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Success Stories

NATURE PROTECTED AND LIVES IMPACTED

The Africa Biodiversity Collaborative Group (ABCG) has been working with communities in various parts of sub-saharan Africa to find ways in which people and nature can co-exist in harmony. Collectively, we have managed to successfully implement strategies and approaches that advance biodiversity conservation and promote communities' livelihoods.

Land and Resource Tenure Rights

Securing Intact Forests and Indigenous Livelihoods in DR Congo

The [Land and Resource Tenure Rights \(LRTR\)](#) task group, enables more effective conservation by developing and testing tools that place greater land and resource management authority in the hands of local resource users. These tools provide incentives and capacity for local resource users to exercise their authority in ways that are consistent with biodiversity conservation and sustainable use of renewable resources.



In eastern Democratic Republic of Congo (DRC), the Batwa people have played a critical role in preserving the integrity of the intact forests of the Kabobo Massif, which is the source of fresh water and associated electrical power for hundreds of thousands of people.

In recent years, however, violent civil conflict has undermined the Batwa's stewardship, leading to large-scale population movement and poor local governance. In response, local people— supported by the provincial government and the Wildlife Conservation Society (WCS) have worked for a decade to re-establish local control of the area through the creation of protected area and community forestry concessions.

Over the last three years, the Land and Resource Tenure Rights (LRTR) working group of the Africa Biodiversity Collaborative Group (ABCG) contributed to this effort. LRTR develops and tests various strategies that place greater land and resource management authority in the hands of local resource users, thus creating incentives for them to exercise their power in ways that are consistent with biodiversity conservation and sustainable use of renewable resources.

Central Africa boasts the second largest expanse of tropical forest on the planet. The largest part of this vast forest, in the DRC, covers 160 million hectares, about 60 percent of which is ecologically intact. The DRC's forests provide the primary source of food, shelter and income for some 40 million people.

Forest dwellers are a complex patchwork of ethnic groups, including both Bantu farmers and hunter-gatherers of the Efe and Mbuti groups, who share the forests with some of the world's most iconic wildlife. Because about 80 percent of the DRC's ecologically intact forests lie outside of formally designated protected areas, the participation of local people in developing and implementing approaches for conservation is essential.

However, the integrity of these forests is increasingly challenged by poor governance and the daily needs of a population still struggling to emerge from decades of civil war amidst continuing insecurity and armed conflict. Nowhere is this more apparent than in the vast lowland forests, montane rainforest, and savannah woodlands of the Kabobo Massif, a 100-kilometer mountain range at

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the eastern edge of the Congo Basin that is one of Africa's most biodiverse places.

More than 300,000 people rely on these forest landscapes, which extend across four million hectares, for their future livelihoods and safety. They provide a critical source of freshwater around Lake Tanganyika and play a key role in sustaining the health of the lake's fisheries.

"In the absence of clear rights to land and resources, local people saw creating a protected area as a way to block the appropriation of areas of intact forest ecosystems that are the basis of their quality of life, and provide critical services to neighboring populations."

Michael Painter, Senior
Technical Advisor, WCS

Nevertheless, the Kabobo region faces significant threats including mining, increased local charcoal and timber demands, a growing local population driven by migration from nearby conflict zones, and decreasing government oversight.

Illegal and illegitimate taking of land and natural resources has had an especially severe impact on the Batwa, indigenous forest hunters and foragers that number approximately 6,000 people. The Batwa account for about 20 percent of the population of the Kabobo Massif and are locally renowned for their ecological knowledge.

Their active stewardship of the forest has been an important factor in maintaining the integrity of the area's natural ecosystems, but they are also especially vulnerable to land and resource grabbing because their way of life depends heavily on the direct use of natural resources. Despite their claims to the territories they historically and currently use,

the state rarely, if ever, recognizes their legitimacy when more powerful interests seek out these areas.

To address the issue of poor governance, WCS supported a 10-year process led by the government to create the 150,000-hectare Kabobo Wildlife Reserve. Participating as an equal partner, the Batwa were empowered to protect the intact forest ecosystems on which they depend, help define reserve boundaries, and establish a structure governing use of resources.

ABCG has played a critical role turning the results of this long consultative process into action, by supporting the drafting and review by local people and government agencies of the by-laws, regulations and agreements between political authorities that will constitute the formal framework for governance of the protected area going forward.

In 2016, the DRC passed a new forestry law that provides a legal framework for community tenure and management of forested lands, based on the creation of community forests.

Looking ahead, WCS and partners hope to replicate the successful participatory approach used to create the Kabobo Wildlife Reserve, and thereby extend community forest management across other important landscapes in DRC. And as other conservation organizations and funders have expressed interest to scale this work to other protected areas in DRC, ABCG can refocus its attention to other innovative conservation approaches.

"By providing a mechanism that allows communities to secure clear rights to manage their forests, the new forestry law enhances the security of forest communities and helps ensure that they will continue to exercise stewardship over this important area. Taken together, the creation of the Kabobo Wildlife Reserve and the possibility of creating a network of community forest concessions, are an important opportunity for forest stewards to assume leadership roles in defining an approach to development that ensures that their livelihoods and identities and regionally significant ecosystem functions are secure."

Michael Painter, Senior Technical Advisor, WCS

Reported by National Geographic

Land Use Management

Multi-Sector Engagement on Land Use Planning Contributes to Preserving Madagascar's Rich Biodiversity

The **Land Use Management** working group assesses the extent to which conservation is integrated into designing and prioritizing investments. It develops approaches to incorporate equitable and environmentally-smart alternatives into land use decisions; ensuring that investments in conservation consider not only present conditions, but also probable future scenarios.



*Engaged stakeholders in Moramanga during a workshop on future land use.
Photo credit: Bruno Rajaspera, Conservation International*

The island of Madagascar contains rich biodiversity, most notably lemurs and tropical forests. At the same time, 75 percent of the country's 26 million people survive on less than a dollar per day. Pressures on this critical biodiversity include increasing population growth, unsustainable resource utilization patterns, slash-and-burn agriculture, illegal and unregulated mining and extraction, and climate change.

To address these threats, CI- Madagascar and the WCS staff, through ABCG's LUM task group, worked closely with senior leaders in the eastern biodiversity corridor known as Corridor Ankeniheny Zahamena (CAZ) to develop plans to protect critical land, forest and water ecosystems. The highest level of authorities in both the Alaotra Mangoro and Atsinanana Regions in eastern Madagascar committed themselves to the land use planning activity for conservation in an unprecedented collaboration.

The land use planning approach involved more than 15 representatives from the Malagasy government and technical specialists who collected data on the state of biodiversity and ecosystem services such as water and soil,

the human well-being benefits of nature such as food and livelihoods, and ongoing development programs. In addition, the team developed scenarios to incorporate equitable and climate-smart alternatives to land use decisions for conservation.

Using the results of the scenario analysis, CI Madagascar engaged the Government in plans for proper siting of a new proposed expansion of a highway through CAZ, from the capital city to the eastern port of Toamasina, in order to reduce the negative impacts on biodiversity from the proposed highway. The Government of Madagascar thanked CI Madagascar and ABCG for the thorough assessment and the recommendations of alternative development options.

Bruno Rajaspera, CI Madagascar Director for Field Projects, noted that the ABCG project was able to facilitate a multi-sector engagement, which has not been observed in the past 19 years and led to developing decisions that would influence future land use in this region and other parts of Madagascar.

All sectorial ministries that deal with land use were involved in the land use development process, including: Agriculture, Mining, Environment, Forest, Infrastructure, Economy, Land Use Planning, Tourism and Decentralization. The ownership of this process within the Decentralization Ministry is certainly the most critical since it ensures the lead and coordination of land use planning in Madagascar.

In the two years (2016-2018) of on-the-ground consultations and scenario planning, CI and WCS facilitated learning and exchange of knowledge on land use planning between more than 15 Malagasy senior level representatives from the diverse sectors and other peers in the sector.

This mutual increase in knowledge resulted in a better understanding of biodiversity, ecosystem services and their role in supporting sustainable development. This has strengthened the ties between the sectoral plans and improved the environmental sustainability of the multi-sectoral land use plans. In August 2018, these champions from the CAZ landscape recommended the replication and scaling up of this land use planning approach for the entire country of Madagascar.

Global Change Impact

Working with Communities in Sub-saharan Africa to Discover Strategies to Adapt to Climate Change While Protecting Biodiversity

Climate change directly impacts ecosystems. These linkages have been well-studied and documented. However, the effects of climate change may also indirectly impact biodiversity through human activity in response to changes in climate and weather. A major oversight of most climate impact assessments in Sub-Saharan Africa to date has been the inadequate consideration of the indirect impacts on biodiversity due to human adaptation responses to climate change. This working group is documenting how human communities are being impacted by changes in weather and climate, how they are responding, and how their responses impact biodiversity.



Construction of wells and water tanks help communities maintain water supplies in times of drought, Kenya. Photo credit: Nikhil Advani,

Rural communities in developing countries are on the front lines - the first to face the real impacts of climate change. Benefiting from the bounty that nature provides and coping with the times when nature takes back, defines the life of millions living in Sub-Saharan Africa. For generations this delicate balance was predictable, manageable, but in recent years, climate changes have become more abrupt and more extreme.

With these changes, key questions need to be asked. How is climate change affecting farmers, pastoralists and fishing communities? How is it impacting their way of life, their ability to feed their families or generate income? What must they do differently to maintain their way of life? And what is the fate of biodiversity in the face of these changes?

From 2015-2017, ABCG's seven member organizations and partners went to communities to find out how climate change is affecting their lives. Over 600 interviews in communities engaged in farming, fishing and pastoralism across 19 different sites in 10 countries in sub-Saharan Africa (Cameroon, Gabon, Democratic Republic of the Congo, Kenya, Tanzania, Zambia, Namibia, Madagascar, Mozambique and Uganda) were conducted.

One farmer in Southern Kenya reported that, "Water used to be everywhere... we didn't have to look hard for it. Now

there is much less. Now our cattle drink from still water which can make them sick". The story was same in 20 different communities in nine countries in Africa. Community members shared on how they are coping with these impacts and how local biodiversity is impacted.

In August 2018, ABCG brought together 36 stakeholders consisting of members of the surveyed communities, government officials, academics, and members of global environmental organizations in Nairobi, Kenya, to present the survey findings of the adaptation responses and how those responses impact biodiversity.

Results of the community surveys on how people respond to climate change and how those responses may impact biodiversity, along with an overview of the observed trends in climate throughout the surveyed countries were presented. Overall, the survey results show that about 35 percent of the adaptation responses identified through 652 surveys have potentially negative impacts on biodiversity, whereas only 12 percent have potential positive impacts.

Participants of this meeting discussed alternative adaptation responses to help farmers and fishermen adapt to climate change in ways that do not negatively affect biodiversity. Building on this knowledge and their own experiences, participants developed project ideas that could be implemented to help farmers and fisherman adapt to perceived climate threats that do not negatively impact biodiversity.

Through this activity, ABCG has been fostering a greater understanding and dialogue on emerging coping strategies already being adopted while exploring how those strategies can be improved upon. ABCG is building a knowledge base that will advance communities' capacity to learn about climate threats and impacts, and approaches to address these challenges.

Further, ABCG is developing strategies to address climate-driven issues on livestock, agriculture productivity, and fishing resources. The data collected from these interviews is available on World Wildlife Fund's Climate Crowd website.

Global Health Linkages to Biodiversity Conservation

The **Global Health Linkages to Biodiversity Conservation** working group provides guidance to advance the incorporation of health outcomes into biodiversity conservation and sustainable development. This is achieved by employing **population, health and environment** guidelines to develop synergies between critical ecosystem services and human health well-being, and **Piloting water, sanitation and hygiene** integration to reduce the impacts of infrastructure and pollution on freshwater ecosystems. 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.

Population Health and Environment

Alleviating Malnutrition through Local Food Solutions and a Healthy Environment



Fishing boats in Kutumbi Village along the shores of Lake Tanganyika in western Tanzania. Photo credit: Kimberly Holbrook, TNC

Gaby” is the abbreviation of the name Gabriel. This affectionate nickname was very kindly given to the head of the Catholic health center of Moloundou in southeast Cameroon by his patients. Gaby is a hardworking man with a big heart, who has been taking care of the people of Moloundou for years through his actions in the health center.

ABCG’s Population, Health and Environment (PHE) task activity in the periphery of Lobeke National Park, southeast Cameroon consists of implementing activities to link sustainable agriculture, nutrition, and food security.

In this population, health and environment integrated approach to gather lessons and best practices, WWF collaborated with the government health partner, including the district health services staff to implement interventions relating to the fight against malnutrition.

In addressing the high rates of malnutrition in the project area, WWF has been promoting sustainable agriculture as

part of the PHE project, this component is integrated into food security and linked to nutrition.

In engaging the government health partner to take part in the nutrition and food security interventions, Gaby used local foods to create a nutritious complementary food/ rehabilitation food mixture to alleviate malnutrition in children, mildly to moderately malnourished. Since the start of ABCG’s PHE activities, the health center staff have benefitted from the support of the project to conduct anthropometric measurements (measures that assess body parameters to indicate nutritional status), as part of routine screening campaigns for children in villages in the project area.

Based on results obtained from the baseline survey conducted at the start of the ABCG pilot activities, the project suggested using an approach to rehabilitating malnourished children that would be more sustainable in the long run than the mechanisms that have been used in the area in the past, which rely on ready-to-use costly therapeutic food.

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Gaby (man on the left) supports a soy-enriched porridge cooking demonstration with women focal points as part of their training. Photo credit: Olivier Njounan Tegomo, WWF, Cameroon

Gaby's miracle porridge

This is how Gaby, one of the PHE champions in the community, got to work and developed this nutritious porridge recipe from locally available foods, that is now known as "Gaby's miracle porridge"!

This ABCG PHE pilot activity contributed to the success of the nutrition and food security component, mainly due to Gaby's key involvement in training women focal points to become peer educators.

They then organized educational sessions for over 500 mothers in the project area, who took part in cooking demonstrations and received practical information on feeding practices to prevent malnutrition and rehabilitate malnourished children with local foods. This initiative also included capacity building and practical sessions on

developing family and community gardens and orchards to improve dietary diversity and to provide the right types of nutritious food required to make "Gaby's miracle porridge".

Through this activity, there has been an increase in the frequency of meals fed to children under the age of 5 years, from 2.28 meals/day at the onset of the project to 3.5 meals/day at the end of the project.

Gaby's dedication to his work combined with the support provided by these pilot activities, has contributed to improve the wellbeing of the people in the project area. He is now seen as a PHE champion and is a great advocate of sustainable use of resources for the benefit and health of the people.

Freshwater Conservation and WASH

Spring Rehabilitation in South Africa's Eastern Cape: Improving Human Health and Conservation



Water monitors connecting pipes from the tap to the tank for community members to collect. Photo credit: Mzingisi Nyhodo, CSA

Being a headman in South Africa's Eastern Cape Province is not easy, just ask Nosolani Mantshule. He must balance the growing need for clean water for his community with the revegetation of rangelands, essential for securing water resources and conserving more than 2,000 plant and animal species. Livelihoods and traditional ways of life are under threat due to overgrazing, erosion and landscape degradation.

Most people in Nosolani's village of Msukeni, along with other near-by villages, don't have reliable access to clean water. The once lush rangelands and mountains are increasingly infested with alien invasive vegetation, mainly

black and silver wattle. This wattle consumes significant amounts of water, negatively impacting communities, livestock and the surrounding indigenous rangeland vegetation. Initially, CSA worked with the government funded Working for Water Program, to support volunteers to clear wattle from the landscape, and returning much needed water into the ecosystem.

More recently, CSA added the One Health Program, part of a larger USAID-supported initiative of the Africa Biodiversity Collaborative Group. One Health links freshwater ecosystem conservation with Water, Sanitation and Hygiene (WASH) programming to ensure the supply of clean water for communities and the environment. After the intensive work of removing wattle, the mountain springs have begun to flow again.

In May 2018, the CSA One Health team, and 14 community volunteers turned their attention to rehabilitating one of these restored springs to deliver a safe, reliable water supply. Accessing the spring was a challenge, as it was located 1,600m uphill from the community. When the wattle directly above and below this spring was cleared, there was a significant increase in water flow, sufficient to fill a two-liter container in 30 seconds.

Since this spring was so far from the community, it was vulnerable to contamination by trash, silt, human and animal waste. To protect the water on its journey from the spring to Msukeni village, a solution needed to be found. Together with the community, the One Health team put in place a piping structure to bring water down the hill to an existing 2,500-liter plastic reservoir tank.

Nosolani sees how these efforts help his community. "CSA's activities have helped to reduce poverty, by improving our livelihoods, as a community, because we will now be able to grow our greens, such as spinach, all year round. This, in turn will have the impact of improving individual health because the occurrence of diseases will decrease."

For more information, please visit:

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