6	54	4.4	34.8	0.6	2.5	0.97	395	10
2	Ambaka spring II	5.5	71	2.3	23.1	0.46	2.3	104	109	<1
3	Erakaveni well	5.7	44	14.2	26.2	0.64	1.2	0.64	>2420	35
4	Siiba spring	5.3	32	2.9	31.4	0.75	1.6	0.64	>2420	49
5	Nyabigoma well	5.6	40	13.8	26.9	0.85	2.5	1.08	>2420	105
(UNBS) Water standard parameters		6.5-8.5		10		10	20	10	0	0

Finally, almost all the spring and open wells showed very poor water source protection practices with blocked drainage channels, unprotected and eroded sources. JGI also noted that most protected springs had storm water channels upstream off the water source. Therefore storm water could be mixing with the ground water sources and increase electrical conductivity of water sources. It is for the above reasons that there is in these spring water sources as observed in the results (Table 4). However, it must be noted that the average contamination is lower in protected springs (below 40CFU/ml). This is an indication of point of collection contamination and that the water from the source is not contaminated. Therefore, if the water sources are properly improved the issue of microbial contamination will be eliminated. Only *Ambaka Spring Point II* showed satisfactory results, because, unlike *Ambaka Spring Point I*, it was far from the storm water channel and it is rarely used by people, thus less contaminated.

Activity 4: Training of Water Management Committees

Nine water management user committees (WUC) were established and trained by staff from the District Water Office and the Sub County Community Development Officer of Budongo. Five of these WUCs are from the school based water tanks and the remaining four are from the protected springs. There are a total of 63 members (28 women/44%) for all the nine committees, each of which has a composition of seven compulsory members with at least three females one of whom holds a key position as mandated by the Local Government.

Activity 5: Training of Community Based Artisans

At each of the water sources, two members of the WUC were selected as artisans to repair the water sources. Trained by the District Water Officer, a line department in the District Local Government, the first is the caretaker; and any other member of the WUC. These artisans will do maintenance work at each of the nine water sources. The artisans were also trained in the following areas: basic plumbing including repairs of simple system leaks, maintenance, masonry, and proper use and handling of tools. In addition, the artisans at each water source were equipped with a set of tools including spanners, trowels, and hammers to be able to do works as required.

Activity 6: Protect and conserve water sources

Fifty tree seedlings have been planted at the protected water springs. In addition, area above the protected spring has also been planted with *Paspalum notatum*, a creeping grass to aid in reducing surface run-off and system contamination. The tree cover is intended to provide future shade over the water and reduce evaporation from direct exposure to sun during the dry season.

In addition, to protect the greater ecosystem, JGI through its parallel running project, has planted the water catchment areas with up to 10,500 indigenous seedlings of Mahogany (*Khaya senegalensis* and *K. anthotheca*), *Maesopsis eminii* and *Mitrigyna stipulosa* species. Local community leadership passed a resolution that established an evaluation and enforcement mechanism to minimize water catchment area degradation. The system ranks catchment area villages according to the level of forest and water resources degradation on a scale from one to ten; one being the village with the highest level of contamination and environmental (forest and swamp) degradation, and ten as the village with least degraded forest and water resources. This has created an accounting mechanism for reversing forest and water resources degradation. Going forward, JGI plans to establish this self-evaluation and accounting system, institutionalize it as standard procedure in the local government system, and disseminate it across the broader Albertine Rift conservation landscape to be included in any future interventions.

Activity 7: School/community sanitation campaign

This campaign reached at least 500 community members including local and religious leaders. The campaigns involved use of local music, dance, drama, talks and videos to raise awareness. This has led to a 50% reduction in poor water and sanitation practices, such as open defecation, and washing clothes and vehicles in water sources.

Teachers, students, parents, and the whole community are now committed to working together to promote good hygiene by ensuring that there are facilities and conditions for practicing improved hygiene in school and at home. This is also enabling more girls to remain in school when menstruation

begins. The latrine situation is worse in Karongo Primary School, because existing latrines are full, leading to open defecation. Parents have mobilized to dig new latrines, however additional support is needed to complete the structures.

Activity 8: Water and sanitation sensitization

Twenty teachers were trained in creating WASH friendly schools. A WASH-Friendly School is a school that is clean, safe, has adequate, well-maintained toilets or latrines for girls and boys and for teachers with water, paper, or other material for anal cleansing; has a place to wash hands with soap/ash and running water after using the latrine; and has enough, safely stored clean drinking water for the school community. Teachers have since developed WASH-Friendly Schools action plans.

The training has equipped teachers with knowledge to integrate lessons on good hygiene practices and water resources conservation into school curriculum, with specific focus on fecal-oral transmission of germs, hand-washing, building hand-washing facilities, latrine use and maintenance, water purification methods and safe drinking water, and water sources protection and conservation.

5,710 students were sensitized about the need for freshwater conservation and improved sanitation and hygiene in their schools and communities.

WASH clubs were established in all schools to ensure that there are functional hand washing facilities, clean water points, proper waste disposal and raise awareness among fellow children, guided by teachers.

All of the 10 schools (100% achievement) that participated in the awareness-raising campaigns have constructed tip-taps, a local hand washing facility. Only 10% of the schools had hand washing facilities prior to the initiation of the project. Teachers have reported improved latrine use and hand washing in schools.

Stakeholders at an engagement meeting about FW-WASH recommended the following:

- Every home must have a pit latrine
- Education & Awareness about FW-WASH should be carried out in all villages and schools
- Develop a sanitation and hygiene team (committee)
- Establishment of new water user committees
- Bi-laws should be developed on FW-WASH with sub-county taking lead



Teachers demonstrating the use of a tip tap after the ABCG – WASH training. Photo Credit: JGI

Activity 9: Awareness materials

Awareness materials on WASH best practices have been developed (Figure 2).

Figure 2 | WASH best practices fact sheet

WHY	WHEN	HOW
<ul style="list-style-type: none"> • Keeping hands clean is one of the most important steps you can take to avoid getting sick and spreading germs to others. • Many diseases and conditions are spread by not washing hands with soap and clean, running water. 	<ul style="list-style-type: none"> • Before, during, and after preparing food • Before and after eating food • Before and after caring for someone who is sick • Before and after treating a wound • After using the latrine • After cleaning up a child who has defecated • After blowing your nose, coughing, or sneezing • After touching an animal, animal feed, or animal waste • After handling a pet or its food • After touching rubbish 	<ul style="list-style-type: none"> • Wet your hands with clean, running water (warm or cold) and apply soap or ash. • Lather your hands by rubbing them together with the soap. Be sure to lather the backs of your hands, between your fingers, and under your nails. • Scrub your hands for at least 20 seconds. • Rinse your hands well under clean, running water. • Dry your hands using a clean towel or air dry them.


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Activity 10: Conduct reviews

JGI conducted a review of their project to assess progress, and to identify success stories, achievements and key challenges. Review meetings were conducted in all the ten villages and major findings include:

- Increased access to clean water due to development of protected springs in 4 villages and installation of 5 rain water tanks in 5 schools. This is a 100% increase in the number of portable water sources in the selected target villages.
- All households near riverine forests are engaged in tree-planting through JGI's larger conservation efforts being implemented in the target area.
- 100% of schools (previously 50%) now have access to water within their premises. Some schools were previously accessing water from sources that are as far as two kilometers away.
- Latrine use behaviors and practices have improved by 80%. Many children and teachers were using plant leaves, stones and maize combs to clean themselves. After sensitization, FW-WASH club members now collect waste paper, clean it, and put it in latrines for use.

AWF and CI - COP

In preparation for establishing the COP, the task team members developed a checklist outlining the purpose of the COP, who should be part of the COP, issues to be discussed, format of meetings, and platform for meeting virtually. This brief was used as the basis for a SOW for the COP members and circulated to select targeted participants drawn from practitioners that participated in the 2014 workshop to enlist their inputs and buy-in. Feedback was received from the technical leadership of Kenya FW-WASH Alliance, Millennium Water Alliance (Kenya RAPID Program), Wetlands International Kenya, Kenya Water and Sanitation Civil Society Network (KEWASNET) and a few other practitioners in this space within Kenya. Consultative exchanges via email and Skype calls to brainstorm the need for a dedicated COP were carried out during the second half of the year under review and there was consensus that a COP would add value to creating integrated learning between freshwater conservation and FW-WASH practitioners. A draft agenda for a maiden meeting for COP ‘founder members’ drawn from within Kenya and endorsed by members that participated in the preparatory calls. A sample invitation letter was developed by the ABCG task members and sent to 20 prospective founder participants. By the end of the year, a core group of nine members representing nine organizations active in the FW-WASH space in Kenya had confirmed willingness to attend the first in-person meeting to discuss the specifics for formally establishing the COP. However, the original plan to officially kick-off the activity in the third quarter of Year 1 did not materialize, but there is agreement to reschedule for early in the first quarter of Year 2 (October 2016) primarily to accommodate schedules and availability of invited participants.

In the task’s shared Google Drive, all documents created during the preparatory phase including: 1) a draft list of individuals to engage in the COP, building off the ABCG M&E workshop held in Nairobi in July 2015; 2) a spreadsheet of activities for organizing the COP that lays out next steps and contributors; and 3) an agenda for the October meeting are available.

3.5.2.2 Key achievements

CI/CSA - South Africa Pilot

After a slow start, the South Africa Pilot quickly picked up momentum and can report the following key achievements:

- Design of a “living” PMP for the overall One Health Initiative. This will allow CSA to manage the collection of data in order to track progress. It contains full documentation of the indicators with a clear definition of each, rationale for its inclusion, and a description of the methodology for collecting data. It also describes how the indicators will be disaggregated by geographic locations (villages), sex and age group.
- Twelve community meetings were held to socialize and engage individuals in the One Health Initiative. This was done in coordination with the leaders of the traditional courts and Ward counselors.
- After local stakeholders contributed to the data gathering process for the baseline analysis and PMP, implementation officially began. Achievements include working with community volunteers to map the natural springs where community members had previously sourced

- their water but could no longer because the springs were degraded and the water quality was too poor, researching best practices for rehabilitation of degraded springs and conducting one hygiene awareness activity, in coordination with ANDM.
- Trained ten water monitor volunteers (at least two per site) on data collection for taps installed by ANDM, natural springs, and streams that feed into Mzimvubu River where CSA is clearing alien trees and rehabilitating the dongas. These volunteers monitor the infrastructure and raise awareness on water conservation and FW-WASH.
 - Sixteen natural springs that needed restoration and protection were identified. Leveraged funds from the Starwood Foundation allowed eight of the identified springs to be rehabilitated and the water sources protected. This was very physical labor that involved clearing rocks and debris by hand and was completed by volunteers and two CSA staff members. To the extent possible, CSA “procured” natural materials and if things had to be purchased, they took care to ensure those materials are available locally, in case future repairs are needed. CSA also provided technical advice on what was needed for an additional spring, which CSA did not have resources to rehabilitate, but villagers were able to undertake, based on those recommendations.
 - Engaged ANDM in a process to plan a joint climate, FW-WASH and livestock summit to better connect local challenges with policy. The original aim was to have this summit towards the end of year one, but ANDM encouraged CSA to delay the summit because of local elections in September 2016. Postponing the summit until next FY will enable CSA to get the participation of incoming ANDM counselors, who will be overseeing programs and funding related to FW-WASH, livestock and infrastructure in the district for the next five years.
 - There were two big achievements in terms of leveraging USAID/ABCG investments in the One Health Initiative:
 - The Starwood Foundation committed to another year of funding for the One Health Initiative, even though the foundation will officially close its doors in October of 2016. Funding was also secured through CI’s internal Millennium Innovation Lab to design and test the use of a mobile technology application to improve the speed and quality of data collection.

JGI - Uganda Pilot

In Uganda, JGI focused on conserving freshwater resources in critical ecosystems linking freshwater conservation, access and WASH. The key activities implemented were: 1) increasing conservation and WASH awareness and their cross-linkages in order to reduce watershed degradation and pollution; and 2) developing community-based processes and structures and infrastructure to increase equitable access to potable water in order to ensure a healthier and more vibrant community and ultimately healthy ecosystems. Whereas on-ground implementation started later than scheduled, the (community and local government) partnerships and enthusiasm were critical in ensuring timely implementation and the following key achievements:

- Installed five water tanks in five primary schools. This has increased access to water by approximately 2,450 school children;
- Developed four protected water springs developed in four villages serving clean water to a community of about 2,800 people;

- Increased the number of schools adopting hand-washing facilities from 10% to 100% within a period of three months. All schools have hand washing facilities;
- Enacted by-laws to reduce watershed degradation and pollution of water sources in the project area;
- Increased participation of men in fetching water due to improved sanitation at water points;
- Established functional FW-WASH committees in communities and schools. These committees will continue to enforce FW-WASH best practices in the community;
- Established and trained nine Water User Management Committees. These committees will ensure safety and maintenance of the water sources developed in communities and rain water tanks installed in schools, and;
- Created functional student FW-WASH clubs in each of the ten schools.

AWF and CI - COP

Based on the enthusiastic support by the FW-WASH practitioners who attended the 2014 workshop, ABCG began to explore the creation of a FW-WASH COP based in Africa as part of Phase II activities. As a build up to establishing a FW- WASH COP, AWF and CI have accomplished the following:

- Conducted a review of on-line platforms for the COP's use outside of face-to-face meetings. Factors considered in the assessment included accessibility, hosting logistics, and user-friendliness. Three potential web based platforms are being considered: LinkedIn Groups, Facebook Groups and Google+ Communities. Based on a quick check of what professional users in Kenya are familiar with and prefer, the task members have recommended LinkedIn Groups. This choice of platform will be discussed at the first COP meeting in Nairobi.
- Compile a draft list of individuals to engage in the COP and contacted those individuals. This list was expanded from the ABCG M&E workshop held in Nairobi in July 2015.
- Created a spreadsheet of activities for organizing the COP that lays out next steps and contributors.
- Circulated an agenda for the first COP meeting to be held early in Year 2 was among the prospective attendees. Nine confirmed participants from X organizations contributed to the agenda.

3.5.4 Integration of Crosscutting Issues

3.5.3.1 Gender

Both of the pilot sites are conducting gender analyses. The data are being used to inform/adjust project activities and sex-disaggregated data will be collected as part of the monitoring and evaluation plans. Gender is also one of the topics the COP is considering featuring in capacity building webinars.

CSA conducted a gender analysis in order to better understand the on-the-ground realities in the Mzimbubu communities in our target area. CSA designed the gender analysis data collection questionnaire to look at some of the root causes of existing gender inequalities, and the obstacles to

female empowerment and constructive male engagement. Based on the information gathered, CSA and partners are adapting their interventions to increase participation of both men and women in improving water conservation and supply efforts in the target areas.

JGI commissioned this gender analysis baseline study to inform project design and delivery.

The study recommended interventions that have an indirect contribution to FW-WASH by reducing the burden of the women. These include access to potable water, financial empowerment and alternative energy sources at household level, gendered information access, watershed management, and addressing human-wildlife conflicts. These issues have been addressed jointly by the ABCG-WASH supported activities and by a parallel project being implemented by JGI in the same target area.

3.5.3.2 Wrap around activities (HIV/AIDS)

While activities are not directly addressing HIV/AIDS related issues, access to clean and potable water has an impact on HIV/AIDS affected households, by reducing opportunistic infections, and the level of effort and energy needed to collect water from long distances.

3.5.3.3 Public private partnership / Global development alliance

NA

3.5.3.4 Sustainability mechanisms

Both CI and JGI have been working in the pilot regions for a long time and are fully invested in ensuring that results from these interventions are sustained in the future. Accordingly, JGI will be working with local community associations, schools, etc. to build their capacity to sustain achievements from this work. CSA is working with government partners, members of the traditional governance systems of the local communities, and is a partner of the Mzimvubu Catchment Alliance, a 35-member partnership focused on sustainability efforts for the Mzimvubu catchment.

From the onset of the project, JGI has worked closely with Hoima and Masindi district councils, as well as the local sub-counties and parishes. As a direct result of this activity the following sustainability mechanisms were established:

- Nine Water User groups consisting of seven members each were established for management, maintenance and proper use of the facilities
- Two community-based artisans were trained in basic plumbing, proper use and handling of tools and equipped with a basic set of tools to enable them to make repairs. These artisans are also members of the water use committees.
- Masindi District Water office will also provide further technical assistance beyond the capacity of the community-based artisans. In addition, the Sub County Health Assistant will continue to inspect the newly installed water sources thereby improving and providing feedback on sanitation and hygiene.
- Community accountability mechanism - local community leadership proposed and passed a resolution that established an evaluation and enforcement mechanism to minimize water catchment area degradation, as mentioned in the section 2.5.1 Activity 6.

3.5.3.5 Environmental compliance

NA

3.5.3.6 Climate change (adaptation and/or mitigation)

CSA contributed to the design of ANDM's climate change strategy and conducted climate vulnerability assessments. CSA is linking the strategy and findings of the vulnerability assessments with FW-WASH efforts. USAID support of this ABCG task has enabled CSA to implement some of the findings of the vulnerability assessments in the target villages, specifically the protection and rehabilitation of water sources that were identified as vulnerable. CSA, CI and ANDM are planning a climate, FW-WASH and livestock summit, which will connect this strategy and the plans of decision makers to the learning to-date from the One Health Initiative.

The ABCG funded WASH activities have been incorporated into, and complement JGI's conservation and sustainable livelihood activities that aim to build climate resilience in the target region through stopping deforestation and increasing tree cover so as to boost moisture retention, creating a buffer against predicted regional drought stress. In return for conserving riparian and regional tropical forest the project trains regional households in conservation farming and agroforestry to improve the productivity of their existing fields; establishing sustainable alternative enterprises so as to increase resilience through socio-economic safety nets; and promoting low-tech adaptation technologies such as energy saving stoves.

3.5.3.7 Policy support

CSA's relationship with ANDM helps to support how policy decisions are implemented at a local level and provide a feedback loop from the local level back to decision makers. The existing disconnect largely contributes to why land management practices, FW-WASH investments, and climate change adaptation strategies decisions remain siloed. We anticipate there will be more to report on this cross-cutting theme after the climate, FW-WASH and livestock summit.

JGI has been working closely with Hoima and Masindi district councils, as well as the local sub-counties and parishes. Because these efforts are part of their district development strategies, it is within their mandate and interest to provide oversight and support beyond the project period. These efforts at the district level are part of a larger policy framework for Uganda and lessons learned will be communicated and shared. The gender analysis also highlighted other ways that JGI can be involved in supporting policy related to FW-WASH. JGI is reviewing these and will discuss internally if there are other ways to be engaged.

3.5.5 Best Practices and Lessons Learned

3.5.4.1 CI/CSA - South Africa Pilot

We anticipate lessons learned arising from later stages of activities, however one lesson from this first year is that local people must have a central role in implementation, so they learn how to sustain these efforts after the project ends. That is why CSA works closely with volunteers, despite some of the challenges described in section 2.5.5. Challenges and Constraints.

3.5.4.2 JGI - Uganda Pilot

- Integration of FW-WASH lessons into school curriculum enhances the involvement and enforcement by teachers of good FW-WASH practices. This has been expanded to the district level whereby the District Inspector will be making regular school visits for follow up on enforcement of good FW-WASH practices, even beyond the geographic scope of the project target area.
- Water sources built in schools are primarily meant for the use of the school children and teachers. However, due to the lack of portable water sources in rural areas, the community often heavily relies on the school water sources albeit illegally. This has resulted in community-school conflict and in several cases it has also led to the vandalizing of the water sources. Furthermore, once the water sources are destroyed, the schools often lack the resources to repair these water sources due to limited budgetary allocations. The ABCG FW-WASH pilot project established an innovative mechanism to resolve these issues through: 1) new water points within school premises with the precondition that it is for dual community and school access, and 2) establishing a joint community-school water governance committee that will ensure shared benefits, responsibilities and obligations thus ensuring reduced conflicts and better maintenance of water sources.
- Village bylaws and local decrees are more effective mechanisms for eliciting behavioral change and catalyzing action which will lead to better human health and conservation outcomes. Whereas where district and national ordinances exist, they are often not being enforced on the ground in remote rural areas due to resource (budget and personnel) constraints for enforcement and this is further compounded by the lack of awareness of the local communities of these laws.
- FW-WASH generates additional incentives and benefits that compliment conservation outcomes. Communities are more receptive to planting trees and reducing deforestation and swamp degradation if they feel it will benefit their water needs, yet they often resist these interventions if they feel they are purely for biodiversity benefit.

3.5.6 Challenges and Constraints

3.5.5.1 CI/CSA - South Africa Pilot

From a programmatic standpoint, we encountered two main challenges:

- Although every effort was made to communicate to water monitors that CSA was looking for community volunteers, several of them harbored false expectations that they would be financially compensated. This required extra work of CSA staff to ensure the volunteers' continued engagement in the project activities.
- There is great interest from surrounding villages to have CSA expand activities, which addresses the perceptions and understanding of the value of conservation and improved land use practices for their health and livelihoods. However, limited financial resources do not allow the project to expand at this stage. The expectations of the surrounding communities must be managed so they do not become discouraged as the project works to include additional sites.

From an operations point of view we have encountered the following challenges:

- In July 2016, Basetsana Rephethile Khathali, CSA's Municipal Support Manager, left CSA for a position with ANDM. The good news is Basetsana is able to be an advocate for One Health within ANDM and sits within the department that we collaborate with most closely. This happened around the time that Nolu was returning from her YALI fellowship, which caused minor delays, because of having reduced staff capacity for a period of time. In early May, CSA's GIS and rehabilitation intern, Fadzai Pwiti, also finished her term which delayed some of the desktop work needed to be done related to the springs rehabilitation.
- CSA will be hiring a consultant to conduct an assessment on sanitation practices and health impacts. This has proved to be particularly challenging, because FW-WASH best practice is to draw from local health clinic data about frequency and variety of waterborne diseases treated, but many people in our target area do not visit local health clinics unless they are very ill. Furthermore, those clinics are often understaffed and have poor record keeping. In August, a call for consultants was put out in South Africa to identify candidates with experience working on this intersection of FW-WASH and environmental health to gather this information and set up a continued monitoring protocol for CSA. It has taken longer than anticipated to find candidates for this role, so this activity has been delayed until November or early December 2016.

3.5.5.2 JGI - Uganda Pilot

- Inadequate latrine coverage in schools greatly affects sanitation efforts. The few available latrines fill up quickly and because of severe resource constraints the schools can only build make-shift latrines that are unhygienic and often result in an increase in open (bush) defecation. The recommended pupil -to- stance ratio by the Ministry of Education in Uganda is 40:1, but the average ratio in all the schools in the project area is 60:1. For example Karongo Primary School has one functional five stance latrine block shared by 712 pupils and teachers. This greatly affects sanitation efforts.
- Insufficient technical capacity for water quality testing in rural areas due to limited resources (personnel, finance and equipment) compromises on the ability for local governments (and projects like ABCG-WASH) to conduct regular water testing and monitoring of water quality...

This means that, when the water sources are contaminated, the communities often end up (unknowingly) using contaminated water.

3.5.5.3 AWF/CI - COP

- Due to scheduling conflicts, the first meeting for the COP was delayed until late October 2016.

3.5.7 Stakeholder Engagement

3.5.6.1 CI/CSA - South Africa Pilot

Stakeholder engagement is a critical component for the success of the One Health Initiative. This includes CSA efforts to facilitate consistent and transparent communication between stakeholders. CSA's key partners in the pilot site are:

- **ANDM** — As the local authority mandated and resourced to provide water and sanitation infrastructure, they lead on FW-WASH infrastructure and hygiene awareness raising efforts. ANDM also provides strategic leadership on alignment on priority areas and other funding programs for job creation around ecological restoration of the catchment.
- **Matatiele Local Municipality and Traditional leaders in Ward 14 and Ward 21**— These authorities work at the local level to coordinate activities among multiple local communities. They also assist with coordination of community stakeholder's meetings and workshops.
- **Umzimvubu Catchment Partnership Programme (UCPP)** – UCCP partners are committed to collective action to develop and implement a catchment management strategy and restoration plan for the Umzimvubu River corridor. Findings and progress on the initiative are shared through UCCP quarterly meetings to gain input and advice.

3.5.6.2 JGI - Uganda Pilot

- All key stakeholders in the project area were given an opportunity to contribute their ideas on FW-WASH into project implementation activities. Stakeholders included: the health officer, water officer, education officer, inspector of schools, sub-county and parish officials and the community development officer, head teachers, teachers, school management committees and religious leaders.
- TWT is also seeking partnership with JGI Uganda to renovate more protected water springs to increase the number of community members with easy access to clean water.
- **Siiba Conservation and Community Development Association** — a local CBO that was established by JGI Uganda to oversee conservation work of forest and water resources in the project area played a significant role throughout all stages of project implementation.

- A Rocha Uganda⁵ has supported JGI Uganda with one Biosand water filter for piloting in one of the project schools (Kimanya Upper Primary School with a total of 589 children), as a way of improving the quality of drinking water. The Biosand filter is an innovation on traditional slow sand water filters specifically designed for intermittent or household use.

3.6 TASK ACTIVITY AREA 5: EMERGING ISSUES

3.6.2 Task Activity Description

The Emerging Issues Small Grants program builds on ABCG's position as a partnership of seven international conservation NGOs with a strong field presence in priority biodiversity areas across the continent by creating teams to analyze emerging threats or opportunities, and convening stakeholders in the U.S. and Africa to present data and catalyze discussion. Through its small grants program, ABCG identifies and develops strategies to respond to emerging issues that are likely to shape conservation priorities in the coming years, and influencing the effectiveness of biodiversity conservation efforts in Africa.

African institutions working with ABCG partners will play key roles in identifying these issues, and planning and implementing the pilot projects supported by Emerging Issues Small Grants. Through participatory processes, Emerging Issues Small Grants promote gender equality, capacity building for local African institutions, and women's and youth empowerment as powerful drivers for inclusive and sustainable development.

Eligible applicants are the member organizations of the ABCG. A minimum of two ABCG members must partner to develop and submit an application with one member serving as the lead applicant and primary contact for the proposal. Furthermore, partnering with a local African civil society organization or government agency is required for consideration.

In addition, a project concept under the Emerging Issues Small Grants program should:

- Propose a novel or innovative approach, which incorporates a new technology or model for addressing an emerging issue;
- Engender ABCG's core competencies: generating knowledge, communicating best practices, and fostering communities of practice;
- Address issues that have application at the landscape level- beyond one country or at a transboundary or multinational scale, such as East and Southern Africa or West Africa;
- Include two or more member organizations with clearly defined roles and relationships;

⁵ A Rocha is a Christian conservation organization implementing community-based projects in Europe, the US and many developing countries. A Rocha Uganda was established as an official A Rocha project in June 2010. Their goal is to restore degraded environments, conserve nature and encourage local communities to use natural resources in a sustainable way.

- Include local partnerships with African intuitions and/or civil society and reflect a multi-stakeholder planning process with broad participation;
- Propose a tangible, short-term output (e.g., direct conservation impact, science product, due-diligence scoping study, pilot study conclusions, and/or policy recommendations); and
- Be consistent with and supportive of the [USAID Biodiversity Policy](#) and USAID Africa Bureau Regional Development Cooperation Strategy.

3.6.3 Activity Implementation and Achievements

3.6.2.1 Implementation progress

Thematic Areas

In the first call for concepts, potential themes were identified by ABCG’s extensive network of field teams and local partner NGOs. ABCG members proposed a number of themes based on their assessment of knowledge gaps, potential linkages, and new challenges that have not garnered adequate attention.

Proposed themes were required to adhere to Selection Criteria 1. A topic that ABCG member organizations are not currently addressing (e.g., HIV and conservation), or a new dimension to an existing issue (e.g., the scale and complexity of wildlife trafficking), or issues where an ABCG funded intervention would compel additional activities at scale (e.g., impact of responses to climate change).

The Steering Committee then individually ranked the proposed themes and decided on the following three:

1. Wildlife Trafficking
2. Infrastructure Development
3. Strengthening African Civil Society

I. Wildlife Trafficking Theme

Africa’s biodiversity faces significant pressure from a growing demand for wildlife products and live specimens in a context of inadequately protected supply and well-equipped criminal trafficking networks that are fueling a surge in wildlife trafficking at a trans-continental scale. From capture to sale, the \$19 billion illegal wildlife trade industry impacts a wide range of flora and fauna around the world and represents a significant and urgent threat to the maintenance of viable wildlife populations and their habitat.

The US Government has committed to a whole-of-government approach to combat wildlife trafficking. ABCG members work in partnership with the US government and all other global partners to combat wildlife crime across the globe. ABCG acknowledges the global multi-stakeholder, multi-disciplinary institutional commitments and leadership from the US, Chinese, UK and other governments and

multilateral institutions to deploy holistic, multifaceted interventions to choke the illicit trade along the entire chain. ABCG further notes the prioritization given to combating poaching and illegal wildlife trafficking by the African Union as showcased in the Agenda 2063 Vision and reinforced by the Brazzaville Declaration of April 2015, and the explicit inclusion of the issue in the Action Plan of the recent 6th Forum on China Africa Cooperation Summit (FOCAC) held in Johannesburg, South Africa in 2015.

Recognizing the complexity of wildlife trafficking, this call for concepts supports these objectives by contributing to existing knowledge, ongoing activities, and emerging innovative approaches that will result in the promotion of cross-site, cross-institutional, regional, and international sharing of best practices to effectively interdict wildlife crime along the entire value chain from source and transit to demand reduction and end markets.

The findings are expected to provide a ‘recommendations menu’ of best practices that holistically address wildlife trafficking, informed by documented lessons learned (both positive and negative) that can be adaptively applied.

In addition to proposals focused on organized wildlife crime, such as international trafficking of products like elephant ivory, rhino horn, and live animals, applicants were encouraged to consider research and activities that focus on the illegal trade in endangered non-charismatic species where funding is less readily available, and on pathways to nontraditional end markets. Note that this theme is focused on broad-scale cross-border trafficking of live wildlife and wildlife products and is not intended to address localized poaching and markets for bushmeat trade.

2. Infrastructure Development Theme

There is an unprecedented growing demand in Africa for mineral extraction, increased agricultural output and energy resources, all of which threaten African biodiversity and conservation. Investments in large scale infrastructure are high on Africa’s agenda and this is core to the African Union Agenda 2063 Vision & Priorities, and the FOCAC Action Plan. Billions of development dollars are earmarked for Africa large dam projects, and mega road and railway networks to upgrade Sub Saharan Africa’s poor road network which lags far behind the rest of the world. These growing demands are due, in part, to Africa’s economic growth rates over the last decade. According to the IMF, from 2011-2015 seven of the world’s 10 fastest-growing economies were in Africa. This growth, in many places, is leading to poorly planned infrastructure development and ABCG seeks to engage development partners and governments to ensure that large scale infrastructure development does not undermine conservation and ecosystem services critical to wildlife and African livelihoods alike. Efforts to conserve biodiversity will fail if poorly planned large-scale infrastructure investments continue unchecked and without consideration of environmental impacts. There is an emerging and urgent need to identify major infrastructure projects and to help resolve conflicts between protecting the environment and supporting development.

ABCG invited proposals that addressed the threat of poorly planned infrastructure development in Sub Sarah Africa. Projects could include, but were not limited to: 1) tools designed for tracking and consolidating information on infrastructure projects, 2) support for sustainable and environmentally sound infrastructure planning, 3) review of environmental safeguard systems and the promotion of environmental best practices, and/or 4) tools to help key stakeholders improve decision making around infrastructure development, including choices about tradeoffs and highlighting where development and conservation objectives overlap.

3. Strengthening African Civil Society Theme

One of the foremost determinants of success of conservation interventions in African countries is the capacity and performance of local and national civil society organizations (CSOs). That support varies, from engaging CSOs to conduct specific project-level work, to providing training on research and communications, to providing specific technical assistance designed to strengthen target organization (e.g., Board of Directors development, medium-term organizational strategy, financial management). Most often such work is embedded in the project work plan of the ABCG member. The efforts of ABCG members and other international conservation organizations are often largely dependent on having effective collaborations and partnerships with local CSOs, and progressively building their capacity and their ability to have impact on policy and practice. Such international-local partnerships are also a critical component of empowering local CSOs to develop and thrive. These efforts by ABCG members to strengthen African CSOs are expected to continue as the current USAID Cooperative Agreement is implemented.

The addition of this theme was designed to build on and compliment these continuing efforts—to explore and develop strategies, methods and tools for investing effectively in the capacity, impact, leadership, and sustainability of African CSOs as a key element of addressing major conservation challenges and goals in the region today and in the future. The findings of this work are expected to provide options for improving and scaling the capacity-building work of the ABCG members and other conservation organizations around the world. Note, this theme was not intended to support ongoing capacity-building initiatives of the ABCG members

Call for Concepts

Following the drafting of a small grant application, a call for concepts was released in early February 2016 for the Steering Committee members to share broadly within their organizations.

There were four proposal submissions:

1. TNC/WRI: Piloting Mechanisms for Strengthening African Conservation Leadership and Organizational Capacity
2. AWF/WRI: Introducing Development Alert! Tool and platform for Kenya to track investments in Infrastructure
3. WWF/TNC: Building the foundation for a basin/national scale approach to water infrastructure planning in Zambia
4. WCS/WWF: A scalable approach to engaging Chinese overseas enterprises to mitigate impacts of wildlife trafficking in Africa

Selection Criteria and Award Process

The Steering Committee, representing the panel of judges, scored final proposals based on the selection criteria (Appendix 4.5: Emerging Issues Small Grants Scoring Criteria). In order to prevent conflict of interest, the representatives whose organizations submitted the proposal under review did not participate in scoring.

The Steering Committee reviewed individual assessments during the second quarterly Steering Committee meeting and discussed the strengths, weaknesses, and overall applicability of the four submissions. During this deliberation, several questions were raised, which were communicated to the two highest scoring applicants as requests for more information. These applicants were then awarded funding. The two winning proposals were: TNC/WRI: *Piloting Mechanisms for Strengthening African Conservation Leadership and Organizational Capacity*; and WCS/WWF: *A Scalable Approach to Engaging Chinese Overseas Enterprises to Mitigate Impacts of Wildlife Trafficking in Africa*.

Grant Amount

Grant funds disbursed in this initial funding round were approximately \$115,000 through two awards of approximately \$58,000 and \$57,000.

3.6.2.2 Key achievements

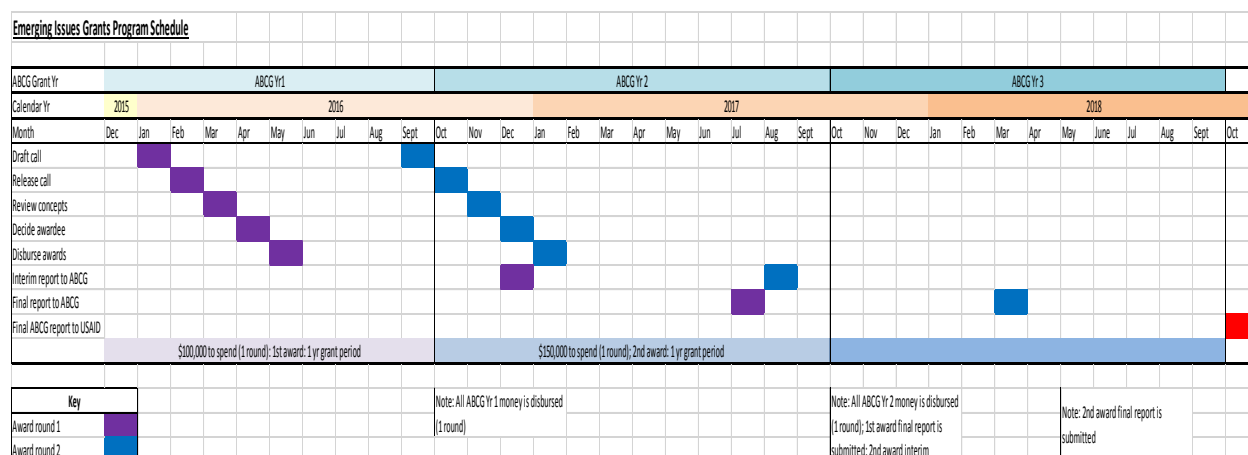
ABCG has attained its Year 1 indicators under the *Intermediate Result: Steering committee reviews and awards small grants*: 1) *At least two proposals funded by the Steering Committee* and 2) *Two non-ABCG partners participating in Emerging Issues Small Grant funded projects* (Appendix 4.1: ABCG Phase II Monitoring and Evaluation Plan).

Timeline

To lower the risk of underspent sub awards, ABCG plans to disburse all Emerging Issues Small Grants in Years 1 and 2. To accomplish this, ABCG has raised the proposal ceiling to \$50,000 for direct costs. Grant periods will be one year (rather than 6 months) in order to allow for delivery of outputs given an increased project scope. The final Emerging Issues award will close 6 months in advance of the end of grant period, in order for the sub-awardees to submit final reporting several months before ABCG's own final report is due in Oct 2018. Therefore, ABCG will make two disbursements of approximately \$115,000 and \$135,000 (for a total of \$250,000) in Years 1 and 2 respectively.

A three-year timeline for the Emerging Issues small grant cycle is mapped in Figure 3.

Figure 3 | Emerging issues small grants program schedule



3.7 CENTRAL ADMINISTRATION

3.7.1 Activity Implementation and Achievements

3.7.1.1 Implementation progress

The Central Administration (Secretariat), including the Coordinator and Program Officer (PO), coordinated the kick-off of the current Agreement since the inception of the Agreement awarded on September 22, 2015. In conjunction with WCS’s Program Lead, the Secretariat’s activities included reviewing the key stipulations of the Agreement; facilitating introductory meetings with the USAID/AFR Agreements Officer Representative (AOR) to deliberate on the administrative and other terms of the Agreement, and determine regular channels for corresponding with USAID/AFR. Task activities have been slow to develop during this reporting period (October 1, 2015 – September 30, 2016) partly as a result of the delay in issuing sub-award agreements to the ABCG members. The sub-award process experienced delays due to challenges in aligning internal institutional procedures at WCS with recently promulgated updates of USAID applicable standards and requirements for new operational policies. Sub-award contracts were distributed to the six member organizations for signature in early February 2016 and funds disbursements began in March.

Programmatic Meeting Coordination

The Secretariat compiled the current Agreement work plans; developed the initial Annual Work Plan narrative and accompanying matrix in preparation for submission within 30 days of the start of the Agreement. Further, the Secretariat conducted a similar activity for the Life of Agreement Work Plan as with the Annual Work Plan, and developed the Monitoring and Evaluation Plan for submission with the Annual Work Plan.

The Secretariat coordinated regular, formal assemblies of representatives from each of the seven member organizations through Steering Committee meetings. The first quarterly Steering Committee meeting was held on December 03, 2015 primarily to review the task charge, establish task group composition and reporting procedures.

A second meeting was held on March 30, 2016, which included the ABCG USAID Agreements Officer Representative. The meeting focused on Emerging Issues proposal decisions, USAID pipeline planning and reporting details, and presenting the Africa Engagement Strategy.

The third quarterly meeting on June 29, 2016 included a discussion on pipeline planning in preparation for our forward funding request. Other topics addressed included: changes to the Emerging Issues small grants program following the first round of awards, communications challenges and opportunities for USAID outreach, and a review of the sub-award amendment process for Year 2.

The fourth quarterly meeting on September 29, 2016 comprised a review of Year 1 administrative processes and solicitation of feedback for improvement in Year 2, promotion of upcoming publications from task groups and scheduling quarterly task group presentations, and a discussion on hiring a Communications and Engagement Officer.

Global Engagement

Thematic Event Coordination

The ABCG has co-hosted 16 brown bag events in FY 2016 exceeding our target of 10 events by over 50%. This speaker series attracts experts from various conservation fields affiliated with or related to ABCG projects. Since the new Agreement commencement, ABCG has organized the following brown bags, all of which are non-direct ABCG member or project events:

1. [Gorilla Tourism in Dzanga- Sangha- A 17-year story- that continues](#) (November 2015)
2. [Wildlife law enforcement: A dissection of the challenges and the available tools](#) (January 2016)
3. [Hidden gold in the dirt? Soil carbon, climate change, and socio-economic development in East Africa](#) (February 2016)
4. [Staring down the poaching barrel in N. Luangwa: Protecting Zambia's black rhino & elephants](#) (February 2016)
5. [The Salonga National Park: A conservation imperative and too big to fail!](#) (February 2016)
6. [Responsible Forest Management for the Benefit of Local Communities and Biodiversity](#) (April 2016)
7. [The Northern Rangelands Trust Community-Conservancy Model: Sustainable Agriculture and Natural Resource Conservation](#) (April 2016)
8. [Conservancies Best practices in Africa--An AWF Workshop Initiative](#) (April 2016)
9. [Law enforcement Monitoring in the Greater Mekong and Central Africa](#) (June 2016)

10. [WCS Anti-Wildlife Trafficking Efforts with Partners in East Africa and Globally: An Overview of the problem and what works against it](#) (July 2016)
11. [Conservation Diplomacy - Mountain gorillas and the Greater Virunga Landscape](#) (July 2016)
12. [Human Responses to Climate Change, and Subsequent Impacts on Biodiversity](#) (August 2016)
13. [Partnering to Improve Habitat Conservation for the Endangered Eastern Chimpanzee in Northern DRC](#) (August 2016)
14. [Protected Chimpanzees in Tanzania's Unprotected Lands: Conservation Status and Monitoring of Elusive Apes](#) (September 2016)
15. [Conservation without Local People is No Longer an Option: Integrated Approaches in DRC](#) (September 2016)
16. [Using USAID's Applied Political Economy Assessment Framework to Improve Conservation Outcomes](#) (September 2016)

All events are posted to [abcg.org](#), to reach broader audiences as part of our global engagement strategy. This activity also meets ABCG's broader objectives of encouraging the exchange of ideas and experiences with partners, affiliates, stakeholders and practitioners. This is done in part by offering an interactive forum where the discourse can continue online, for as long as the ABCG program runs. Website analytics for [abcg.org](#) reflect 12,480 visitors since October 1, 2015 with over 70 percent of this figure being new users worldwide. In Africa, there is increasing interest with 17 percent of the global share, second to the Americas at 38 percent.

Online Communications and Engagement

As part of ABCG's social media outreach, event output is echoed on the [ABCG LinkedIn® page here](#). ABCG's other social media channels include [Facebook—ABCGconserve](#), where our audience has grown as indicated with over 150 likes since October 1, 2015 (currently at 884); On ABCG's [Twitter account—ABCGconserve](#), a similar growth in influence is reflected through our increasing number of followers—up to over 550, an increase of 18 since October 1, 2015.

ABCG.org subscribers have increased steadily to a current count of 1,774 as of September 30, 2016, an increase of 94 subscribers in the past six months.

Africa Engagement Framework: Planning and Implementation

As part of enhancing ABCG visibility and fostering broader outcomes for the overall program deliverables, ABCG has begun activities on a strategy to ramp up engagement with African stakeholders including local, national and regional actors with mutual interest in biodiversity conservation. The Secretariat has compiled a preliminary list of contacts at the individual, institutional and civil society levels, primarily based in Kenya and elsewhere in East Africa. This activity feeds into a goal of nurturing working relationships for the exchange of cross-cutting ideas, developments and challenges in order to promote adoption of ABCG products by target audiences, and receive insightful feedback in exchange.

3.7.2 Integration of Crosscutting Issues

3.7.2.1 Gender

NA

3.7.2.2 Wrap around activities (HIV/AIDS)

NA

3.7.2.3 Public private partnership / Global development alliance

Regarding communications and outreach, ABCG continues to grow a matrix of contacts from individual to institutional levels, and across socio-economic sectors as a preliminary activity. Our primary focus has been in Kenya, where the Communications and Engagement Officer position is based, with the goal of first making progress on stakeholder outreach and relationship building activities locally, while also developing communications actions aimed at a broader regional scale.

3.7.2.4 Sustainability mechanisms

NA

3.7.2.5 Environmental compliance

NA

3.7.2.6 Climate change (adaptation and/or mitigation)

NA

3.7.2.7 Policy support

USAID's Regional Development Coordination Strategy, and Biodiversity Policy guide the planned engagement of the ABCG at a strategic level towards fulfilling mutual goals of integrated conservation and social development. ABCG supports USAID mission offices through the Secretariat's outreach activities to disseminate ABCG thematic outputs and deliverables. Preliminary introductions have been established with USAID/ Kenya and East Africa mission, Office of the Environment.

4. APPENDICES

4.1 ABCG PHASE II MONITORING AND EVALUATION PLAN

Table A-I | ABCG Phase II Monitoring and Evaluation Plan

Intermediate Result	Indicators	Targets	Means of Verification
ABCG Central Administration			
Present the work of ABCG.	Number of external-facing events (meetings, workshops, brown bag talks, etc.) that occurred and were broadcast	At least 1 event per working group per year	Annual report; announced on social media; webinar recording posted to website
	Number of thought-leadership materials (analyses, white papers, peer-reviewed articles, etc.) distributed	At least 1 item per working group per year	Annual report; posted to website; announced on social media
	Technical reports on activities distributed	At least 1 per working group per year	Annual report; submitted to www.DEC.USAID.gov; posted to website
Provide forum for information-sharing by others in African biodiversity conservation	Number of non-ABCG brown bag talks (i.e., by member-NGO staff on non-ABCG work, by non-ABCG people) that occurred and were broadcast	At least 10 per year	Annual report; announced on social media; webinar recording posted to website
Maintain online presence through listserv, website, Facebook, and Twitter.	Number of listserv subscribers	2,500 “active” subscribers by Sept. 2018	Constant Contact Email statistics
	Average open rate for listserv emails	35% email open rate	Constant Contact Email statistics
	Number of visits to website	1,500 visits per month	Google Analytics administrative report

	Number of downloads from website	450,000 total downloads	ABCG website administrative report
	Number of “likes” of Facebook page	1,000 Facebook “likes” by 2018	Facebook page administrative report
	Number of Twitter followers	900 Twitter followers by 2018	Twitter account administrative report
LRTR			
Provision of a Certificate of Customary Rights of Occupancy (CCROs) for six villages, Greater Mahale Ecosystem, Tanzania (TNC, JGI)	Number of joint workshops, symposia, research, and analysis held with stakeholders and partners	2 workshops	Workshop reports
	Number of people receiving USG-supported training in natural resources management and/or biodiversity conservation (disaggregated by sex)	492 (329 men & 163 women)	Workshop reports
	Number of changes in policies, programs projects and practices cited as a result of analysis and influence activities in this program	1-2 policy, practice or program changes	Annual Progress reports
	Increase in number of policies, laws, agreements, and/or regulations that promote conservation of biodiversity	1 policy or agreement/regulation	Annual Progress reports
Develop mechanism for easements and formal recognition of community and customary rights over land and natural resources, Northern rangelands, Tanzania (AWF, WRI)	Number of countries in which ABCG has contributed to drafting guidelines for private voluntary initiatives.	At least one country	Workshop reports
	Number of guidelines incorporated into national policies or regulations in at least one country.	At least 1 country adopts policy guidelines	Workshop reports
Establish new IUCN Category VI Protected Area, DRC (WCS, WWF)	Number of changes in policies, programs projects and practices cited as a result of analysis and influence activities in this program	1 policy change	Annual Progress reports
	Number of joint/co-hosted workshops, symposiums, research and analysis conducted with stakeholders and partners	2 workshops	Workshop reports

	Number of people receiving USG-supported training in natural resources management and/or biodiversity conservation (disaggregated by sex)	25 people	Workshop reports
	Increase in number of policies, laws, agreements, and/or regulations that promote conservation of biodiversity	1 PA registration	Protected area registry in DRC government
Managing GCI on Biodiversity (Global Change)			
Implement human response field surveys and develop a typology of human responses to climate change	Number of sites surveyed	21	Annual report on field survey data
	Number of people interviewed	10 per site	
	Number of new analytic tools in biodiversity provided by USAID tested by key stakeholders in targeted African countries.	1 typology	Annual report on field survey data
Produce literature review of human coping responses to climate change including outreach to development organizations	Number of organizations beyond ABCG partners that contribute to the review	5 organizations	Bi-annual Report
Map human responses in relation to climate impacts and where people are likely to demonstrate varying coping strategies	Number of new analytic tools in biodiversity provided by USAID tested by key stakeholders in targeted African countries. (maps)	4 maps	Bi-Annual Report
Identify and prioritize adaptation strategies that improve biodiversity outcomes	Number of sites in Africa for which strategies are identified	TBD, based on number of coping responses identified in the typology	Bi-Annual report
Develop and pilot a methodology to identify areas and prioritize adaptation efforts	Number of joint workshops, symposia, research, and analysis held with stakeholders and partners	1 workshop	Annual Report
LUM			
Define objectives for each LUM site	Number of landscapes that set objectives	4 landscapes	Progress report
	Number of joint workshops, analysis and research held with stakeholders and partners.	4 workshops	Workshop report

Characterize the landscape, establish evaluation metrics, and understand drivers of change	Number of new analytic tools in biodiversity provided by USAID tested by key stakeholders in targeted African countries.	4 key drivers of landscape change models tested 3 climate change landscape-scale assessments tested	Progress report
Develop alternative scenarios and recommend response options	Number of new analytic tools in biodiversity provided by USAID tested by key stakeholders in targeted African countries.	4 trade off models comparing performance of future land-use plans tested	Progress reports
Provide decision support tools and build capacity for adoption	Number of new analytic tools in biodiversity provided by USAID tested by key stakeholders in targeted African countries.	4 decision support frameworks tested	Progress report
	Number of people receiving USG-supported training in natural resources management and/or biodiversity conservation (disaggregated by sex)	60 people	Workshop reports by site
Synthesize best practices based on experience in multiple landscapes and present them to fifth landscape	Number of NGOs (US-based and African) participating in the conservation and development COP	5 NGOs	Lessons learned document
	Number of lessons that can be applied beyond initial pilot sites.	2-3 per site	Lessons learned document
	Number of additional sites in which best practices from LUM are presented	2 sites	Meeting report
	Number of countries in which best practices from LUM are presented	2 countries	Meeting report
Global Health Linkages to Biodiversity Conservation (WASH & PHE)			
Joint pilot test the guidelines and M&E framework produced by ABCG members and development organizations engaged in WASH.	Number of new analytic tools in biodiversity provided by USAID tested by key stakeholders in targeted African countries.	2 analytic tools tested	Project report
	Number of joint workshops, analysis and research held with stakeholders and partners.	1-2 workshops per pilot site and 2-3 analysis or research efforts conducted per site	Project report

Formalize an Africa-based COP and host online capacity-building events.	Number of capacity-building webinars for the COPs	4-6 capacity-building webinars	Webinar recordings
	Number of NGOs (US-based and African) participating in the conservation and development COP	10-20 NGOs	Names on participant lists and email addresses included in mailing list
Document lessons learned and proposed refinements to the ABCG Guidelines and M&E Framework through the Africa-based COP.	Number of proposed refinements to ABCG-designed tools as a result of pilot projects.	At least 3 per tool	Lessons learned document
	Number of lessons that can be applied beyond initial pilot sites.	3-4 per site	Lessons learned document
Emerging Issues			
Steering committee reviews and awards small grants	Number proposals funded by Steering Committee each year	At least 2	ABCG annual report
	Number of non-ABCG partners participating	2 per year	ABCG annual report

4.2 INDICATOR PROGRESS TABLES

4.2.1 Indicator Progress Table: Land and Resource Tenure Rights

Table A-2 | Progress Indicators: Achieved progress versus planned for FY 2016

INTERMEDIATE RESULTS	INDICATOR	Data Source	FY 2016		Quarterly Status FY 2016				Performance Achievement (%) for reporting period	Comments on Target Achievement
			Annual Cumulative Planned Target	Annual Cumulative Actual	Q1	Q2	Q3	Q4		
Provision of a Certificate of Customary Rights of Occupancy (CCROs) for six villages, Greater Mahale Ecosystem, Tanzania (TNC, JGI)	Number of joint workshops, symposia, research, and analysis held with stakeholders and partners	Workshop reports	2 workshops	3 workshops / trainings 1 VLUP	0	0	0	3	100%	VLUP completed in one village with an estimated # of 590 households. 28 and 14 staff from Mpanda and Uvinza Districts, respectively, were trained on PLUM, PFM, and CCROs. 13 District staff were trained on issuing CCROs and GIS
	Number of people receiving USG-supported training in natural resources management and/or biodiversity conservation (disaggregated by sex)	Workshop reports	492 (329 men and 163 women)	55	0	0	0	55	11%	492 (329 men and 163 women); target was not met due to delayed subaward agreement from WCS in year 1 and to the need to wait for the consultant report on CCROs etc. to inform decision making about future direction.

	Number of changes in policies, programs projects and practices cited as a result of analysis and influence activities in this program	Annual Progress reports	1-2 changes in policies, programs projects and practices	0	0	0	0	0	0%	Target not met as changes will be driven by the findings of the consults report on CCROs etc. Progress likely in Q2&3 of Y2 as project planning cycles incorporate findings and recommendations from the Report.
Secure Village Land in the SAGOT agriculture corridor in Southern Tanzania (AWF, WRI)	Increase in number of policies, laws, agreements, and/or regulations that promote conservation of biodiversity	Annual Progress reports	1 workshop	0	2	0	0	0	100%	The actual surveys and meetings in the Kilombero Valley deferred to early FY 2017 to be informed by consultant recommendations
Establish new IUCN Category VI Protected Area, DRC (WCS, WWF)	Number of changes in policies, programs projects and practices cited as a result of analysis and influence activities in this program	Annual Progress reports	1 policy change	0	0	0	0	0	0%	1 policy on co-management created, but not yet adopted due to political processes
	Number of joint/co-hosted workshops, symposiums, research and analysis conducted with stakeholders and partners	Workshop reports	2 workshops	6 workshops	0	3	3	0	100%	

Number of people receiving USG-supported training in natural resources management and/or biodiversity conservation (disaggregated by sex)	Workshop reports	25 people	127 people	0	20m + 2f	18m + 3f	0	+100%	Some meetings had the same participants; we have not compiled unique identifiers for every meeting
Increase in number of policies, laws, agreements, and/or regulations that promote conservation of biodiversity	Protected area registry in DRC government	1 PA registration	0 PA	0	0	0	0	0%	1 PA registration in progress

4.2.2 Indicator Progress Table: Land Use Management

Table A-3 | Progress Indicators: Achieved progress versus planned for FY 2016

INTERMEDIATE RESULTS	INDICATOR	Data Source	FY 2016		Quarterly Status FY 2016				Performance Achievement (%) for reporting period	Comments on Target Achievement
			Annual Cumulative Planned Target	Annual Cumulative Actual	Q1	Q2	Q3	Q4		
Define objectives for each LUM site	Number of landscapes that set objectives	Progress report	4	4	0	2	1	1	100%	Despite not having a workshop in one of the landscapes, there has still been ongoing work to identify objectives and link with on-ground planning processes.
	Number of joint workshops, analysis and research held with stakeholders and partners.	Workshop reports	4	3	0	1	2	0	75%	One workshop still remains which is planned for February.
Characterize the landscape, establish evaluation metrics, and understand drivers of change	Number of new analytic tools in biodiversity provided by USAID tested by key stakeholders in targeted African countries.	Progress report	4	2	0	0	0	2	50%	Currently developing two land change models (Congo and TZ) and three approaches to climate change (one on fire in Congo, one on water services changes in TZ. Madagascar applied evaluation of possible change in water availability due to Climate Change and population growth.

4.2.3 Indicator Progress Table: Global Change Impacts

Table A-4 | Progress Indicators: Achieved progress versus planned for FY 2016

INTERMEDIATE RESULTS	INDICATOR	Data Source	FY 2016		Quarterly Status FY 2016				Performance Achievement (%) for reporting period	Comments on Target Achievement
			Annual Cumulative Planned Target	Annual Cumulative Actual	Q1	Q2	Q3	Q4		
Implement human response field surveys and develop a typology of human responses to climate change	Number of sites surveyed	Survey instrument	21 sites	0	0	0	0	0	0%	Finalizing the survey design took longer than expected, resulting in a delay in conducting surveys at field sites.
	Number of people interviewed	Survey instrument	210 people	0	0	0	0	0	0%	Human response survey implementation will begin in FY 2017 Q1.
Produce literature review of human coping responses to climate change including outreach to development organizations	Number of organizations beyond ABCG partners that contribute to the review	Literature review	5 organizations	0	0	0	0	0	0%	Outreach to development orgs will take place after having completed the literature review and finished data collection from the field.

4.2.4 Indicator Progress Table: Global Health—Population Health and Environment

Table A-5 | Progress Indicators: Achieved progress versus planned for FY 2016

INTERMEDIATE RESULTS	INDICATOR	Data Source	FY 2016		Quarterly Status FY2016				Performance Achievement (%) for reporting period	Comments on Target Achievement
			Annual Cumulative Planned Target	Annual Cumulative Actual	Q1	Q2	Q3	Q4		
Analyze existing projects that integrate population with other health & environment sectors	Number of projects integrating PHE analyzed	Engage with PHE Policy and Practice group (DC-based NGOs) to develop analysis tools/criteria	4	4 (document still in draft form, this number may change in the final version)	10%	30%	60%	95%	95%	3 meetings were convened to launch this activity, in late 2015 and early 2016. At least 5 Individual interviews were conducted with PHE experts; Review of the gray literature and scientific articles was conducted; A draft literature review is being circulated to a total of 5 PHE experts and actors in the field for peer review.
Identify best practices based on the analysis for integrated PHE projects at the regional and national scales	Number of successful approaches identified	Review existing and past projects for key success themes and compile various formats to share w/ ABCG and beyond	5	5 (document still in draft form, this number may change in the final version)	10%	30%	50%	50%	50%	The document is in draft form, this number may change in the final version of the lit. review; pilot projects are under implementation, therefore other best practices may be identified over

											the course of the project life.
	Number of PHE champions promoting PHE as a biodiversity conservation tool	(See above)	At least 5		10%	30%	30%	30%	30%		The lit. review is in draft form and the pilot projects are at the start of implementation.

4.2.5 Indicator Progress Table: Global Health—Water, Sanitation, and Hygiene

Table A-6 | Progress Indicators: Achieved progress versus planned for FY 2016

INTERMEDIATE RESULTS	INDICATOR	Data Source	FY 2016		Quarterly Status FY2016				Performance Achievement (%) for reporting period	Comments on Target Achievement
			Annual Cumulative Planned target	Annual Cumulative Actual	Q1	Q2	Q3	Q4		
	Completed gender analysis	Gender analyses	2	0	0%	30%	60%	90%	90%	Both CI and JGI have completed the data collection and analysis and are in the process of having final reports approved by ABCG and USAID.
Joint pilot test the guidelines and M&E framework produced by ABCG members and development organizations engaged in WASH	Number pilot workshops, analysis and research held with stakeholders and partners	Progress report	35 meetings	35 meetings	0%	15%	45%	100%	100%	Both CI and CSA reached their intended targets.
Formalize an Africa-based COP and host online capacity-building events.	Number of NGOs (US-based and Africa) participating in the COP	Online COP (LinkedIn)	5-15	0	0%	10%	10%	15%	35%	Delayed due to scheduling; Kick-off meeting planned for October 21, 2016

4.3 GUIDELINES FOR UNDERTAKING THE HUMAN RESPONSES TO CLIMATE CHANGE SURVEY

Aims and objectives of the survey

The aim of this research is to investigate the biggest changes in weather and climate that communities have experienced over the last few years, how they are responding to these, and the effect of their responses on biodiversity.

In order to fulfil the above aim, the following themes will be explored:

- A. Background information
- B. Changes in weather and climate
- C. Impacts of changes in the weather, climate and responses to these changes
 - C1 Main livelihood
 - C2 Natural resources, e.g. water, wood
 - C3 Other impacts and responses
- D. Impacts of responses on biodiversity

Selecting key informants

The survey will be conducted with key informants in the communities. Key informant interviews are used to explore a particular set of topics in detail, with someone who has extensive knowledge about the issue.

They can typically give an oversight of community circumstances, as well as particular insights based on their position. Key informants may be farmers, park rangers, village leaders, or leaders of civic groups (such as women's associations). They are being asked to give their answers based on the community as a whole, not just themselves.

Points to consider when conducting research in communities

1. Before undertaking any surveys, make sure you have *met with the community leader(s)* to explain what you are doing and *ask permission* to conduct research. Even if you are well known in the community and have worked there for a while, make sure that you have *explained the reasons* why you want to ask these questions.
2. Once you have received the go-ahead from the community leader(s), don't assume that you can start the survey immediately. If you are new to the community then set aside some time to *introduce yourself and get to know the community members with whom you want to talk*. Even if you are well known in the community, explain what the questionnaire will be about and, very importantly, find out what date/ time and location for the meeting would best suit them. *Do not expect people to be able to drop everything to speak to you immediately!*

3. It is important that this research be *gender sensitive*. There is inequality between men and women in communities, and to be gender-sensitive we want to recognise these differences and make an effort to hear the voices of men and women. *In order that women feel able to speak freely, they should be interviewed by female researchers*. There is a box to tick whether a not a man is present in interviews with women. Such presence may impede a woman's ability to express herself freely, and cause her to present the views of the powerful, even if she does not agree. It is thus important for valid analysis for us to know whether or not this is the case. **Please see more detailed guidelines on undertaking gender-sensitive research in Appendix I at the end of this document.**
4. In your introduction, explain that you are interested to see if (s)he has seen any changes in weather and climate and, if so, what the effects of these have been on livelihoods, and how people are responding to them.
5. Along with explaining to respondents that the questionnaire is *completely anonymous* and that you will not be recording their name, it is also important to make it clear that the respondent *can withdraw at any time*. Also, be sure to inform the respondent that the data collected will in no way affect land rights, enable any new restrictions to hunting or fishing that do not already exist, or that the data will be used to prosecute any individual for violating laws. The respondent will remain confidential, and no information will be provided to any judicial authorities.
6. We would suggest *not conducting the questionnaire on a tablet or other forms of technology*. These devices can be distracting at best and intimidating at worst.
7. The survey is a combination of closed-ended and open-ended questions. With regards to the latter, you need to listen carefully and ask *further probing questions* to get as much detail as possible. Turn the questionnaire into a conversation. The person may go "off topic" but that is often when the most important information is shared. You should allow them to continue and find a way to bring them back on track when necessary – don't shut the conversation down. Some potential examples are provided to form the basis of discussion, but this is by no means exhaustive. New findings – beyond these examples – will particularly add to the research impact. Provide as much detail as possible, as this will enable us to better understand how impacts of, and responses to, climate change vary from place to place.
8. Be prepared to *ask the questions in different ways* if the respondent does not understand. Use language and analogies/ examples that are familiar to the person with whom you are talking.
9. *Allow people to ask questions themselves* and be prepared to answer the same type of questions you are asking!

Completing the survey

Our particular interest is in weather and climate, but it is often difficult to separate out impacts and responses to weather and climate variables from the range of other stresses which rural communities face. From the discussions you can tease out which ones are weather and climate-related and, if

necessary, seek clarification and further probe on these issues. For example someone may tell you that fish catch is declining but rather than being due to anything weather and climate-related, it is due to encroachment of coastal waters by foreign fisherman. You are welcome to record such information but please also probe to see if any impacts or responses are weather and climate-related. This is important so that we do not falsely attribute changes to weather and climate when there are, in fact, other causes.

Section A: The survey details and background information should be self-explanatory.

Section B: To get the conversation going, begin by asking what are the biggest changes that have occurred over the last few years (**B1**)? The respondent may immediately focus on weather and climate (since they've been briefed that that is the focus of the survey). If they don't, note their responses, then ask what are the biggest changes in weather that have occurred over the last few years (**B2**)? It is not necessary to find out about all the changes that have occurred, just those that the interviewee mentions as most significant. Section **B3** is for use by the interviewer only. Please place a check mark next to the changes in weather, climate and extreme events that the interviewee mentioned.

Section C: In this section the intention is to obtain more detail on what impacts any observed changes in weather and climate have had, and how communities have responded. This section is divided into 3 parts: **C1** focuses on the impacts/responses to the main livelihood of the interviewee or the main livelihood in the area (main livelihood being their main source of income). **C2** focuses on the impacts/responses to natural resources in the area (e.g. water, wood, etc.). **C3** focuses on any other impacts/responses that the interviewee mentions. These questions are more open-ended because, as outlined above, the intention is to get as much information as possible. However, a *non-exhaustive illustration of potential responses for section C* is outlined in **table 1**. The nature of the impact and the response are often difficult to separate out – so rather give more information and repeat, than being too concerned about getting the information in the correct box and missing out information.

Table A-7 | A non-exhaustive set of examples of potential community responses, based on existing literature

Change	Indicative examples
Main livelihood (e.g. crop farming, livestock production, fishing, trading, park ranger, etc.)	Planting of different crops, use of new crop varieties, irrigation, fertiliser, pesticides, changing planting and harvesting dates, mixed crop and livestock production systems, soil conservation practices (e.g. mulching), conservation farming, purchasing fodder, purchasing medicines, changing livestock type, selling livestock, rainwater harvesting, water management, planting trees, increased mechanisation, use of natural resources, diversifying livelihood, changing livelihood location, encroaching into protected areas, illegal hunting, etc.
Natural resources (e.g. water, wood, etc.)	Using alternative fuelwood sources, using alternative building materials, using alternative energy sources, poaching in protected areas, traveling further to fetch water, sinking boreholes, rainwater harvesting, etc.
Other responses	Increase in disease incidence, increase in observed disease types, change in location, borrowing/mortgaging, selling assets, migrating (or sending one member of the family to the town/city), shifting livelihoods, relying

	on government/NGOs for assistance, gathering wild fruits, hunting wild animals, etc.
--	--

Section C4 is for use by the interviewer only. Please place a check mark next to the broad response categories which best capture the responses that the interviewee mentioned.

Section D is concerned with determining the effects of the responses on biodiversity. In some cases, this will be obvious from the impacts and responses outlined in **section C**, and so you will be able to fill these in yourself. In other cases, the respondent may not explicitly point to the impact of responses on biodiversity – particularly if it is negative. However, with your knowledge you may be aware of the implications for certain responses, and so can further probe these. For example if it has been mentioned that livestock are now roaming a protected area, you can specifically probe issues such as increased human-wildlife conflict, and change in wildlife populations, as a result.

Below is a completed example of the survey to give an indication of the types of responses and level of detail that is expected for the open-ended questions.

Questionnaire reference	Nikhil Advani 1	Interviewer's email	Nikhil.advani@wwfus.org		
Interviewer's	WWF	Interviewer's	<input checked="" type="checkbox"/> M	<input type="checkbox"/> F	
Translators name	No translator	Country	Kenya		
Date	Aug 3 2016	Village	Siana Conservancy		
Time started	10:00am	Time ended	11:00am		
GPS Location					

A. BACKGROUND INFORMATION					
A1 Respondent's role (e.g. farmer, park ranger, village)	5 Park rangers from Siana Conservancy				
A2 Main livelihood(s) in village (e.g. farming, livestock, etc.)	Pastoralism				
A3 Respondent's sex	M	F	A4 If the respondent is a woman, is a man present during the	Y	N
	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
A5 How many years have you lived in this area?	Less than 1 year	1 – 5 year	6 – 10 years	>10 years	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
A6 What is your age?	18 – 35	36 – 53	54 – 70	>71	
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



B. CHANGES in WEATHER and CLIMATE

In this section we are trying to learn about the most significant changes in weather and climate that have occurred over the last few years. It is not necessary to find out about all the changes that have occurred, just those the interviewee mentions as most significant.

B1 What are some of the biggest changes you have observed over the last few years?

If they immediately begin talking about weather or climate, record their responses in section B2.

- Conservancy was started in 2008. There has been less poaching since then.

B2 What are the biggest changes in weather you have observed over the last few years?

Engage the interviewee in conversation about different aspects of the weather and, if you are not certain of their answer, then ask them to clarify. e.g. After a chat about rainfall, “so, do you think rainfall is staying the same or increasing or decreasing? What about timing?”

- Used to be periods of drought, but there was more rain last year, possibly due to conservation of the area and more trees. Maasai believe that if you conserve a certain species of tree (seketeki) in the hills, you will get more rain.

- Timing of the rainy season is now more variable.

B3 *The boxes below are for use by the interviewer only. Please place a check mark next to the changes in weather, climate and extreme events that the interviewee has mentioned*

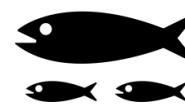
<input checked="" type="checkbox"/> Increased rainfall	<input type="checkbox"/> Heat waves/Hotter days	<input type="checkbox"/> Wildfires
<input checked="" type="checkbox"/> Decreased rainfall	<input type="checkbox"/> Cold spells/Frost	<input type="checkbox"/> Erosion/Landslides
<input checked="" type="checkbox"/> Changes in timing of seasons	<input type="checkbox"/> Storms	<input type="checkbox"/> Sea level rise
<input type="checkbox"/> Drought	<input type="checkbox"/> Changes in wind	<input type="checkbox"/> None
<input type="checkbox"/> Flooding	<input type="checkbox"/> Ice/Permafrost melt	Other:

C. IMPACT of CHANGES in WEATHER and CLIMATE and RESPONSES

C1. Main livelihood

This section is focused on the impacts and responses to changes in weather and climate on the main livelihood of the interviewee, or the main livelihood in the area. Be sure to repeat the changes in weather they mentioned, then ask how this has impacted their livelihood.

C1a How have the changes in weather you mentioned impacted the main livelihood?





<p><i>What are the specific impacts? Be sure to list the weather changes that have played a role</i></p> <p><i>(e.g. hotter temperatures lead to decreased production and more pests; changing seasonality of rainfall changes the availability of surface water, etc.)</i></p> <p><i>Elaborate the nature of the change with as much detail as possible. The examples are merely indicative</i></p>	<ul style="list-style-type: none"> - Changing rainfall patterns result in less pasture, this leads to decline/death of cattle.
<p>C1b How have people responded to these impacts?</p> <p><i>(e.g. change in farming practices, change in location, water management, disease/pest management, diversifying livelihood, use of natural resources, natural habitat encroachment, illegal hunting, diversifying livelihood, etc.)</i></p> <p><i>Elaborate the nature of the change with as much detail as possible. The examples are merely indicative</i></p>	<ul style="list-style-type: none"> - Due to decline in pasture, people are fencing off their pasture (each person has approx. 35 acres of land). - During periods of drought, pastoralists are allowed to graze their livestock in the conservancy. They are told where to graze, and for how long. - Migrate to areas with pasture. - Reduce the number of livestock. - Change livestock breed.

<p>C2. Natural Resources (e.g. water, wood, etc.)</p> <p><i>This section is focused on the impacts and responses to changes in weather and climate on natural resources in the area</i></p> <p>C2a How have the changes in weather you mentioned affected the availability of natural</p>



<p><i>What are the specific impacts? Be sure to list the weather changes that have played a role</i></p> <p><i>(e.g. traveling further for firewood, traveling further for water, using alternative species for fire, reduction in the variety and/or size of wild animals to eat, any animal species no longer seen, reduction in availability of wild fruits, etc.)</i></p> <p><i>Elaborate the nature of the change with as much detail as possible. The examples are merely indicative</i></p>	<ul style="list-style-type: none"> - Changes in timing of the rainy season mean that rivers are now seasonal. - Less rainfall results in less wildlife in the dry season. - Wildlife migrated elsewhere.
--	---

<p>C2b How have people responded to these impacts?</p> <p><i>(e.g. natural habitat encroachment, illegal hunting, change in livelihood location, diversifying livelihood, water management, etc.)</i></p> <p><i>Elaborate the nature of the change with as much detail as possible. The examples are merely indicative</i></p>	<ul style="list-style-type: none"> - Donors have drilled boreholes. - Rainwater harvesting in the communities.
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<p>C3. Other impacts and responses</p> <p><i>This section provides is for noting any other general responses to changes in weather and climate that are not specific to the categories above, for example health.</i></p>	
<p>C3 Are there any other impacts or responses to the changes in weather you mentioned?</p>	
<p><i>e.g. new health conditions, migration, borrowing, reliance on NGO/government support, selling assets, etc.</i></p>	



C4 *The boxes below are for use by the interviewer only. Please place a check mark next to the response to changes in climate that the interviewee has mentioned*

<input type="checkbox"/> Change in farming practices	<input checked="" type="checkbox"/> Water management	<input type="checkbox"/> Natural habitat encroachment
<input checked="" type="checkbox"/> Change in livestock practices	<input type="checkbox"/> Disease/Pest management	<input type="checkbox"/> Illegal hunting
<input type="checkbox"/> Change in fishing practices	<input checked="" type="checkbox"/> Use of natural resources	<input type="checkbox"/> None
<input type="checkbox"/> Diversifying livelihood	<input checked="" type="checkbox"/> Change in livelihood location	
Other:		



D. IMPACT of RESPONSES on BIODIVERSITY

*The intention here is to investigate whether any responses to changes in weather in climate are having knock-on effects on biodiversity (local wildlife and ecosystems). In some cases, this will be obvious from the impacts and responses outlined in **section C**, and so you will be able to fill these in yourself. In other cases, the respondent may not explicitly point to the impact of responses on biodiversity – particularly if they are negative.*

However, with your knowledge you may be aware of the implications for certain responses, and so can further probe these. For example, if it has been mentioned that livestock are now roaming a protected area, you can specifically probe issues such as increased human-wildlife conflict, and change in wildlife populations, as a result.

<p>Which responses potentially have negative impacts on biodiversity?</p> <p><i>(e.g. Increased competition for water leads to an increase in human-wildlife conflict, shifting livelihood location leads to increased land degradation/ encroachment, etc.)</i></p>	<p>Which response?</p> <p>Fencing</p> <p>How?</p> <p>Fencing is a problem for migrating wildlife. Wildlife doesn't move past the reserve now.</p>
	<p>Which response?</p> <p>How?</p> <p>Humans and wildlife are competing for the same water sources</p>
	<p>Which response?</p> <p>How?</p>

Please submit all data at <https://www.wwfclimatecrowd.org/form>

Appendix I: Undertaking gender sensitive research

An important requirement of the survey is that it be gender sensitive. In order to achieve this, the first step is to ensure that the data collected is sex-disaggregated. What this means is that it is clear whether a man or woman answered the questions. This enables the collection of robust data on gender differences, but is also good practice to ensure the voices of both men and women are heard (and thus contributing to gender equality). Having a good understanding of gender differences with regards to impacts and adaptations will support the development and implementation of plans that improve the situations of both men and women in the communities in question.

Brief theoretical background on gender and why it matters with regards to climate change

As the primary users and managers of natural resources (being typically responsible for fetching water and wood and bringing it to the house, for example), women depend on the resources most at risk from climate change.

Climate change affects men and women in different ways because of the social construction of gender (in other words, the different roles imposed on, and responsibilities expected of men and women by society).

These roles and responsibilities mean that men and women have different needs. Not only are these roles, responsibilities and needs different but they are unequal and have resulted in women facing significant disadvantages in terms of their access to, and control over: governance and political rights; social capital and networking; and financial, physical and natural resources.

Although there has been some progress in addressing gender inequality, none of the countries in which this survey is being conducted have achieved this. Because women's voices are, more often than not, excluded from decision making, unless gender is explicitly considered in relation to climate change, the differences in the impact of climate change on men and women will remain hidden. In effect, we will only be researching the impacts of climate change on men and therefore informing policies that will lead to adaptation options for men. At least half the population (usually the most vulnerable half!) will have been left out which is, of course, not sustainable and simply reinforces gender inequality.

The first step to being gender sensitive is to ensure that you work with both men and women but it also means changing the way in which you undertake research. Many projects make the mistake of believing that in order to achieve gender equality we should ensure that men and women are treated and included in research in a scrupulously equal manner. So, 50% of respondents or stakeholders are women; men and women are given equal opportunity to contribute at (the same) stakeholder meetings; the same questions and themes are investigated for both men and women, etc.

But, in truly gender-sensitive research, inclusion of both genders does not mean having quotas and ensuring 50% participation in a research process which is not otherwise gender-sensitive. If you recognize the underlying inequality that exists in a society, then treating men and women the same will not lead to equality. A simple example: in a society where a woman is expected to always obey/ agree

with her husband and other male relatives, it is highly unlikely she will feel empowered to voice her own, possibly different, opinions in a situation where men are present. She is much more likely to agree with the men around her because that is her socially-imposed role. So her true opinions and experiences with remain hidden.

We should rather be aiming for equitable treatment of men and women in the research process. In other words, researchers should interact differently (but fairly) with both men and women in order to reach the same outcome.

With the above in mind, it is important that:

- Men and women should be talked to separately
- Putting interviewees at ease is an important part of conducting questionnaires and how this is done will differ between men and women
- There may be need to explain a question/ use an analogy or example to make it more understandable – because men and women have different roles/ are responsible for different things, what they are familiar with will be different and therefore analogies/ examples should reflect this.
- To facilitate women's participation, planned activities need to be mindful of women's daily routines and where their activities take place. In many countries of the world, meetings should not be planned for evenings, as women can feel insecure in strange places when it is dark. Timing should be adapted to men's and women's working schedules. Men and women have different roles in the household – if the man leaves the household to work then the evenings are probably the best time to talk to him. However, for women, who are responsible for families, the end of the day/ evenings may be their busiest time when they are involved in cooking for the family, etc.
- Some meeting locations may also undermine women's participation because they may not be culturally appropriate. Women may not be allowed to stay in public places or they may feel embarrassed or even threatened in some unfamiliar environments. For example, facilitating women's participation may mean arranging meetings in people's houses rather than in official buildings.
- Find out if there are informal gatherings/groups of women taking place on a specific day of the month or if they conduct some communal activity. This would provide a useful platform to administer the survey
- Also, find out if there are any women led cooperatives and local NGOs that could facilitate dialogue because sometimes in a group of women feel more empowered to discuss issues that affect them than individually.

4.4 COMMUNITY SURVEY ON HUMAN RESPONSES TO CLIMATE CHANGE, AND SUBSEQUENT IMPACTS ON BIODIVERSITY

The aim of this survey is to better understand how communities are being impacted by changes in weather and climate, and how they are responding. What can we learn from these communities? Are their responses negatively impacting biodiversity?

Key informants should be sampled, and they are being asked to give their answers based on the community as a whole, not just themselves. This research is gender-sensitive, and every effort should be made to hear the voices of men and women. Women and other disadvantaged groups should be proactively sought for participation.

This survey contains a mixture of closed and open answer questions. In the open answer questions please probe the issue with your respondents so you are satisfied that you have a valid picture of the situation. Some potential examples are provided to form the basis of discussion, but this is by no means exhaustive. New findings – beyond these examples – will particularly add to the research impact. For example, if one response to a decline in crop yield is to gather wild resources, you could ask more about the resource being collected. Is it in a protected area for example? Such detail will help us to know more about the specific nature of responses, and how they vary from place to place.

The survey comprises 4 sections:

- E. Background information
- F. Changes in weather and climate
- G. Impacts of changes in the weather, climate and responses to these changes
 - C1 Main livelihood (e.g. crop yield, livestock production, fish catch, etc.)
 - C2 Natural resources (e.g. water, wood, etc.)
 - C3 Other impacts/responses (e.g. human health)
- H. Impacts of responses on biodiversity

In your introduction, explain that you are interested to see if (s)he has seen any changes in weather and climate and, if so, what the effects of these have been on livelihoods, and how people are responding to them. Explain that the results of the survey will remain anonymous, and that your respondent has the right to refuse to participate or withdraw at any time. Please apply a questionnaire reference in the first box – we suggest your first and last name, and a sequential number e.g. Jane Smith 1; Jane Smith 2; etc. This identifying reference is important during the analysis of data.

Once collected, please submit all data at <https://www.wwfclimatecrowd.org/form>

Contact Nikhil.advani@wwfus.org for any questions

Questionnaire		Interviewer's		
Interviewer's		Interviewer's	<input type="checkbox"/> M	<input type="checkbox"/> F
Translators name		Country		
Date		Village		
Time started		Time ended		

GPS Location	
---------------------	--

A. BACKGROUND INFORMATION

A1 Respondent's role (e.g. farmer, park ranger, village leader,				
A2 Main livelihood(s) in village (e.g. farming, livestock, etc.)				
A3 Respondent's sex	M <input type="checkbox"/>	F <input type="checkbox"/>	A4 If the respondent is a woman, is a man present	Y <input type="checkbox"/> N <input type="checkbox"/>
A5 How many years have you lived in this area?	Less than 1 year <input type="checkbox"/>	1 – 5 year <input type="checkbox"/>	6 – 10 years <input type="checkbox"/>	>10 years <input type="checkbox"/>
A6 What is your age?	18 – 35 <input type="checkbox"/>	36 – 53 <input type="checkbox"/>	54 – 70 <input type="checkbox"/>	>71 <input type="checkbox"/>



B. CHANGES in WEATHER and CLIMATE

In this section we are trying to learn about the most significant changes in weather and climate that have occurred over the last few years. It is not necessary to find out about all the changes that have occurred, just those the interviewee mentions as most significant.

B1 What are some of the biggest changes you have observed over the last few years?
If they immediately begin talking about weather or climate, record their responses in section B2 below.

--

B2 What are the biggest changes in weather you have observed over the last few years?
Engage the interviewee in conversation about different aspects of the weather and, if you are not certain of their answer, then ask them to clarify. e.g. After a chat about rainfall, “so, do you think rainfall is staying the same or increasing or decreasing? What about timing?”

--

B3 *The boxes below are for use by the interviewer only. Please place a check mark next to the changes in weather, climate and extreme events that the interviewee has mentioned*

<input type="checkbox"/> Increased rainfall	<input type="checkbox"/> Heat waves/Hotter days	<input type="checkbox"/> Wildfires
<input type="checkbox"/> Decreased rainfall	<input type="checkbox"/> Cold spells/Frost	<input type="checkbox"/> Erosion/Landslides
<input type="checkbox"/> Changes in timing of seasons	<input type="checkbox"/> Storms	<input type="checkbox"/> Sea level rise



<input type="checkbox"/> Drought	<input type="checkbox"/> Changes in wind	<input type="checkbox"/> None
<input type="checkbox"/> Flooding	<input type="checkbox"/> Ice/Permafrost melt	Other:

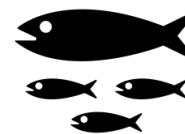
E. IMPACT of CHANGES in WEATHER and CLIMATE and

CI. Main livelihood

This section is focused on the impacts and responses to changes in weather and climate on the main livelihood of the interviewee, or the main livelihood in the area. Be sure to repeat the changes in weather they mentioned. then ask how this has impacted their livelihood.

CI a How have the changes in weather you mentioned impacted the main livelihood?

<p><i>What are the specific impacts? Be sure to list the weather changes that have played a role</i></p> <p><i>(e.g. hotter temperatures lead to decreased production and more pests; changing seasonality of rainfall changes the availability of surface water, etc.)</i></p> <p><i>Elaborate the nature of the change with as much detail as possible. The examples are merely indicative</i></p>	
--	--



<p>C1b How have people responded to these impacts?</p> <p><i>(e.g. change in farming practices, change in location, water management, disease/pest management, diversifying livelihood, use of natural resources, natural habitat encroachment, illegal hunting, diversifying livelihood, etc.)</i></p> <p><i>Elaborate the nature of the change with as much detail as possible. The examples are merely indicative</i></p>	
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<p>C2. Natural Resources (e.g. water, wood, etc.)</p> <p><i>This section is focused on the impacts and responses to changes in weather and climate on natural resources in the area</i></p>	
<p>C2a How have the changes in weather you mentioned affected the availability of natural resources?</p>	
<p><i>What are the specific impacts? Be sure to list the weather changes that have played a role</i></p> <p><i>(e.g. traveling further for firewood, traveling further for water, using alternative species for fire, reduction in the variety and/or size of wild animals to eat, any animal species no longer seen, reduction in availability of wild fruits, etc.)</i></p> <p><i>Elaborate the nature of the change with as much detail as possible. The examples are merely indicative</i></p>	



<p>C2b How have people responded to these impacts?</p> <p><i>(e.g. natural habitat encroachment, illegal hunting, change in livelihood location, diversifying livelihood, water management, etc.)</i></p> <p><i>Elaborate the nature of the change with as much detail as possible. The examples are merely indicative</i></p>	
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<p>C3. Other impacts and responses</p> <p><i>This section provides is for noting any other general responses to changes in weather and climate that are not specific to the categories above, for example health.</i></p>	
<p>C3 Are there any other impacts or responses to the changes in weather you mentioned?</p>	
<p><i>e.g. new health conditions, migration, borrowing, reliance on NGO/government support, selling assets, etc.</i></p>	



<p>C4 <i>The boxes below are for use by the interviewer only. Please place a check mark next to the response to changes in climate that the interviewee has mentioned</i></p>		
<input type="checkbox"/> Change in farming practices	<input type="checkbox"/> Water management	<input type="checkbox"/> Natural habitat encroachment
<input type="checkbox"/> Change in livestock practices	<input type="checkbox"/> Disease/Pest management	<input type="checkbox"/> Illegal hunting
<input type="checkbox"/> Change in fishing practices	<input type="checkbox"/> Use of natural resources	<input type="checkbox"/> None
<input type="checkbox"/> Diversifying livelihood	<input type="checkbox"/> Change in livelihood location	
<p>Other:</p>		



F. IMPACT of RESPONSES on BIODIVERSITY

The intention here is to investigate whether any responses to changes in weather in climate are having knock-on effects on biodiversity (local wildlife and ecosystems). In some cases, this will be obvious from the impacts and responses outlined in **section C**, and so you will be able to fill these in yourself. In other cases, the respondent may not explicitly point to the impact of responses on biodiversity – particularly if they are negative.

However, with your knowledge you may be aware of the implications for certain responses, and so can further probe these. For example, if it has been mentioned that livestock are now roaming a protected area, you can specifically probe issues such as increased human-wildlife conflict, and change in wildlife populations, as a result.

<p>Which responses potentially have negative impacts on biodiversity?</p> <p>(e.g. Increased competition for water leads to an increase in human-wildlife conflict, shifting livelihood location leads to increased land degradation/ encroachment, etc.)</p>	<p>Which response?</p> <p>How?</p>
	<p>Which response?</p> <p>How?</p>
	<p>Which response?</p> <p>How?</p>

Please submit all data at <https://www.wwfclimatecrowd.org/form>

4.5 EMERGING ISSUES SMALL GRANTS SCORING CRITERIA

1) Applicant provides strong rationale for proposed activities, including a project theory connecting an identified knowledge gap and planning to on-the-ground actions and project goals

Applicant provides strong evidence of links between identified knowledge gaps and proposed actions. A planning process or theory of change specific to the thematic area is evident. Does the project presented represent a focused and specific approach to conservation for wildlife and ecosystems? In contrast, would you consider this project to be more focused on generalized conservation outcomes?

2) Project will conduct novel or innovative actions for conservation under one of the thematic areas

Are the on-the-ground actions proposed novel or innovative based on your experience? This can be defined by the novelty of specific actions or methods proposed; or if the actions are 'business as usual'. Is there novelty or innovation in how, when, or where the projects proposes to engage in these activities?

3) Partnerships

The applicant presents evidence of established relationships with necessary partners to complete work successfully. For example, if the project proposes work in government-held classified forest zones or national parks, we would expect that the local authorities would be listed prominently as a committed partner, appear in the budget, etc.

4) Capacity Development

The project concept reflects a multi-stakeholder planning process with participation from local partners. The applicant has a clear strategy to build organizational/institutional capacity of key local partners to manage similar projects, through the proposed activity, including transparent personnel, procurement, and financial management systems.

5) Applicant provides a strong plan for communicating lessons learned from the project about on-the-ground results. They effectively target audiences that will help to build interest and increase the likelihood for replicability

We are seeking projects that can effectively communicate lessons learned to other conservation practitioners about how to address emerging issues and potentially replicate actions across a landscape. We are seeking projects that utilize strong communications to increase or leverage the impact of our investments.

6) Potential for broad-scale impact

We are seeking projects that will create change at a broad level, either through landscape-scale efforts, or place-based efforts that directly support broader multi-jurisdictional conservation goals.