

# LAND USE PLANNING LESSONS SHARING



September 4-6, 2018

Compiled by Daphne Wang, World Wildlife Fund-Gabon



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## AFRICA BIODIVERSITY COLLABORATIVE GROUP

# African Biodiversity Collaborative Group

## LAND USE PLANNING LESSONS SHARING

*Report of the workshop held by the ABCG Land Use Management  
Working Group in Libreville, Gabon  
September 4-6, 2018*

Program Title:	Africa Biodiversity Collaborative Group (ABCG II)
USAID Technical Office:	Bureau for Africa /Office of Sustainable Development
Cooperative Agreement No.:	AID-OAA-A-15-00060
Compiled By:	Daphne Wang, World Wildlife Fund-Gabon

COVER PHOTO: Group photo of the workshop participants held in Libreville, Gabon on September 5, 2018

CREDIT: WWF Gabon

This report was made possible by the support of the American people through the United States Agency for International Development (USAID) under the terms of Cooperative Agreement No. AID-OAA-A-15-00060 - WCS. The contents of this report are the sole responsibility of the Africa Biodiversity Collaborative Group (ABCG) and do not necessarily reflect the views of USAID or the United States Government. This publication was produced by World Wildlife Fund Gabon on behalf of ABCG.



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## ACRONYMS

ABCG	Africa Biodiversity Collaborative Group
AWF	African Wildlife Foundation
CI	Conservation International
CNAT	Commission Nationale d’Affectation des Terres (National Land Use Commission)
HCV	High Conservation Value
JGI	Jane Goodall Institute
LUP	Land Use Planning
PNAT	Plan National d’Affectation des Terres (National Land Use Plan)
PSGE	Plan Stratégique Gabon Emergent (Emerging Gabon Strategic Plan)
SNAT	National Land Use Planning Schema
TNC	The Nature Conservancy
WCS	Wildlife Conservation Society
WRI	World Resources Institute
WWF	World Wildlife Fund



# I. INTRODUCTION

The Africa Biodiversity Collaborative Group (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 currently being pursued within the context of five thematic foci:

1. Land and Resource Tenure Rights
2. Land Use Management
3. Managing Global Change Impacts
4. Global Health Linkages to Conservation
5. Emerging Issues

The main aim of the ABCG Land Use Management working group is to develop methodological approaches for scenario analysis and guidelines for its application in Africa. This is to help identify how to incorporate equitable and climate-smart alternatives into land use decisions for conservation.

Over the past three years, this collaboration between seven of the largest conservation NGOs in Africa has explored steps and methodologies to incorporate biodiversity into land-use planning using spatial prioritization and scenario analysis based on four primary case studies. Pilot countries include the Republic of Congo (RoC), Democratic Republic of Congo (DRC), Tanzania, and Madagascar. The team has also provided input to the on-going government-led land-use planning process in Gabon in order to assist in promoting sustainable development while protecting priority areas.

## I.1 WORKSHOP OBJECTIVES

The workshop organized by TNC and WWF-Gabon, was aimed at exchanging ideas and methodologies for incorporating biodiversity into land-use planning in Africa.

The workshop objectives were to:

1. Provide an opportunity to discuss the Land Use Management working group achievements
2. Identify lessons learnt and synthesis of current work
3. Discuss next steps for the working group.

## 2. WORKSHOP SUMMARY

### 2.1 DAY I

For the first day, ABCG partners presented deep dive case studies of their work over the past three years.

#### 2.1.1 CI-Madagascar

##### ***Part 1. Development of a Concerted Land Use Plan, Case of CAZ (Ankenihney-Zahamena Corridor) landscape, Madagascar***

The main steps of the land use plan involve data collection and weighting, data processing, scenario development, and delivering recommendations for decision makers. CI reunited stakeholders from the landscapes to prioritize drivers of change, build impact scenarios, and discuss alternative solutions to land use planning. CI also collected and analyzed data to make different maps using Zonation software. Maps displayed different land use layers (i.e. forest cover, agriculture suitability, carbon stock, water balance) and assessed the impact of infrastructure development for various scenarios.

##### ***Part 2. Results and Recommendations***

Collaboration between decision makers and technicians helped to share data, build technical capacity, and develop and agree upon proposed scenarios.

*Difficulties:* landscape delineation, availability of data and stakeholders, GIS technical issues.

*Strengths:* good level of ownership, integration of multiple sector, consensus between multiple sectors.

##### ***Questions and Discussion***

CI received good feedback for its efforts on addressing restoration issues with its infrastructure mapping of different scenarios.



### 2.1.2 AWF-Tanzania

AWF-Tanzania is working on the Southern Agricultural Growth Corridor of Tanzania (SAGCOT), a major development corridor that will boost agricultural investment, alleviate poverty and increase climate change and water pressures on richly biologically diverse area.

Five steps were involved in the planning framework:

#### **Situational Analysis**

This step discovered that large mammals are mostly restricted by development to protected areas and 13 of 31 major wildlife corridors in the region experience significant encroachment. Data shows that agriculture is suffering fiscal losses from the negative impacts of climate change and drought-related impacts. Land Use Planning is mostly led by the national government and focuses on a regional scale rather than on a village scale.

- **Setting planning objectives:** Stakeholders gathered in breakout groups and set nine broad objectives to guide scenario modeling. These were narrowed down to four and refined based on time, data, and resource availability.
- **Scenario development:** Ecosystem data and satellite imagery of drought-vulnerable areas show that SAGCOT will likely put 13 species at risk. Four scenarios were developed:
  - S1. Baseline for sustainable agricultural development
  - S2. S1 with increased rangers in protected areas
  - S3. S1 but 3 times more invest in agriculture
  - S4. S1 but with drought impacts under future climate change
- **Scenario Review:** Scenarios were evaluated based on protected area and agricultural area strategies.
- **Strategy creation:** Workshop created four recommendations:
  - Create data management system to improve technical capacity
  - Provides guidance to district administrations that ultimately frame LUP
  - Evaluate the impact of future climate change impact on water balances
  - Involve community in decision-making process to promote open and transparent process.

#### **Questions and Discussion**

Some stakeholders raised concerns that the proposed scenarios are not mutually exclusive and are centered on land use investment rather than allocation.

### 2.1.3 JGI - Democratic Republic of Congo

The framework for JGI land use management in DRC is based on the 2011 Grauer's Gorillas and Chimpanzees action plan updated in 2016. Conservation targets involve gorillas, chimpanzees, and their habitats. JGI works in four major protected areas but due to political and resource extraction conflicts, conservation activities are prohibited in several regions. Community forest concessions were also experimented as a LUM option in order to change conflict-impacted communities' attitudes towards conservation. JGI recommends working on micro-zoning to identify critical habitats and applying for self-regulated concessions.

Technical assessments were completed over the past 3 years:

- **Year 1.** July 2016 workshop introduced concept, identified and engaged key stakeholders from CAP northern corridor. Increased understanding of LUP under among different administrations.
- **Year 2.** Zonation scenario analysis workshop presented higher level analyses. This workshop gathered input and attempted to create a shared understanding among stakeholders. Focused on micro-zoning of conservation corridor by gathering stakeholders to important land use areas.
- **Year 3.** Activity 1: provided information, technical support, coordination, and capacity building tools to local customary decision makers. Activity 2: territory-level exercise mapped land uses to illustrate forest authority (government and local structures) and complex diverse actors with different agendas.

### **Overall Lessons Learned**

It is important to develop meaningful stakeholder engagement and connect high-level academic practitioners to local level efforts by building effective working relationships.

## **2.1.4 WCS & WRI – Republic of Congo**

### **Background**

In its “Vision de Développement National”, by 2025 the Republic of Congo commits to more economic diversification away from petrol and invest in new economy sectors such as agriculture, renewable energy, tourism, forestry, and mining. The land use law-LOADT, which was created in October 10, 2014, fixes the legal framework for land use management. It is guided by decrees crafted by several commissions including an inter-ministerial committee on land use management. The national land use planning schema (SNAT) for sustainable development was created in 2005, nine years before LOADT. The SNAT lacks strong planning documents and monitoring and evaluation activity. SNAT revision is underway to develop a multi-sectorial plan that takes into account wildlife corridors, vulnerable populations, and analyze scenarios for sustainable development. The SNAT’s implementation must precede the PNAT (National Land Use Plan) which would require better spatial data collection and analysis on forests and biodiversity.

For the ABCG project, WRI is working on mapping and collecting data on biodiversity and spatial priorities. So far, WRI has produced a prioritization methodology, several analytical land use maps, and HCV (High Conservation Value) scenario analyses.

Field work in two northern departments of RoC focuses on biodiversity and co-benefits of carbon. WCS looks at how REDD+ payments fit into forestry concessions and how to create new protected areas and logging concessions. Ecological data collected show many ecosystem types and is used to determine a good value of biomass. This data is used to measure of degradation by forestry, and develop high resolution maps. Data shared from various NGOs was used to create wildlife models. These models tracked key species and identified whether they were found in protected

areas or forest concessions. Additionally, the models could point out factors like habitat types and human pressures.

Zonation software created two scenarios that identify least important areas first than maximizes objectives to create a ranking of landscapes. Scenario one shows high priority areas. Scenario two shows priority for set-asides within forestry concessions which maximizes the amount of high priority area. Future scenarios show that forestry concessions would have a significant impact on high priority areas and the habitats of key species.

### ***Key Finding and Next Steps***

Zonation results identify highest priority areas for forest carbon and biodiversity. This data is critical to guiding carbon funding for additional set aside areas in forest concessions, advocacy, shaping the PNAT, and training in land use planning.

### ***Questions and Discussion***

Challenges encountered include overlapping jurisdictions within the government, difficulties coordinating between government ministries and lack of information sharing between agencies and ministries.

## ***2.1.6 TNC-Gabon: Promoting Smart Growth: Balancing Development with Nature and People in Gabon***

TNC is collaborating with the Gabonese government-led national land use plan, PNAT, to enhance the biodiversity and natural resources protection aspect of the land use plan. TNC is contributing to the PNAT with both data and methods, including looking into ways for implementing the mitigation hierarchy for land use allocation; this would allow to help develop offset and compensation measures, which are currently built into new legislation, but don't have currently a mechanism to put in place. TNC prepared a report that provides recommendations for each of the six required steps identified by the government to develop the PNAT.

The first phase of the PNAT was an assessment of the current situation; this phase was completed in 2015 and allowed to showcase current overlapping land uses and identify potential conflicts.

The second – and current – phase focuses on future land use allocation design and involves six steps:

1. ***Summarize Gabon Emerging Strategic Plan (PSGE) sectoral objectives:*** PSGE has clear development objectives that needs to be quantified for all the sectors. For example, agriculture will increase in land use which adds pressure to land allocation. Government is in the process of creating refinements of the strategic objectives. TNC recommends prioritizing natural resources and biodiversity in quantitative objectives. TNC also proposes to account for potential indirect impacts beyond borders for any given project as well as assessing and incorporating its cumulative impacts: i.e. hydro and mining, losing river productivity.

2. *Identify landscapes with greatest potential to support activities:* The Technical Team of the national land use commission (CNAT; see below) will collect information on siting constraints and preferences from sectorial experts and produce land suitability maps. TNC recommends refining suitability maps to incorporate ecological data, integrating ecosystem services analysis, and ensuring transparency documentation.
3. *Design and construct future land allocation scenarios:* Creating scenarios enable better-informed decisions by portraying future landscapes that balance the needs of development with those of nature and people. TNC recommends to [engage stakeholders to enhance data and knowledge for the scenarios; to keep the number of scenarios low; to identify the best format to create the scenarios; and to visualize and interpret those scenarios.](#)
4. *Constructive dialogue and analysis regarding land use allocating, zoning and management mechanisms:* PNAT is making strides in the right direction toward building strong stakeholder engagement and dialogue. Operationally, dialogue can facilitate collaboration among industry, national regulators, and other stakeholders to develop guidelines for complex processes, such as developing effective offset compensation strategies. TNC recommends to [maintain open communication](#) and to [ensure representation from key groups.](#)
5. *Decision making:* To facilitate decision making process, the Government of Gabon created the national land use commission (CNAT in French). The CNAT is composed of four working groups 1) Technical, 2) Legal, 3) Financial, and 4) Communication. The committee is chaired by the minister in charge of sustainable development and makes its decision based on recommendations from the working groups. TNC recommends to [ensure easy accessibility of information to decision maker, to explicitly include civil society in the decision-making process and transparency.](#)
6. *Approval and adoption by council of ministers:* Once the CNAT working groups have reached agreement on national land-use allocation configuration, the Minister of Sustainable Development will present the results to the council of ministers – composed of national government ministers and chaired by the President of Gabon. The council of ministers will then approve and adopt the land allocation plans. TNC recommends to develop a clear assessment protocol and enforce the plan with a legal framework. TNC also suggests to evaluate potential opportunity to incorporate offsets.

**Discussion & Questions:** Participants discussed about ways in which civil society could be more involved in the PNAT. Legal mechanisms for land use planning enforcement is also key to ensuring that the government follows through with their plans.

## 2.2 DAY 2

### 2.2.1 Gabon Government Presentation: PNAT Implementation Process

Mr. Ghislain Moussavou, Directeur des applications des sciences de l'espace at AGEOS and CNAT representative, was invited on the second day of the workshop and presented the PNAT approach.

- The first phase of the PNAT was completed in 2015 and focused on two key aspects: data collection and information sharing
  - Data collection: an inter-ministerial commission of 21 administrations was formed and organized into two committees: technical and legal. The technical committee compiled data over three years to create a database easily accessible online to all sectors. The committees were involved with analyzing the spatial and legal overlaps of different land uses. Spatial and legal compatibility sometimes differed.
  - Information sharing: A online national platform with information from different sectors was built to ensure transparency on existing data and land use and management decisions.
- CNAT: the national land use commission, CNAT, was created by decree; the CNAT comprises four sub-commissions: technical, legal, communication, and budgetary. CNAT's mission is to elaborate and implement the PNAT. Currently, its activities are mainly management of urgent LUP needs and setting up for the next 6 steps of the PNAT.
- Framework for urgent LUP needs: to respond to land use allocation requests, CNAT sends out a sheet of criteria and questions, collects and analyses data using zoning tools, and offers advice for ministries responsible for land allocation. This process is critical for identifying potential land use conflicts.
- Existing satellite-data analysis capacity allows to map changes in forests through time and detect illegal land use or activities within and outside of concessions.
- Potential next steps involve giving titles and clear boundaries for villages to protect their rights in the face of expanding forestry concessions.

**Discussion & Questions:** Stakeholders expressed concerns over land use conflicts. Incompatibilities are sometimes caused by administrations, and permit requirements are not always properly implemented or verified in actual land management practices. Gabonese government shared that they have not yet annulled any permits, and they see legal and on-the-ground incompatibilities as opportunity for future negotiations.

NGOs also asked about the existence of no-go zones for protected and HCV areas. There is a concern that protected areas do not always have the most accurate data. At the same time, certain concessions have demonstrated good conservation management of HCV areas.

### 2.2.2 Presentation of Case Studies

See day 1 slides for notes.

### **2.2.3 Questions and Discussions after Presentations:**

#### ***Stakeholder Engagement***

Stakeholders expressed the need to share data since not everyone has the specific technical expertise capabilities of collecting and analyzing data. The Gabon government official stressed the importance of creating a framework of inclusive stakeholder engagement with NGOs and the private sector that would ultimately transfer ownership of land use management to the government. Stakeholders also discussed possibility of ABCG providing a technical guide and more training to the Gabonese government.

#### ***REDD+ Implementation***

Discussions around REDD+ implementation: CI shared its efforts in working with the government to create national references in Madagascar. CI also noted the importance of political will in these collaborations. Challenges include exchange of information and insuring external finances with the private sector.

CI offered an example of a mining company that identified a site for REDD+ but did not provide sufficient funding for its protection. The lesson learned is that private companies should set up trust funds that do not depend on private companies to finance protected area. CI also mentioned that sometimes local populations are hostile towards the harsh measures that restrict entrance to protected areas. WCS suggested implementing EIAs and mitigation hierarchy. Stakeholders also contemplated the justification and benefit of using offsets to save half of a forest while losing the other half.

#### ***Technical Capacities***

The Congolese government official asked the Gabonese government official how they monitor forests with satellite images. The Congolese official noted that there is a gap of understanding and accessibility to zoning tools between higher-level government officials and local populations which creates conflicts between local communities and HCV areas.

In response, the Gabonese government official outlined a variety of national land use monitoring services that are also shared with forest companies. The Gabonese government official expressed willingness to support the Congolese government with setting up satellite and monitoring services. WCS expressed willingness to support the government with creating zoning maps but more discussions are required in order to determine appropriate training.

CI Madagascar mentioned the importance of collecting a variety of satellite images that include not just fauna but also urban infrastructure, road networks, and population data- everything that can impact land use.

#### ***Sectors Competing for Land***

TNC stressed the need to provide solid rigorous data analysis in order to influence national plans. The key to land allocation and management is finding out how to best manage with the technical capacities, finances, and resources we have. WCS offered an example of working with the South Africa government to produce maps using quality data that is embedded in local processes.

CI Madagascar mentioned having productive debates and discussions with mining company directors and government officials but financing protected areas is still an issue. Similarly, WWF Gabon has worked in forestry concessions to create conservation plans. WCS stressed the importance of framing biodiversity protection as an important source of revenue for government for sectors such as tourism.

The Congo government official mentioned that protected areas are not well managed or abandoned because HCV protection does not benefit the well-being of local villages. As a result, local populations are more likely to engage in poaching and see conservation activities such as elephant protection as a threat to their livelihoods. WWF Gabon also stressed the importance of consulting local population in a participative mapping process.

## 2.2.4 Next Steps

Proposals for the way forward:

- *Improvement on engagement processes* with decision-makers and stakeholders to maximize the impact of the current work and ensure the ability of long-term use of the methods and results is integrated into planning. There is a necessity for better mainstreaming and integration of methods and results within government planning departments and developing strategies for these departments to use the tools in the future (e.g. collaborations with local university, secondment of technicians from NGOs).
- *Better dissemination of results*. For impact there is more work to be done within case study countries (as stated above), but beyond case study countries it would be helpful to promote the approaches and have them more widely adopted across Africa. This might be through glossy reports or through training material (mentioned next). There are a number of peer-reviewed publications to be written to get this into the scientific literature too.
- *Development of training course materials* and piloting of this, which can be applied both within the LUM countries but also designed to be applied more widely across Africa. This can help improve the capacity of organizations within ABCG, our partners, and other institutions across Africa. This has the potential of being used as marketable tool that can help fundraise for ABCG in the future.
  - A package could consist of three types of training materials:
    - Guidance documents, for example:
      - How to do stakeholder engagement?
      - The key planning processes steps of integrating biodiversity into land-use planning
      - Effective implementation



- Species themes (e.g. biodiversity offsetting, forestry management)
  - Training for technicians on key tools and methods (e.g. prioritization methods, identifying scenarios). Training to undertake spatial prioritization and integrate these results into planning. As part of this potential training of the trainers to enable these materials to be applied beyond this project.
- *Explore new themes* within task group:
  - How to include compensation into land use planning. It was identified that we need some good examples of how to integrate this into planning across Africa. This is particularly important in the major development corridors across Africa like within Tanzania. There is also interest in how to better link prioritization tools to cost-benefit analysis, particularly monetary valuation.
  - Better integration of climate change impacts. One critical improvement on the current methods is to better consider climate adaptation and how people will respond to climate change. This could include applying the approach developed through the CCA group. While climate change was considered as best as possible within the current LUM case studies, improvements could be made.

## 2.3 DAY 3

Participants of the ABCG meeting visited a palm oil plantation concession owned by Olam near Kango. At the plantation, participants were given a presentation of Olam's recent activities and its Roundtable on Sustainable Palm Oil commitments followed by a tour of the mill. To end the field trip, Olam led the group on a short hike through one of its HCV areas that was designated for biodiversity protection. From this field trip, participants obtained a first-hand perspective of how land-use management practices can incorporate biodiversity protection and sustainable development at the local/productive-lot scale.



## 3. ANNEXES

### 3.1 ANNEX I: [MEETING AGENDA](#)

### 3.2 ANNEX II: [PARTICIPANTS LIST](#)

### 3.3 ANNEX III: [MEDIA COVERAGE](#)

### 3.4 ANNEX IV: [MEETING PRESENTATIONS AND PHOTOS](#)