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2017 ANNUAL REPORT

AFRICAN WILDLIFE FOUNDATION
CONSERVATION INTERNATIONAL
the Jane Goodall Institute
The Nature Conservancy
WCS
WORLD RESOURCES INSTITUTE
WWF

AFRICA BIODIVERSITY COLLABORATIVE GROUP

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COVER PHOTO: Girls and young women carrying water from Lake Tanganyika to their village of Nkonkwa in Tanzania
PHOTO CREDIT: Ami Vitale, The Nature Conservancy

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December 31, 2017

Africa Biodiversity Collaborative Group

2017 ANNUAL REPORT

October 1, 2016–September 30, 2017 (FY 2017)

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III. ACRONYMS

ABCG	Africa Biodiversity Collaborative Group
AFR/SD	Bureau for Africa/Office of Sustainable Development
ANDM	Alfred Nzo District Municipality
AOR	Agreement Officer Representative
AWF	African Wildlife Foundation
BMUs	Beach Management Units
BTC	Belgium Technical Cooperation
CAWs	Community Agriculture Workers
CARPE	Central Africa Regional Programme for the Environment
CAZ	Corridor Ankeniheny Zahamena
CCC	Community Conservation Committee
CCRO	Certificate of Customary Right of Occupancy
CEDO	Community Empowerment and Development Organization
CI	Conservation International
CIRAD	French Agricultural Research Centre for International Development
CNC	National Climate Council
COCOBA	Community Conservation Bank
CoP	Community of Practice
CSA	Climate Smart Agriculture
CSA	Conservation South Africa
DRC	Democratic Republic of the Congo
EOO	Extent of Occurrence
ERPD	Emissions Reduction Programme
FAO	Food and Agriculture Organization of the United Nations
FFS	Farmer Field Schools
FSC	Forest Stewardship Council
FW-WASH	Fresh Water Sanitation and Hygiene
FY	Fiscal Year
GAEZ	Global Agro-ecological Zones
GCI	Global Change Impacts
GIS	Geographic Information System
ICCN	Institut Congolais pour la Conservation de la Nature
IUCN	International Union for the Conservation of Nature
JGI	Jane Goodall Institute
LRTR	Land and Resource Tenure Rights
LUM	Land Use Management
NASA	National Aeronautics and Space Administration
NGO	Non-governmental Organization
PHE	Population, Health and the Environment
PNAT	National Land Use Planning Process
REDD	Reducing Emissions from Deforestation and Forest Degradation
RDCS	Regional Development Cooperation Strategy
SACCOS	Savings and Credit Cooperative Society

SAGCOT	Southern Agricultural Growth Corridor of Tanzania
SICODA	Siiba Conservation & Community Development Association
TNC	The Nature Conservancy
USAID	United States Agency for International Development
VC	Village Councils
WASH	Water, Sanitation and Hygiene
WCS	Wildlife Conservation Society
WRI	World Resources Institute
WWF	World Wildlife Fund

IV. EXECUTIVE SUMMARY

This report by the Africa Biodiversity Collaborative Group (ABCG) covers the annual period from October 1, 2016 to September 30, 2017 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 is supported by USAID to advance understanding of critical conservation challenges and their solutions in sub-Saharan Africa.

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 the following thematic activity areas:

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; Fresh-Water Sanitation and Hygiene
5. Emerging Issues

Technically, ABCG's programmatic approach involves: a) conducting analyses of critical issues affecting efforts to conserve Africa's biodiversity; b) designing and implementing pilot projects to assess and demonstrate the feasibility of innovative approaches for addressing those issues; and c) 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): Through its efforts to secure tenure rights in critical ecosystems in the Democratice Republic of Congo (DRC) and Tanzania, the task group supported the Tanganyika Provincial Government in DRC to gazette Kabobo Wildlife Reserve. The decree includes provision for local co-management, which will help ensure sustainable resource use and community participation in conservation of Africa's largest forested country. A participatory planning process provided the basis for ensuring Batwa (pygmy) participation in the four conservation committees, established as the mechanism to safeguard local community engagement. The group has designed the research on group Certificate of Customary Right of Occupancy (CCRO) and the resulting report, *Community Resource Management in Tanzania*, was finalized in August 2017 following external review and has been published. The report presents progressive land and natural resource management

policies and laws which provide a comprehensive framework for enabling local communities to varyingly administer, manage and sustainably utilize their land and natural resources.

Land Use Management (LUM): The LUM task group has created spatial databases and models for developing prioritization analysis and scenarios on land use management. In the Republic of Congo, a new fine-scale forest ecosystem map for the entire planning region was completed. In northern Congo, biodiversity survey data were consolidated in early 2017 to enable the creation of a new, complete biodiversity survey database. In DRC, all available distributional maps for species that exist in the landscape, including models of distributions from a previous prioritization process (Conservation Action Plan for Great Apes) have been compiled. Each species has been assigned to ecosystem functions that is used to identify the most important areas to conserve in eastern DRC that support key ecosystem processes and functions. In Tanzania, an analysis of drivers of land use practices and land use change in southwestern of the region was generated, 13 conservation-dependent species that are likely to come into conflict with increasing agricultural land uses in the region were selected. In Madagascar a map of water balance, a map representing existing water bodies in need of protection, maps representing various facets of agricultural land use and importance for agricultural development, a map of agricultural suitability and other maps representing agriculture were derived. Through stakeholder consultations, feedback and literature review, the task group has developed a number of development scenarios for land use planning to inform specific land-use management strategies across the different countries of implementation.

Managing Global Change Impact (GCI): Field data collection on the coping responses of human communities to climate change through data collection across different sites in 11 countries (Cameroon, Gabon, DRC, Kenya, Madagascar, Mozambique, Namibia, Tanzania, Uganda, Zimbabwe and Zambia) is near completion. This data is available to the public through WWF's crowdsourcing platform. Contemporary climate and future climate analysis using the Climate Wizard (Girvetz et al., 2009) application and meteorological stations in and around over 500 survey locations in nine African countries, to map where the key discrete climate-related events (storms, droughts, etc.) and longer-term changes (shifting seasonality, etc.) are likely to occur has been completed. The review of countries National Adaptation Programmes of Action and Intended Nationally Determined Contributions has been completed, and the review of peer-reviewed literature is ongoing with 1,100 publications reviewed out of 2,064 total.

Global Health Linkages to Biodiversity Conservation—Population, Health and the Environment (PHE)*:* Through a comprehensive literature review and interviews with PHE practitioners and experts in the field, the PHE task group published a report on, *Exploring Cross-Sector Linkages between Population, Health, Environment, Nutrition and Food Security: A Review of Best Practices and Lessons Learned*. The report analyzes existing integrated PHE projects to identify best practices and promising approaches in this field. Through stakeholder meetings, the group supported the establishment of the PHE Zonal Network in Western Tanzania as a strategy for scaling up the PHE approach and building capacity in line with the national PHE Strategic Plan. Trainings were organized in Tanzania to provide communities with agronomic skills to practice sustainable and climate-smart agriculture and with an understanding of how PHE are interconnected and ways to improve communication and engagement to solve problems related to the environment, health and livelihoods. In southeast Cameroon, capacity building and awareness campaigns on PHE were conducted in a highly participatory manner with local stake holders. The introduction of women as focal points from target communities has led to the fight against malnutrition becoming more of a community driven initiative.

Global Health Linkages to Biodiversity Conservation—Fresh Water Sanitation and Hygiene (FW-WASH)*:* In South Africa, CSA completed a, *Freshwater Conservation-WASH Gender Analysis Report: One Health*, which highlights key gender issues and constraints to be addressed through CSA's One Health Project. Several trainings and capacity building meetings were held in South Africa on improved hygiene practices. In Uganda, stakeholder meetings to discuss WASH activities led to the district leadership's pledge to support the implementation and sustainability of the WASH activities. Awareness-raising campaigns through the development and distribution of educational materials was widely carried out in South Africa and Uganda. The first CoP meeting was convened in Nairobi, Kenya, where the participants confirmed the CoP's scope of work, agreed on membership targets and called for establishing an online platform for interaction. The LinkedIn Group for member interaction was created and is operational.

Emerging Issues (EI): The Secretariat released a second call for concepts in early September 2016 under two themes: 1) Conservation Planning for Infrastructure Development, and 2) Conservation Planning for Integrated Agricultural Landscape Management. The Steering Committee selected two of the four proposals submitted. The two winning projects were: WCS/JGI*: Mapping Conservation Investment Priorities in Uganda* and CI/WCS*: Establishing a Community of Practice to Share Best Practices and Enhance Learning from the Vital Signs Monitoring System and the Resilience Atlas in East Africa.* The total amount awarded was $100,015.

1. INTRODUCTION

1.1 PROGRAM OVERVIEW

ABCG continues to be 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, and 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 CoPs, 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.

1.2 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 new and emerging issues affecting biodiversity conservation in Africa, primarily through a small grants program. The below summary of task activity implementation is organized according to country, region, or landscape for each task group. Where only a subset of member organizations participate, they are noted in the subheadings.

2. SUMMARY OF PROGRAM IMPLEMENTATION

2.1 TASK ACTIVITY 1: LAND AND RESOURCE TENURE RIGHTS

2.1.1 Task Activity Description

The majority of rural land in Africa is community land—land held and managed in a collective manner by rural communities. Community land and natural resources represent fundamental assets for communities—primary sources of livelihood, nutrition, income, wealth and employment. Land and resources are also 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.

Mr. Ismail Kipalanga of Mkula Village holding his CCROs. Photo Credit: AWF

The LRTR working group is testing strategies that place greater land and resource management authority in the hands of rural communities, thus creating incentives for them to invest in the long-term management, the sustainable use of renewable resources, and biodiversity conservation. The work is focused on two approaches: a) the registration and documentation of the portion of community land that is held as common property (pastures); and b) the co-management of protected areas.

The task members are piloting these new approaches for securing tenure in three critical ecosystems: 1) Greater Mahale Ecosystem, Tanzania (TNC, JGI); 2) Kilombero Valley, Tanzania (AWF, WRI); and 3) Kabobo Reserve, DRC (WCS, WWF). These ecosystems are anchors for biodiversity that support livelihoods for growing local populations. Strengthening rights and securing tenure, 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.

2.1.2 Key Achievements

WCS and WWF – Kabobo Wildlife Reserve, DRC

WCS

WCS supported the Tanganyika Provincial Government to gazette Kabobo Wildlife Reserve. This is a foundational milestone for ABCG as the decree includes a provision for local co-management, the first of its kind in DRC, and a major step towards more equitable participation in conservation in Africa's largest forested country. The participatory planning process provided the basis for ensuring Batwa (pygmy) participation in the four conservation committees, established as the mechanism to ensure local community engagement. Contributing to this, WCS: 1) facilitated meetings between the Local Governance Committee and Institut Congolais pour la Conservation de la Nature (ICCN); 2) finalized the free-prior-informed consent process with communities; 3) trained members of four Community Conservation Committees (CCC) on roles and responsibilities of the committees, the co-management model, and developed an awareness and monitoring plan for the CCCs. Resulting from these processes are two reports: 1) *Community Conservation Committee Training Report* that supports capacity building to engage in co-management, and 2) a *Land Tenure Analysis Report* that will inform government efforts to combine different protected areas in the landscape into one, large protected area. Also, Kabobo Wildlife Reserve serves as an anchor for extending participatory management beyond the boundaries of the protected area, taking advantage of the 2016 Forestry Law, which provides a framework for community tenure and management of forest lands, based on Local Community Forest Concessions.

WCS facilitated the Tanganyika Environment Minister's, John Banza, visit to Washington, D.C. to develop a fundraising portfolio for Kabobo and to use the ABCG speaker series platform to discuss the issue in a presentation titled *Briefing on the Tanganyika Provincial Environmental Support to Kabobo Natural Reserve, DRC* in March 2017. The Minister's visit explored financing mechanisms for Kabobo and other environmental priorities in the province. The visit strengthens investment in the Reserve, and supports capacity building of the Ministry in its efforts to protect forested watersheds and resources in the region.

WWF

Nothing to report this period.

AWF and WRI – Southern Tanzania

AWF

AWF successfully engaged with the leadership of the Tanzania Land Commission and secured permission to conduct surveys to assess tools that work for local communities to feel genuinely empowered with access and use rights over land in the Kilombero Valley in Southern Tanzania. Negotiations for the survey modalities are underway and an agreement has been secured to work with the Land Commission staff to assess applicability of Group CCROs as recommended by the ABCG consultancy report, *Community Resources Management in Tanzania*.

WRI

WRI assisted in designing the research on Group Certificate of Customary Right of Occupancy (CCRO) in support of AWF, TNC, JGI and WRI investments in Tanzania, identified Andrew Williams, independent consultant, to conduct the research, and was the principal financial supporter of the consultancy. The

resulting report, *Community Natural Resource Management in Tanzania*, was completed in December 2016, and then reviewed by external specialists, including Fred Nelson, Executive Director of Maliasili Initiatives[1], and Stephan Nimbi, Director of Tanzania's National Land Use Commission. The report was finalized in August 2017 and made available to the public in late 2017.

The report reviews Tanzania's land and natural resource management policies and laws which provide a framework for enabling local communities to varyingly administer, manage and sustainably utilize their land and natural resources. It analyses how effective these laws have been, particularly over the last 15-20 years from when most were promulgated, in enabling communities to secure tenure over their common property resources – principally pastures, forests and wildlife. The report also provides a number of recommendations, including allocating CCROs over the common property of Village Land and over the indigenous land of Village Land. It also calls for greater public participation and engagement in the ongoing Land Policy reform.

Following the release of the *Community Natural Resource Management in Tanzania* report, WRI held multiple discussions with experts on the land reforms currently underway in Tanzania (wildlife management areas, land policy) to develop an outreach plan and influence strategy to advance the report's findings and recommendations. Among others, WRI consulted Emmanuel Sulle (Institute for Poverty, Land and Agrarian Studies), Andrew Williams (independent expert on land and natural resources in Tanzania), Fred Nelson (Maliasili Initiatives), Edward Lekaita (Ujamaa Community Resource Team[2] (UCRT)), Stephen Ninbi (Director General of the National Land Use Planning Commission), Godfrey Eliseus Massay (Tanzania Natural Resource Forum) and other stakeholders.

In an effort to contribute to and improve the draft Land Policy, WRI conducted the following activities:

- WRI encouraged and assisted Edward Lekaita of UCRT to prepare a position paper/policy brief on the December 2016 draft Land Policy. WRI supported Lekaita while he was a fellow at WRI (facilitated by the ABCG Emerging Issues grant to WRI/TNC titled*, Piloting Mechanisms for Strengthening African Conservation Leadership and Organizational Capacity*), as well as before and after his time in the US. For example, WRI met with Lekaita in Dar es Salaam in early August 2017 to review a draft of his policy brief and to discuss several of his positions.
- WRI traveled to Dar es Salaam in August 2017 to meet with senior officials in various government agencies to present and discuss the findings and recommendations in the *Community Resources Management in Tanzania* report, including officials in the Tanzania Investment Center (TIC), the Southern Agricultural Growth Corridor in Tanzania (SAGOT), and the National Land Use Planning Commission (NLUC). WRI also met with a few Members of Parliament, including Hon. MP Tundu Lissu, the outspoken Singida East MP of Chadema, and the party's parliamentary chief whip (Lissu is also president of Tanganyika Law Society).

[1] Maliasili Initiatives is a non-profit organization that supports the growth, development and performance of leading civil society organizations working to advance sustainable natural resource management practices in Africa.

[2] Ujamaa Community Resource Team is a Tanzanian NGO which aims to promote and enhance communities' capacity to improve their livelihoods and to sustainably manage their natural resources.

Briefing villagers on CCRO issuance processes by JGI. Photo Credit: JGI

TNC and JGI – Western Tanzania

JGI

JGI was an active partner in the development and production of the report, *Community Resources Management in Tanzania,* alongside WRI and AWF. The report will inform future JGI programming in land use planning activities in Western Tanzania funded by both ABCG and other US Government sources. JGI also played an active role in helping to identify the CCRO consultant, Andrew Williams.

JGI has proceeded with the preparation/training of staff in Nsindo and Mpanda Districts and the communities of Vikonge and Mnyamasi villages where communal and individual CCROs will be piloted. In addition to the joint meeting organized with TNC (described below), JGI staff provided training to district surveyors in Geographic Information System (GIS) database preparation and management and procured equipment needed to assess, issue and store all the required documentation generated through the issuance of CCROs. Village Executive Officers also attended these training sessions as many of the procedures and requirements will be based on their completion of these forms and records.

At the village level, JGI held initial meetings with Village Land Use Management team and Village Councils (VC) to discuss the CCRO issuance process and the steps needed for completion. One of the key steps stipulated in the Village Land Act involves the process of establishing Adjudication Committees and this was initiated in both Vikonge and Mnyamasi. Additional work was undertaken in Mnyamasi as the VC had yet to be formalized. This was done at a formal Village Assembly (with the legally required minimum gender balance of four males, three females being met). Initial training in Dispute Resolution was also given to members of the VCs with further work to be undertaken here in October-December 2017 and 2018.

Both villages have identified farming blocks as the priority areas for CCRO issuance with residential areas to be undertaken afterwards.

Additional training and sensitization activities were given to groups perceived to be vulnerable including female and child headed households and elderly and differently abled villagers. At the time of writing, initial steps have been taken to formally assess and demarcate the areas to be secured with CCROs.

TNC

TNC conducted an awareness and capacity building workshop on land use and land titling through CCROs for 37 district and local leaders from seven villages (Lwega, Mwese, Kafisha, Lugonesi, Kasangantongwe, Ikola and Katuma) where the project will support provision of both individual and group CCROs in Tanganyika District. The village leaders who attended the workshop included Village Chairpersons, Village Executive Officers, Chairpersons of Village Land Use Management Committee, Ward Secretaries and Divisional Secretaries. From the district, members of the Participatory Land Use Management team attended. The event was officiated by Mpanda District Executive Director.

A similar workshop was held in Uvinza District where district officials and local leaders from three villages (Mgambazi, Rukoma and Lubalisi) attended. The workshop was officiated by Uvinza District Executive Director and was also attended by Uvinza District Administrative Secretary. The CCRO titling will be undertaken in these three villages. Complementary work has been undertaken on land use planning activities in the Tanganyika District. In collaboration with the National Land Use Planning Commission and Tanganyika District Council, TNC facilitated preparations of Village Land Use Plans in six villages. The villages include Ikola, Kafisha, Kasangantongwe, Kapanga, Bujombe and Isengule villages.

2.1.3 Best Practices and Lessons Learned

WCS and WWF – Kabobo Wildlife Reserve, DRC

WCS

With increased stakeholder involvement at local and provincial levels early in the process, participatory gazettement of forests can be better supported by communities. As part of this local involvement, WCS established the Local Governance Committee for the Kabobo Reserve, which meets every quarter to discuss conservation issues and CCC at local levels that meets every month and local conservation committees that meet at the village level weekly or monthly based on an established schedule. WCS also engaged ICCN in an effort to obtain their support for this process. As a result, the ICCN is now quite interested to see how this pilot site goes as a means to improve relationships with communities around protected areas in DRC.

The activities conducted to establish Kabobo are providing insight and inspiration to other protected areas in eastern DRC. For example, this process will be used to develop a new community reserve to the west of Kahuzi-Biega National Park, and the lessons learned from the creation of Kabobo will help ICCN with their processes to categorize the provincial Ngandja Reserve to a National Reserve in a way that follows proper community consent procedures. The community structure created may also help inform the WWF-supported Itombwe Reserve with regard to best practices with communities.

AWF and WRI – Southern Tanzania

AWF

In March 2017, engagement meetings were held with the Director General of the National Land Use Planning Commission, Dr. Nindi, to secure support for the assessments to be done under this task in Kilombero Valley. This time investment resulted in support for the planned activities that are now confirmed to start in the next quarter in collaboration with the Commission. It is thus important to accept that in order to influence policy, implementation should involve land management authorities that have the mandate for planning and policy formulation

WRI

Based on our experience in Tanzania and elsewhere, engaging in policy reform processes, having influence and shaping the language in the final policy requires an influence strategy that identifies and supports local champions who are often best positioned to provide policymakers with the evidence needed to impact their decisions. Ideally, there should be local champions within Parliament, the executive branch, civil society, and within the donor community.

TNC and JGI – Western Tanzania

JGI

Nothing to report this period.

TNC

Nothing to report this period.

2.1.4 Challenges and Constraints

WCS and WWF – Kabobo Wildlife Reserve, DRC

WCS

New insecurity in and around the Kabobo Natural Reserve caused by violence between the Batwa people and pastoralists (Banyamulenge and Fuliro) over control of land and resources has caused a delay in the next steps of the new Reserve, and threatens to cause more disruption in monthly activities. WCS has contacted the DRC USAID office to help determine how the project can benefit from peace building activities in the region. Three training sessions were held at the *groupement* administrative level for village chiefs (they directly engage land users). During this training, the security situation was assessed, and some actions proposed: meetings at village level regarding land use and access to resources, regular monitoring of security/insecurity stimulators, etc. More concrete approaches that use Kabobo Local Governance Committee as a platform to bring the Batwa and the Bantu communities together to address pastoralist leaders from South Kivu and reducing conflict are planned for FY 2018.

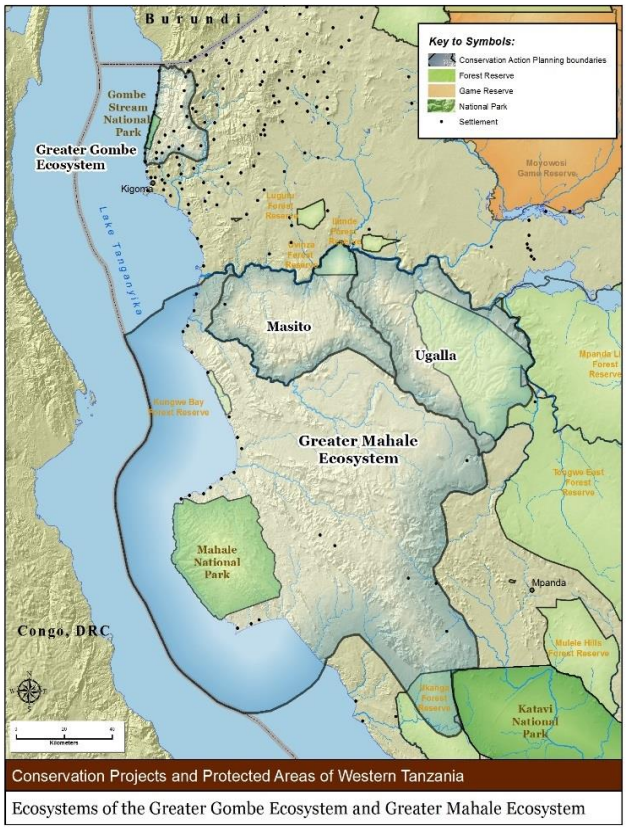
AWF and WRI – Southern Tanzania

AWF

The existence of many land-focused initiatives in Tanzania that are not adequately coordinated delayed field implementation of planned activities under this task to allow for engagement to clarify roles in order to avoid duplication of effort and possible conflict.

WRI

The new Tanzanian government of President John Magufuli has launched a series of land reforms (wildlife management areas, land policy) that threaten to undermine village lands and community rights over their land and natural resources. For example, the draft Land Policy provides a new definition of village land that recognizes only those lands which are used and occupied. Under this definition, village lands that are held as common property, including rangelands, forests, and wetlands, would become General Lands under government control. If this new definition of village land becomes law, villages would no longer have control of their common property, the land that is protected by group CCROs.



Ecosystems of the greater Gombe ecosystem and greater Mahale ecosystem, Tanzania. Photo Credit: TNC

More decisions are being made by the executive branch, especially the cabinet, with limited engagement by lawmakers or the public, than in the past. Policy reforms, including the ongoing development of a new land policy, are not open and do not allow for meaningful participation by those directly affected. The national government has also pulled out of the international Open Government Partnership,[3] which seeks to improve people's lives through open and transparent governance.

Outspoken critics of the administration are also being attacked. On September 7, 2017, MP Tundu Lissu, was shot as he was returning home from a parliamentary session in Dodoma, the capital of Tanzania. Gunmen sprayed his car with as many as 32 bullets, hitting him five times in the stomach, arm and leg. Lissu was rushed to the local hospital in critical condition and, once stable, airlifted to Nairobi for treatment and protection where he is still recovering. The shooting comes amid other disturbing events, including the arrest of other activists for standing up to the government. In September 2017, MP Zitto Kabwe, founder of the opposition political party, Alliance for Change and Transparency, was arrested, he was accused of criticizing the Speaker of the Parliament for distributing two parliamentary reports on mining. In December 2016, Maxence Melo, the founder of Jamii Forums, a popular website in Tanzania

[3] The Open Government Partnership (OGP) is a multilateral initiative that aims to secure concrete commitments from national and subnational governments to promote open government, empower citizens, fight corruption, and harness new technologies to strengthen governance. In the spirit of multi-stakeholder collaboration, OGP is overseen by a Steering Committee including representatives of governments and civil society organizations.

where users post and discuss important political news, was arrested. The police claimed they were acting on complaints filed against Melo, but did not disclose the nature of the complaints.

TNC and JGI – Western Tanzania

JGI

As is frequently the case when working with agrarian communities, being able to ensure full attendance at key village meetings or training sessions can be challenging when considering critical points in the farming cycle. Further meetings will need to be organized in addition to those planned and budgeted for to reach absent parties. It is clear from the initial sensitization session that more work will need to be done to reach female-headed households and ensure their full participation in the process and that there remains a limited understanding of the existing legal rights of women with regard to land ownership.

TNC

Administratively, TNC had some challenges, including losing the project Governance Officer, Terrestrial and Policy Outreach Manager and Finance Control Manager and these losses slowed some of the progress over the summer. There were also delays due to availability of district officials to support this work. Most of them were not around from April to July 2017 due to budget-related activities in the district. This led to delays in implementing activities as TNC always collaborate with district officials to implement activities.

2.1.5 Upcoming Events

AWF and WRI – Southern Tanzania

AWF

AWF will be convening a national dialogue, probably in Dar es Salaam, on Group CCROs, biodiversity conservation and community land rights. The date and exact venue are still under discussion with the National Land Use Planning Commission to ensure high level participation.

Western Tanzania – TNC and JGI

TNC

CCRO awareness meetings will be conducted in three villages (Mgambazi, Rukoma, Lubalisi) in November 2017 in preparation of CCROs issuance in the selected villages before the end of FY 2018.

JGI

CCRO mapping exercises will be completed in October 2017 with the intention to have the first batches of CCROs submitted by the end of November 2017 and issued in December.

JGI will be carrying out additional sensitization exercises with members of the community not reached by initial efforts. Further training in Dispute Resolution processes will be completed with Village Council members and additional work will be done to encourage female headed households to apply for CCROs.

2.2 TASK ACTIVITY 2: LAND USE MANAGEMENT

2.2.1 Task Activity Description

Bamboo Lemur sighting in the Lac Alaotra, Ambatondrazaka, Madagascar Photo Credit: Johnson Rakotoniaina, WCS

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 addresses 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 is developing 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 landscapes to replicate a landscape-level planning process with multi-sectoral stakeholders in order to better understand drivers of landscape change: a) northern Republic of Congo (two northern provinces Sangha and Likouala) - WCS, WRI, JGI; b) eastern DRC (Maiko-Tayna-Kahuzi-Biega CARPE landscape) - JGI, WRI, WCS; c) western Tanzania - AWF, WRI, JGI, CI, WCS, and; d) Madagascar (Corridor Ankeniheny Zahamena) - CI, WCS. The vision for sustainable development for the landscape has been set by the different stakeholders, as well as potential land use planning strategies. Stakeholders have been trained in scenario development based on analysis of existing data from different sectors. Ultimately the task group will develop alternative scenarios for sustainable development and conservation of biodiversity.

2.2.2 Key Achievements

2.2.2.1 Characterizing the landscape, establishing evaluation metrics, and understanding drivers of change

A key component of developing prioritization analysis and scenarios is the creation of a spatial database and models to be used within the analysis. Several novel and important spatial analyses and models have been completed.

WCS, WRI, JGI – Republic of Congo

A new fine-scale forest ecosystem map for the entire planning region was completed through a long process of input from WCS experts and CIRAD, the French agriculture and environmental research institute, and accumulated decades of work on the forest ecology of the area. The forest ecosystem map integrates new data on forest biomass, derived from work done by NASA (National Aeronautics and Space Administration) on the north Congo Emissions Reduction Programme (ERPD); the acquisition of these data indicates a strong collaboration with The Forest Carbon Partnership Facility in the Congo ERPD process.

Biodiversity survey data were consolidated between the partners (WCS, African Parks and WWF) in early 2017 to enable the creation of a new, complete biodiversity survey database for northern Congo. This database covers dung and nest densities for six species or groups of species: chimpanzees, gorillas, forest elephants, large ungulates (e.g., blue duiker), medium ungulates (e.g., red duiker) and small ungulates (e.g., yellow-backed duiker). Fine-scale modelling of the responses of wildlife densities to current landscape conditions and to alternative future scenarios across the planning region has been completed for more than 50 percent of the species using methods comparable to those of Maisels et al (2013). This involved collaboration between statisticians, ecologists, Geographic Information System (GIS) analysts and conservation scientists to process and analyze spatial data with the goal of deriving predictor layers for each species group at a suitable resolution. Finer scale maps are good for small-ranging species, such as small ungulates. Coarser scale maps for large-ranging species, such as elephants. The best-fitting model for medium ungulates, elephants and gorillas was mapped for existing conditions and indicated similarities between species in the factors driving population abundance. The landscape drivers that best predicted medium duiker were biomass, human pressure (hunting and clearing), total tree cover, distance from forest boundary, ecosystem type and

ABCG Land Use Management sites. Image Credit: ABCG

temperature. The landscape drivers that best predicted elephants were the presence of ecoguards, distance from protected areas, human pressure, biomass, and ecosystem types. Similarly, gorillas were most influenced by biomass, ecosystem type, human pressure and the presence of guards.

JGI, WRI, WCS – DRC

The team compiled all available distributional maps for species that exist in the landscape, including models of distributions from a previous prioritization process (Conservation Action Plan for Great Apes). WCS went through an assessment process (in consultation with species and regional experts and the literature) to assign each species to one of 11 established ecosystem functions including pollination and seed dispersal, climate, energy and nutrient regulation, supporting habitats and biological control. These ecosystem function "surrogates" have been used to identify the most important areas to conserve in eastern DRC that support key ecosystem processes and functions, given current understanding of threats across the landscape (forest degradation, human hunting pressure and conflict).

In the first stakeholder workshop held on September 28-29, 2017 JGI had experts list threatening factors most likely to degrade the value of a planning unit for supporting biodiversity, carbon, and associated ecosystem function. These were: a) forest degradation and fragmentation (reduces biodiversity condition, e.g., through edge effects); b) human access along infrastructure routes (places closer to roads are more degraded due to access by humans for agriculture, logging and hunting, up to a threshold of ~20km); c) mining; and d) conflict due to human warfare. Both mining and conflict degrade ecosystems, but more importantly impact certain animal species negatively, such as great apes due to hunting associated with mining camps. With this information, a collation of available maps of ecosystem condition related to forest degradation (determined from fragmentation analysis using the methods of Shapiro et al. 2016, the relative forest condition is calculated as a proportion of maximum potential biomass for that forest type), human access for resource extraction (WRI Forest Stewardship Council (FSC) Human Pressure Index), warfare conflicts (leveraged from an existing publication, Hammill et al. 2015 *Nature Communications*), and mining (locations of all artisanal mining sites open between 2009 and 2015, available from WRI Forest Atlas) was made. Each ecosystem function surrogate could be impacted by either an independent threat (e.g., just forest fragmentation impacts sunbirds) or combined threats (e.g., conflict, mining, human access for hunting and forest degradation all impact great apes). WCS elicited information about whether each surrogate is impacted by each threat from the International Union for the Conservation of Nature (IUCN) Red List of Species and other scientific literature. This information is integral to the spatial prioritization which allows individual or combined threatening processes to be linked to the spatial distribution of conservation features.

AWF, WRI, JGI, CI, WCS – Tanzania

A new cooperation has emerged where the International Center for Tropical Agriculture (CIAT) performed classified Landsat satellite imagery to generate a land use/cover and 2000-2016 change products across the 234,222 km^2 study area. Using this shared data, WRI and AWF generated an analysis of drivers of land use practices and land use change in southwestern of the region to help inform stakeholder formulation of objectives and development of related land use scenarios.

Based on feedback at the initial workshop held on April 3-4, 2017 and an unpublished literature review, the team chose a set of 13 conservation-dependent species that are likely to come into conflict with increasing agricultural land uses in the region, either due to being threatened by clearing for agriculture (five primate species including the chimpanzee), or being threatened by hunting due to resource conflict

associated with cropping and grazing occurring in places preferred by native species (four mammalian predators and the elephant), or threatened by both hunting and clearing for agriculture (two small ungulate species and the giant pangolin that are declining due to hunting plus loss of habitat from clearing for agriculture). Species range maps were downloaded from the IUCN website/journal (for predators), provided by JGI (chimpanzee), or from other published sources (for other primates and duikers), and the distribution of each species was allocated to one of 24,000 planning units.

To address the land use planning goal of managing the threat of illegal hunting in protected areas cost-effectively in southern Tanzania, WCS derived information on management effort in protected areas from the literature and discussion with experts at the first workshop. The recommended number of ecoguards per km^2 in Ruaha National Park, the largest National Park in the planning region, is one per $50km^2$ ($3,191/$10km^2$), and this was taken to be the adequate level of enforcement across all protected areas (although it should be noted that this does not deter all illegal hunting), with two additional zones at lower enforcement levels to replicate existing efforts. WCS created an additional higher investment zone to account for the fact that the current effectiveness of anti-poaching patrols is anywhere from 0 to 95 percent, so the highest protected area investment zone included a manned anti-poaching surveillance aircraft and twice the number of recommended guards.

To address the land-use planning goal of reaching targets for increased agricultural investment in a sustainable manner, information on cultivation land use was downloaded from the Food and Agriculture Organization Global Agro-ecological Zones Data Portal version 3.0 (GAEZ). Maps of crop suitability were created for seven crops: maize, soybean, wetland rice, dryland rice, sugarcane, Irish potato and citrus under high input level rain fed conditions most likely to be replicated by commercial agriculture. For each crop, the GAEZ crop suitability index (baseline period 1961-1990) was converted from a categorical value between 0 (not suitable) and >85 percent (very high suitability) to a binary "suitable" or not by classifying any planning units with suitability >55 percent ("good suitability") to 1 and all others to 0. For each crop, the potential economic yield within each planning unit was calculated by multiplying GAEZ-estimated total production capacity (t/ha) under high input level rain fed conditions with the average market value of each crop (downloaded from Tanzania's Bureau of Statistics).

CI, WCS – Madagascar

After the team decided on the method and software to use, CI gathered existing data from field collection while simultaneously selecting the target species based on ease of distinction between species, vulnerability, bushmeat threat. Data from field biodiversity surveys suggested six target conservation-dependent species: 1) Akoholahiala (Crested Ibis); 2) Babakoto (Indri); 3) Godroka (Bamboo lemur); 4) Simpona (Sifaka); 5) Taitso (Coua); 6) and Varikandana (Variegated lemur). These occurrence data were converted to Extent of Occurrence (EOO) maps using minimum convex polygon methods prescribed by the IUCN Red List for Threatened Species. EOO was then clipped to remnant vegetation using information from Landsat forest cover change satellite imagery from 2005-2013 to ensure maps represented existing availability of habitat for each species.

Additional data was collected from global sources and partners, including Waterworld[4], through which a map of water balance was derived. A second map was derived from a hydrology layer for the region was used to represent existing water bodies (e.g., lakes) and major permanent river courses in need of protection (e.g., from soil degradation and silting of water due to unsustainable agricultural practices).

[4] www.waterworld.com

Scenario Development working group during the workshop Tamatave, Madagascar, August 2017 Photo Credit: Bruno Rajaspera, CI

Three maps were created to represent various facets of agricultural land use and importance for agricultural development. A map of agricultural suitability was derived from a global map produced by (Florian et al, 2014) and downscaled to fit the area of interest. In this analysis, only rice, corn and cassava have been taken in account as those are the most dominant crop in Corridor Ankeniheny Zahamena (CAZ). Other maps representing agriculture were: 1) current land under agriculture (non-forest uses), derived from a global forest change database, and 2) distance to villages (representing access to markets). In addition, CI and WCS convened two workshops with partners respectively in Ambatondrazaka and Tamatave to explain to stakeholders the needed data and to define with them the data collection processes while collecting the first series of available data. The project team currently has the majority of data which were freely and voluntarily given by the sectors to which participants were affiliated. This was made easier thanks to the ownership of the process by the representatives of the Land Use Ministry who envisages using the project approach and results for the revision of the territorial Planning Schemes, most of which are dramatically outdated.

Also, during these stakeholder workshops, CI had experts list factors most likely to degrade the value of a planning unit for biodiversity, carbon, water or agriculture. These were: a) deforestation (reduces biodiversity condition, e.g., through edge effects); b) distance to roads (places closer to roads are more degraded due to access by humans for agriculture and hunting, up to a threshold of ~20km); c) mining (reduces condition of biodiversity, water and carbon assets); and d) drought and inappropriate water usage (reduces condition of biodiversity, water, carbon and agriculture). Stakeholders were invited to another workshop to assign weights to data and/or features that will be used in the analysis.

In the last workshop, participants were asked to provide their best guess about the future of deforestation, mining and other activities. The results of all these workshops allowed the creation of alternative condition maps to be incorporated into land use prioritizations. The condition maps represent the quality of the landscape for alternative features of interest (i.e., biodiversity, water, carbon and agriculture) as features are impacted in different ways by these degrading processes.

2.2.2.2 Develop Alternative Scenarios and Recommend Response Options

The core of the task is to explore alternative scenarios and recommendations for land-use planning and biodiversity. This broad activity is underway in each case study. The following is an update on the completion of draft prioritization analyses:

WCS, WRI, JGI – Republic of Congo

Using the compiled data on forest habitat and condition (derived from the above ground biomass data) a draft spatial conservation prioritization has been completed through Zonation, a decision-support software, to test methods for integrating multiple drivers of change into conservation planning, and explore metrics for evaluating future provision of key features, such as bushmeat, ecosystems, area for logging and economic development.

Through an ongoing consultation process with stakeholders, the team refined and developed nine development scenarios for land use planning that allow the mapping of changes in the abundance of the six target wildlife species. These scenarios focus on future impacts of logging or prevention of illegal poaching through deploying ecoguards. The three scenarios for future logging impacts are: a) Pessimistic future logging. Biomass of all forest ecosystems (excluding swamp and savannah) in all logging concessions is reduced by 28 percent (current rate of biomass loss) due to no reduced-impact logging and no set-asides. b) Business as usual future logging. Highest priority (top 10 percent) of set-asides (identified from prioritization of the existing landscape using Zonation) locked in to protection and not logged. Biomass in all concessions outside of set-asides reduced by 28 percent. c) Optimistic future logging. Top 10 percent of highest priority conservation areas protected from logging within every concession. Biomass of forest ecosystems (excluding swamp and savannah) in all logging concessions reduced by 18 percent. The three scenarios for changed conservation management effort include different mechanisms for changing guards: d) Pessimistic future guard investment. No guards in logging concessions. e) Optimistic protected areas investment. Guards added to all protected areas. f) Optimistic forestry investment. Any concession belonging to CIB or non-Chinese investment receives investment in ecoguards. The seventh scenario combines all guard investments in protected areas and logging concessions with the pessimistic logging future scenario. The eighth scenario combines all guard investments in protected areas and logging concessions with the business as usual logging future scenario. The ninth scenario combines all guard investments in protected areas and logging concessions with the optimistic logging future scenario. These analyses inform specific land-use management strategies and will be adapted at an upcoming workshop in FY 2018 considering stakeholder and expert advice.

JGI, WRI, WCS – DRC

Using compiled data on, ecosystem types, carbon storage, current protected areas, species endemic to the Albertine Rift Valley, and three threatening processes known to reduce habitat quality (logging, hunting, and human warfare conflicts) several baseline spatial conservation prioritizations based on carbon, biodiversity values and their degradation due to deforestation, hunting and/or conflict have been completed using the decision-support tool Zonation.

Four future scenarios were developed after mining-associated impacts were identified as a key missing component of draft prioritizations at the stakeholder workshop. These scenarios were developed through consultation with landscape planning and conservation experts and subsequent literature review: a) local-scale degradation of vegetation around existing mines; b) broad-scale mine-associated hunting of certain species (e.g., apes) up to 20km from the mine; c) local and broad-scale species and vegetation impacts of existing mines and associated hunting; and d) ecosystem degradation in all current mining concessions including those without current mines.

The team used the outputs from the spatial prioritizations to show the beneficial or negative effects of alternative scenarios on predicted biodiversity distributions, associated ecosystem function and total carbon sequestration, across the region. The baseline scenarios show that on average, up to 70 percent of the distributions of remaining species and ecosystems are impacted by the combined impacts of hunting and forest degradation, but strategic enforcement efforts in the top 30 percent of priority areas could protect on average 57 percent of all distributions. Mining scenario analyses show that mine-associated deforestation and hunting impacts on biodiversity and carbon leads to higher loss of species and ecosystem distributions and lower representation of features in the top priority areas.

AWF, WRI, JGI, CI, WCS – Tanzania

Eleven possible land uses for planning across the region based on feedback and consultation at the first workshop in Tanzania (April 3-4, 2017) were devised: a) formally protected areas with highest enforcement (two guards per 50km2 + surveillance aircraft), b) formally protected areas with recommended enforcement (one guard per 50km^2), c) formally protected areas with low enforcement (one guard per 150km^2), d) formally protected areas allowing sustainable use where hunting is allowed but controlled (e.g., Game Controlled Areas) with very low enforcement (one guard per 1,000km^2), e) grazing, (six to eight) commercial cropping of maize/soybean, rice or sugarcane (the three targeted crops for private investment by Southern Agricultural Growth Corridor of Tanzania (SAGCOT), f) small-holder cultivation using multi-cropping system, g) agricultural exclusion areas that contribute to wildlife movement but are not formally protected (e.g., corridors) and h) other land uses not incorporated in the above. This 'other' category represents the land remaining for other development (e.g., urban, mining or other agriculture) after achieving the policy targets.

WCS finalized five scenarios for planning through literature review and analysis of stakeholder interests and priorities identified in the May 2016 workshop:

1. Baseline development plan: meeting SAGCOT targets for agricultural expansion but ignoring conflict between human resource use and conservation (protected areas locked into two types: current conservation categories I-IV with adequate anti-poaching patrols of one per 50 km^2 and low hunting, and sustainable use categories >IV with high hunting).
2. Sustainable development of agriculture: meeting SAGCOT targets for agricultural expansion and avoiding resource or conservation conflict through strategic placement of agriculture land uses such that 1) cropped land-uses avoid pastureland; and 2) cropped land-uses avoid being placed close to protected areas (where species are highly likely to roam outside of boundaries from time to time).
3. Increased investment in protection: future change in ecoguard investment in protected areas to protect species from illegal hunting.
4. Increased investment in agriculture: future change in agricultural investment that triples the target area cropped for major investment crops and smallholder crops.
5. Future climate change: possible impacts of future drought on conservation and agricultural interests if it is a) not considered when setting priorities for agriculture and conservation management, versus b) included in prioritization by avoiding places with a history of >50 percent chance of having extreme droughts (VCI<35 percent).

CI, WCS – Madagascar

In the third stakeholder workshop held on August 22-23, 2017, particular communes across the landscape that are more severely impacted by the degrading processes of mines and water shortages were identified, and these were converted to spatial maps of impacts at a commune-level. By combining biodiversity and agricultural development data with these maps and through consultation with landscape planning and conservation experts at the second and third stakeholder workshops, five future scenarios of land use were identified: a) infrastructure improvement through development of a highway; b) restoration of recently cleared areas; c) forest degradation due to mining; d) forest degradation due to water shortages; and e) degradation due to mining and water shortages.

The first scenario degrades condition of forest, species distributions and carbon at distances up to 20km from the planned route, and results in lower conservation priorities. The second scenario improves condition of units that have lost forest cover since 2000 by 50 percent, simulating possible replanting activities and halting of further illegal forest extractive activities. The third scenario reduces the condition of all communes affected by mining by 50 percent, and moves priorities away from some heavily degraded areas. The forth scenario assumes the condition of all communes affected by possible water shortages is reduced by 50 percent, and the fifth scenario degrades condition in communes affected by both either mining or water shortage by 50 percent, again changing priorities compared with the baseline scenario that does not account for these changes.

2.2.3 Best Practices and Lessons Learned

Participants discussing spatial data availability at Mbeya, Tanzania workshop, April 2017. Photo credit: David Williams, AWF

WCS, WRI, JGI – Republic of Congo

A significant advantage of the ABCG project is that it comes at a time when two sets of stakeholders are seeking answers to similar questions. Republic of Congo is developing its jurisdictional REDD programme for the north, and is seeking input to ensure that biodiversity is safeguarded during the implementation of the programme. At the same time, the FSC is seeking to revise its rules for the conservation of High Conservation Value areas across the whole central African sub-region. The alignment of objectives between jurisdictional REDD and the development of new guidance for FSC certified forest concessions at the regional level provides a unique opportunity to leverage the work of ABCG. Both sets of stakeholders are seeking ways to identify and protect the most valuable areas of forest, and both can make use of the same methodological building blocks, created with support from ABCG, to achieve their aims. The regional High Conservation Value mapping exercise is likely to inform forest management across several million hectares of forest

concession in Gabon and Cameroon, beyond the limits of the Congo planning region chosen for this study, which was itself chosen to match the jurisdictional area for the Emissions Reduction Programme.

JGI, WRI, WCS – DRC

Twenty stakeholders from 12 local and international organizations/agencies in North and South Kivu provinces in eastern DRC participated in the second land use planning workshop. Participants included members of civil society groups and representatives of key government ministries (notably the Minister of Environment, DRC park service, ICCN). Challenges were faced in the initial location choice of the workshop (due to visa requirements in DRC) and a decision was made to have it in Rwanda allowing the inclusion of foreign ministers. Language barriers were overcome by facilitating the entire workshop in French, ensuring that participants were able to understand the land use planning process and fully participate.

AWF, WRI, JGI, CI, WCS – Tanzania

The formulation of questions and objectives is critical to ensure that scenarios are relevant to the salient land use planning issues in the region. It is essential to have the right, well-informed and intentioned people in the room in order to set appropriate objectives and as importantly, identify related data sources. As all land in Tanzania belongs to the state, involvement of ministries related to land use was critical. The round of presentations on key topics helped create a knowledge basis for objective-setting but also got people engaged in the process. The presence of Tanzanian journalists and airing of segments on national TV generated interest both within the room and potentially across the country. With the press, it was important to portray the event more as planning for sustainable development rather than a conservation planning exercise as there is significant popular support for the former.

CI, WCS – Madagascar

Madagascar is currently developing its sustainable planning process at the national level and is preparing to do it at the regional level for its 22 administrative regions. This project is an opportunity to test and scale the utilization of this science-based modeling tool around biodiversity and ecosystem services protection. It can contribute largely on the Decentralized Development Planning Process which could highlight the inter-dependency between the management of natural capital and economic opportunities.

To get to a consensus, it is important to bring together stakeholders with diverging interest around a table. That allows open discussion and understanding, solve and make general agreement. In fact, dialogue between technicians from different sectors (environment and forests, agriculture, livestock, mining, land-use and tenure, infrastructure, trade, decentralization) and officials, allows for the opportunity to discuss and propose different scenarios for spatial land-use based on their feedback. During the exercises of prioritization and scenario definition, the effect of the existence of a highway on biodiversity, and mine effect, on water supply and availability was simulated. As a result, the map shows the impacts of scenarios on conservation. This helps to see the changes occurring within the landscapes depending on scenarios.

The adoption of this approach requires a deep training in the utilization of the Zonation software for better control and to better target the types/range of data to be collected. This training should have

been done prior to the data collection process. Thus, the results of the analysis would lead to scenarios based on well-founded assumptions.

Nevertheless, the development of a scenario has its limits in terms of resolution, as it is based only on available data due to resources limitation and time constraints. There were 39 stakeholders who participated in the second land use planning workshop including four International NGOs, two NGOs, one civil society organization, and 16 governmental institutions. The main lesson thus far is the need for flexibility when adapting to transitions of government officers, as well as maintaining communication. Language barriers were overcome by facilitating the entire workshop in French and Malagasy, ensuring that participants were able to understand the land use planning process and fully participate.

TNC, WWF – Gabon

TNC is conducting an analysis of Gabon's National Land Use Planning process (PNAT from the French acronym), which includes examining current and future use of data and methods for that process, to provide recommendations on how Gabon can enhance the process. The analysis incorporates TNC's "Development by Design" methodology (based on the mitigation hierarchy), and integrates data from TNC's Gabon Freshwater Atlas. As a result of this assessment, TNC is preparing a technical report with recommendations to be shared with PNAT, the draft report will be ready by end of November 2017. TNC is also finalizing an MOU with the National Climate Council (CNC), the entity responsible with overseeing the development of the PNAT, to collaborate and provide technical assistance to the government for that process.

2.2.4 Challenges and Constraints

WCS, WRI, JGI – Republic of Congo

The inclusion of relevant government stakeholders in Republic of Congo posed a challenge due to the complexity of mapping and modelling processes involved in habitat, biodiversity, fire risk mapping etc. These are by their nature academic exercises, which require considerable technical expertise. While every effort is made to keep government stakeholders abreast of developments, it remains a constant challenge to ensure local stakeholders understand the ways in which the different data sources can be used. In order to avoid these potential pitfalls, it is essential that the project continues to be framed as providing tools to maximize the efficiency of the Emissions Reduction Programme (something to which the Congolese government remains committed). The support from the stakeholders engaged in that process is critical to the success of this work.

JGI, WRI, WCS – DRC

A key challenge is securing up-to-date comprehensive data on the condition of the region, relative to the major drivers of change: deforestation, hunting, and mining (current and future potential locations of impacts from concessions). For example, only data up to 2015 are publicly available for artisanal mining.

A second challenge is understanding where and how indigenous lands might be incorporated into conservation prioritization. Studies indicate increased condition in forests if indigenous people are appropriately engaged in the REDD and conservation process, but there is little on-ground capacity to do this, and it is unclear where this engagement would best benefit biodiversity.

AWF, WRI, JGI, CI, WCS – Tanzania

A significant challenge is securing quality spatial data to serve as scenario inputs. The vast scale of the region makes it difficult to secure comprehensive, representative datasets for features such as wide-ranging wildlife species. In some cases, the team resorted to using coarser IUCN species range data for target species.

CI, WCS – Madagascar

Choice of software to perform the analysis: Using Marxan[5], a conservation planning/decision support software, to define the extent of each species inside the new protected areas was possible as data is available per localities. In Madagascar, Marxan was used in the past for protected areas prioritization setting, and then at the beginning of this exercise this software was the first choice of the team and with IDRISI software[6] to complete multi criteria analysis. However, through discussion, the team finally agreed that Zonation, a conservation planning software, will be used, as it is easier to use and performs better than Marxan. Data related to biodiversity, protected areas, watershed, and carbon stock were combined to represent the natural system and data on agriculture suitability, potential hydroelectric dam, and population density were combined to represent the development aspect. Deforestation history and fire represent the main threats in CAZ.

Data gathering limitations and constraints: Running the analysis was difficult, because it was hard to find relevant data, such as the location of the soon to be created highway linking the Capital to Toamasina, or urbanization, or mining. These data are not fully or freely accessible. Data on mining will be gathered through a new data collection process.

In addition, the data are not shaped in the same format. For instance, data on biodiversity are collected as point locality, whereas information on watershed and on carbon stock is determined at site level. These differences on data resolution might reduce precision. One approach to complete the datasets is to continue to discuss with partners such as UN Habitat and the Ministry in charge of land tenure and decentralization.

Capacity of stakeholders to master new software and make predictions: During the meeting held on August 22-23, 2017, a few prioritization scenarios were presented, one in the event of water shortage that might impact agriculture and another scenario if the project creating a new highway passing through the protected areas will be realized. But overall, it seems that the participants had to make a great effort to understand the output of the software. Participants had difficulty imagining or predicting the possible future as an input for the analysis.

TNC, WWF – Gabon

Because TNC is providing support to a government-led process, the pace of the work is dependent on the government's timeline and resources. These have been limited for the last year as the CNC did not

[5] Marxan is a suite of tools designed to help decision makers find good solutions to conservation planning problems. This includes free software that can be used to solve several types of planning problems and extensive documentation and examples describing a framework for approaching conservation planning. Marxan is the most frequently used conservation planning software and has been applied to hundreds of spatial conservation planning problems around the world.

[6] IDRSI is an integrated GIS and remote sensing (RS) software. It has a complete GIS analysis package for basic and advanced spatial analysis, a complete image processing system for various remote sensing applications, and an integrated modeling environment to analyze time series of environmental trends and land cover change and prediction. Of major significance are the tools that IDRISI provides for the RS image processing.

have funding to support their work on this process. CNC now has new funds coming from the Central African Forest Initiative, which is great timing for TNC's collaboration in support to PNAT.

2.2.5 Upcoming Events

WCS, WRI, JGI – Republic of Congo

The team is planning a workshop in Brazzaville, Republic of Congo focused towards regional land use management and scheduled for November 2017 for stakeholders to vet, review, and provide feedback on preliminary scenarios and prioritization outputs. Political stakeholders, and participants have been identified from NGOs (WCS, AWF, TNC, JGI, and WRI), international research centers (CIRAD, University of Queensland), international partnerships (Forest Carbon Partnership Fund), regional government and national government. USAID participation is requested.

JGI, WRI, WCS – DRC

A final workshop to present results is being considered in FY 2018.

AWF, WRI, JGI, CI, WCS – Tanzania

A second workshop to present scenarios from the first workshop and systematically review them against our stated objectives from the first workshop will be held in the second quarter of FY 2018 in Dar es Salam. Key outputs from the workshop will include exploring what management questions can/cannot be explored with this planning framework, spatial recommendations around conservation and land use targets, and policy recommendations around conservation, land use including protected area management with associated messaging/communication strategy to make useful to decision-makers.

CI, WCS – Madagascar

A workshop on capacity building to integrate African institutions in the process of evidence-based decision making and to integrate data and analysis into a decision support framework that is made freely available to government and partners will be held in February 2018.

A forum for sharing experiences and lessons learned by the Africa team representatives, DC team, and Australia team will be held in 2018.

A fourth workshop will be held in the second quarter of FY 2018 to present final results of scenarios and provide an advanced training course in French to a group of 15-20 stakeholders from government and non-government agencies. Training will cover spatial land use and conservation planning theory and practice, and aims for participants to be fluent in a spatial planning decision support tool, Zonation.

AWF, CI, JGI, TNC, WCS, WRI, WWF – Gabon

A final workshop will be held in September 2018 to synthesize best practices based on experience in multiple landscapes and to build further support of land use planning in Gabon by key stakeholders.

2.3 TASK ACTIVITY 3: GLOBAL CHANGE IMPACTS

Human response survey by TNC, Makame, Tanzania. Photo Credit: Roshni Lodhia

2.3.1 Task Activity Description

A major oversight of most climate change assessments 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 variety 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, NGOs, and the communities themselves.

2.3.2 Key Achievements

Human Response Field Surveys

Field data collection is near completion, with surveys from just a few sites awaiting submission to the online platform. All surveys will be completed before the end of calendar year 2017. As data is collected and uploaded, it is already being made available to the public through WWF's crowdsourcing platform: https://www.wwfclimatecrowd.org/. On this website you can browse surveys by country and organization responsible for data collection. Once analysis of all sites is complete, a database will be published on the ABCG website.

Survey sites (including status) are as follows:

WWF

- Masaai Mara, Kenya (45 surveys completed)
- Sesheke, Zambia (53 surveys completed)
- Kunene region, Namibia (28 surveys completed)
- Western Madagascar (33 surveys completed)

TNC

- Monduli District, Tanzania (24 completed)
- Kiteto District, Tanzania (25 completed)

JGI

- Gombe - Masito – Ugalla, Western Tanzania (90 surveys completed)
- Budongo and Bugoma, Western Uganda (80 surveys completed)

WRI

- Matutuíne District-Maputo Province, Mozambique (45 interviews completed)
- Chókwè District-Gaza Province, Mozambique (45 interviews completed)

CI

- Corridor Ankeniheny Zahamena (CAZ) East and West sides, Madagascar (45 surveys completed)
- Corridor Fandriana Vondrozo (COFAV), Madagascar (30 completed)

AWF

- Maringa Lopori Wamba, DRC (22 surveys completed)
- Kilombero Valley, Tanzania (85 surveys completed)
- Bili Mbomu, DRC (40 surveys completed)
- Mana Pools, Zimbabwe (surveys underway. Expect completion by Nov '17)

WCS

- Mbam Djerem National Park, Cameroon (120 surveys completed, pending data

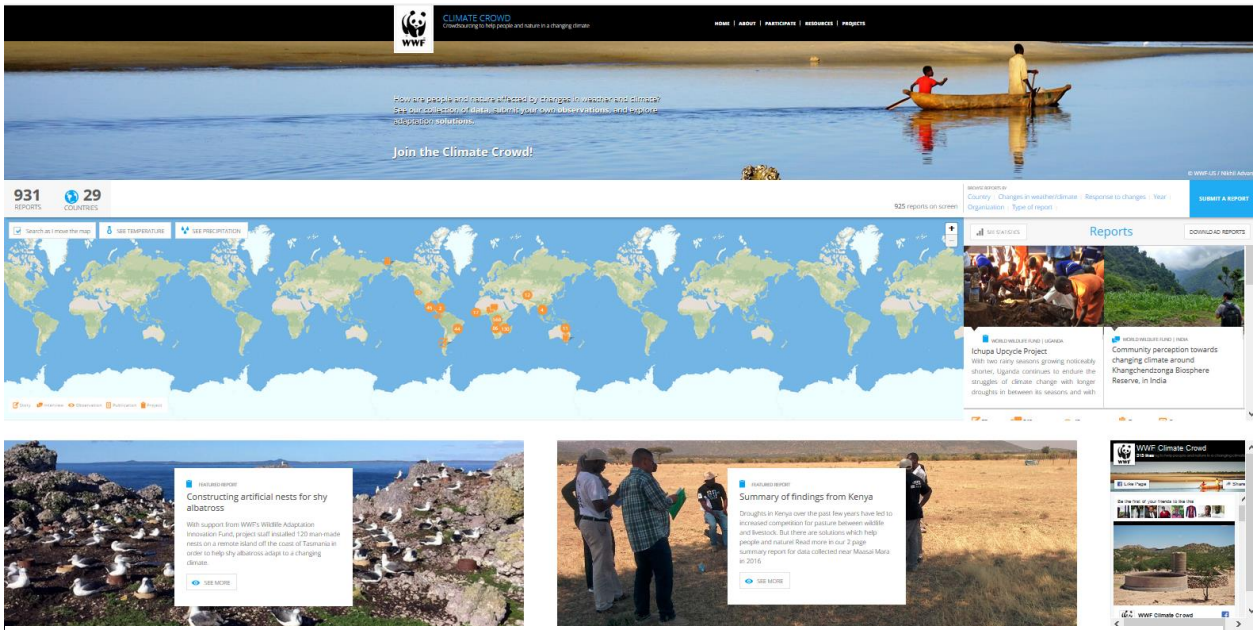
compilation and English translation)
- Ivindo National Park, Gabon (40 surveys completed)
- Loango National Park, Gabon (50 surveys completed)

Through partnerships with local organizations (WRI partnered with Centro Terra Viva in Mozambique and WWF partnered with the Integrated Rural Development and Nature Conservation in Namibia), a number of field staff have received training in best practices for survey methodology, as well as increased knowledge on unplanned adaptation strategies and climate impacts.

WWF – Literature Review

A literature review is being undertaken to extract data on how coping/adaption responses to changes in weather and climate are impacting biodiversity. Such an analysis has not been done before, and very few papers exist on this specific topic. As a result, a wide net has been cast on literature, which may contain this information. A review of countries' National Adaptation Programmes of Action and Intended Nationally Determined Contributions has been completed, and the review of peer-reviewed literature is almost complete. To date, 1,650 publications have been reviewed out of 2,064 total. WWF held a meeting in October 2016 where input to the literature review methodology was provided. Organizations in attendance included WWF, IUCN, the United Nations Environment Program-World Conservation Monitoring Centre, Birdlife International, Institute of Development Studies, Fauna and Flora International, Oxfam, TRAFFIC, CARE, and Leeds University. The scope of the literature review ended up being a lot larger than originally planned, hence the delay. Finalization and publishing may extend into FY 2018.

TNC – Map Human Responses in Relation to Climate Impacts and Conservation Impact



CWWF's crowdsourcing platform: https://www.wwfclimatecrowd.org/

TNC has conducted the contemporary climate and future climate analysis using the Climate Wizard (Girvetz et al., 2009) application and meteorological stations in and around over 500 survey locations in nine African countries. The Climate Wizard generates a spatial analysis of 22 "derivative climate metrics" based on temperature and precipitation modeled on daily downscaled projections. Analyses have been completed for 17 generalized clusters comprising the locations of over 500 key informant interviews in nine African countries. To assess recent historical climate trends, the monthly temperature and precipitation observations were used from land based meteorological stations in and around the 17 generalized survey clusters. The nine countries completed (Cameroon, Gabon, DRC, Kenya, Tanzania, Zambia, Zimbabwe, Mozambique, and Madagascar) comprise the locations of the human response field surveys needed to develop the typology of climate change responses. The human response survey locations have been mapped into a GIS and overlaid with the climate maps generated by the climate analysis. Based on their location, information from the human response surveys (described below) will be categorized (i.e., "binned") by parameterized climate variables (i.e., areas on increasing/decreasing rainfall related events, temperature and moisture directional change, etc.). A correlation matrix is being developed to identify human responses to discrete climate change events. By grouping similar human responses among the various community and livelihoods, an action taken by an individual can be matched to an observed climate trend. Where a change in behavior, such as digging more wells or switching agriculture regimes, taken in response to a change in climate correlates to a recorded climate signal allows one to predict where that response may occur in the future by identifying locations of similar landscapes and community livelihoods where that climate trend will persist based on climate model projections. This will allow us to anticipate potential human responses and build climate change coping strategies in upcoming conservation and land-use planning efforts.

CI – Develop a Typology of Human Responses to Climate Change

The design of the typology is currently being assessed based on the field data collected by each organization, and the complementary data from the literature review. The goal is to organize responses of local communities to climate change into types, linking adaptation/coping responses to perceived changes in climate, and characterizing them based on the impacts they are related to and likely effects on biodiversity. The typology will help identify beneficial responses that could be replicated (based on future climate projections—see previous section), and solutions to responses that negatively impact biodiversity.

From the 106 surveys analyzed so far, we have identified 531 responses to the negative impacts of climate change on water for human consumption, livestock production or crop production. According to the perceptions of the key informants, those impacts were driven mainly by droughts, reduced precipitation, increased temperature and changes in timing of the rainy season.

Of the 531 responses compiled, 41 are unique responses that include a) adaptation strategies related to changes in behavior (e.g., migrating, changing to a different livelihood, using pesticides), b) coping strategies (e.g., logging, storing food, selling assets) and, to a lesser extent, c) adaptation strategies related to services (e.g., seeking help from government or NGOs, vaccinating livestock), d) infrastructure (e.g., building wells and water channels), e) policies and programs (e.g., land use planning) and f) those that are considered ecosystem-based (e.g., planting and protecting trees).

Most of the responses related to changes in behavior have a neutral impact on biodiversity or are context dependent. In contrast, most of the coping strategies likely have a negative impact on

biodiversity, including reduction in species diversity and abundance due to the removal of species from their habitat or to pollution of soil, ground water or surface water.

2.3.3 Best Practices and Lessons Learned

While the communities surveyed are those which ABCG members are engaged in other activities, documenting the impacts of climate change has not been a core component of field activities. The data gathered, and guidance developed from this project will allow the development and implementation of solutions that reduce the vulnerability of these communities to climate change, while helping biodiversity.

Building a Robust Dataset

Because of the diversity of geographies and community livelihoods along with the spatial variability of past and future climate trends it is important to sample as many communities and across varied landscapes as possible. A statistically robust human response to climate correlation matrix depends on a large sample set. In addition, aggregating the hundreds of qualitative interview responses into a discreet typology requires a substantial iterative review process.

Survey Methodology

In Mozambique, the survey team met with district and local government authorities before proceeding to the communities. This aided in gaining the government authorities' facilitation in identifying key informants in each community and streamlined survey delivery.

In Bili Mbomu, DRC, the team translated the questionnaire into Lingala and often followed interviewees into the fields during the harvest season. In adapting to interviewees schedules and obligations, interviewers were able to gain increased access to interviewees.

2.3.4 Challenges and Constraints

Field staff identified a number of challenges to survey implementation, which can be summarized below:

WCS

Interviewers in Cameroon realized quickly that respondents had difficulties understanding the main issue, especially the term "climate changes". In most cases, where the concept was not very well perceived by the interviewee, the latter tended to acquiesce in all the examples being proposed; hence the importance of having some information on the background of the respondent in order to know what approach to adopt and avoid unnecessary discussions.

Moreover, as these villages were predominantly made up of people with low socio-economic status, interviewees tended to insist on improving their living conditions, rather than responding to the relevant question. They saw investigators as agents of the government, finding thereby an opportunity to make their complaints heard, especially when dealing with some question in the survey.

Interviewees were reluctant towards investigators involved in the management of the park (therefore in the fight against poaching). Despite the anonymity and guarantee of non-repression given to them in the introduction, respondents tended to avoid talking about wildlife, poaching or hunting or illegal activities. Some people even refused to answer on the issue (they were afraid of being targeted for further prosecutions).

It was helpful to have an interviewer speaking the local language in order not to completely rely on interpreters since it was observed in one of the villages where a young man was solicited as interpreter, he tended to divert the questions and answers giving the interviewee the impression that team came to listen, take note and solve the problems inhabitants encountered in the village and in the bush with their livestock. In some cases, it was useful to join the interviewee in carrying on her or his activity to be able to interview him/her. For example, a woman who comes back from the farm in the evening has to clean and cook; the investigator must be ready to join her in the kitchen inside to be able to interview her without having to interrupt her housework. When working with Muslim communities, our investigators were prepared for any interruption of the interview for daily prayer hours or adjust their schedules to the daily program of prayers.

Among the 118 questionnaires completed, 37 were females and 81 males. Unfortunately, all efforts undertaken to interview as many women as men were unfruitful even with a lady interviewer speaking the local language. Some of the women contacted just refused to be interviewed or preferred the first wife of the compound speak on behalf of the others. All the women were interviewed by the female investigator among which only five responded in presence of their husband.

TNC

The main challenge in the Makame villages, Tanzania, was the long distance required for interviewers to reach each of the eight villages (the drive is six hours from Arusha).

CI

The period during which the surveys were conducted coincided with a delay and severe decrease of rainfall and high temperatures, followed by a short period of high rainfall. Therefore, it was difficult for key informants to think about changes that happened in the previous years and a majority of responses are based on what was perceived at the time (season and year) of the survey.

Some key informants hesitated to talk about their responses to climate change, as some of them are illegal. Key informants interviewed asked about what we could bring to them to improve their resiliency on climate change, based on this study. They are tired of providing responses to vulnerability assessments without a commitment from the implementing NGO to contribute to resilience strategies.

WRI

Male interviewees were unwilling to mention coping strategies that are illegal, particularly, poaching. The survey team found out through female interviewees who mentioned that some men have resorted to poaching, but did not give additional details.

AWF

In Bili Mbomu, DRC, accessibility in very remote areas was a major challenge for investigators. Interviewees were often unavailable as the survey was conducted during the harvest period. Many interviewees asked for NGO support to adapt to observed changes.

A Maasai man walking his cattle home in northern Tanzania. Photo Credit Nick Hall

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

Pineapple planting using sustainable agricultural techniques - an income generating activity in the Mambele Women's Association in Cameroon. Photo Credit: Olivier Njounan Tegomo, WWF & Jengi, TNC

2.4.1 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 PHE 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 by implementing and promoting effective approaches that integrate biodiversity with actions that contribute to improved 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 PHE into conservation and development planning.)

The main activities to achieve the task objective are to: a) 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 b) 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 inclusion 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 in 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.

2.4.2 Key Achievements

One of the task group's objectives is to analyze existing integrated PHE projects to identify best practices and promising approaches in this field through a comprehensive literature review and interviews with PHE practitioners and experts in the field. The end goal is to use the findings of the literature review to pilot PHE projects in two sites, Western Tanzania and Southeast Cameroon, where PHE task group members have ongoing PHE project activities. The resulting report, *Exploring Cross-Sector Linkages between Population, Health, Environment, Nutrition and Food Security: A Review of Best Practices and Lessons Learned*, was finalized on June 30, 2017 and launched in early July 2017.

JGI – Western Tanzania

JGI hosted two PHE meetings in western Tanzania, from October 25-26, 2016 and September 25-26, 2017 with a total of 34 individuals representing TNC, CARITAS International, Belgium Technical Cooperation (BTC), Millennium Villages — Tabora, Kigoma Development Promotion Agency, Community Empowerment Development Organization, as well as key representatives from the natural resources and health (including district medical officers) departments of Nsimbo, Mpanda, Kigoma and Uvinza districts. The goal of the meetings was to introduce them to PHE, encourage them to integrate activities and join the Tanzania PHE Network[7]. These meetings were facilitated by Dorah Neema and Riser Koyi both from the National Steering Committee for PHE in Tanzania, which is hosted by the Ministry of East Africa Cooperation, and seeks to ensure environmental consideration, health and population are mainstreamed in the country's development processes. Key results from the workshops include:

- Participants' awareness of PHE increased and they continued to promote the approach upon returning to their institutions. All of the NGOs representatives have reported sharing information with their colleagues in staff meetings and the district representatives participated in Council Management Team meetings to educate the leadership of departments within the district on PHE.
- The PHE Zonal Network in Western Tanzania was established as a strategy for scaling up the PHE approach and building capacity in line with the national PHE Strategic Plan.

[7] The Tanzania PHE network is composed of organizations that are implementing, or seeking to implement, PHE. It includes both governmental and non-governmental organizations and aims at ensuring environmental considerations, health and population are mainstreamed in the country's development processes.

- JGI's Community Development Officer, Phoebe Samwel, was selected to attend the PHE training organized by Pathfinder in Kenya in January 2017. This has increased JGI's internal capacity and that of western Tanzania for understanding and implementing PHE continues to grow.
- A PHE Zonal Network Action Plan was developed by participants to guide implementation of PHE activities between September 2017 and September 2018. Activities in the action plan include identification of additional stakeholders to be exposed and engaged in PHE, training for the health departments within the district on PHE, dissemination of information on PHE among participants, and mainstreaming PHE within government objectives, targets and budgeting, establish forums for continuous experience sharing and capacity building, and participating in the validation workshop for the National PHE strategic plan.

A knowledge exchange visit to TNC's Tuungane project by JGI staff and members of the regional PHE network (JGI, BTC, Community Empowerment and Development Organization (CEDO), CARITAS), district staff and select community health volunteers took place between July 10-22, 2017. The purpose of the visit was to understand how food security activities have been incorporated into their work and at what scale they are operating. Fifteen people, representing nine organizations participated in the visit to Buhingu, Mgambo and Katumbi villages targeted by the Tuungane project.

Key results from the study tour include:

- Participants saw first-hand the integration of PHE activities through the model household approach used by the Tuungane project. Households were involved in community groups such as the community conservation bank (COCOBA), Farmer Field Schools (FFS), Beach Management Units (BMUs). The COCOBA members understood family planning, its advantages and methods available, but were also well informed on BMUs and were also participating in FFS. A farmer who participates in the FFS explained how mulching and the use of compost manure has been successful in increasing production. He also showed the team that although it was off season and many farmers do not cultivate maize in July he has been able to get a good harvest before the next rainy season starts without using irrigation because the soil in that area holds water longer.
- Participants visited Model Households participating in multiple activities which make it easy for professionals working across multiple sectors to learn and give the advice in one meeting.
- Participants saw first-hand the potential for cost efficiencies when implementing an integrated PHE approach. The project implementation team uses the same budget for field visits, but are able to see multiple activities at the same time saving on resources and time of both the experts and households.
- The team was exposed to the Model Household as a monitoring tool and felt that it seemed to work better as the unit of integration. This is because it is easier to see the integration and synergies at the household level and see the noticeable differences that a PHE approach can bring.

TNC – Tuungane, Tanzania

TNC's trainings continued to help provide communities with agronomic skills to practice sustainable and Climate Smart Agriculture (CSA) and improved entrepreneurship skills for women and youth. Further, Model Household recruitment continues to further community engagement on the interconnectedness between the environment and health.

Ashura Katunka, in Mgambo village on Lake Tanganyika and part of a model household family. Photo credit: Ami Vitale

- *Farmer Field School Training*s: 1,072 farmers from 16 project villages attended FFS training sessions of which 511 were men and 561 women. Through the FFS, farmers learned about best agronomic practices where 417 smallholder farmers adopted CSA, of which 238 were men and 179 women
- *Food Security and Post-Harvest Loss Activities:* a) 81 Community Agriculture Workers (CAWs) were trained by the Mubondo Agriculture Training Institute and the Mission for Improvement and Boosting Organizational Services to the Community on how to carry out sustainable poultry farming; and b) over 70,000 poultry have been vaccinated for Newcastle disease in 12 project villages.
- *Model Households:* the total number of recruited Model Households is 1,258 (greater than the project target of 1,000 Model Households), an increase of 47 households from last reported. New Model Households are expected to be recruited in the next quarter after completing a "Champions Report" on progress made by both Model Households and the support provided to Model Households by individuals identified as Model Households champions.
- *Entrepreneurship and Improved Livelihoods Trainings:* a) Forty-six youths (21 male and 25 female) attended an entrepreneurship workshop in Buhingu village to formalize the group through constitutional development, group leadership selection, signatories selection and subsequent registration of Youth Savings and Credit Cooperative Society (SACCOS); and b) Twenty-three first-time mothers were trained on entrepreneurship and soap making as an alternative livelihood option.

WWF – Lobeke National Park, Southeast Cameroon

The activities carried out for this reporting period in Southeast Cameroon at the periphery of LNP, were implemented using four main approaches: a) the baseline survey was conducted early on in this reporting period, using an external consultant to perform this task; b) the involvement of three local NGOs in the implementation of several activities: *Appui à l'autopromotion de la femme de Boumba et Ngoko, Association Panafricaine pour le développement durable*, and *Centre d'Information et de formation pour l'environnement et le développement*; c) the use of a highly participatory approach with the involvement of the local Catholic Health Center, mayors of the two major towns in the area, Chief Medical Officer of Moloundou, 14 health center officials and community members with a strong focus on women in the target communities, to support the initiatives on health, nutrition and food security; and d) the engagement of students in schools and local authorities for exchanges and campaigns on issues relating to health and the environment.

Below are specific examples of activities accomplished during this reporting period:

Strengthening the capacities of women and health personnel: Training of women on the preparation of nutritional kits based on local foods

- The baseline survey results revealed that until now, the intervention strategy employed by the local health authorities in the project area was classic and limited to the detection and management of cases of malnutrition in the health centers. The health workers themselves were not well trained, distributing food supplements such as "Plumpy Nut" to families of malnourished children without the possibility of effective monitoring at community level. There was therefore an urgent need to strengthen women's capacities in the development of local food-based nutrition solutions. To respond to this need, a capacity building session was organized and involved the participation of 20 women per village from seven villages, including 69 Baka women aged 18 to 35 and 77 Bantu women aged 20 to 40. They were trained to recognize basic signs of malnutrition, as well as composition and preparation of highly nutritious meals based on local foods. Practical hands-on sessions were conducted to highlight and demonstrate best practices.

Selection and training of Community focal points to combat malnutrition

- The project approach moved from the community relay stage to a stage where women's focal points in the villages have become the first points of contact for nutrition and food security initiatives. Twenty women (two per village) were selected by other women in ten villages. In the majority of cases, women focal points were able to easily mobilize their peers, communicate with them and plan nutrition and food security-related activities. Participation in the previous capacity building sessions was a criterion to become a focal point. After this selection, focal points were trained on the role they should now play in the community: capacity building for other women, coordinating community interventions, ensuring collaboration between the community and health facilities and awareness raising. This approach addresses three areas — awareness of mothers on symptoms of malnutrition within households/communities; desire of mothers to protect their children from malnutrition while improving the nutritional quality of family meals; ability of trained women focal points to identify serious malnutrition cases and refer them to health centers.

Rapid evaluation after sensitization/campaign activities on nutrition revealed:

- 400 new women are aware of the existence of malnutrition and how to recognize it within households/communities;

- About 45 percent of women can identify at least three signs of malnutrition in themselves, their children and through posters;
- 48 percent of mothers can confidently take their children, suspected of being malnourished, to health centers for consultations and receive proper counseling and care;
- 47 percent of mothers who have been sensitized can suggest intervention strategies on malnutrition and promote community interventions for diagnosis and effective management.

Local committees support in the development of community action plans to combat malnutrition

- In the course of the reporting period, local committee members actively took part in the elaboration of five action plans to monitor malnutrition as a way forward to curb this phenomenon between 2017 and 2018. In all, six village communities were assisted in the drafting and establishment of an annual action plan. In attendance were two focal points, eight community leaders and about 14 women for each village. Major activities earmarked in the yearly action plans include capacity development, awareness raising, and sustainable agricultural techniques for the production of commonly used nutritious food stuffs such as corn, soy and groundnuts. It is projected that excess food produced will be sold in nearby markets and money derived from the sales will be used for any unexpected health care situations in the community. Focal points will support the undertaking of all action plans in the field, including awareness raising and supervision of activities. They have developed a weekly micro-action plan to permanently follow-up activities of households for the coming year.

Health Scouts and their support to health and environment activities and campaigns

- Over the course of this past year, Health Scouts sensitized different members of the communities on five major themes: latrine management, handwashing, water purification, family planning and malnutrition. The awareness-raising approach consistently involved targeting meetings of village associations to pass along their messages. Awareness materials included posters, leaflets, and practical demonstrations. Awareness was focused on the following themes: digging techniques to construct a proper household latrine, cleanliness and latrine intimacy (41.94 percent); Handwashing was tackled regularly (26.83 percent) as well as the crucial issues of drinking water (21.35 percent); Family planning (5.47 percent) and malnutrition problems (4.38 percent) were addressed by peer educators, but to a lesser extent.
- A total of 150 new household latrines were dug. Awareness efforts by Health Scouts enabled a 3 percent increase in latrine construction compared to previous years. These newly constructed household latrines will be used by approximately 102 men, 56 women and 170 children.
- During this school year 1,458 capacity building sessions were recorded for students in elementary and secondary schools, focused on five major themes: 1) body and food hygiene (25.03 percent); 2) safe evacuation of human excreta (22.97 percent); 3) best hand washing practices (22.42 percent); 4) proper sewage disposal (14.95 percent); and 5) proper household waste disposal (14.60 percent). School authorities reported that these activities are encouraging as these have a positive effect on their attitudes toward keeping a clean and healthy environment.

Perception of the communities on the existing links between ecosystems health and human well-being

- The data collection on linkages between ecosystem health and human well-being, supplementing the baseline study, was completed during this reporting period. The baseline study highlights communities' perceptions of the relationship between biodiversity health and human well-being. Data was collected in 10 villages among a total of 307 households on the outskirts of the Park. The objective was to see if community members can identify the

components and aspects of well-being that are linked to ecosystems. Another objective of this survey was to seek better understanding of community level of knowledge on determinants of climate change and the regularity of these changes in their environment. The data is presently being analyzed and a report will be available by the end of December 2017.

Efforts to promote sustainable agricultural techniques

- One of the approaches used in the project is to promote sustainable agriculture at the Yenga Rural Family Technical School. Sustainable agricultural techniques are taught and practical work in a demonstration field is used to train students in cultivating at least one hectare of cocoa associated with plantain and other fruit trees. It is also likely that revenues generated later will facilitate self-financing of activities within the school campus.

AWF – Tanzania

A consultative meeting was held with the co-chair of the Tanzania PHE Network, Josaphat Mshighati, Pathfinder's Director for Advocacy and PHE, as well as TNC's representative in March 2017. Discussions pointed to the need to get the network members to share more with ABCG on the experiences and opportunities for integrated PHE approaches to leverage conservation. AWF maintained engagement during the course of FY 2017 including engaging Dorah Neema, Coordinator for the National Steering Committee for PHE in Tanzania.

Volunteers for Tuungane perform in a drama group for the community of Mgambo on Lake Tanganyika. The group teaches through skits on issues ranging from teenage pregnancy to sustainable forestry. Photo Credit: Ami Vitale

2.4.3 Best Practices and Lessons Learned

JGI – Western Tanzania

To enhance the likelihood of success in implementation, JGI is implementing activities in close communication with the national PHE task force. Additionally, by having PHE network leaders in western Tanzania who are continuously looking for opportunities to engage and educate key government partners and other NGO's, such as through the Council Management Teams and the Gombe Masito Katavi Steering Committee, JGI will continue to build a network that supports PHE both in government and non-government agencies. Additionally, JGI will continue to ensure that there is coordination with the national PHE strategy. Through this process, it has been clear that while there is a national PHE strategy, if it does not have field-based support with NGO's and governments implementing activities that contribute towards it, it will not be successful. Accordingly, the need for a national PHE strategy validation workshop that ensures representation from regional networks, such as Kigoma is key.

TNC – Tuungane, Tanzania

The adoption of CSA best practices, such as improving soil fertility, irrigation techniques, and pest control by some of the farmers trained under the program, likely led to an average increase of 55 percent in crop productivity for the 16 villages. The highest maize productivity of 24 bags (100 kg each) per acre in the program area was achieved by Eliphas Elisha Rukebesha of Rukoma village who produced a total of 48 bags from his two-acre farm. Before adopting CSA, Eliphas' maximum production in a season never exceeded 10 bags per acre, approximately 50 percent less than his current 24 bags per acre.

WWF – Lobeke NP, Southeast Cameroon

The selection and capacity building of women focal points in the fight against malnutrition: At the start of the project implementation, activities focused on nutrition were conducted using community relays. Along the way, it became apparent that community relays were not representative of the grassroots communities. By restructuring and introducing women focal points from the target communities, the fight against malnutrition became more of a community-driven initiative. This new scheme, under the community directive, creates a direct relationship between the health centers and members of the grassroots community, therefore community members are more engaged and have more interest to find solution for positive outcomes.

Training of women Focal Point in the use of posters/flip charts to conduct small group or community educational sessions. Photo Credit: Olivier Njounan Tegomo, WWF & Jengi, TNC

Promotion of sustainable agriculture: After using a broad campaign approach to disseminate information on sustainable agriculture techniques, it became apparent

that using a more focused approach with a few target groups may be more appropriate within the framework of this pilot project and for this theme. Therefore, the focus has been put on two groups to solidify their knowledge, understanding and capacity as two pilot groups for promoting improved agricultural techniques, namely among the women's group, Women Health and Conservation Group, and the Yenga Technical School students. Findings and lessons from this focused approach will be used to develop a broader and better targeted capacity building approach to efficiently disseminate this approach at the community level.

2.4.4 Challenges and Constraints

JGI – Western Tanzania

JGI has not yet begun implementation of the PHE pilot activity this year. A decision was made to wait on the literature review and its recommendations, to ensure that key activities proposed are validated through the results of this work. Despite this delay, JGI has used this opportunity to enhance knowledge and awareness on PHE through the establishment of a western zone PHE network that is part of the national network. Additionally, as part of this process, JGI facilitated a knowledge exchange consisting of NGO and government representatives to TNC's Tuungane project demonstration plots and understand how food security activities have been incorporated into their work and at what scale they are operating.

The Governance Officer, Mary Mavanza, who also served as the PHE focal point person at JGI resigned from her position in June. In order to ensure continuity, Phoebe Samwel, Community Development Officer, assumed this role. Phoebe had undergone PHE training organized by Pathfinder International in January, but had also led PHE field visits to JGI projects and partners. With this experience she was able to successfully organize the field visit to Tuungane, as well as the workshop held in September 2017.

TNC – Tuungane, Tanzania

Administratively, TNC had some challenges, including losing the project Governance Officer, Terrestrial and Policy Outreach Manager, and Finance Control Manager and these losses slowed some of the progress over the summer.

Pests and diseases affected crop production in the program area. Maize stalk borers affected both rainy and dry season crops. Since stalk borers are relatively new in the program area, farmers were less experienced in controlling them and hence sustained considerable crop losses of up to 30 percent for some farmers. To a certain extent, this problem limited the program's objective to improve agricultural productivity and enhance food security.

WWF – Lobeke NP, Southeast Cameroon

There is a latent conflict between malnutrition care offered by health centers and those proposed by community members. It has become apparent through training sessions and campaigns with community members, that this conflict can be resolved if there is a strategic plan to combat malnutrition involving community members as first responders. Therefore, a strategic plan to combat malnutrition based on the use of locally sourced forest foods, as a means to solve the malnutrition problem, has been

developed. This includes taking actions with the communities, accompanying them and offering support in the process of setting up the different areas of interventions needed, under community leadership. In this context, the community is the master of its strategies and the project supports and guides them in their ideas and in the use of best practices to address the nutrition and food security issues.

2.4.5 Upcoming Events

TNC – Tuungane, Tanzania

A baseline survey specific for collection of agriculture data will be conducted before March 2018. The survey is expected to solicit information/data necessary to determine the impact of agricultural interventions, and will be conducted by the Tuungane staff in collaboration with CAWs and interns.

WWF – Lobeke NP, Southeast Cameroon

One of the major events in the coming months will be to include Health Scout activities in the communal development plan. The goal in this event is to improve understanding of the relation between the health of the environment and the wellbeing of the population as one of the channels of local development.

The second major event will consist of seeking additional funding to make family planning a stronger component of the work done with communities in Lobeke to improve the understanding of the relationship between family health and wellbeing and conservation. Baseline survey results and the qualitative observations have shown that large families struggle to feed themselves and lack the resources to send children to school. As a result, idle youths tend to engage particularly in illegal activity, such as poaching and timber trafficking.

AWF – Tanzania

AWF will meet with about 20 members of the Tanzania PHE Network on November 2, 2017 in Dar es Salaam as a way to engage with actors on the ground to learn about experiences and lessons learned from past and ongoing programs and how the conservation community can learn and integrate PHE approaches and also do better monitoring and evaluation.

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

Women from Siiba Village, Masindi District, Uganda collecting water from Siiba spring which was rehabilitated through ABCG's work. The spring was once abandoned by the villagers due to its dirty water, but after its renovation community members are now relying on it as a water source again. Photo Credit: Brenda Mirembe, JGI

2.5.1 Task Activity Description

By linking freshwater conservation (FW) and water, sanitation, and hygiene (WASH), ABCG aims to reduce watershed degradation and pollution, thereby improving the health of freshwater ecosystems. In support of the USAID Biodiversity Policy, this task proactively engages diverse, local community actors in development activities to mitigate impacts and provide compensation for biodiversity loss to deliver positive conservation outcomes. This task builds on FW-WASH integration guidelines and monitoring and evaluation framework created during ABCG's previous phase.

Conservation South Africa (CSA), a local affiliate of CI, with technical assistance from CI, is piloting the ABCG FW-WASH integration tools in the Alfred Nzo District of South Africa's Eastern Cape Province (ANDM). JGI is piloting these tools in local villages in the Albertine rift region of Hoima and Masindi Districts, also known as the Budongo-Bugoma Corridor. The task members will share lessons learned

from these pilots through the creation of a Nairobi-based Community of Practice (CoP) to build capacity in sub-Saharan Africa, led by AWF and supported by CI, for advancing integrated FW-WASH projects.

2.5.2 Key Achievements

CSA – South Africa

In South Africa, CSA completed a *Freshwater Conservation-WASH Gender Analysis Report*, which highlights key gender issues and constraints to be addressed through CSA's One Health Project and disseminated it to colleagues in the UMzimvubu Catchment. Since the release of the report, CSA's Nolu Kwayimani became the CI Gender Focal Point for Africa, a direct result of her capacity gained from the ABCG work. This also creates a platform for responding to recommendations in the report that go beyond the sites included in the ABCG pilot.

Several training and capacity building meetings were held during this period, including door-to-door awareness programs on improved hygiene practices, in partnership with the ANDM. An independent consultant designed a health monitoring protocol to incorporate health data into project activities and inform the design of a Training-of-Trainers toolkit related to sanitation best practices and livestock. Quantitative and qualitative improvements of water quality are being seen in the pilot sites. For example, in streams, especially where there has been invasive tree removal, macroinvertebrates that were previously not found, such as stone flies, are now present. This is an indicator of improved river health and inspired local researchers from WESSA[8] and GroundTruth[9], to plan studies to confirm the increased populations of these macroinvertebrates. Additional accomplishments include:

- Distributed the CSA gender analysis report to the other 28 members of the UMzimvubu Catchment Partnership Programme in March 2017 and to two health professionals outside of the partnership.
- Trained 23 community members, eco-rangers and water monitor volunteers (eighteen men and five women) on water quality monitoring and collection of water quality data. Training included the use of smartphone technology for data collection, made possible by a leveraged grant from CI's Millennium Innovation Lab.
- Completed two trainings for 20 Health and Safety Officers (fifteen men and five women) in hygiene best practices and the linkages between WASH and livestock herding.
- Held four check-in meetings with each of the four villages to inquire about improved state of water quality, community satisfaction with CSA efforts, status of rehabilitated springs, sanitation practices (alternative ways of cleaning out latrines and considerations of latrine locations), and land characterization.
- Trained 16 community members (eleven men and five women) in sanitation best practices for peer-to-peer awareness raising and reached 613 households (206 men, 347 women and 15 unidentified[10]) with peer-to-peer sanitation best practices awareness raising, in partnership with ANDM.

[8] WESSA is a local NGO that conducts environmental, ecotourism, education, and youth development programs throughout South Africa.
[9] GroundTruth is a consulting firm that focuses on water resources, biodiversity, and environmental engineering.
[10] Individuals signed a participant log and voluntarily self-identified as male or female.

- Designed and distributed 650 sanitation best practices stickers, printed in the local languages Sotho and Xhosa, with leveraged funds from the Starwood Foundation and German Embassy.
- Conducted participatory stream and river health assessments with 12 villages (35 men and 13 women) to raise awareness of their importance and need to restore degraded wetlands for water security.
- Exchanged local-level water quality and quantity data with ANDM twice during a six-month period.
- Completed the Health Monitoring Protocol. A summary version will be available in quarter one of FY 2018.
- Continued water monitoring, showing the following improvements: PH from below five and above eight, to between 6.5 and 7.2; water quantity measurements increased from four to seven liters/minute; water clarity improvements from 16 to 0 Nephelometric Turbidity Units.

Community members of Nyantonzi village, Masindi district, Uganda holding WASH hygiene and knowledge and sensitization materials. Photo Credit: Apophia Jemimah, JGI

JGI – Uganda

In Uganda, JGI facilitated three stakeholder meetings to discuss WASH activities, with two focused on how to strengthen local government involvement. The government meetings brought together 14 district officials and local leaders from Masindi District Local Government and Budongo Sub-county.[11] One key result was the district leadership's pledge to support the implementation and sustainability of the WASH activities. The team designed four educational posters with messages on germ transmission, importance of hand washing, sanitation and hygiene practices, and protection of river banks. The posters need was identified during community engagement meetings, where it was agreed that

[11] The Chief Administrative Officer (CAO), Water Officer, Senior Lands Officer, Wetlands Officer, Health Officer, Veterinary Officer, Environmental Officer, Education Officer, Leader of Operation Wealth Creation, and the Community Development Officer of Budongo Sub-county.

community members lacked awareness of transmission routes. This was intended to create WASH friendly communities with clean water, as well as adopting sanitation and hygiene best practices. The gender consultant submitted the final version of the gender analysis report, which will be shared with USAID for their input before dissemination during the first quarter of FY 2018. Other achievements include:

- Disseminated 2,000 copies of WASH educational posters in 10 villages of Rwempisi, Ambaka, Kyamongi, Nyantonzi, Siiba, Rwangara, Ekarakaveni I, Ekarakaveni II, Bulyango and Nyabigoma in Nyantonzi Parish, Masindi District. The posters have messages on germ transmission, importance of hand washing, sanitation and hygiene, and protection of river banks, which reduce siltation of water sources. Altogether, 962 community members (624 men and 338 women) were reached by the posters.
- Sensitized and trained 20 teachers from 10 area schools in WASH best practices.
- Held a community engagement meeting to get updates from each village on WASH. Over 100 people participated (82 men and 41 women), representing the nine water user committees, the Village WASH clubs, religious and local leaders, school representatives, and the executive of the community development association – Siiba Conservation & Community Development Association (SICODA).
- Completed a stakeholder engagement report for the Uganda pilot site. Meetings were held in Nyantonzi Parish consisting of representatives from 10 villages of Rwempisi, Ambaka, Kyamongi, Nyantonzi, Siiba, Rwangara, Ekarakaveni I, Ekarakaveni II, Bulyango and Nyabigoma.
- Sensitized 4,870 school children (2,532 boys and 2,338 girls) on water and sanitation best practices, including watershed management for clean water and improved hygiene and better health.
- Trained 405 community members (233 men and 172 women) in fresh water and sanitation. Health workers from the area Health Centre used this opportunity to sensitize the community about the need for preventive care, particularly the need for improved household sanitation and hygiene.

Nairobi CoP

On October 21, 2016, nine participants attended the first meeting of the CoP, representing six NGOs and the Kenyan Meteorological Department, in Nairobi, Kenya. The participants confirmed the CoP scope of work, agreed on membership targets, and called for establishing an online platform for interaction. A LinkedIn Group for the CoP was created, and since its inception 17 resources have been shared. The original target for membership of the LinkedIn group was five to 15 different organizations. The CoP far exceeded that target with 43 different organizations represented among its 57 members. During this period, the CoP also hosted two webinars. The first, *New Approaches to Freshwater Conservation and WASH Integration,* featured Jimminel Mandima, Director, Program Design & Partner Relations, AWF and Janet Edmond, Senior Director, Peace and Development Partnerships, CI and focused on the history of the ABCG FW-WASH body of work. The second webinar, *An Integrated Vision for Health in Uganda's Budongo-Bugoma Corridor,* shared success from the JGI pilot site and the featured speaker was JGI's technical lead in Uganda, Peter Apell.

2.5.3 Best Practices and Lessons Learned

CSA and JGI Pilot Implementation

Task members and pilot site implementation teams exchanged experiences and lessons learned during the process of conducting and applying the gender analysis findings through a virtual meeting. There were three shared themes between the projects:

- Despite geographic and cultural differences, gender plays a significant role in successful conservation and human health outreach;
- Entrenched cultural attitudes may impede women's contributions and work towards project objectives; and
- Tweaking project activities to incorporate insights from gender analysis can help to challenge these norms — and improve conservation outcomes.

CSA – South Africa

CSA has two key reflections for lessons learned from this year of implementation. First, it is important to invest in the capacity of traditional leaders to understand land classifications, because they are key decision makers and have the power to allocate land for development. Therefore, they must know what types of land are important for protecting springs and water recharge areas.

Secondly, when working with local government, there must be a balance in the engagement of civil servants and political leaders. This is because civil servants have the potential to be advocates for ecosystem conservation and WASH that remain in place when councilors change; but, with the change of political leaders comes great opportunity to provide the civil servants with the formal mandate for activities to support integrated WASH and ecosystem conservation.

JGI – Uganda

A key lesson for JGI was that the effectiveness of by-laws to demonstrate how initiatives that build community management of the environment are best administered at the local level. The by-laws are also critical in enhancing the decision-making processes because of the inclusive participation of local stakeholders in their enactment, monitoring, and enforcement of WASH activities.

JGI, with funding from another donor, aided the adoption of the WASH education and awareness campaign by helping teachers integrate WASH themes into topics that are found in the Uganda Primary School curriculum. This compliments the community and school awareness campaigns under this task as the integration into the curriculum will ensure continuity and allow teachers to continue to disseminate WASH/conservation messaging after the end of project. Also, some of the lessons/approaches included in the curriculum are drawn from experiences and lessons from this task. Through the lessons, pupils learn about WASH across all disciplines in the primary school curriculum (science, mathematics, English, and social studies). The teachers are trained and involved in the pre- and post-monitoring changes in knowledge, attitudes, and practices. The awareness program is also designed to ensure broad impact beyond the classrooms; teacher training and WASH integration into school lessons is complemented by other activities, such as mobile environmental education and awareness in schools by the JGI team, as

well as community education and awareness village meetings. Established village WASH clubs will continue raising awareness in the community beyond the project dates.

Continued empowerment of local institutions can lead to even more engagement of communities. For example, during implementation in FY 2017, JGI worked with SICODA, a community development association that was established with representation from all the villages and has the responsibility for monitoring and ensuring that they are protecting their forests/water catchment areas. SICODA organized a conservation tournament, while the youth were on holiday, to keep them busy and get them excited about conservation. The winning team was presented with a Conservation Cup, provided by JGI. SICODA contributed funds to present the winners and runners up with goats.

Nairobi CoP

The CoP learned that building its agenda around issues that are already seen as priorities by existing networks is important for sustainability. For example, KEWASNET[12] already had a plan to establish a platform to serve its network members, so the creation of the ABCG CoP can fill this need and further expand the reach of the ABCG moderated platform. The CoP team is also leveraging key best practice research for the successful management of online communities. Key actions include monitoring for shifts in expectations and needs over time to ensure continued relevance and sustained benefits to its members. The team also learned increasing membership of the CoP requires proactive networking and lots of follow-up messages.

2.5.4 Challenges and Constraints

CSA – South Africa

In South Africa, the following constraints delayed activity implementation: 1) the project lead's laptop was stolen in December 2016; 2) turnover in outreach staff, namely the water monitoring volunteers, who obtained paying jobs elsewhere because of the training they received from CSA; 3) the prolonged search for a consultant to design the Health Protocol due to a limited applicant pool; and 4) change in government officials in ANDM, which delayed the summit and information about funds ANDM can contribute. As a result, CSA is planning to extend the implementation period into quarters one and two of FY 2018. This will allow adequate time to execute planned activities with ANDM and complete the planned activities related to the design and roll-out of the Training-of-Trainers toolkit.

JGI – Uganda

In Uganda, the gender analysis identified gender role stereotypes, reinforced by men and women, which inhibit equitable participation in WASH. These stereotypes drove low participation of women in awareness activities and compromised JGI's ability to meet WASH targets. To address this, separate meetings for women will be organized, which are intended to increase women's participation but also increases meeting costs. Additionally, JGI is reviewing key awareness messages to incorporate topics on cultural stereotypes and implications on WASH equity. JGI will not print new materials for this

[12] Kenya Water and Sanitation Network – a network founded in August 2007 to enable civil society organizations involved in the Water and Sanitation Sector to work in a coordinated manner.

messaging, because this is not included in the budget, but rather introduce these topics in planned meetings. To use time and resources efficiently, JGI will bring on board women mobilizers to ensure increased female participation in planned/budgeted meetings. These meetings will have separate sessions for women and men and a joint plenary session.

Despite the investment in the WASH education and awareness campaign and Water User Committees, the water quality tests and analysis still indicate low participation in maintenance (cleaning gutters, drainages, and rainwater channels) for many of the water sources. This causes contamination of the water sources. A more aggressive campaign is needed to ensure community compliance of the required water source maintenance standards.

Nairobi CoP

It was difficult to identify dates for the in-person meeting and webinars, due to schedule conflicts among the group. An in-person meeting for the CoP is scheduled for October 31, 2017 in Nairobi and a calendar of webinar topics will be confirmed following that meeting. The outstanding agenda for the CoP in the final year will be motivating the members to share stories, events and lessons on the LinkedIn Group platform.

2.5.5 Upcoming Events

- A follow up, in-person CoP member meeting in Nairobi, Kenya will be held on Tuesday, October 31, 2017.

2.6 TASK ACTIVITY AREA 5: EMERGING ISSUES

2.6.1 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 members 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 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;
- 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.

2.6.2 Key Achievements

ABCG has attained its FY 2017 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 3.1: ABCG Phase II Monitoring and Evaluation Plan).

The Secretariat released a second call for concepts in early September 2016 with a prolonged deadline to allow for more meaningful consultations with local partners in determining project roles and activity design.

3.6.2.1 Thematic Areas

In order to determine the themes under which projects would be considered, ABCG tapped into the expertise of its community of practitioners in identifying new or emerging threats to biodiversity conservation in Africa. The Secretariat created and administered an online poll via Google Forms. The open-ended survey was disseminated to the ABCG mailing list comprising nearly 2,000 conservation actors around the world.

The survey comprised the following five questions:

1) Which four emerging threats to biodiversity conservation would you suggest as priorities for intervention, in order of importance?

2) Which region of sub-Saharan Africa do you specialize in (check all that apply)?

- West Africa (countries listed)
- Central (countries listed, includes Cameroon)
- East Africa (countries listed)
- Southern Africa (countries listed)

3) In which country are you primarily located?
4) Which of the following categories best describes the industry you primarily work in?
5) Which of the following best describes your current work position?

The poll produced a significant reaction with 90 contributors representing a 45 percent response rate. Almost half of the overall response came from Africa as 47 percent of respondents reported living in African countries. Additionally, the vast majority of respondents hold positions of management; 90percent functioned as Program/Middle Managers or above with 27 percent operating at the Senior Manager or Director level. Finally, many respondents came from technical backgrounds with 22 percent self-identifying as subject matter specialists.

Respondents identified diverse threats aggregated in Table 1.

Table 1 | Aggregated responses from community poll on emerging threats to biodiversity loss

Threat	1st	2nd	3rd	4th	Total
Industrial agriculture, land conversion, food/ livestock production, plantations	11	**10**	**11**	5	37
Overexploitation, resource depletion, poor NRM	2	1	4	2	9
Unregulated logging, deforestation, charcoal production, wildfire	6	7	3	1	17
Mining, extractive industries	4	7	3	2	16
Habitat loss/degradation/fragmentation	0	5	5	0	10
Human encroachment, population growth	**14**	4	4	6	28
Wildlife trafficking, illegal trade, poaching	10	9	10	**11**	40
Bushmeat consumption and trade	1	3	2	3	9
Climate change, change in seasonality/ precipitation, low rainfall	10	5	7	9	31
Emerging economies, infrastructure development, large-scale investments	3	6	2	3	14
Poor governance, corruption, weak regulatory systems	6	2	2	3	13
Weak/retrogressive governments/policies	1	1	1	0	3
Low capacity for NRM, lack of conservation/development planning	0	2	4	2	8
Watershed destruction, pollution of waterways, inadequate WASH	2	1	2	2	7

Human wildlife conflicts	1	1	2	1	5
Pandemics, disease, anthroponosis	0	3	2	2	7
Land purchase by foreigners				1	1
Globalization, increasing demand, foreign markets, growing wealth	1	1	3	1	6
Urbanization	2	1	3	2	8
Political instability, insecurity, civil conflict, failed states	2	2	4	4	12
Disempowered local communities	0	0	1	0	1
Lack of capacity of field conservationists, practitioners	1	0	0	1	2
China	0	1	0	1	2
Over fishing	1	0	1	1	3
Economic and social inequality, unemployment	0	0	2	1	3
Human migration, displacement	0	1	0	1	2

Table 2 | Top four ranked responses to ABCG community poll on emerging threats to biodiversity loss

Respondents Ranked Threats	
Human encroachment, population growth	1
Industrial agriculture, land conversion, food/livestock production, plantations	2
Industrial agriculture, land conversion, food/livestock production, plantations	3
Wildlife trafficking, illegal trade, poaching	4

Population growth was ranked highest as the main underlying threat to biodiversity. After population growth, land conversion due to agriculture was the second and third greatest threat (Table 2). Land conversation also ranked second to population growth as the greatest threat. This underlines the relationship between population growth and food production leading to agricultural expansion/land conversion and ultimately habitat reduction.

Many of the drivers of land conversion were cited, including industrial scale agriculture, over exploitation, and extractive industries. Taken together with habitat loss, these accounted for a quarter of the overall survey response. Land conversion was also the second highest overall score after Wildlife Trafficking. Since Wildlife Trafficking was treated as an Emerging Issues topic with a successful proposal in the first round, it was not considered for round two.

Given the overwhelming recommendation to minimize impacts from agricultural activities, the ABCG Steering Committee agreed that this area has not garnered adequate attention in relation to the scope

of the challenge. The Secretariat therefore proposed that the theme of "Conservation Planning for Integrated Agricultural Landscape Management" be included. This theme also adhered to Selection Criteria, a topic that ABCG member organizations are not currently addressing.

Additionally, the theme of "Conservation Planning for Infrastructure Development" continued to be relevant. Since no proposals were funded in this area in the first call for concepts, the Steering Committee decided to re-issue a call for concepts under this theme. This theme also represented a new dimension to an existing issue where an ABCG funded intervention would compel additional activities at scale.

Thus, the two themes for the second call for concepts were:

1. Conservation Planning Integrated Agricultural Landscape Management
2. Conservation Planning for Infrastructure Development

Conservation Planning for Integrated Agricultural Landscape Management

Rising demand from growing populations and economies is increasing pressure on production systems. By 2050, agricultural output will need to increase by 60 percent, compared to 2005, to support 2.4 billion people in sub-Saharan Africa, according to the UN. Agricultural expansion is the primary driver of land conversion in Africa, reducing the area of intact forests and causing habitat fragmentation, degradation and loss. As a result, wildlife is increasingly dependent on how croplands are managed. Other factors, such as unclear land tenure rights, overexploitation, and uncoordinated and often competing sectoral policies are contributing to competition and conflicts over land and its resources. Climate change is further multiplying these threats.

Addressing competing priorities at the landscape level through multi-stakeholder engagement processes is likely to minimize agricultural impacts and lead to better conservation outcomes, by explicitly addressing trade-offs and synergies among stakeholders and by building collaborative relationships. In practice, this approach has encountered difficulties including meaningful and equitable participation of all stakeholders. For example, powerful stakeholders need to be incentivized to join, but not allowed to dominate, and marginalized (e.g., indigenous communities, women) or unorganized actors (e.g., local farmers) need support and capacity building to engage in discussions.

ABCG invited proposals that encourage stakeholder engagement in conservation planning applied to agricultural landscapes in Sub-Saharan Africa by:

- Sharing knowledge and experiences that involve stakeholder engagement in a landscape context;
- Identifying challenges that need to be overcome to ensure effective engagement;
- Determining strategies and approaches that can facilitate dialogues for sustainable landscape outcomes; and
- Applying this learning to benefit ongoing and new landscape-level initiatives.

Examples of project activities may have included, but were not limited to: 1) regional knowledge-sharing events, including exchange visits, the exchange of tools and resource materials, regional conferences, and thematic workshops that allow leaders to share experiences and lessons learned; 2) case studies developed together with landscape initiatives, which document and communicate landscapes' defining

experiences within their respective contexts from which others stand to learn; 3) collaborative production of knowledge products, including a training manual on monitoring and evaluating sustainable land management from a landscape perspective, a review of the state of landscape governance, a landscape labelling guide, a spatial planning guide, a ground-based photo-monitoring guide.

Conservation Planning for Infrastructure Development

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 Forum on China Africa Cooperation Action Plan. Billions of development dollars are earmarked for Africa large dam projects, 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 address the threat of poorly planned infrastructure development in Sub-Saharan Africa. Projects may have included, 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.

3.6.2.2 Call for Concepts

A second call for concepts was released in early September 2016 for the Steering Committee members to share broadly within their organizations.

There were four concept submissions:

1. WCS/JGI: Mapping Conservation Investment Priorities in Uganda
2. CI/WCS: Establishing a Community of Practice to Share Best Practices and Enhance Learning from the Vital Signs Monitoring System and the Resilience Atlas in East Africa
3. WCS/WRI: Promoting Sustainable Land Use in the Bateka Plateau, Republic of Congo
4. CI/WWF: How to Measure Success of Innovative Integrated Land Use Sustainability Models

3.6.2.3 Selection Criteria and Award Process

The Steering Committee, representing the panel of judges, scored final proposals based on the Selection 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 quarterly Steering Committee meeting in December 2016 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: WCS/JGI*: Mapping Conservation Investment Priorities in Uganda* and CI/WCS*: Establishing a Community of Practice to Share Best Practices and Enhance Learning from the Vital Signs Monitoring System and the Resilience Atlas in East Africa.*

Grant Amount

Grant funds disbursed in this second round of funding were $100,015 through two awards of $50,037 and $49,978. The remaining $34,339 will be used to amplify the results of current projects. This could take the form of a workshop or forum for sharing lessons learned or improving ABCG's dissemination channels, such as updating the website with more user-friendly design.

3.6.2.4 Project Outputs

FY 2016 Emerging Issues projects concluded in July 2017. Below is a summary of project results.

Piloting Mechanisms for Strengthening African Conservation Leadership and Organizational Capacity – TNC WRI

This project aims to design and pilot a new program for strengthening the management and leadership capacity of key individuals working in African natural resource management and conservation. The training program targets mid-career leaders of outstanding, high-potential organizations in Eastern and Southern Africa. TNC worked with Maliasili Initiatives, a nonprofit that supports the growth, development and performance of leading civil society organizations working to advance sustainable natural resource management practices in Africa, to host management and leadership workshops for conservation leaders as part of their pilot African Leadership Network Initiative. They also commissioned (via Maliasili Initiatives) a retrospective analysis of WRI's previous investments (largely USAID funded) in the long-term development of African CSOs in East Africa. The case study report, *AFRICAN ADVOCATES: Partnerships for Building Civil Society, A review of World Resources Institute support to East and Southern African civil society organizations 1995-2005*, highlights key lessons from WRI's work in the region, and shows how strong, adaptive, and responsive partnerships can have long-lasting impact on the emergence of key civil society organizations working on land and natural resource governance.

Meanwhile, in the US, WRI hosted Edward Lekaita from Ujamaa Community Resources Team for a month-long fellowship at its DC headquarters. ABCG featured Lekaita in its speaker series where he introduced the CCRO as a valuable legal tool for strengthening land tenure, especially for pastoralists and hunter-gatherers whose livelihoods and practices call for commonly shared resources in his presentation, *Scaling a Collective Land Rights Approach: the role of legal tools in strengthening tenure in Tanzania*.

A Scalable Approach to Engaging Chinese Overseas Enterprises to Mitigate Impacts of Wildlife Trafficking in Africa – WCS, WWF

China is currently the largest market for illegal wildlife products and the expansion of Chinese investment in Africa is increasing opportunities and channels for illegal wildlife trafficking. As such, this project sought to develop a wildlife trafficking framework that could enhance existing relevant guidelines or policy/regulation and lead to implementation by Chinese companies, African host country governments, and civil society partners.

To this end, WWF conducted a map study of the risks of exposure of Chinese enterprises to wildlife trafficking in Gabon. They also carried out an analysis of existing gaps in Chinese overseas sustainability policy and regulatory frameworks with respect to wildlife trafficking. Concurrently, WCS worked on developing a wildlife trafficking monitoring framework for applicability to Chinese companies' policies and guidelines. To further disseminate their findings WWF hosted workshops in Cameroon and Gabon, while WCS did the same in Uganda and China. The purpose of these activities being to develop a rapport with Chinese companies in Africa and inform them about the dangers of wildlife trafficking.

Outputs included the following workshops and publications:

- On March 21, 2017 WCS along with the China Wildlife Conservation Association and SynTao, a consultancy promoting sustainability, hosted the event *Challenges and Opportunities-Chinese Enterprises Engagement in Wildlife Conservation in Africa* in Beijing.
- A jointly hosted workshop by WCS and the Chinese Enterprise Chamber of Commerce of Uganda on *Opportunities and Challenges for Chinese Enterprises to Engage in Wildlife Conservation in Uganda* on June 2017.
- A *Framework to Identify and Mitigate Risks to Wildlife from Illegal Wildlife Trafficking through Overseas Investor Operations in Uganda*.

2.7 CENTRAL ADMINISTRATION

2.7.1 Key Achievements

2.7.1.1 Communications and Engagement Officer

In December 2016, the Secretariat completed the hiring process for a specialized professional to enhance ABCG's global communication and lead outreach efforts in Africa. The Communications and Engagement Officer has assumed a key role in building brand awareness, expanding ABCG's reach to target audiences, and driving the effort to grow communities of practice and cultivate leadership by African institutions in addressing critical biodiversity conservation challenges facing the continent. The Communications and Engagement Officer reports to and supports the Coordinator in ensuring timely implementation of communications activities, grant reporting, and coordination with the ABCG member organizations to contribute to achieving the program's objectives. This position is housed within the WCS field office in Nairobi, Kenya.

2.7.1.2 Programmatic Meeting Coordination

The Secretariat coordinated regular, formal assemblies of representatives from each of the seven member organizations. The first quarterly Steering Committee meeting was held in December 2016 primarily to review individual Emerging Issues project concept scoring and make selection decisions. The Committee also reviewed pipeline figures and the FY 2016 annual reporting process. The Secretariat shared updates on the hiring process for the ABCG Communications and Engagement Officer. Finally, Benita Hussain was introduced as WCS' new Steering Committee Representative and Jessica Torrens-Spence was welcomed in her role as anticipated Agreement Officer Representative (AOR).

A second Steering Committee meeting was held on March 29, 2017, where the Secretariat presented a pipeline analysis, and the AOR an update on USAID mechanisms for future funding and general outlook for 2018 given the US government transition. This produced a discussion on joint resource mobilization for solicitation to support ABCG Phase III. Other topics addressed included: task activity indicator alignment with USAID Standard Biodiversity Indicators, feedback from member and partner consultations in Nairobi, the kick off of the Nairobi Speaker Series and development of task output dissemination plans.

The third quarterly Steering Committee meeting held on July 10, 2017 concentrated on end of fiscal year actions, such as Year 3 work planning and budget revisions and submitting a forward funding request to USAID for the remaining award obligation. In anticipation of the next programmatic phase and in preparation for soliciting continued funding from USAID, in addition to new sources, following the current grant period ending in September 2018, the Secretariat proposed a strategic planning process enabling the collaborative to take stock of where it is, determine where it wants to go, and chart a course to get there. ABCG members agreed to engage in an internal assessment in order to develop a strategic and operational guide for the future.

In the final FY 2017 Steering Committee meeting on Thursday September 27, 2017, the Secretariat presented an update on the FY 2018 obligation and subawards to members, the FY 2017 annual report

template and timeline, potential funding opportunities beyond the current grant cycle, and a pitch for ABCG Phase III exploring several areas for increasing ABCG's impact by scaling its programming and addressing existing challenges. The Secretariat also presented an organizational assessment based on ABCG's internal data including prior strategic work, 2015 evaluation report, and results of internal interviews. The objectives were to first achieve strategic clarity and then set strategic priorities based on a common understanding of ABCG's intended impact and a refined theory of change.

Thematic Lessons Sharing

ABCG has organized seven thematic lessons sharing events that are directly related to ABCG activities. The events were delivered through in-person and webinar presentations. ABCG has also published a number of outreach materials for its thematic areas.

FW-WASH

- Webinar presentation of the FW-WASH Community of Practice on, *New Approaches to Freshwater Conservation and WASH Integration*, that aims to aim is to establish integrated learning and knowledge sharing between Freshwater Conservation (FW) and WASH practitioners (July 2017)
- Webinar presentation of the FW-WASH Community of Practice on, *An Integrated Vision for Health in Uganda's Budongo-Bugoma Corridor* by JGI (July 2017)
- Exchanged experiences and lessons learned during the process of conducting and applying the gender analysis findings in a virtual meeting among task members and pilot site implementation teams in March 2017. The resulting blog article, *Men's and Women's Roles in Water Conservation: Comparing Experiences in South Africa and Uganda*, was published on the ABCG website
- Task overview presentation, *Integrating WASH and Watershed Conservation: Examples from ABCG pilot studies in South Africa and Uganda*, sharing Year 1 achievements with 42 in-person and 15 on-line representatives from USAID, ABCG partner organizations and other NGOs, on November 29, 2016
- Video highlighting CSA's work for the November FW-WASH task presentation: *Conservation South Africa's "One Health" Initiative*
- Fact sheet describing how ABCG is building African capacity to conserve freshwater biodiversity resources while improving human well-being through integrated FW-WASH activities — *Global Health Linkages to Biodiversity Conservation: the integration of Freshwater Conservation and WASH*

PHE

- Task overview presentation on *Advancing an Integrated Vision that Incorporates Health Outcomes into Biodiversity Conservation* on August 16, 2017
- Fact sheet describing how ABCG is achieving an integrated vision of global health that links the health of wildlife populations, humans, domestic animals, and ecosystems — *Global Health Linkages to Biodiversity Conservation: Population Health and Environment*.

LUM

- Task overview presentation on *Scenario-Based Conservation Planning for a Sustainable Future in sub-Saharan Africa* on July 6, 2017

- Fact sheet for the thematic task area, *Land Use Management*, describing how ABCG is leveraging available opportunities to incorporate conservation into various types of economic land-uses
- Fact sheet describing the LUM task group's activities in the SAGCOT landscape of Tanzania: *Scenario-Based Conservation planning for a Sustainable Future in South-Western Tanzania*

GCI

- Fact sheet describing the thematic task area: *Global Change Impacts on Biodiversity*

Emerging Issues

- In collaboration with Maliasili Initiatives, organized a dialogue on *Strengthening Partnerships for African Conservation Leadership*, hosted by the World Resources Institute, Washington, DC on February 16, 2017
- Final report synopses for the two Emerging Issues projects that concluded in July 2017: *Piloting Mechanisms for Strengthening African Conservation Leadership and Organizational Capacity* and *A Scalable Approach to Engaging Chinese Overseas Enterprises to Mitigate Impacts of Wildlife Trafficking in Africa*.

Washington, DC Speaker Series

The speaker series attracts experts from various conservation and development fields affiliated with or related to ABCG projects. The goals of the ABCG speaker series are to: 1) highlight conservation issues affecting Africa; 2) promote best practices, tools, and success stories with cross-contextual applicability; 3) raise awareness of ABCG, the coalition's collective activities, and priority themes; and 4) convene conservation/international development actors, catalyze discussion, and grow a multi-sectoral community of practice.

ABCG has co-hosted 17 brown bag events during this reporting period, exceeding our target of 10 events by 70 percent. Each event is posted to www.ABCG.org and linked to an interactive online forum. This activity contributes to ABCG's objective to encourage the exchange of ideas among all stakeholders. ABCG has organized the following speaker events, all of which are non-direct ABCG member or project events:

1. *Conflict: the fourth "C" in Liberia's forest management?* (September 2017)
2. *Lunchtime Learning Series: Women's Empowerment and Conservation in the Democratic Republic of the Congo* (August 2017)
3. *Conservation in Africa and the possible solutions in the Protected Areas of Central African Republic* (June 2017)
4. *Natural resource governance: the key to implementing Gabon's Nationally Determined Contribution (NDC)* (June 2017)
5. *Saving Forests in Gabon: On the path of elephants and Kevazingo trees* (June 2017)
6. *Monetizing the Unrealized Economic Value of Africa's Protected Area System: A System at Risk* (May 2017)

7. *Development by Design Approach: Balancing Africa's Economic Growth, Food Security, and Conservation* (May 2017)
8. *Maintaining Diversity in African Savannas and Training Tomorrow's Conservation Leaders* (May 2017)
9. *The End of the Chimpanzee Trade in Southern DR Congo, and Next Steps to Protect Primates Across Africa: PASA and JACK Sanctuary* (April 2017)
10. *Briefing on the Tanganyika Provincial Environmental Support to Kabobo Natural Reserve, DRC* (March 2017)
11. *Scaling a Collective Land Rights Approach: the role of legal tools in Strengthening Tenure in Tanzania* (March 2017)
12. *The Past, Present, and Future: Building a regional M&E system for The Nature Conservancy in Africa* (January 2017)
13. *Beyond Silverbacks: Strengthening African Conservation Leadership* (November 2016)
14. *The Impacts of Conservation Intervention on Human Well-being* (November 2016)
15. *Conserving Our Global Freshwater Future in Africa* (November 2016)
16. *Performance Lending for the Environment: A Break Through for the Resourcing and Scale Challenges Faced by Conservation?* (October 2016)
17. *Getting Consumers to Care: An Interdisciplinary Approach to Urban Bushmeat Demand in Congo* (October 2016)

Online Communications and Engagement

News and updates as well as publications from various themes are posted on the ABCG website in order to promote ABCG's work and enhance outreach. Partner news, events and other related conservation news are also posted on the website to support cross sharing of information. Website analytics for abcg.org reflect 4,425 visitors since October 1, 2016 with 65 percent of this figure being new users worldwide. In Africa, there is increasing interest with 23 percent of the global share, second to the Americas at 46 percent.

As part of ABCG's social media outreach, event output is echoed on all channels. In addition, ABCG shares originally generated content and cross promotes news from its members, partners, and other key stakeholders working in African conservation. The ABCG LinkedIn® page continues to draw attention with total impressions over the last year reaching over 600.

On ABCG's Facebook page–ABCGconserve, total likes have increased by 205 from 884 in October 2016 to 1,089 likes as of September 30, 2017. In FY 2017, ABCG's Twitter account–ABCGconserve, has gained 62 new followers with a total 623 followers as at September 30, 2017. ABCG's email marketing that disseminates event announcements, career opportunities, report releases and news highlights continue to serve as an important means for reaching audiences. A total of 284 subscribers have joined the mailing list this year bring the total number of contacts to 2,058 as of September 30, 2017.

2.7.1.4 Africa Engagement

As part of enhancing ABCG's visibility and fostering broader outcomes for the overall program deliverables, ABCG has ramped up activities on a strategy to increase engagement with African stakeholders including local, national and regional actors with mutual interest in biodiversity conservation. This strategy supports a key objective to nurture 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.

Nairobi Speaker Series

A key strategy for achieving ABCG's objective of promoting integrated conservation and development programming to protect biodiversity in sub-Saharan Africa is fostering information exchange and sharing lessons from field activities by organizing a speaker series. The ABCG speaker series provides a platform for bringing together conservations actors to learn, dialogue and establish connections. A Nairobi-based Speaker Series Guide has been developed for implementation starting April 2017 with the aim of organizing regular presentations featuring various conservation topics. The series is aimed at fostering information exchange and lessons sharing among conservation partners.

ABCG has co-hosted one speaker event during this reporting period, the presentation featured CI, an Emerging Issues grant recipient (in cooperation with WCS) for their project, *Establishing a Community of Practice to Enhance Learning from Vital Signs Monitoring System and the Resilience Atlas in East Africa* .

1. *Better Data, Better Decisions: Lessons from Vital Signs* with a 12 in-person and three online attendees from ABCG partner organizations and other NGOs (April 2017)

All events are posted on the ABCG website to reach broader audiences as part of our global engagement strategy. This activity also meets ABCG's 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.

Nairobi Member and Partner Meetings

The ABCG Coordinator and Communications and Engagement Officer held meetings with Nairobi colleagues from ABCG's member organizations (TNC, AWF, WWF, CI) and partner institutions (Conservation Alliance of Kenya, Kenya Wildlife Conservancies Association, Maliasili Initiatives and African Conservation Center) and USAID staff in February 2017 as part of the induction schedule for the Communications and Engagement Officer. The meetings further served as an opportunity for ABCG to strengthen and develop relations with local stakeholders who support the implementation of the Africa Engagement Framework. Through these meetings, ABCG was also able to increase the awareness of its work among the various organizations.

ABCG was invited and has been participating the monthly meetings of the Regional Conservation Directors Forum in Nairobi, an informal working group of Africa Regional Directors from nine conservation organizations, including several ABCG members (AWF, WWF, CI, and TNC, International Fund for Animal Welfare, African Network for Animal Welfare, IUCN, African Conservation Center, and Bird Life International). The meetings aim to coordinate activities in order to influence policy objectives in East Africa, specifically (to start) around natural capital and illegal wildlife trade. The benefits of ABCG's participation in the meetings are myriad; besides developing partnerships, through the working group ABCG will be able to keep up to date with various activities where the conservation organizations are involved, identify areas of collaboration and synergy, enhance its reach by sharing information with other stakeholders while promoting ABCG's work, and provide technical support, among others.

In March 2017, ABCG participated in the Conservation Investors Forum, hosted by CI's Verde Ventures program and partners, the World Water Day celebrations hosted by TNC and its partners, and the

Consultative Meeting on Wildlife Conservation and Management (Amendment) Bill, 2016 organized by the Kenya Wildlife Conservancies Association together with Conservation Alliance of Kenya. ABCG promoted these events through the website and social medial channels in order to raise awareness for more participation and promote members' work.

ABCG is also seeking to create a formal relationship with the 200 member strong Conservation Alliance of Kenya (including ABCG members AWF, WWF, TNC), through an MOU to align efforts as they develop a comprehensive knowledge management system to support decision-making, cross-learning and experiences at national, regional, sub-regional and international levels.

3. APPENDICES

3.1 ABCG PHASE II MONITORING AND EVALUATION PLAN

Table 3 | 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 percent 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 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 Global Change Impacts on Biodiversity (GCI)			
Design and implement human response field surveys (WWF)	Number of sites surveyed Number of people interviewed	21 10 per site	Reports posted to wwfclimatecrowd.org
Produce literature review of human coping responses to climate change (WWF)	Number of publications reviewed	TBD depending on availability of publications	Database of findings
Develop observed and projected climate variables for all survey sites (TNC)	Maps and spatial data of observed and projected variables in target sites needed for typology analysis.		Maps published
Develop a typology of human responses to climate change based on the results of field survey and literature review (CI)	Number of new analytic tools in biodiversity tested by key stakeholders in targeted African countries.	1 typology	Document describing the typology
Outreach to development organizations (WCS)	Number of organizations beyond ABCG partners that contribute	5 organizations	Development organization outreach report
Map human responses in relation to observed climate impacts and map likely response based on projected change (WCS)	Number of new analytic tools in biodiversity tested by key stakeholders in targeted African countries. (maps)	4 maps	Semi-Annual Report

Use knowledge base on human responses and likely conservation impact to identify and prioritize adaptation strategies (WCS, TNC, CI)	Number of sites in Africa for which strategies are identified	TBD, based on number of coping responses identified in the typology	Semi-Annual Report
Develop and pilot a methodology to identify areas and prioritize adaptation efforts (WCS, TNC, CI)	EG.10.2-4 Number of people trained in sustainable natural resources management and/or biodiversity conservation as a result of USG assistance (disaggregated by sex)	1 workshop	Workshop 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			
Water, Sanitation and Hygiene (WASH)			
Integrate gender considerations into project design and monitoring and evaluation (M&E) plan for two pilot sites.	Number of published recommendations for integrating gender considerations into project design and M&E.	2 gender analysis reports	Gender analysis reports
Joint pilot test the guidelines and M&E framework produced by ABCG members and development organizations engaged in WASH.	EG.10.2-4 Number of people trained in sustainable natural resources management and/or biodiversity conservation (trained and implementing community-based WASH and freshwater conservation) as a result of USG assistance. (disaggregated by sex)	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 resources, communications (blogs, speeches, tweets, etc.), and webinars relating to biodiversity conservation and human health shared via the online CoP platform.	Target: 12 resources/1 per month 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

Population, Health and Environment (PHE)			
Analyze existing projects that integrate population with other health and environment sectors	Number of projects integrating PHE analyzed	At least 2 projects identified that are integrating PHE approaches with sustainable agriculture, food and nutrition security focus	Literature Review
Identify best practices based on the analysis for integrated PHE projects at the regional and national scales	Number of successful approaches identified	At least 3 best PHE practices identified and recommended for implementation	Literature Review Annual Report – success stories of PHE champions
	Number of PHE champions promoting PHE as a biodiversity conservation tool	At least 3 champions per pilot projects sites promoting PHE	
Conduct a communication event to promote best practices and lessons from the pilot sites to ABCG community, PHE practitioners and development organizations engaged in cross-sectoral health and environment work	Joint presentation/webinar held with PHE stakeholders and partners to disseminate lessons and best practices from pilot sites	1 presentation/ webinar combining experiences from ABCG pilot sites on PHE best practices 1 consultative meeting with the Tanzania PHE network	Presentation/webinar organized to reach stakeholders and audiences: such as the PHE Policy & Practice Group; various PHE Networks in Africa – Tanzania, Ethiopia, Madagascar, etc.
Provide capacity building for adoption of PHE-related sustainable development behaviors for biodiversity conservation	EG.10.2-4 Number of people receiving USG-supported training in natural resources management and/or biodiversity conservation (disaggregated by sex)	5,000people trained on PHE/conservation related concepts	Pilot Project Report Pilot Project Report
	# of best practices identified in the lit. review, implemented at the pilot project sites	At least 3 out of 5 best practices are implemented in each pilot sites	

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

INDICATOR PROGRESS TABLES

3.1.1 Indicator Progress Table: Land and Resource Tenure Rights

Table 4 | Progress Indicators: Achieved versus planned progress for FY 2017

INTERMEDIATE RESULTS	INDICATOR	Data Source	FY 2017		Comments on Target Achievement
			Annual Planned Target	Annual Cumulative Actual	
Provision of Certificate of Customary Rights of Occupancy (CCROs) in six villages, Greater Mahale Ecosystem, Tanzania (TNC, JGI)	Number of joint workshops, symposia, research, and analysis held with stakeholders and partners	Workshop reports	6 (JGI); 2 (TNC)	2 (JGI)	Target for life of project: 2 workshops; 3 workshops were held in FY 2016 (TNC) JGI will be holding additional Workshops in FY 2018
	EG.10.2-4 Number of people trained in sustainable natural resources management and/or biodiversity conservation as a result of USG assistance	Workshop reports	140 (JGI); 492 (329 men and 163 women) (TNC)	32 men, 5 women (JGI) 47 men, 23 women (TNC)	Target for life of project: 140. There were fewer participants than expected due to the unavailability of District staff performing other duties and the postponement of some GIS trainings until Q1 of FY 2018, again due to the unavailability of the relevant District Staff. (JGI) Target for life of project: 492 (329 men and 163 women). 70 people were trained in FY 2017. Progress this year was slow due to a delay for the CCRO consultant report and need for internal discussions on provision of individual or group CCROs. However, we have completed training of district officials and village leaders and, in November 2017, we expect to exceed our target of 492 when we start the CCRO awareness work in the villages in preparation to issue CCRO titles. (TNC)
	Number of changes in programs, projects, and practices cited as a result	Annual progress reports	2 (change in issuance of CCROs)	0	In progress to be included in the FY 2018 annual report.

	of analysis and influence activities in this program				
Provision of individual and group CCROs in Southern Tanzania and pro-CCRO contribution to national policy dialogues (AWF, WRI)	EG.10.2-5 Number of laws, policies, or regulations that address biodiversity conservation and/or other environmental themes officially proposed, adopted, or implemented as a result of USG assistance	Annual progress reports; media articles	1 (WRI)	0	Multiple land and natural resource policy/regulation reforms are underway in Tanzania. It is unclear if they will be finalized by end of FY 2017 The Land Policy reform process is still underway in Tanzania. WRI will continue to work with UCRT and other local NGOs to press for a community-friendly new Land Policy in FY 2018 with other funds
	Number of villages surveyed and assessed for individual and group CCROs	Survey reports	16	20	All assessments in the 16 villages expected to be completed by the end of FY 2017
Establish new IUCN Category VI Protected Area, Democratic Republic of Congo(WCS, WWF)	Number of changes in programs, projects, and practices cited as a result of analysis and influence activities in this program	Workshop report	1 change	1 change	Although Kabobo Wildlife Reserve has yet to be declared a national level reserve (an activity for FY 2018) this is the first of its kind co-managed reserve in the country.
	Number of joint/co-hosted workshops, symposiums, research and analysis conducted with stakeholders and partners	Annual Progress reports	2 workshops	43 total engagements, including: 18 outreach and planning meetings, 14 workshops, including 13 trainings	CCC Training report, land-tenure analyses (WCS), and 11 other meeting reports.
	EG.10.2-4 Number of people trained in sustainable natural resources management and/or biodiversity conservation as a result of USG assistance	Workshop reports	25 people	157 people (36 women, 121 men of which 8 men were Batwa)	13 separate trainings were carried out across 9 villages and cities on good governance and natural resource management.
	EG.10.2-5 Number of laws, policies, or regulations that address biodiversity conservation and/or other environmental themes officially proposed, adopted, or implemented as a result of USG assistance	Protected area registry in DRC government	1 PA registration	1	Kabobo was declared a provincial reserve (WCS)

3.1.2 Indicator Progress Table: Land Use Management

Table 5 | Progress Indicators: Achieved versus planned progress for FY 2017

INTERMEDIATE RESULTS	INDICATOR	Data Source	FY 2017		Comments on Target Achievement
			Annual Planned Target	Annual Cumulative Actual	
Define objectives for each LUM site	Number of joint workshops, analysis and research held with stakeholders and partners.	Workshop report	4 workshops	7	1 workshop completed in ROC and 1 planned for November 2017. 2 workshops completed in DRC. 1 workshop completed in Tanzania and 1 planned for early 2018. 3 workshops completed in Madagascar, 1 workshop planned Madagascar November 2017. Need explanation of why target was missed.
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 key drivers of landscape change	4	4 distinct landscape models where drivers have been identified are under development: condition model ROC, agricultural model Tanzania, deforestation/human pressure models for DRC, deforestation model Madagascar.
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.	Progress reports	4 trade off models comparing performance of future land-use plans tested	4	Draft scenarios explored for Madagascar Congo, DRC, and Tanzania
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.	Progress report	4 decision support frameworks tested	4	Decision support tool Marxan with Zones presented to Tanzania stakeholders and used to derive land use planning outputs. Decision support tool Zonation used to investigate (1) single objective planning for conservation in DRC, and (2) multiple objective planning for conservation and agricultural development in Madagascar.
	EG.10.2-4 Number of people trained in sustainable natural resources management and/or biodiversity conservation as a result of USG assistance (disaggregated by sex)	Workshop reports by site	60 people	Males – 22 Females - 2	Presentation of key concepts for conservation planning in multiple objective landscapes completed at first workshop in Tanzania. Planned follow-up workshop to advance skills in conservation decision making for early 2018. Training of stakeholders in the theory of spatial conservation planning and practical use of decision support tool Zonation completed for 20 participants from eastern DRC (workshop 2).

					Training of 4 NGO staff from Conservation International completed in Madagascar. Planned training of additional 20 people in conservation and land use planning and the decision support tool Zonation in November 2017. Identification of key stakeholders and poor workshop attendance has contributed to the need for hosting additional workshops to attain target number of participants.

3.1.3 Indicator Progress Table: Global Change Impacts

Table 6 | Progress Indicators: Achieved versus planned progress for FY 2017

INTERMEDIATE RESULTS	INDICATOR	Data Source	FY 2017		Comment on Target Achievement
			Annual Planned Target	Annual Cumulative Actual	
Design and implement human response field surveys (WWF)	Number of sites surveyed, number of people interviewed	Reports posted to wwfclimatecrowd.org	21 sites, 45 individuals per site	19 sites, 900 total interviews	Several organizations had difficulty defining three discrete survey sites, therefore increased the number of key informant interviews at a survey site to obtain the needed data.
Produce literature review of human coping responses to climate change (WWF)	Number of publications reviewed	Database of findings	Variable	1,650	To date, 1,650 publications have been reviewed out of a planned 2,064 total.
Develop observed and projected climate variables for all survey sites (TNC)	Maps and spatial data of observed and projected variables in target sites needed for typology analysis.	Maps published	Climate data for 21 sites	17 climate analysis areas	The climate analysis clusters encompass large areas in order to create statistically viable climate analysis based on the spatial resolution of downscaled global climate models. Some of these clusters contain more than one survey site location, which explains the lower actual target number of 17. We aimed for observed data from meterological stations in proximity to the 21 survey sites where key informants provided qualitative data, however some survey sites were close enough that a single met station covered multiple survey sites so a perfect one on one comparison could not be achieved.
Develop a typology of human responses to climate change (CI)	Typology of human responses to climate change based on the results of the field survey and literature review	Document describing the typology	1 Typology	Preliminary version of the typology was prepared based on 106 surveys analyzed.	The final version of the typology will be based on all the surveys conducted.

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

Table 7 | Progress Indicators: Achieved versus planned progress for FY 2017

INTERMEDIATE RESULTS	INDICATOR	Data Source	FY 2017		Comments on Target Achievement
			Annual Planned Target	Annual Cumulative Actual	
Analyze existing projects that integrate population with other health & environment sectors	Number of projects integrating PHE analyzed	Literature Review	At least 2 projects identified that are integrating PHE approaches with sustainable agriculture, food and nutrition security focus	5 projects were reviewed that integrated PHE approaches with sustainable, food, and nutrition security focus	Ten external reviewers offered comments on the literature review, which was finalized on June 30th, 2017.
Identify best practices based on the analysis for integrated PHE projects at the regional and national scales	Number of successful approaches identified	Literature Review	At least 3 best PHE practices identified and recommended for implementation	5 best practices identified and recommended for pilot project implementation	The 5 best practices were identified through the literature review and interview process finalized on June 30, 2017.
	# of best practices identified in the lit. review, implemented at the pilot project sites	Pilot Project Report	At least 3 out of 5 best practices are implemented in each pilot sites	**TNC** – Currently implementing 3 out of 5 best practices as identified in the literature review. **WWF** – Currently implementing 4 out of 5 best practices as identified in the literature review.	This target has been achieved.

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

Table 8 | Progress Indicators: Achieved versus planned progress for FY 2017

INTERMEDIATE RESULTS	INDICATOR	Data Source	FY 2017		Comments on Target Achievement
			Annual Planned Target	Annual Cumulative Actual	
Integrate gender considerations into project design and monitoring and evaluation (M&E) plan for two pilot sites.	Completed gender analysis.	Gender analysis reports	2	2	JGI's gender analysis report is complete and pending publication in early FY 2018.
Joint pilot test the guidelines and M&E framework produced by ABCG members and development organizations engaged in WASH.	Number of pilot workshops, analysis, and research meetings held with stakeholders and partners.	Progress report	12 meetings	24 meetings	Task members surpassed the target because of the importance of community engagement and participation.
	EG.10.2-4 Number of people trained in sustainable natural resources management and/or biodiversity conservation (trained and implementing community-based WASH and freshwater conservation) as a result of USG assistance. (disaggregated by sex)	Semi-annual reports	CSA target- 60 (40 men, 20 women) JGI target – 20 (12 men, 8 women)	CSA – 107 (79 men, 28 women) JGI – 26 (18 men, 8 women)	CSA was unable to complete planned trainings this reporting period due to delays in finding a consultant for the Health Monitoring Protocol. They aim to complete this activity in the first half of FY 2018.
Formalize an Africa-based COP and host online capacity-building events.	Number of organizations participating in the COP	Online COP (LinkedIn)	5-15	43	The task group is delighted there is such interest in the group and will increase the target for Year 3 to 55.
	Number of resources, communications (blogs, speeches, tweets, etc.), and webinars relating to	LinkedIn analytics	Target: 12 resources/1 per month	17 resources	The task group will focus on additional capacity building webinars for the first two quarters of Year 3 to ensure the target is met.

	biodiversity conservation and human health shared via the online CoP platform.	Webinar recordings	4-6 capacity-building webinars	2 capacity building webinars	

3.2 FISCAL YEAR 2017 PUBLICATIONS

4 *Community Natural Resource Management in Tanzania* - Report reviewing Tanzania's land and natural resource management policies and laws which provide a framework for enabling local communities to varyingly administer, manage and sustainably utilize their land and natural resources.

5 *Exploring Cross-Sector Linkages between Population, Health, Environment, Nutrition and Food Security: A Review of Best Practices and Lessons Learned* - Literature review that documents best practices for integrating nutrition and food security interventions into existing Population, Health and Environment (PHE) projects and presents recommendations for incorporating cross-sector indicators.

6 *Freshwater Conservation-WASH Gender Analysis Report* - A report showing key gender issues and constraints to be addressed through the "One Health; Integrating Freshwater Conservation, WASH and Rangeland Management in South Africa's uMzimvubu Catchment" project activities.

7 *Global Health Linkages to Biodiversity Conservation: the integration of Freshwater Conservation and WASH* - Fact sheet describing how ABCG is building African capacity to conserve freshwater biodiversity resources while improving human well-being through integrated FW-WASH activities.

8 *Global Health Linkages to Biodiversity Conservation: Population Health and Environment* - Fact sheet describing how ABCG is achieving an integrated vision of global health that links the health of wildlife populations, humans, domestic animals, and ecosystems.

9 *Land Use Management Fact Sheet* - Fact sheet describing how ABCG is leveraging available opportunities to incorporate conservation into various types of economic land-uses.

10 *Scenario-Based Conservation Planning for a Sustainable Future in South-Western Tanzania* - Fact sheet describing the LUM task group's activities in the SAGCOT landscape of Tanzania.

11 *Global Change Impacts on Biodiversity* - Fact sheet describing how the Global Change Impacts on Biodiversity thematic working group is classifying human coping responses to climate change across Africa, and the impacts of these responses on biodiversity.

12 *Piloting Mechanisms for Strengthening African Conservation Leadership and Organizational Capacity* and *A Scalable Approach to Engaging Chinese Overseas Enterprises to Mitigate Impacts of Wildlife Trafficking in Africa* - Final report synopses for the two Emerging Issues projects.