ABCG Land Use Management Task Group

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Healthy and productive landscapes are vital
for biodiversity and people

Many of these values are declining due to human activities and unsustainable resource uses

We can use land-use planning to balance the benefits of various activities for human well-being and their impacts on biodiversity

Land-use planning

- Land uses determine the socioeconomic activities that occur in an area, the patterns of human behaviours they produce, and their impact on the environment

- Land-use planning is a process of regulating land uses in an effort to promote desirable social and environmental outcomes and efficient use of resources

- Goals of land-use planning include environmental conservation, restraint of urban sprawl, prevention of land-use conflicts

Why plan?

By identifying landscape issues, consulting stakeholders and eliciting their goals/objectives, and evaluating trade-offs between objectives, we can develop plans which balance different land uses to maintain a sustainable landscape for people and biodiversity.

Strategic Approaches

- This working group is developing & applying a scenario-based methodology for land use planning, to incorporate equitable and climate-smart alternatives into land use decisions for conservation

- **Activity 1:** Conduct scenario analyses in target landscapes to inform land-use planning processes and ensure biodiversity is integrated into future plans

- **Activity 2:** Develop a land-use planning training course, to build capacity for land-use planning skills in target areas, and that can be used across Africa more broadly

Activity 1: Scenario Planning

- This group has been developing land-use planning scenario analyses in 4 countries, in order to inform land use management and planning decisions

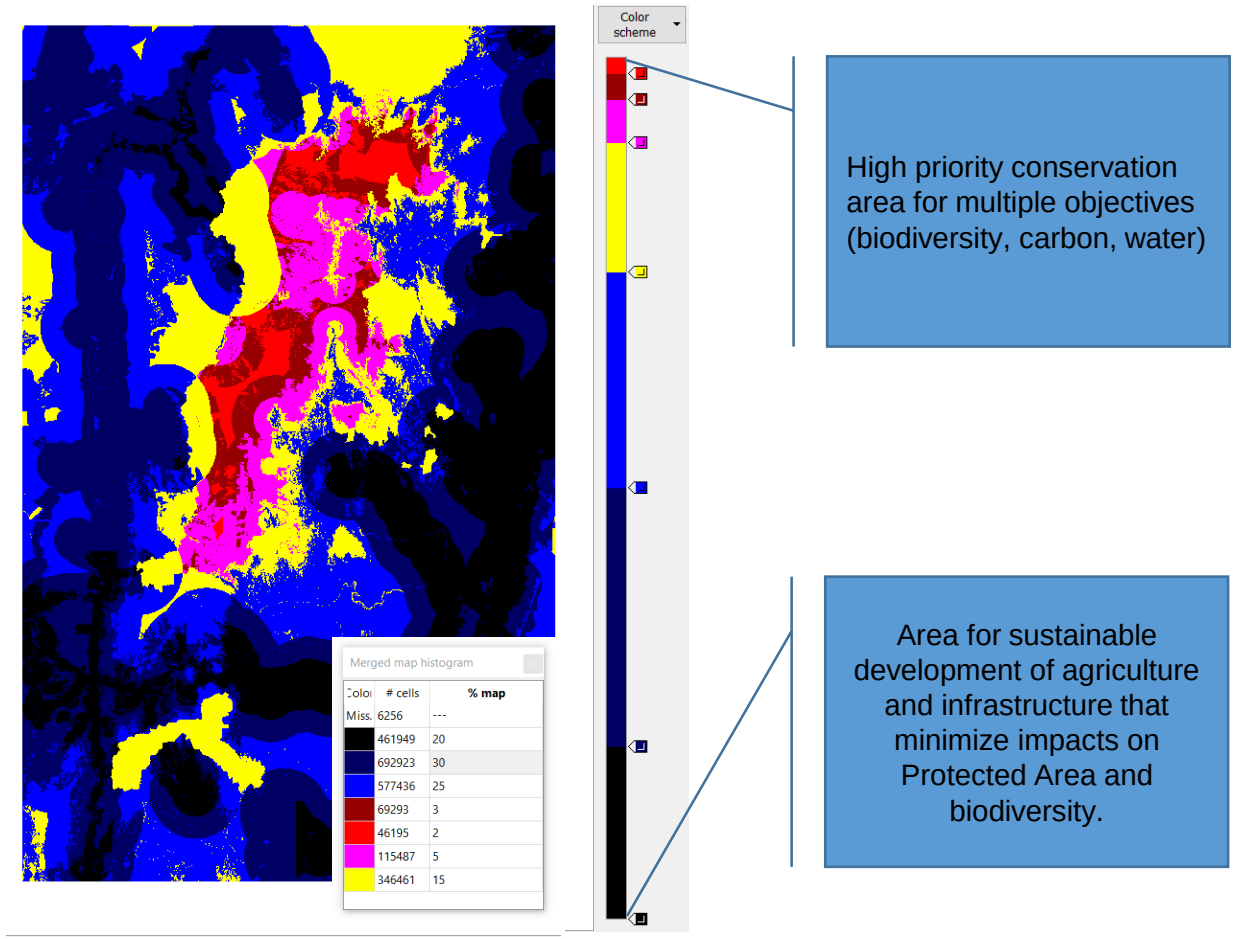
- **While analyses varied across different regions, core steps were followed:**
  - Map relevant stakeholders & develop a future vision for the landscape
  - Map important areas for different sectors (e.g. biodiversity, agriculture)
  - Develop series of potential future scenarios (e.g. biodiversity focused, economic development focused)
  - Use conservation planning software to identify priority areas for different land-uses and analyse trade-offs between different future scenarios
  - Make recommendations for land-use management

Madagascar

- Development of a common vision for the landscape, built upon a common understanding of the main issues and challenges related to natural resources and economy of the region

- Scenario development:
  - ✓ 5 scenarios of land use
  - ✓ Utilization of the « Zonation » tool
  - ✓ Collaborative Meeting with WCS / COMBO Project for the refinement of the analysis (collection of the best information/data available)

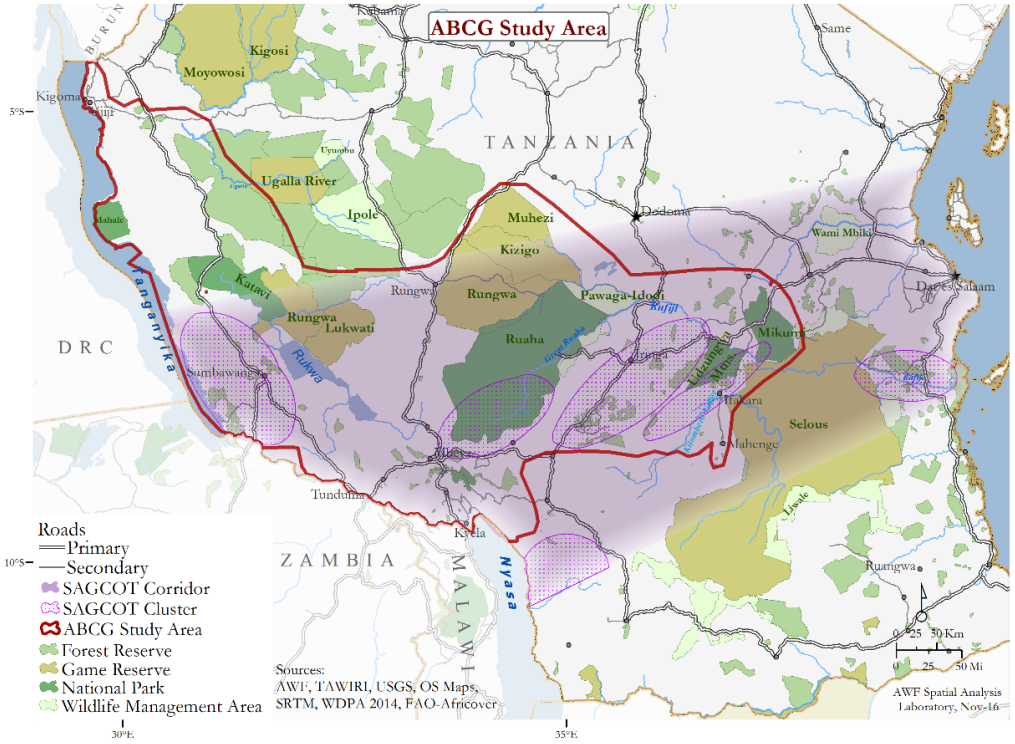
- Elaboration of a manual to popularize the tool with stakeholders and transfer it to the Ministry of land Use Planning



Tanzania

- SAGCOT: major development corridor w/ aims to boost ag & infrastructure investment to uplift 2M from poverty by 2030.
    - Agriculture dominant sector. >80% TZ pop. 25% GDP.
    - Pop. growth, economic and infrastructure development, and climate change on rise.

Goal: apply ABCG planning framework to help ID robust sustainable development and conservation strategies.



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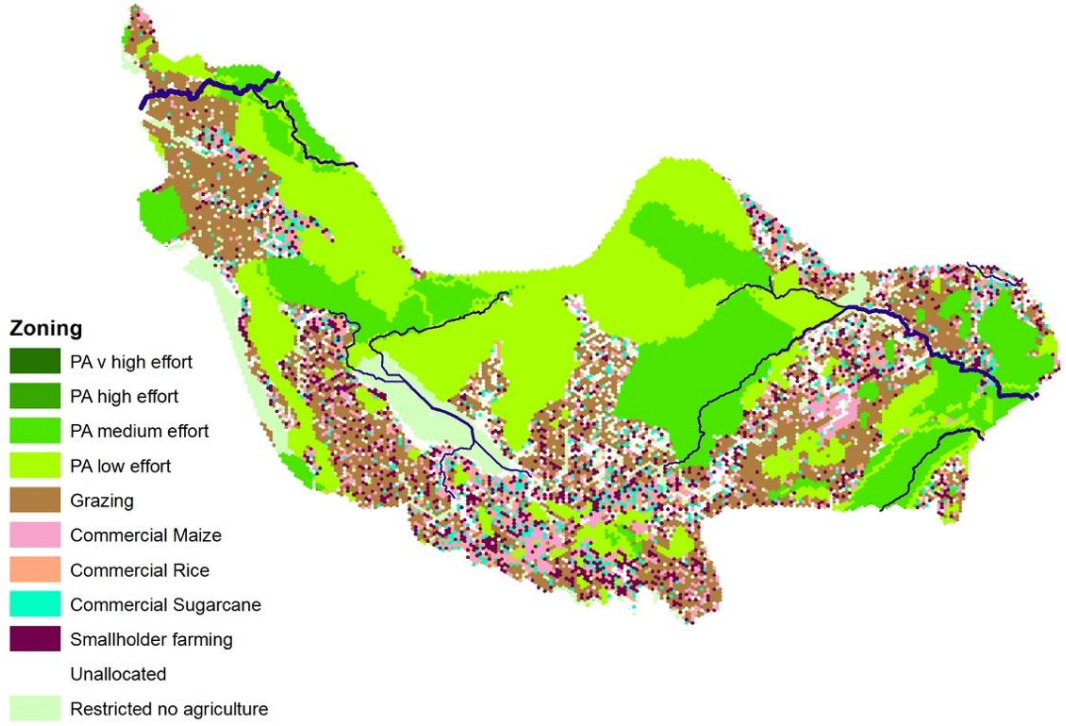
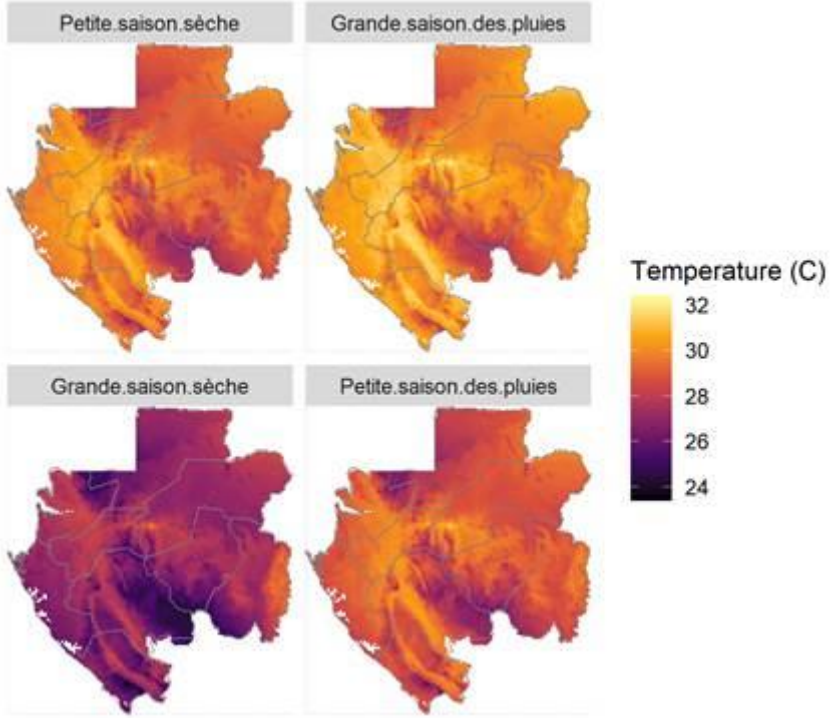
Tanzania

- TZ National Land Use Planning Commission co-led process; helped gain buy-in of other **stakeholders; pave way for implementation**.
- Planning workshop
  - Situational analysis profiling socio-economic, ecological, and conservation issues/challenges
  - Established vision/planning objectives around biodiversity management, agricultural expansion while minimizing conflict with grazing, conservation.
- Developed 4 scenarios (e.g., Sustainable agriculture development: Meet SAGCOT ag. expansion targets & avoid conflict with conservation and grazing.)
- Findings: ag-driven growth possible with little conflict with biodiversity BUT gains vulnerable unless consider smallholder farmers & grazers under CC-driven drought conditions.
- AWF & NLUPC worked with local NGOs, local govts & water user groups to implement plan in Kilombero landscape w/ agroforestry and forest restoration efforts targeting increased ag productivity, ecological connectivity, and CC-resilience.



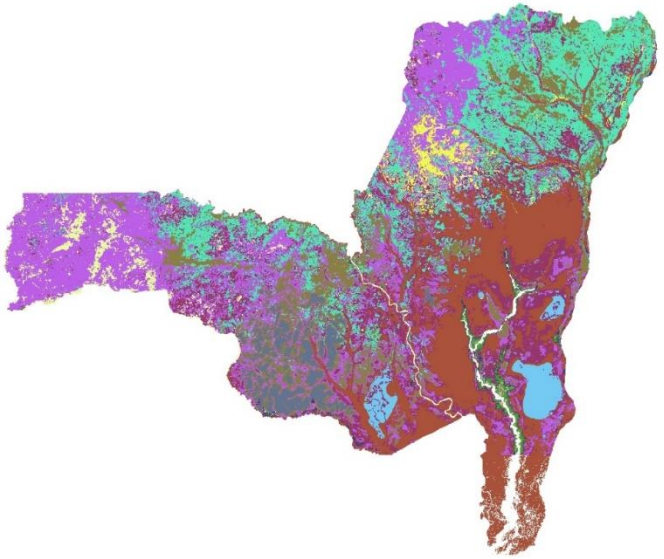
Gabon

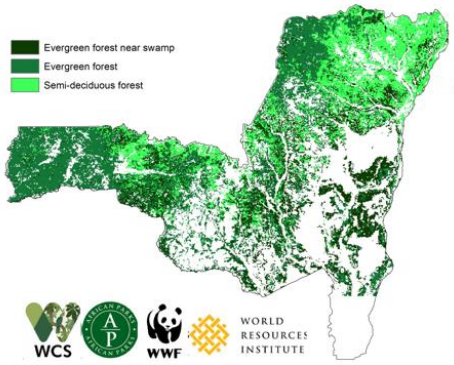
- TNC signed an MOU with the National Climate Council
  - Facilitate collaboration regarding land-use planning and provide technical assistance to the government for that process.
- TNC & WWF co-organized a stakeholder workshop
  - Discuss the achievements of the group collectively;
  - Identify lessons learned on land use planning efforts in Gabon and other ABCG landscapes;
  - Enrich regional dialogue; and
  - Build further support of land use planning in Gabon by key stakeholders.
- TNC finalized executive report to Gabon's PNAT team
  - Conducted a series of meetings with stakeholders from the National Climate Council to solicit feedback.
  - Provide the framework and the technical land use management training material to enable Gabonese stakeholders to identify how TNC's suggestions on lower impact land use planning can be implemented at the national level.
- TNC built technical capacity for Gabon's National Land Use Planning process (PNAT).
  - Goal of the training evaluate, at the national and regional levels, the potential vulnerability of a changing climate on a subset of current land-use activities (e.g., agriculture, forestry, energy, and conservation).
  - Enable the Gabonese government to generate the initial analysis and update any ongoing analyses as new climate and land-use information become available.



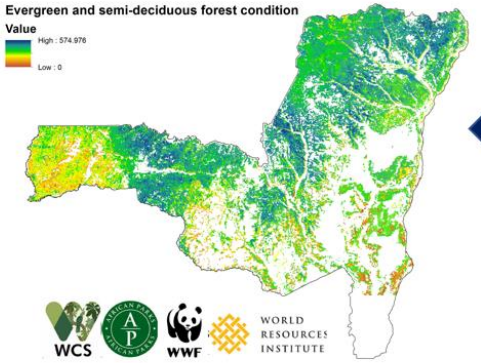
Republic of Congo: Ecological Data

- Ecosystems
- Forest condition
- Wildlife
- Carbon



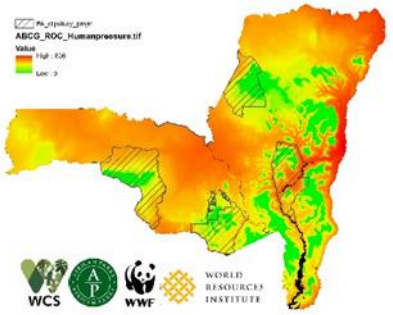


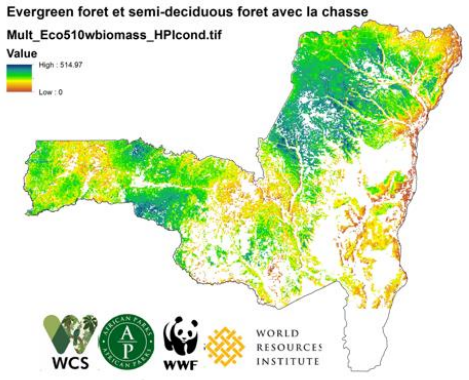
Forest types



Forest condition (using biomass)

Human-pressure model





Forest condition (using biomass and hunting pressure)

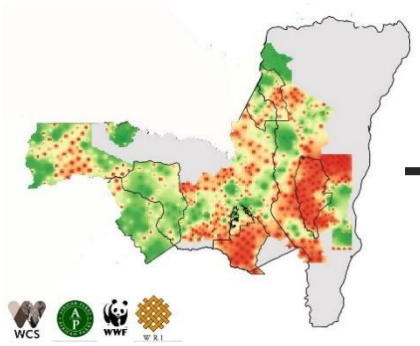
Wildlife models

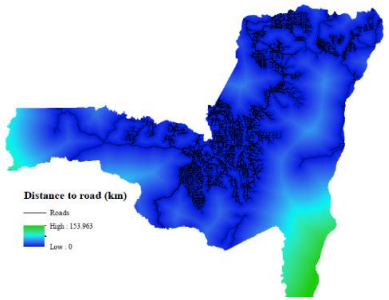
Species surveys

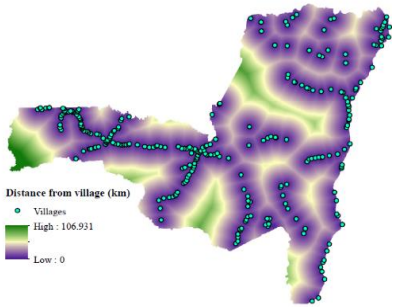
Maps of variables representing habitat use + human factors

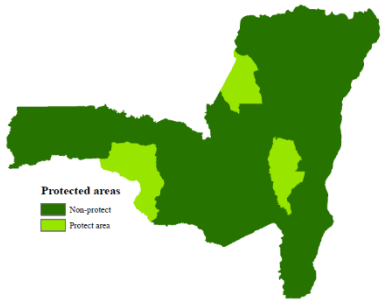
Model relating drivers to duiker abundance (scats)

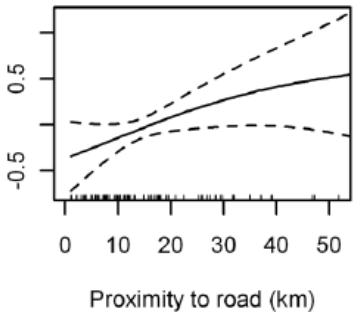
Map of predicted duiker density

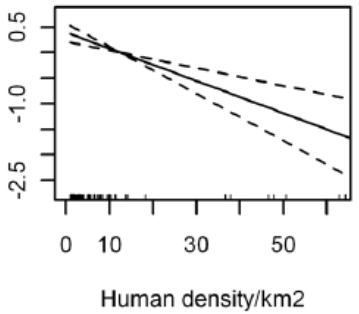


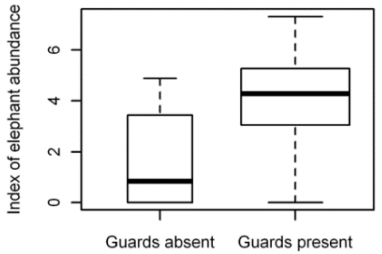


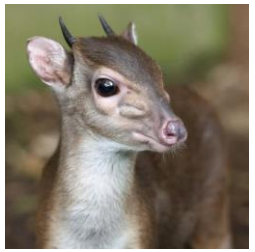


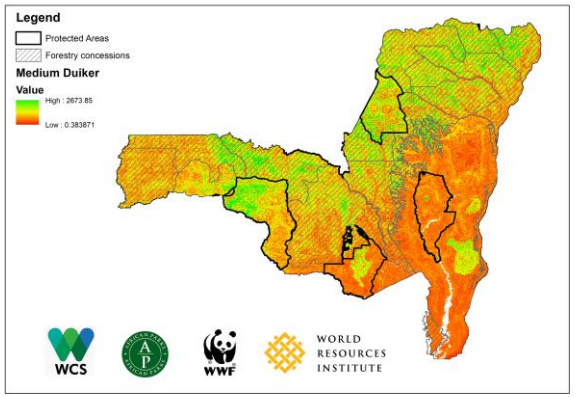




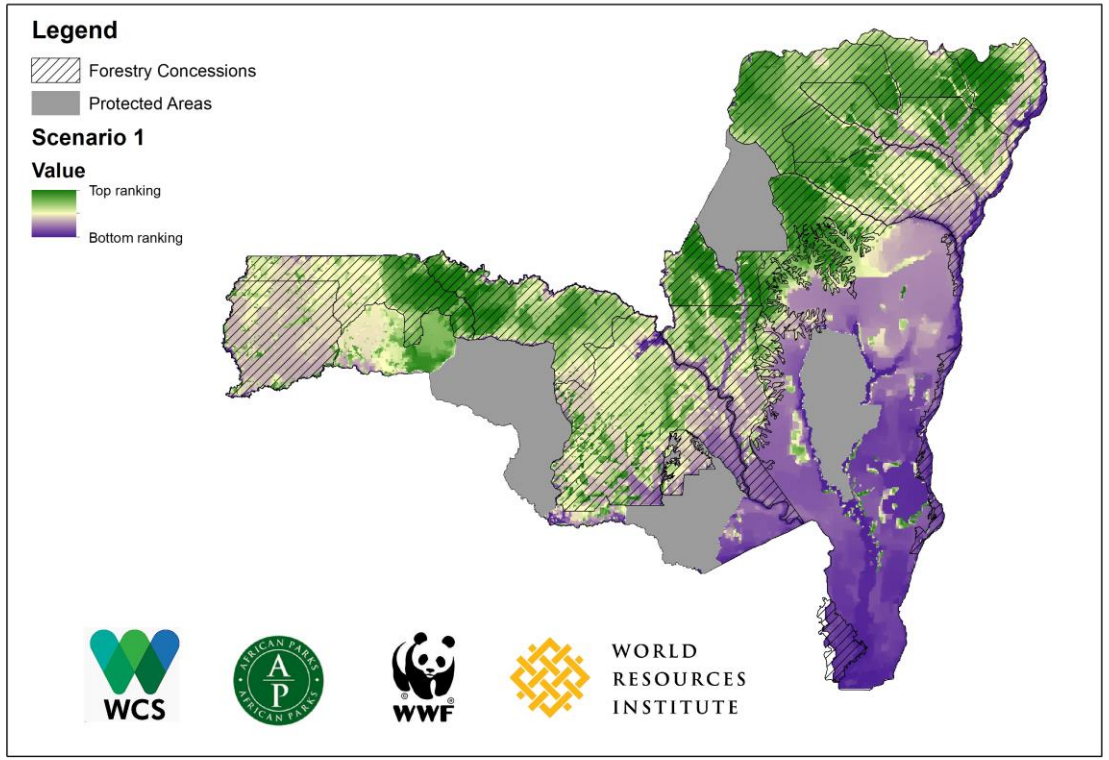


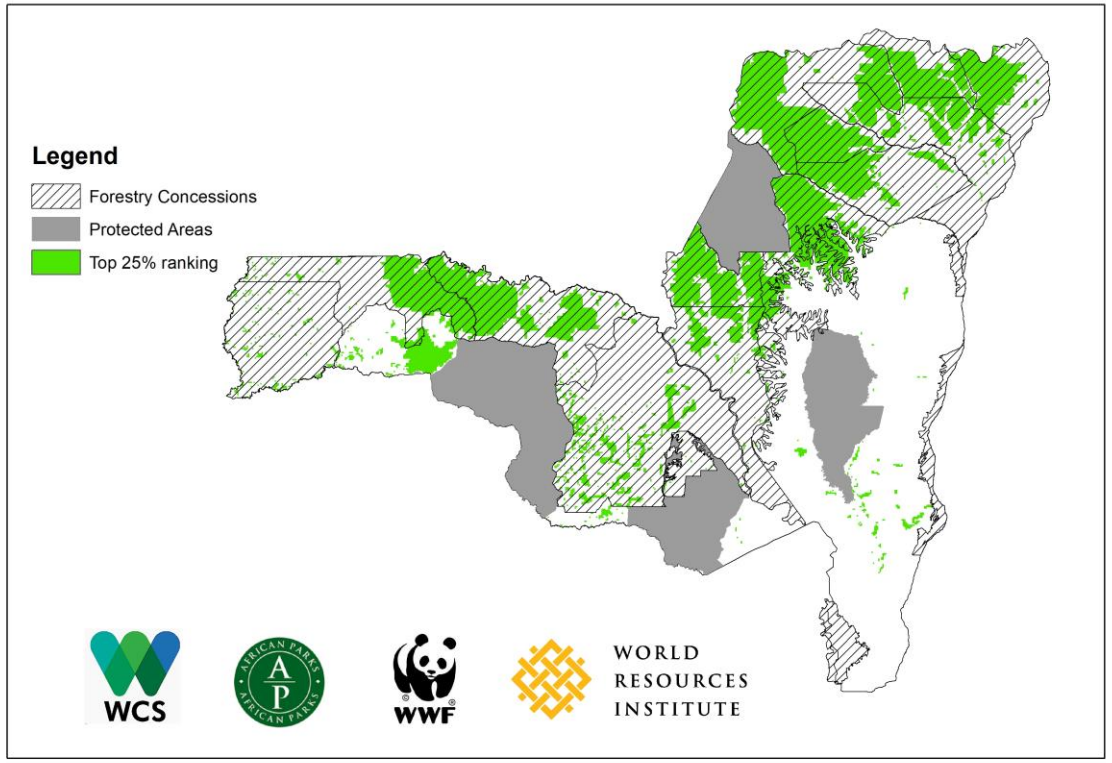






High priority conservation areas





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Recommendations from project

1. Gazettement of Messok Dja proposed protected area as a national park
2. Increase forest protection using voluntary set-aside zones in existing logging concessions (with REDD+ based payments for foregone timber)

Impact & Achievements – Scenario Planning

- Adoption of land-use planning process in 4 countries, with strong governmental involvement
- Tanzania: Agroforestry and forest restoration efforts targeting increased ag productivity, ecological connectivity, and CC-resilience
- Gabon: government able to generate the initial analysis and update any ongoing analyses as new climate and land-use information become available
- Madagascar: common vision for landscape developed, which is being used to inform ongoing land-use planning decisions by government

Lessons Learned – Scenario Planning

- Stakeholder involvement is crucial for a multitude of reasons:
  - Data & information collection
  - Vision development (all views must be considered)
  - Buy-in & acceptance of results
  - Uptake by government
- Simple communications products are key

Activity 2: Course Development

There is a clear need for land-use planning across Africa

BUT

In many cases capacity to undertake it is lacking

Land-use Planning Course Overview

- Provides an introduction to the theory and practical starting points of integrating biodiversity into land-use planning
- Modular curriculum of theory, case studies, group work and decision support tool training
- Designed for in-person delivery, but has been adapted for online use due to COVID

Module Overview

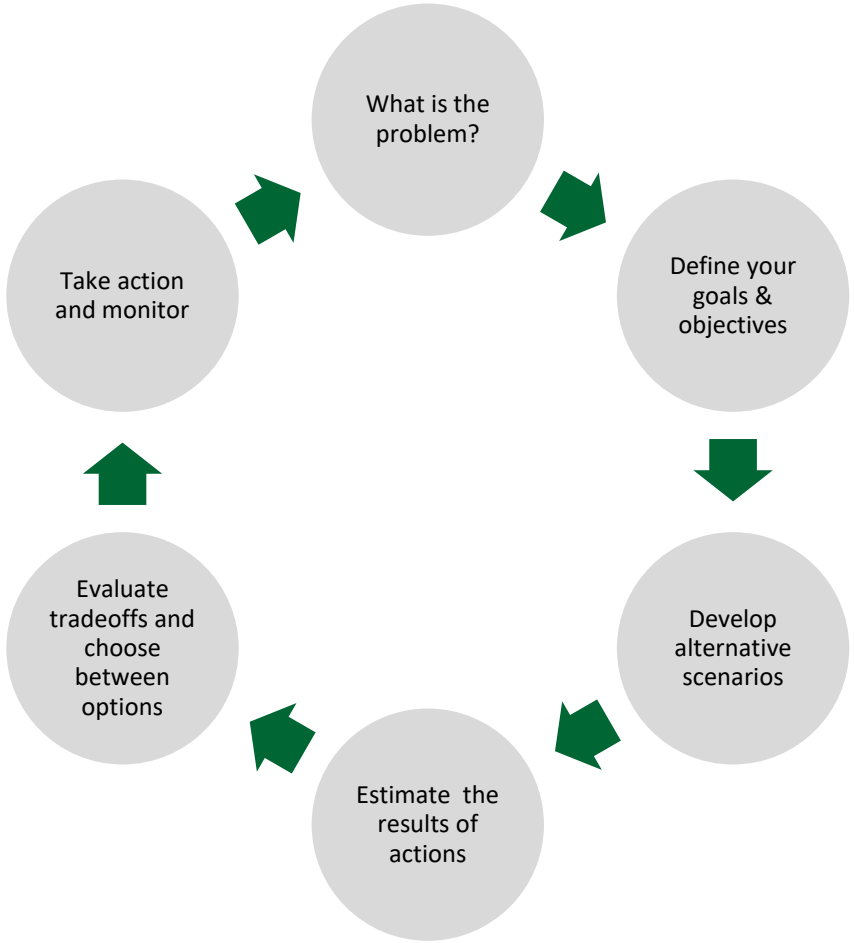
Core Modules

1. Introduction to land use planning
2. Understanding the context of the landscape
3. Visioning and goal setting
4. Organising the planning process
5. Principles of effective planning
6. Identifying and selecting land-use strategies
7. Key datasets for land-use planning
8. Choosing between land-use options
9. Translating science into action
10. Monitoring & Evaluation

Additional Modules

a. Linking land-use planning & the mitigation hierarchy
b. Climate-smart land-use planning
c. Decision support tool training

Structured Decision Making



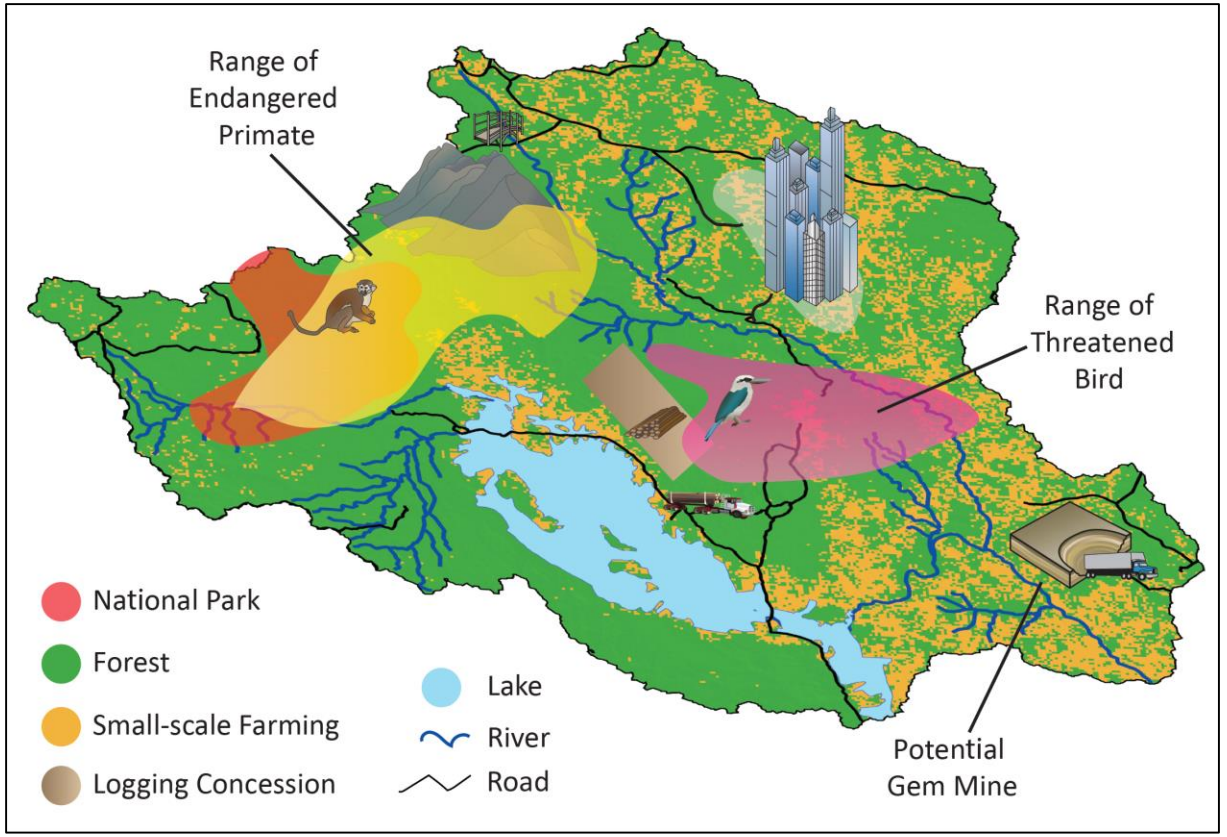
- Approach for careful and organized analysis of natural resource management decisions
- All course modules are linked back to the SDM process

Welcome to Lukab

- Fictional country for use as an example land-use planning situation for this course

- Multiple stakeholders
  - *Hunter/Gatherer community*
  - *Smallholder farming cooperative*
  - *Commercial farming*
  - *Department of mineral resources*
  - *Forestry Industry*
  - *Nature Conservation NGO*

- Using a fictional country is helpful to avoid introducing biases or pre-conceptions associated with a real world example, helping to focus on the key principles and learning objectives of the course



Module Structure

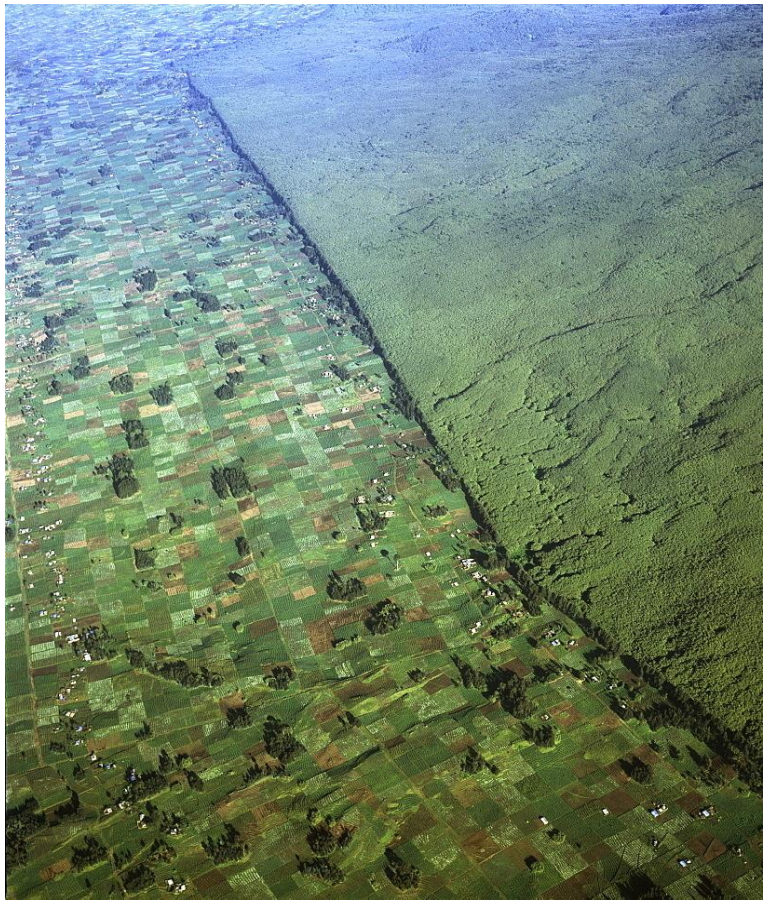
Each module consists of:

- A set of learning objectives
- Presentations by facilitators
- Course manual for participants to refer to
- Series of exercises to reinforce learnings

Example Module: Understanding the context of the landscape

Learning objectives

- Understand stakeholders and their interests
- Identify and understand the need for land-use planning
- Understand stakeholder power/affectedness, and stakeholder relationships

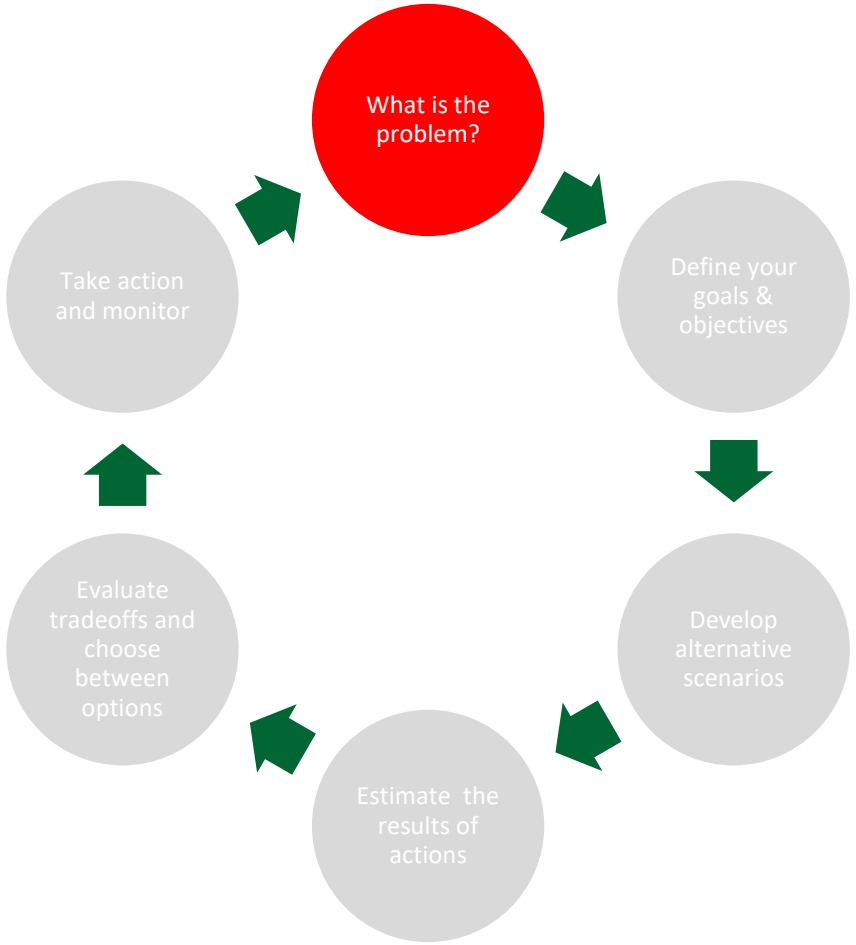


Exercises

2.1 Identify the need for land-use planning

2.2 Stakeholder mapping

Understanding the context of the landscape

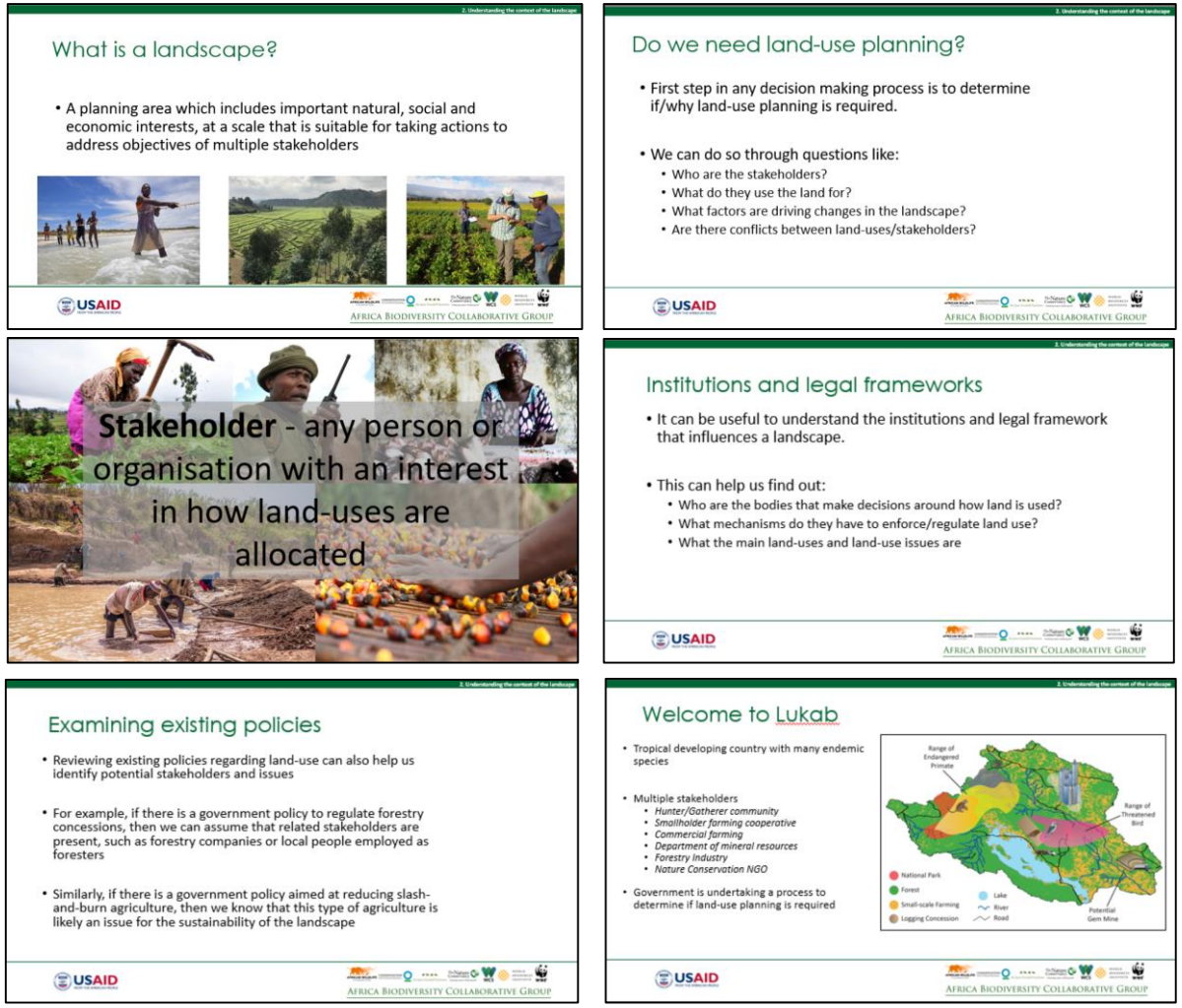


- This section corresponds with the first step of Structured Decision Making
- Defining the problem in this case requires:
  - Identifying if and why land-use planning is needed (exercise 2.1)
  - Identifying who needs to be involved in the land-use planning process (exercise 2.2)

Facilitator presentation

Each module begins with a brief presentation led by facilitators

This can be done live by facilitators, or we also have pre-recorded versions of each module for use



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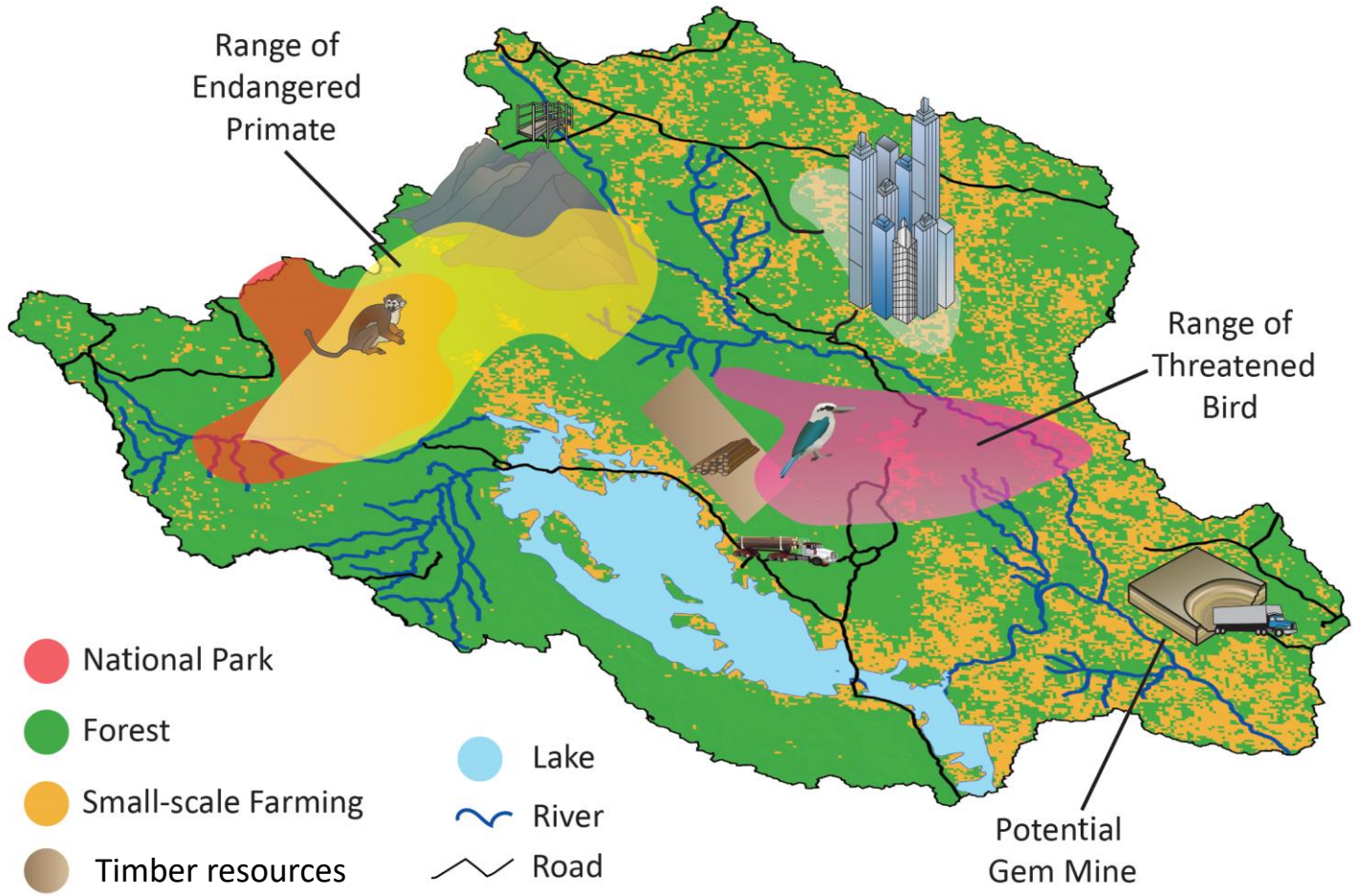
Exercise 2.1 – Identify need for land-use planning

1. Your facilitator will add you to a group representing a stakeholder in Lukab
2. Read through page 5 of your manual to learn about Lukab, and then read about your stakeholder's interests & perceptions
3. On the large table, rank your stakeholders interests in order of importance
4. Circle important areas for your stakeholder on the map
5. Read through text box 2 and decide whether you think land-use planning is needed in Lukab

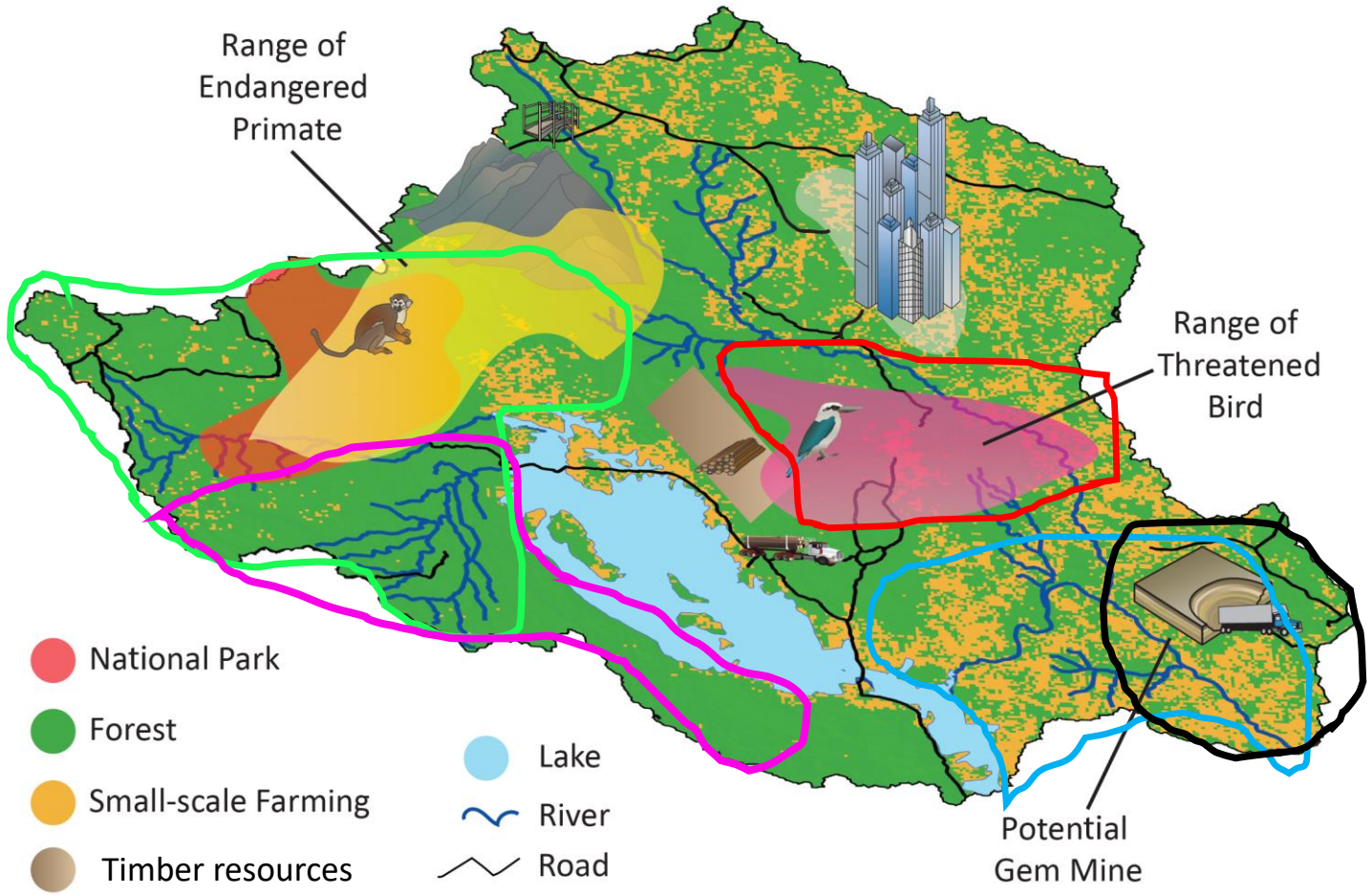
1) Rank each stakeholder's interests in order of importance

	Interests					
Stakeholders	*Forest resources*	*Land for cropping*	*Clean Water*	*Infrastructure*	*Carbon stores*	*Mineral resources*
Hunter/Gatherer community	1		2			
Smallholder farming cooperative	3	1	2			
Commercial farmer		1	2	3		
Department of mining			3		1	2
Forestry Industry	1			3	2	
Nature Conservation NGO	1		2			

2) Circle important areas on the map



2) Circle important areas on the map



Are there overlapping interests on the map?

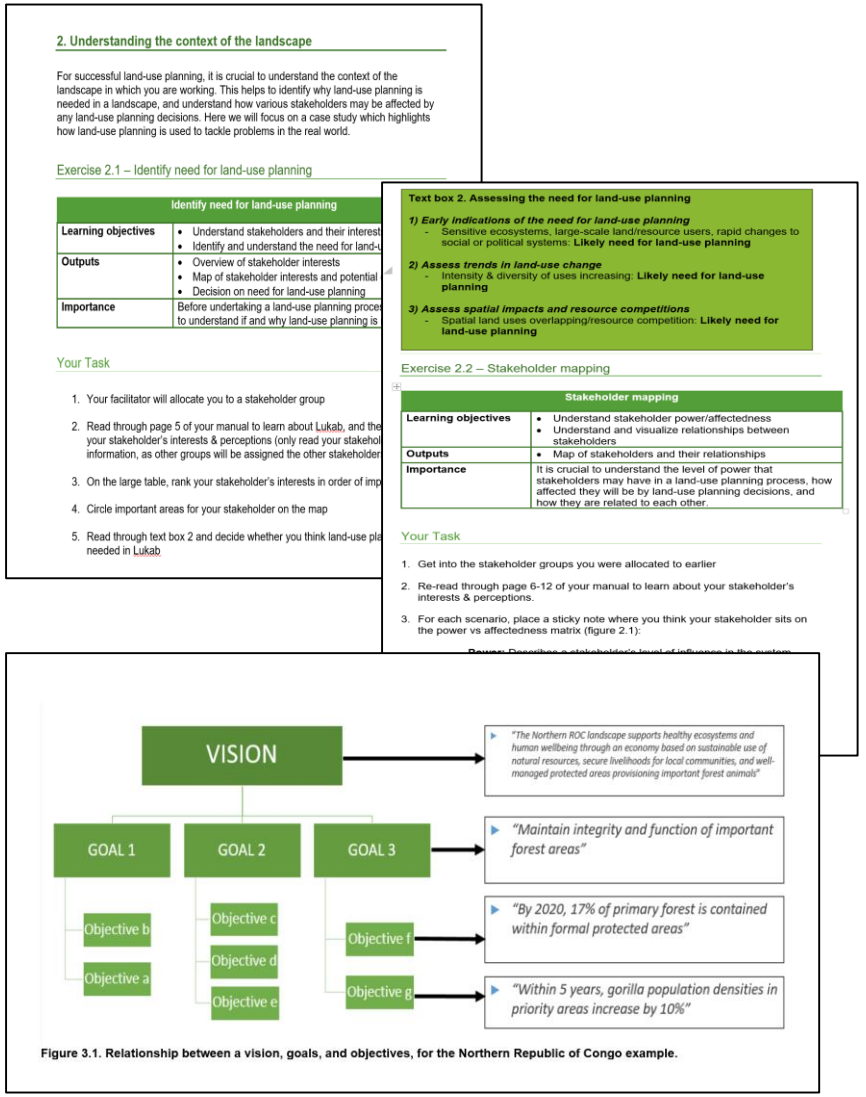
Or columns with more than one number?

If yes, this represents a potential conflict and thus a likely need for land-use planning

Participant manual

- To accompany the presentation & exercises, each participant receives a manual they can refer to throughout the course

- This provides context for modules and repeats exercise instructions



2. Understanding the context of the landscape

For successful land-use planning, it is crucial to understand the context of the landscape in which you are working. This helps to identify why land-use planning is needed in a landscape, and understand how various stakeholders may be affected by any land-use planning decisions. Here we will focus on a case study which highlights how land-use planning is used to tackle problems in the real world.

Exercise 2.1 – Identify need for land-use planning

Identify need for land-use planning	
Learning objectives	• Understand stakeholders and their interest • Identify and understand the need for land-u
Outputs	• Overview of stakeholder interests • Map of stakeholder interests and potential • Decision on need for land-use planning
Importance	Before undertaking a land-use planning proce to understand if and why land-use planning is

Your Task

1. Your facilitator will allocate you to a stakeholder group
2. Read through page 5 of your manual to learn about Lukab, and the your stakeholder's interests & perceptions (only read your stakehol information, as other groups will be assigned the other stakeholder
3. On the large table, rank your stakeholder's interests in order of imp
4. Circle important areas for your stakeholder on the map
5. Read through text box 2 and decide whether you think land-use pla needed in Lukab

Text box 2. Assessing the need for land-use planning

1) Early indications of the need for land-use planning
- Sensitive ecosystems, large-scale land/resource users, rapid changes to social or political systems: **Likely need for land-use planning**

2) Assess trends in land-use change
- Intensity & diversity of uses increasing: **Likely need for land-use planning**

3) Assess spatial impacts and resource competitions
- Spatial land uses overlapping/resource competition: **Likely need for land-use planning**

Exercise 2.2 – Stakeholder mapping

Stakeholder mapping	
Learning objectives	• Understand stakeholder power/affectedness • Understand and visualize relationships between stakeholders
Outputs	• Map of stakeholders and their relationships
Importance	It is crucial to understand the level of power that stakeholders may have in a land-use planning process, how affected they will be by land-use planning decisions, and how they are related to each other.

Your Task

1. Get into the stakeholder groups you were allocated to earlier
2. Re-read through page 6-12 of your manual to learn about your stakeholder's interests & perceptions.
3. For each scenario, place a sticky note where you think your stakeholder sits on the power vs affectedness matrix (figure 2.1):

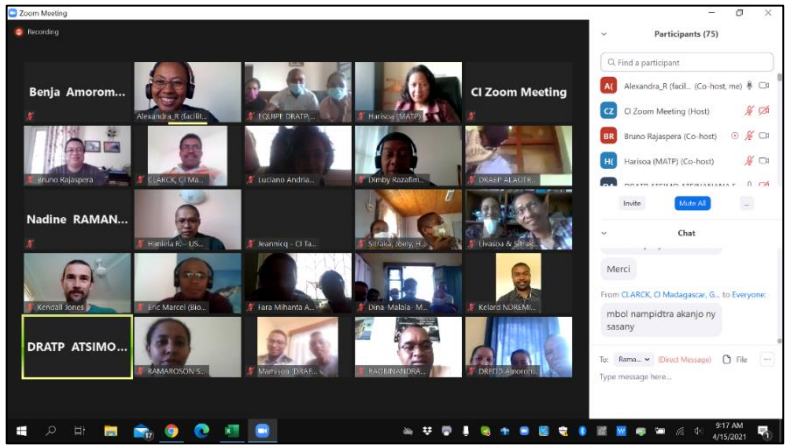
Figure 3.1. Relationship between a vision, goals, and objectives, for the Northern Republic of Congo example.

Exercises : in-person vs online

Exercises were designed to be conducted in person, using paper & markers to allow interactivity and active participation

In an online-only course this is more difficult, but we can use breakout rooms, and have each group complete the exercise then report back

Online whiteboarding software may also be useful



Course Piloting

- In 2021 this group piloted course delivery in three study areas:
  - Madagascar (online-only)
  - Gabon/Republic of Congo (in-person)
  - Tanzania (hybrid)

- Lessons learned from each course were used to improve course design and materials

Course Piloting

Madagascar

- 122 online participants (36% women), from:
  - Central govt. ministries
  - Regional and municipal government
  - National and local development & conservation NGOs
- Held in Malagasy, with slides translated to French and simultaneous interpretation available for English speakers

Gabon/ROC

- 23 in-person participants (35% women) from:
  - 12 Gabonese Government Agencies
  - 9 Republic of Congo Government Agencies
  - 2 International NGOs
- Held in French, with all materials translated from English into French

Tanzania

- Hybrid course, with participants gathered together in multiple locations
- 11 participants (55% women) from:
  - 4 National/regional govt
  - 4 Local/regional NGOs
  - 3 University
- Held in English

Course Piloting

Gabon/Republic of Congo Workshop:

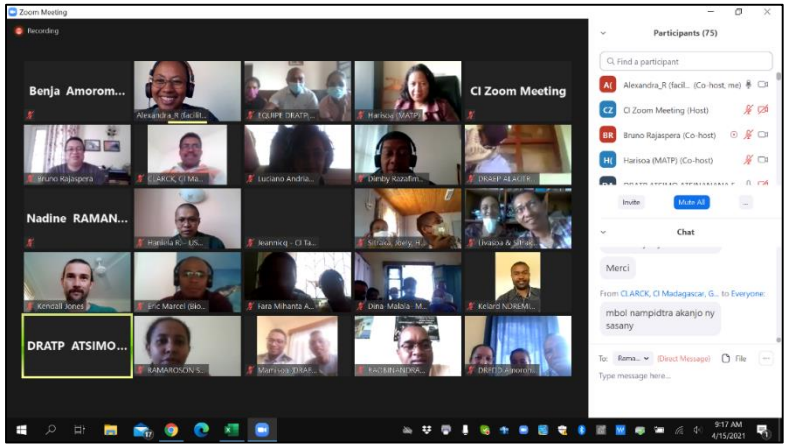
- Organized a local field trip to Gabon's national remote sensing institute, formally named the Gabon National Space Observation Agency (AGEOS).
- A valuable bonus that provided networking, discussing data challenges and resources, and to see how government bodies can facilitate data sharing.

Tanzania workshop

- Constructive cross-sectoral discussions of challenges of land use planning at different scales
- Course generated interest from the Development Corridors Partnership (DCP) promoting resilient and sustainable development corridors. Ongoing discussions aimed at course enhancements with case studies and funding for continued use.

Course Feedback

- Overall, course was very well received
- Focus more on local examples where possible (requires high level of prep)
- Shorter presentations & more interactivity (difficult due to covid)



Course Outputs

- Presentations & Slideshows (French & English)
- Participants manual (French & English)
- Slideshow voiceovers (English)
- Runsheet & instructions for course facilitators (English)

Impact and achievements

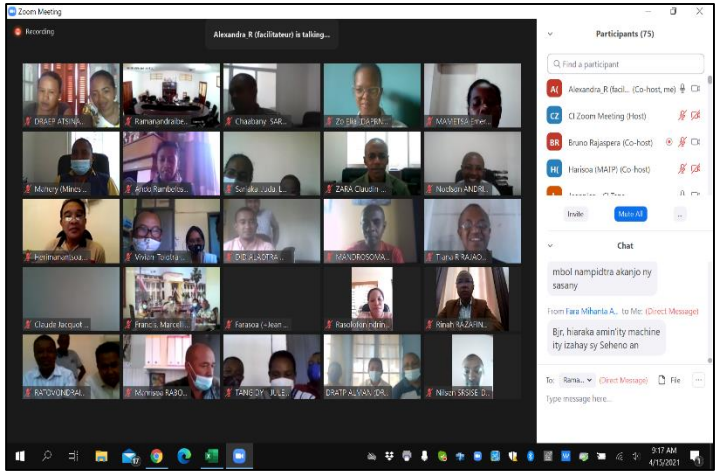
- 156 people trained (37% women) across Gabon, ROC, Tanzania & Madagascar
- Course materials (English & French) ready for use in other countries
- Interest from other orgs in adding additional case studies and continuing to develop course (Development Corridor Partnership & UNEP-WCMC)

Lessons Learned

- While Lukab is useful for some modules, it is important to incorporate local examples into course where possible

- Having well-trained facilitators is vital, especially when using Zoom

- Participants value interactive exercises, so incorporating these into online course is key



Next Steps

- Revise course to increase interactivity when delivered online

- Update course notes to identify areas for inclusion of local case-studies

- Work with Development Corridors Partnership to add new presentations on additional case studies


Thank you