Integrated Landscape Land Use Planning in Central Africa: A U.S. Forest Service Guide

Version 3.0

Contents:

Definitions:

CARPE implementing partners - Institutions that have been awarded USAID funding to implement the CARPE program.

Desired Conditions – The broad vision for an area over an extended period of time. Set idealized goals for what the area should be, what it should protect, and who it should benefit.

Evaluation –Analysis of information (including monitoring results) to determine whether or not management (including plans) of the landscape/macro-zone needs to change.

Guidelines – Set of general rules that indicate what uses and activities are permitted or prohibited in a given area. Guidelines also indicate certain conditions that should be met for a certain use or activity to proceed.

Land Use Plan - A plan that determines the stratification of land uses within a landscape, and provides basic guidance for the each land use zone and the integration of these zones.

Management Action – A general type of activity expected to be performed during plan implementation to work toward achieving desired conditions and objectives, while following the guidelines.

Management Plan: A plan usually developed and administered by a single entity for the management of a single area in a land use zone.

Monitoring – Systematic process of collecting information to evaluate progress toward meeting desired conditions or plan objectives and other key trends in the planning area.

Multi-Year Implementation Schedule – List of management actions to implement the plan, typically over 5 to 10 years.

Objectives – Specific accomplishments that indicate measurable progress toward achieving or maintaining the desired conditions. Identify objectives for accomplishment in an area for a specific timeframe.

Planning – Process in which stakeholders (community members, scientists, government representatives, private businesses, traditional authorities, etc.) come together to discuss and determine how to manage resources in a particular geographic area for the benefit of current and future generations.

Stakeholder – Individual or group that may be affected by the management of an area or may have an interest in its management, even if they are not directly impacted by activities in the area.

Unique Values – Brief description of the niche and unique features of the area including social, biological, and economic factors that provide a focus for the planning process.

Workplan – Annual plan of projects or activities, including the identification of necessary human and financial resources.

Zoning – Process of identifying (or delineating) geographic areas separated by differing land uses (and associated guidelines) as a part of a broader land use planning process.

1.0 INTRODUCTION

This document provides practical guidance on developing integrated landscape land use plans for the Congo Basin Forest Partnership (CBFP) Landscapes. These 12 landscapes were chosen and delineated across the Congo Basin as U.S. Agency for International Development (USAID) Central African Regional Program for the Environment (CARPE) areas of focus due to their particular importance and unique value to forest and biodiversity conservation.

The program focuses on the larger landscape unit to maximize impact, promote improved natural resource management over larger areas, and broaden stakeholder involvement in land management activities. A landscape-focused program can assess broader, wide-ranging trends, influences, and impacts to more adequately assess ecological sustainability and identify appropriate management strategies to maintain these resources for the benefit of all.

USAID/CARPE and its relation to the CBFP

CBFP defined - The Congo Basin Forest Partnership (CBFP) was launched at the 2002 World Summit on Sustainable Development in Johannesburg. As a "Type II" partnership, it represents a voluntary multi-stakeholder initiative contributing to the implementation of an intergovernmental commitment, i.e., the Yaoundé Declaration, and brings together the 10-member states of the Central African Forests Commission (COMIFAC), donor agencies, international organizations, non-governmental organizations (NGO), scientific institutions, and representatives from the private sector. CBFP works closely with the COMIFAC.

CARPE defined - The Central African Regional Program for the Environment (CARPE) is a long-term initiative by the United States Agency for International Development (USAID) to promote sustainable natural resource management in the Congo Basin by supporting increased local, national, and regional natural resource management capacity. CARPE is the core mechanism through which the United States contributes to the CBFP.

These landscapes contain many different uses and are overseen by multiple management authorities, depending on the location within the landscape. CARPE implementing partners are to collaborate, complement, and promote in-country capacity, and the institutions, processes, and activities involved in the land management of these landscape areas. CARPE's aim is to make the necessary linkages with land management authorities and other stakeholders at the national, regional, and local levels to improve land management capacity and therefore, positively influence resource condition, social benefit, and economic opportunities.

Landscape land use plans, addressed in this guide, represent one of several products that are to be developed by CARPE implementing partners in conjunction with their stakeholders. Landscape land use planning is an integrated process composed of discrete parts (landscape management plans, macro-zone plans, annual workplans) joined to form a rational, logical management approach.[1] Planning represents a means to achieving

[1] CARPE implementing partners should develop an interim Strategy Document, at both the landscape and macro-zone level, which is a planning tool for elaborating a management plan.

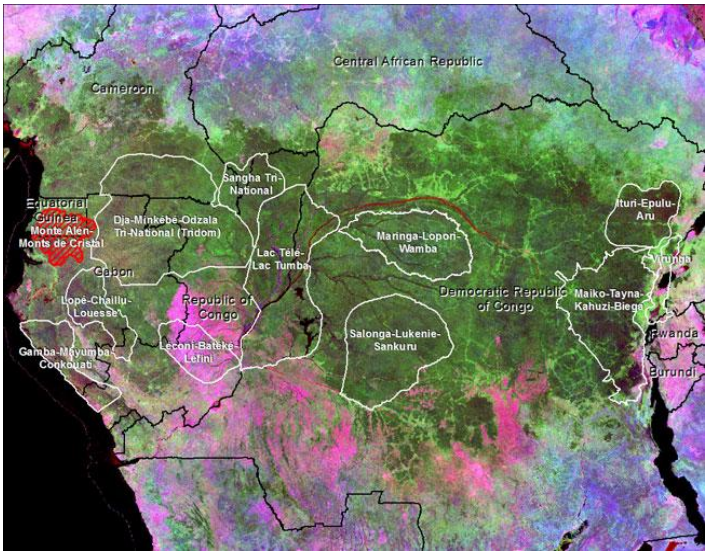
desired landscape-level results; however, ultimate achievements are the results on the ground.

CBFP Landscape land use planning prioritizes three types of zones to be delineated within the landscapes: Protected Area (PA), Community-Based Natural Resource Management (CBNRM), and Extractive Resource (ERZ) use zones. Referred to as macro-zones, the PA, CBNRM, and ERZ use zones are fundamental components of the landscape land use plan. Each of these macro-zones will, in turn, also be zoned for differing uses and levels of resource protection, reflecting site-specific challenges as well as articulating how they will address and support landscape desired conditions and objectives. Planning guides are also available to assist in developing management plans for each of these macro-zones.

CBFP Landscapes[2]

CARPE currently works within 12 key biodiversity landscapes in seven countries. Several of the CBFP landscapes are transboundary and are recognized by international agreements promoting cooperation on environmental monitoring and law enforcement. These 12 landscapes form the pillar of CARPE's regional conservation strategy and cover an area of 680,300 km².

The CBFP landscapes were identified as appropriate conservation targets at a 2000 Conservation Priority-Setting Workshop for Central Africa. The workshop was organized by the World Wildlife Fund and brought together over 160 biologists and socio-economic experts to carry out a region-wide evaluation and resulted in the drafting of A Vision for Biodiversity Conservation in Central Africa (WWF 2003).The 12 landscapes were recognized as priority areas for conservation based on their relative taxonomic importance, their overall integrity, and the resilience of ecological processes represented.



"In 2000 the Vision for Biodiversity Conservation in Central Africa was adopted by the country signatories of the Yaoundé Declaration as the blueprint for conservation in the region. The Yaoundé Declaration significantly evolved six years later into the signing of Africa's first ever region-wide conservation treaty, a historic milestone for the future of the world's second largest rainforest. Additionally, the Brazzaville Priority Action Plan, which outlines targets for the period 2002-2005, and the subsequent Convergence Plan for

[2] http://carpe.umd.edu/Plone/where-carpe-works/landscapes
WWF. 2003. Biological Priorities for Conservation in the Guinean-Congolian Forest and Freshwater Region. WWF-US/CARPO,Washington, DC.

the period 2005-2007 focused implementation on transborder forest areas identified within the biodiversity vision. (WWF 2003)"

In accordance with principles of integrated conservation initiatives and broad-scale land management, each landscape is divided into different categories of management areas, including: protected areas, community-based natural resource management zones, and extractive zones. Within these zones, CARPE and its partners are working to implement sustainable natural resource management practices at the local scale.

In addition to guiding the overall process of creating a landscape land use plan, this document outlines certain minimum standards that will be expected of CARPE implementing partners and which CARPE Management will use to assess partners' progress toward developing landscape land use plans. These minimum standards are highlighted in each section as "Tasks" that CARPE implementing partners need to complete throughout the process.

Abundant information and published documents on landscape-scale land use planning and management effectiveness are available (see Appendix A). In this series of planning guides, we attempt to adapt the expertise gained by the U.S. Forest Service (USFS) in managing large forested, multiple-use landscapes in the United States, to the specific context of Central Africa and the needs of implementing partners and government agencies in the region.[3] This adaptation of lessons learned and processes used in the United States to a Central African context is being performed through partnerships and direct technical assistance provided in the region by the USFS International Programs (IP) office to CARPE implementing partners, and host country government agencies charged with managing these resources.

Chapter 2 explains the purpose of planning and outlines key concepts central to the landscape planning process. Chapter 3 describes the process for writing the Integrated Landscape Land Use Plan. Finally, Chapter 4 provides a framework of landscape land use plan components, it suggests section headings to use, and provides explanations regarding concepts to consider and items to include when developing each section.

[3] Landscapes in the US include, for example, wilderness areas (complete protection zones), extractive use areas, and recreation areas.

2.0 KEY INTEGRATED LANDSCAPE LAND USE PLANNING CONCEPTS

2.1 Purpose of an Integrated Landscape Land Use Plan

Planning is the process in which stakeholders (community members, scientists, government representatives, private businesses, traditional authorities, etc.) come together to discuss and determine how to manage lands for the benefit of current and future generations and to ensure ecological sustainability of lands and resources. The purpose of planning is to develop management and governance strategies that respond to scientific understanding of natural and social systems, as well as changing societal conditions and values. Effective planning processes promote decisions that are informed, understood, accepted, and able to be implemented.

Planning can be complex, depending upon the number of issues internal and external to the planning area. Planning requires risk assessments and forecasts about anticipated and uncertain future events and conditions. Consequently, even the best plan will need to be altered to adjust to improving data and information; changing social, economic, or other conditions; evolving threats; or feedback from monitoring efforts. Therefore, plans are **adaptive** in nature and amendments or entire revisions will be an outcome of monitoring for those factors named above.

Adaptive Management:

Management plans should be considered "living" documents, able to evolve to changing information, environmental conditions, and monitoring results. Systematic plan revisions should happen on a periodic basis, usually after the current plan has been in effect for 5–10 years. During a plan revision, the entire plan is revisited, allowing for major revisions and changes to the content and objectives of the plan. Adaptive management, on the other hand, allows individual components of the plan to be amended or altered at any time due to changing resource conditions, social values, improved data, or in response to results of monitoring activities.

Central to planning is the recognition that in most cases not all desired data on the landscape and its resources will be available in any detail. This is true around the world, regardless of the financial and human resources available to the management authority. Nevertheless, landscape planning must proceed with the view that the plan can call for specific data collection and be revised with that newly acquired data to make better informed decisions. Therefore, it is important not to delay plan development because of a perceived lack of data.

Landscape planning in a changing climate:

Landscape planning should consider possible impacts of climate change on the broader landscape and include adaptation strategies as necessary. In Central Africa, effects are likely to include drying of fringe forests, expansion of savannas, reduction of available fresh water to communities, subtraction of humid forests to riparian locations, increase in invasive species (invertebrates, fish, plants, aquatics), and possible changes in productivity of agricultural lands, among others.

Possible adaptation strategies to consider at the landscape level could include creating or maintaining corridors among and within landscapes, revisiting designations of various land uses among and within macro-zones to accommodate such changes, etc.

Plans around the world—whether landscape, PA, CBNRM or other types—vary substantially in their content and level of detail and complexity. When working through the planning process, it is important to keep in mind that, often, simpler plans are more effective plans. The likelihood that the plan will be more widely read and understood by local stakeholders, as well as the likelihood of their engagement in the process, increases if the plan is concise, focuses on what is important for resource conditions, and is light on jargon, both scientific and legal. Such an approach will ease plan implementation.

Landscape-level planning differs from macro-zone planning in that it plans at a larger, spatial scale and can assess broader, wide-ranging trends, influences, and impacts. A broad perspective is needed to adequately understand and assess ecological sustainability and to adequately identify resource use opportunities that contribute to economic and social sustainability. Experience has demonstrated that planning for ecological sustainability requires larger areas. For example, wide-ranging or key wildlife species often do not confine themselves to particular geopolitical boundaries, so to plan for the conservation of such species, a broader analysis of impacts, trends, and influences is needed, which provides a more sufficient understanding of ecological health. Using broader landscapes will enable not only the development of comprehensive plans for the conservation of species and ecosystems, but also the ability to measure the cumulative effects of current and future management actions.

2.2 Desired Condition Planning

Desired condition planning describes the ecological, economic, and social attributes that characterize the desired outcome of land management.

Many CARPE implementing partners and others operating in the Congo Basin are familiar with the "threat-based" approach to planning. The threat-based model addresses only current threats or those future threats that managers can predict in designing management direction. It is limited in its ability to react and consider unforeseen future threats that may evolve and does not account for non-threat-based targets and objectives.

Desired Condition vs. threat-based planning example

Problem: Seasonal movements of elephants are being hampered by illegal timber exploitation along the migration corridor.

Threat-based response: Increase enforcement to end illegal harvesting operation.

Desired Condition: Maintain corridors and linkages which will provide for seasonal movements of elephants between key habitats

By maintaining the desired condition, other potential threats to elephant corridors, such as road building or expansion of villages, will also be addressed, not just the current threat.

The "desired condition and zoning" model used by the USFS for their multiple-use planning on National Forest lands, outlines overall goals and objectives for the landscape, describing how stakeholders want the landscape to look and what resources the landscape should continue to offer, as well as more specific objectives within each macro-zone, to guide all future management decisions. Desired condition describes the compositional and structural characteristics of the biological and physical features desired across the landscape; it also accounts for the social and economic needs of stakeholders who depend on landscape resources, outlining what social and economic objectives are to be achieved over the long term. Barriers or threats that may limit the ability of resource management to achieve or move toward the desired condition are specifically addressed in objectives, guidelines, regulations, and zoning concepts. This guide promotes the desired condition approach to planning, as it is flexible and adaptable, allowing the plan to address not only existing threats, but unforeseen future ones, as well as non-threat management targets.

2.3 Zoning

Two levels of planning are involved in the CBFP Landscape land use planning process: 1) the broad landscape-level scale which assigns macro-zones across the landscape and reflects their inter-relationships; and 2) the finer, more site-specific scale, which designates micro-zones within a macro-zone. Building on existing national laws, regulations, and ongoing local, national, and regional initiatives, CBFP Landscape land use planning prioritizes three types of macro-zones to be delineated within the landscapes: Protected Areas (PA), Community-Based Natural Resource Management (CBNRM) and Extractive Resource Zones (ERZ). These represent the three most common types of zones (although names vary across the region) for landscape-level planning in Central Africa. See figure 1 for an example of macro-zoning in a landscape. Additionally, if the macro-zone boundaries follow government administrative unit boundaries as closely as possible, and not uniquely biological criteria, the macro-zone land use plans may likely be accepted by government authorities at all levels.

Macro-zones defined

Protected areas are zones whose predominant purpose is the conservation of the natural state of the flora, fauna, and other natural resources within their boundaries. PAs therefore restrict human intervention for consumptive purposes. Limited extractive activities may however, take place (e.g., harvesting medicinal plants, collecting "dead" firewood, and sustainable subsistence fishing) as long as their impact on biodiversity and the natural state of the environment is negligible. These areas typically include national parks and nature reserves.

CBNRM Zones are lands in which communities have some form of property rights over natural resources, utilizing them for community benefit through a variety of traditional and modern management systems. Productive activities may include subsistence, artisanal, and/or commercial levels of, for example, agriculture, hunting, fishing, timber harvesting, and extraction of non-timber forest products, assuming that resource sustainability and/or management objectives are not compromised.

Extractive Resource Zones include forest concessions, large-scale private plantations, mining and safari hunting zones, and energy infrastructure. Forest concessions are state lands that have been leased to private companies for the purpose of harvesting timber or other forest resources, and large-scale private plantations are similar concessions made for the purpose of industrial agricultural production of crops, including tree crops.

Each of these zones requires a management plan to dictate resource use and conservation objectives within these areas. Micro-zoning occurs as a part of the process of creating these macro-zone management plans. This site-specific zonal planning determines the mix of activities and projects specific to that site that are needed to move the planning area toward desired conditions.

The objectives of the three macro-zones of a CBFP Landscape should be harmonized, and should not conflict, with the objectives of the overall landscape. PA, CBNRM, and ERZ management plans are more detailed than the overall landscape plan, as they outline the specific set of permissible and non-permissible activities within a macro-zone and identify, in the multi-year schedules and associated annual workplans, the specific actions

needed on the ground. These plans are components of the overall landscape plan and must articulate how they reflect, support and will contribute to the landscape desired conditions and objectives, as well as how they will address site-specific issues and needs.

The landscape plan will also describe the inter-relationships among the macro-zones, describing how macro-zones may be linked in terms of transportation (roads, trails, and rivers), wildlife habitat and wildlife population sources, access to economic centers, etc.

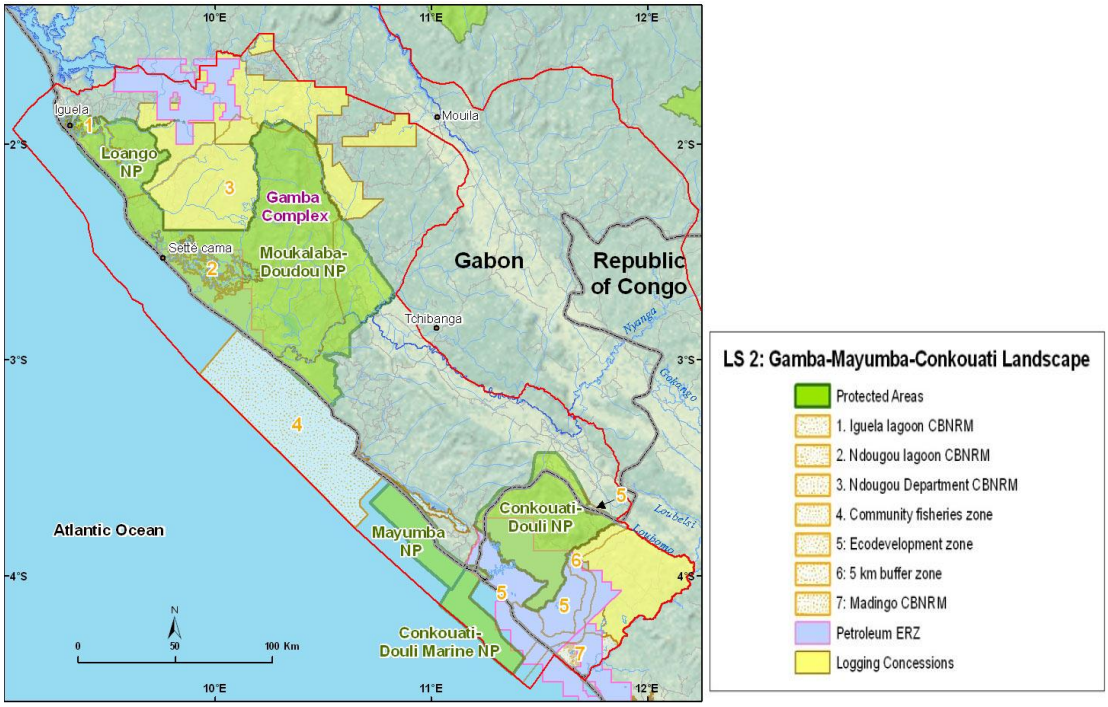


Figure 1. Example macro-zones in a landscape in Gabon and the Republic of Congo[4]

2.4 Plan Components and Conceptual/Logical Framework

The various elements or components of the landscape plan interact in a logical manner as shown in figure 2. The Desired Conditions inform the Objectives and Guidelines which both inform the Management Actions, which are implemented. Zoning, or selecting specific areas in the landscape for differing management regimes, is core to and influenced by each of these elements. Likewise, these elements provide feedback to ultimately achieve the desired condition articulated by the stakeholders.

Implementation requires multiple aspects including:

- clear identification and definition of roles and responsibilities of stakeholders and the overarching governance structure;
- monitoring and evaluation activities to track the progress of the plan itself, as well as the impact of plan implementation;

[4] USAID/CARPE website - http://carpe.umd.edu/

- a public participation strategy to ensure ongoing broad stakeholder engagement and transparency during plan implementation; and
- a multi-year implementation schedule that describes what should be done and when to ultimately achieve the desired conditions.

Monitoring and evaluation results in an adaptive management approach, providing feedback to determine whether there should be revisions or adjustments to the various elements of the plan, by taking into account the evolving reality on the ground. Lastly, a separate but linked key element of implementation is the development and execution of annual workplans, which are developed to describe what will be done in a given year, by whom, and for how much.

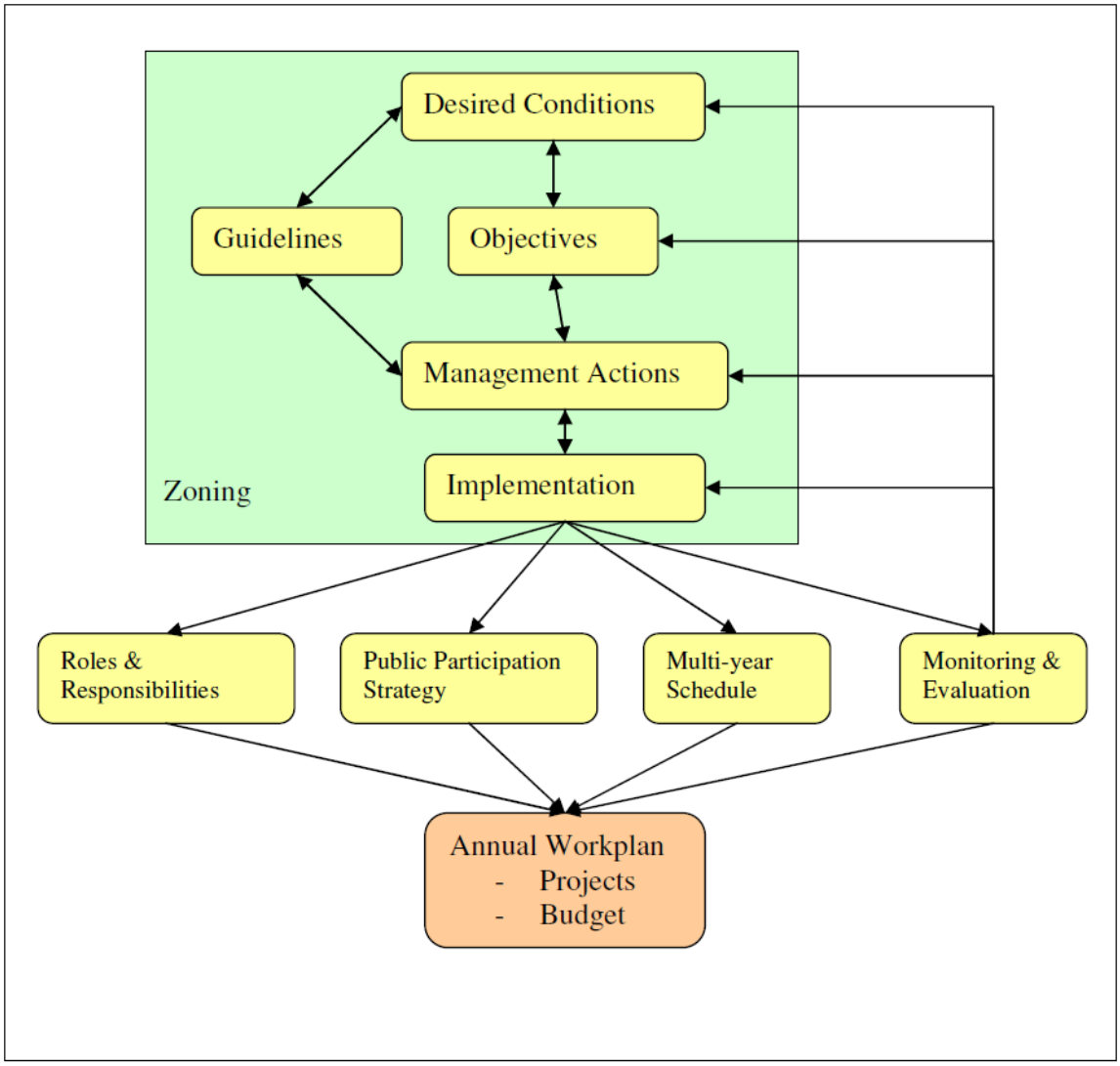


Figure 2. Plan components and logical framework

2.5 Management Authority and the Official Status of the Landscape

CARPE implementing partners do not, and will not, hold the power of any governance authority. This authority lies with national government ministries, local governments and community authorities within each country. Increasingly, CBFP Landscapes have been officially recognized as management units in some sense (e.g., Sangha Tri-National – through the signing of tri-national accords in 2000 by the governments of Cameroon, Republic of Congo, and Central African Republic; and Maringa Lopori Wamba – through a ministerial *arrêté* by the government of the Democratic Republic of Congo in 2009).

However, government capacity and presence on these landscapes varies widely throughout the region. To influence the development of good governance practices, processes, and structures on the ground, CARPE implementing partners can strategically use the management plan development process to engage local communities, government agency representatives, concession holders, and other stakeholders. This critical stakeholder engagement process requires significant investment of time and resources to support an authority and/or community in developing a landscape plan and subsequent institutional capacity.

2.6 Setting Priorities

While it is ideal to put a great deal of effort into each step of the planning process, as well as into implementation and monitoring activities across the entire landscape, the reality of limited financial and human resources will prevent planning teams and authorities from meeting ideal levels of action. Therefore, it is important that the planning team undergo a prioritization process. Honest assessments of available funds and costs of specific activities must determine what the planning team can truly afford to accomplish.

Not all formal extractive resource concessions, protected areas, or community lands will be targeted immediately for ERZ, PA, and CBNRM planning and management actions in the landscape. The planning team, in conjunction with stakeholders, must decide on the decision criteria to determine where, what processes, as well as implementation activities, need to be addressed first. The planners must also evaluate what other stakeholders are, or could be, doing to complement actions taken by CARPE implementing partners. Key steps requiring effective prioritization of resources include data gathering, plan implementation, and monitoring.

3.0 LANDSCAPE PLANNING PROCESS

The following sections outline components of the landscape planning process and the landscape plan itself. We offer guidance on what to consider as you move forward in the planning process; what elements to include in the landscape plan; how to develop those elements; and other considerations of the planning process and plan development. Additionally, many of these sections contain "Tasks," which will be actions required of CARPE implementing non-governmental organizations (NGO) and used as monitoring tools by the USAID/CARPE management.

3.1 Landscape Planning in the CARPE Context

Integrated landscape land use plans developed for the CARPE program are to demonstrate how CARPE implementing partners have: 1) assessed and analyzed activities, resources, and uses on the entire landscape; 2) developed and formulated long-term desired conditions and objectives for the landscape; 3) identified current planning and resource protection priorities and future trends; 4) consulted, collaborated, and integrated stakeholders in plan development; and 5) focused management activities to achieve desired conditions and priority objectives.

Although it my vary somewhat nationally, generally in Central Africa a typical lifecycle of a plan would be 5 to 10 years with annual monitoring and evaluation. That monitoring and evaluation would determine if conditions or needs had changed enough to warrant updates to the plan or if assumptions made in the planning process were accurate.

These plans are required as part of the CARPE program activities and are meant to promote collaboration across the landscape, focus efforts on priorities, and stimulate planning processes throughout the region. The plans have only as much authority as agreed upon by government representatives and landscape stakeholders. The guidance and activities outlined in the landscape plans and the subsequent macro-zone plans aim to contribute to the long-term management, benefit, and sustainability of forest resources in the region and, thereby, contribute to developing sustainable livelihood strategies and economic development activities for those dependent upon these resources.

Each landscape consortia submitted a strategy document to USAID as part of the USAID 2006 request for application process. Each strategy document was to describe how CARPE implementing partners would develop a landscape plan, what is needed to develop the plan, and how much time and resources it would require. The elements and analysis needed to develop the strategy document are part of the landscape planning process (see steps 1–3 in section 3.2). CARPE implementing partners' activities to develop a landscape plan should reflect their submitted strategy document or alert CARPE management to any significant changes. Some of the items required in the strategy document are included below, as they are part of the overall landscape planning process. The following section describes the steps required in the landscape planning process, outlining the important elements and concepts.

Task: *After analyzing the landscape planning processes outlined in this guide, review your respective strategy documents and ensure the proposed work follows the process below. If not, determine what changes need to be made and discussed with CARPE management.*

3.2 Landscape Planning Process Steps

The following steps form the basis of the landscape land use planning process:

1. Identify planning team members and define their specific roles
2. Identify existing and needed ecological, social, and economic information on the landscape
3. Create a public participation strategy
4. Develop the landscape plan
    a. Describe the landscape's unique value
    b. Describe characteristics of the landscape
        i. Analyze existing information, current conditions, and future trends on the landscape (this step involves synthesizing existing knowledge on the landscape and its surroundings; limit the landscape description and keep it focused, the plan is not a research document).
    c. Develop landscape desired conditions
    d. Develop landscape objectives that reflect and address the desired conditions for the landscape
    e. Develop macro-zones, taking into consideration already legally designated areas, concessions, and contracts, and map them
    f. Define landscape-wide guidelines (optional)
    g. Outline plan implementation schedule
    h. Create a monitoring and evaluation schedule
5. Revise and update the plan as information improves, conditions change, and monitoring results come in.

3.3 The Planning Team

Define the roles and responsibilities of the planning team early to reduce confusion, focus staff time, avoid duplication of effort, and ensure that all aspects of the planning process are addressed. The landscape planning team may be a different group of individuals than those working on individual macro-zone plans. Macro-zone plan development may see more specific expertise in team composition than at the broader level of planning. If this is the case, express any alteration in roles of team members when working on the various plans.

Identify the skills needed for successfully developing a landscape plan. The necessary skills may vary depending on the types of stakeholders, data needs, and primary issues associated with the landscape; the size of the team will vary depending on available resources, however, some of the commonly required skills for a planning team include:

- Team leader / program manager
- Biologist(s)
- Hydrologist(s)
- Social scientist(s)
- Economist(s)
- Forester(s)
- Mineral/mining specialist(s)

It may not be necessary to have all of these specialists on the planning team throughout the entire process; rather some could be brought in as needed, to advise on specific issues.

Assign responsibilities and tasks to each planning team member, and hire new staff or consultants to fill voids. It is important to recognize both the abilities and limitations of the existing planning staff and adjust accordingly.

Tasks:

1) *List planning team members; define the skill set of each individual on the team and what their roles and responsibilities will be throughout the planning process.*
2) *If any necessary skills are missing, explain how those gaps will be filled and when.*
3) *Identify any short-term expertise that will be brought in to assist with the planning process.*

3.4 Stakeholder Participation

For the plan and landscape concept to be successful, the planning team needs to develop a strategy for effective stakeholder participation. The team must also understand landscape trends; integrate national, regional, and local level perspectives in zoning decisions; promote the implementation of landscape activities; seek adoption of macro-zone plans; and finally, lay the ground work for building in-country resource management capacity.

The overall public participation strategy identifies:

- those stakeholders that must be included in the landscape planning process;
- the link these stakeholders have with the landscape;
- how and when these stakeholders will be involved;
- the methods of working with these stakeholders; and finally,
- the communication tools used to successfully promote stakeholder participation.

Sound strategies for landscape planning will

Who are the Landscape Stakeholders:

Landscape planning is broader in scope than more site-specific planning and, therefore, requires a wide range of stakeholder perspectives to assess and develop landscape priority strategies.
Stakeholders of a landscape could include:

- Government representatives at the national, regional, and local levels
- Government Ministry representatives that have authority over lands within the landscape
- Traditional leaders
- Extractive industry representatives operating in or near the landscape
- Local and international NGO representatives operating on the landscape
- Marginalized groups that may not have a voice as part of the above groups
- Military leaders
- Individuals claiming ancestral rights to lands
- Community members that are able to represent resource users
- Local hunters and fishers

incorporate multiple opportunities for involvement and concurrence by local communities, government, relevant industry, and other stakeholders. Creating a sense of ownership among local community members and a wider audience of stakeholders by involving them in planning discussions and decision making, improves the likelihood that the plan will be supported and its implementation will be successful. To be successfully implemented, landscape plans must have the understanding, acceptance, and support of the stakeholders.

3.4.1 Stakeholder identification and their role in the planning process

The stakeholder participation strategy will identify the stakeholders who will be involved in the landscape planning process. The following ideas will assist in effectively identifying the stakeholders:

- Assess the different groups overseeing, operating, or living on the landscape.
- Identify groups that are central to land-use decisions, impact the landscape, or benefit from resources within the landscape.
- During the identification process, expand your outreach to those working in a non-natural resource-related field that may contribute useful information or know of other individuals or affected stakeholders (e.g., health care worker or teacher who may know of individuals or organizations that could greatly contribute to the landscape planning process).
- Include elected representatives from the central and provincial governments, and traditional leadership. Their participation helps provide insight about the local communities and builds political support for plan decisions.
- National, provincial, or local ministry representatives (e.g., forest, environment, agriculture, animal husbandry, tourism, mines, energy, land management and administration, transport, etc.). These authorities may or may not be part of all technical discussions or planning operations, but their involvement early in the landscape process provides technical expertise and builds political support for landscape plan development and its corresponding macro-zone plan development, adoption, and implementation.
- Consider including ethnic and religious groups, timber companies, tourist companies, mining companies, NGOs (local, regional, and national), civil societies, hunters, fishers, loggers, farmers, water users, researchers or other groups with potential interests in the landscape. These groups help to build understanding of the resource and management problems and opportunities and help to ensure important interests are represented.
- Consider activities outside of the landscape that may impact landscape resources, identifying the necessary groups or individuals overseeing these activities.
- Is development or infrastructure proposed on the landscape, such as road re/construction? Who oversees these activities and makes decisions on road placement?
- Given landscape priorities and trends, decide which stakeholders are essential to addressing landscape priorities and making landscape planning decisions. Do certain stakeholder groups threaten key resources on the landscape? Is there potential conflict with certain stakeholder interests in proposed macro-zones? Are authority figures with strong influence operating or living on the landscape? What stakeholder interests may conflict with macro-zoning decisions? These questions may help identify and prioritize the engagement of certain stakeholders.

Task:
Document considerations that went into developing the stakeholder list: identifying and listing the interests on the landscape; identifying potential groups or individuals to represent those interests; and prioritizing the engagement of the identified stakeholders.

3.4.2 Stakeholder participation approaches

The landscape planning process will involve a wide variety of stakeholders, each with a different level of involvement. Different strategies for different stakeholders may be necessary. The stakeholder participation strategy should identify the methods of information exchange. The following should be included or considered in engaging the different stakeholders:

- Determine how the planning staff will interact with the stakeholders (e.g., individual and/or group meetings on the landscape and/or at a central location) and specify which, if any, stakeholder groups will be treated differently and why.
- Consider if all stakeholders are able to spend adequate time participating in the landscape planning process. If they are unable to participate in organized group sessions, and their involvement is critical to the success of the planning process, consider keeping them informed through personal communication.
- Consider supporting the formation of one or more committees (associations) of stakeholders' representatives to provide advice and disseminate information about the planning process. Such committees may build local institutional capacity as they transition from informal to formal representative organizations.
- Explain the manner in which information will be exchanged and how concepts will be delivered to the different stakeholders. This is particularly important for local inhabitants, as many will have limited or no access to maps, data, and reports, and some may have low levels of literacy.
- Define the overall purpose of each stakeholder communication; e.g., information sharing, data gathering, decision making, etc.
- Consider how representatives will coordinate between the landscape planning team and their respective groups to ensure information and viewpoints are conveyed and received accurately.
- Develop specific talking points for each stakeholder group and for delivering concepts to the group as a whole.
- Include well-defined terminology to reduce confusion in the planning process.

Supporting community organization:

Several examples of formalized associations and advisory committees exist in Central Africa for planning and management engagement. For example:

- Natural Resource Management Committees (Republic of Congo and Democratic Republic of Congo)
- Forest Peasant Committees (CPF) (Cameroon)
- Faunal Resource Valuation Committees (COVAREF[5]) (Cameroon)

[5] COVAREF - Comité de Valorisation des Ressources Fauniques / Wildlife Valorization Committees are essentially a formalized community-based governance and wildlife management structure promoted in Cameroon to facilitate broad engagement in forest, related community natural resource management issues, and even micro-project development, selection, implementation, and monitoring and evaluation.

- Describe what languages will be used for written and oral communication, and how the planning team will provide for adequate translation.
- Ensure that all participants have an accurate picture of the process and their role in the process.
- Be prepared to deal with conflict in plan decision making and review methods of resolving conflicts.

Tasks:

1) *Identify stakeholders who will participate in developing the landscape plan, how they will participate; and their level of participation.*
2) *Describe why you have chosen to work with these stakeholders vs. others on the landscape.*
3) *Prioritize stakeholder engagement and describe the reasons for the prioritization.*
4) *Describe the approaches used to engage the various stakeholders.*

4.0 LANDSCAPE PLAN COMPONENTS

The following section outlines the main elements to include in a landscape plan. We offer guidance on elements to include in each section, how to develop those elements, and other considerations of the planning process. All of these elements are subject to being defined according to opportunities and constraints. Again, each sub-section contains a list of "Tasks" which will be actions required of CARPE implementing partners and used as monitoring tools by CARPE management.

4.1 Executive Summary

Develop and include an executive summary of the plan.

4.2 Introduction

4.2.1 Unique Value of the Landscape

First, identify and describe why this particular landscape is unique. Keep this description brief and focus on key features of the landscape that contributed to the reasons it was designated a priority landscape. This section of the landscape plan is not the place for in-depth description of the resource. Rather, this section should provide the name, location, size, and other brief, important features (e.g., endemic or rare species, heritage sites) of the landscape.

Explain the unique combination of attributes that warrant managing within the landscape versus areas outside of it (e.g., diverse species populations, touristic potential). Consider an interdisciplinary approach to assess a landscape's particular values, as different stakeholders will value different aspects of the landscape. To adequately describe the landscape's role in the context of the larger region, the planning team should look beyond the landscape boundaries.

Defining the unique value of the landscape provides a focus for the planning process. By identifying, and then in later landscape planning steps, focusing on the unique landscape attributes, the planning team can concentrate on what is most important, in light of limited time and money. That focus helps define critical information for developing the landscape plan and addressing the landscape's special attributes.

> ***Tasks****: Identify and describe the unique value of the landscape. This serves as an introduction to the landscape plan and should remain brief and concise. This section should quickly and clearly answer why this area was designated a priority area.*

4.2.2 Description of the Planning Process for the Landscape

Plans should describe:

- the historical background/context of the landscape;
- the legal and institutional framework for the plan (explain the legal status of the landscape as appropriate, addressing questions such as: Has it been proposed for official

recognition by the central government? Has it already been designated? Who recognizes this plan?);
- the process used to develop the plan;
- decision-making authorities for the plan; and
- the authorities to implement the plan.

See the Introduction and sections 2.4, 3.1, and 3.2 for additional sources of information for this component.

4.2.3 Characteristics of the Landscape

In this section, describe in more detail the various attributes of the landscape. Outline the existing uses on the landscape and the different groups involved in those uses; describe the legal boundaries delineated within the landscape; include a general inventory of the resources and any information regarding their condition. Analyze the demographic, political, and governance situation on the landscape, as well as the physical, biological, and ecological conditions to determine current condition and future trends.

The landscape plan is not the appropriate document for extensive discussions on all research accomplished on the landscape. This section should be direct and concise, listing features, resources, and their importance and impact on the landscape. This information will assist the planning team in defining landscape desired conditions and objectives, enriching zoning decisions and management strategies, and identifying any key knowledge gaps.

Data gathering includes asking stakeholders to identify their existing resource use and interests on the landscape. Ask stakeholders why and how the landscape is important to them; include threats, opportunities, or conflicts related to the landscape.

In addition to information within the landscape, planning teams should look at influences outside the landscape. Examine what is occurring outside the landscape that could affect the key landscape values. For example, are there plans to develop any infrastructure (roads, dams, etc.) that could affect values within the landscape? Is there potential for displaced immigrants from another area settling in the landscape?

An important step in the landscape planning process is identifying and evaluating existing applicable laws or management plans associated with the landscape. Understanding legislation applied to any land unit in the landscape will help guide management decisions. It is important to monitor legislative changes throughout the landscape planning process so that adjustments to the process can be made, if necessary. Some governance situations may evolve during the landscape planning process, and it is important that planning processes remain flexible enough to respond to those changes. For example, in the Democratic Republic of Congo, landscape planning teams have monitored the forest concession conversion process, since it affects both the landscape land use plan and the subsequent macro-zone management plans.

This section should include data on the following (to the extent it is known and available):
- Existing maps/satellite imagery
- Delineate and describe landscape boundaries, using natural features to the extent possible

- Explain any legal boundaries designated within the landscape such as logging or mining concessions decreed by the government; protected areas or reserves and their categorization both nationally and internationally; and declared community-based natural resource areas as defined in the forest code
- Topography, watercourses, unique physical features
- Key ecosystem processes and functions
- Vegetation cover
- Wildlife (abundance, location, occurrence, corridors and migration routes, etc.)
- Subsistence areas ,existing uses
- Village and town location, ancestral lands
- Existing uses of the resources within the landscape (agriculture, logging, mining, hunting, fishing)
- Major transportation routes, facilities, and infrastructure
- Commercial extractive activities (concessions, large-scale private agriculture)
- Land uses outside of the landscape and possible impacts
- Known threats to the resources named above and known trends impacting them
- Anticipate any future challenges, and new or changing influences on the landscape
- Assess government, traditional, and/or local management authorities operating on the landscape and the authorities' capacity to manage
- Laws that apply to lands within the landscape
- Interrelationships among the macro-zones

Tasks:

1) *Characterize landscape resources, conditions, and trends, keeping the descriptions objective and brief. Use tables and maps as much as possible to describe the physical, ecological, and socio-economic conditions.*
2) *Identify influences outside the landscape that could affect the important values of the landscape.*
3) *Identify and evaluate applicable laws within the landscape.*
4) *Identify key information gaps.*

4.3 Desired Conditions

Landscape desired conditions should describe what the landscape will look like and represent in the future. How do planners and stakeholders want the landscape to look ecologically? What economic opportunities should the landscape resources provide? How should the landscape contribute socially to the region and its inhabitants? What resources need to be maintained or protected? Desired conditions should reflect the landscape's unique qualities and how the landscape can contribute to meeting stakeholder needs and CARPE's goals *to establish sustainable natural resource management practices throughout Central Africa, thereby promoting sustainable economic development and alleviating poverty for the benefit of the people of the region and the global community (State of the Forest report 2005 p 2).* Landscape desired conditions will provide context and direction for the rest of the planning process.

Desired Conditions

Desired Conditions set the broad direction for the landscape over an extended period of time. Desired Conditions set idealized goals of what the landscape should be, what it should protect, and who it should benefit.

Examples of Desired Conditions:
1) Maintain diversity and population of tree species on the landscape to ensure ecological function and social and economic long-term benefit.

2) Support and maintain stable populations of bonobo and elephant, well distributed over their habitat within the landscape.

3) Maintain current amount of land in forest cover in protected areas, 95 percent of current forest cover in ERZs, and 60 percent of current forest cover in CBNRM zones.

Start developing desired conditions with a landscape planning team brainstorming session, but their further development requires the involvement and perspectives of landscape stakeholders. Seek to develop desired conditions that reflect social and economic considerations, as well as the landscape's distinctive roles and contributions to ecological systems.

Most projects and activities are developed specifically to achieve or maintain one or more of the desired conditions and objectives of the plan. It should not be expected that each project or activity will contribute to all desired conditions or objectives in every instance, but only to a selected subset. Landscape management plans should articulate what desired conditions are being addressed by what activities and whether these conditions and objectives are being advanced.

Desired conditions may only be achievable in the long term. Amend or revise the plan if desired conditions cannot be achieved or are no longer valid or relevant to the long-term multiple-use management of the plan**.**

Tasks:

1) *Convene landscape planning team and stakeholders to develop desired conditions for the landscape.*
2) *Develop widely shared desired conditions that aim to maintain the landscape's unique features and significance, improve resource conditions on the landscape, and promote livelihood opportunities for those who depend on landscape resources.*
3) *State who was involved in developing the desired conditions to clarify whose desired conditions they represent.*

4.4 Landscape Objectives

Landscape objectives describe the focus of management activities over an extended period of time, i.e., 5 years. The planning team and stakeholders should determine the timeline. Objectives are important because they describe what will be done to achieve the desired conditions for a given element, attribute, or condition on the landscape. For example, if your desired condition is to maintain bonobo and elephant populations as outlined in the Desired Condition text box on the previous page (example 2), then one of your objectives may be to increase monitoring capacity of these two species to closely track population numbers. Or, if you know their numbers are decreasing from illegal hunting, another objective may be to increase enforcement capacity in certain hunting areas.

Objectives should be unambiguous, measurable, and have a timeline. Objectives of a plan are the means of measuring progress toward achieving or maintaining desired conditions. It is essential to involve stakeholders in developing objectives, as different stakeholders may disagree about which objectives are or are not compatible with the landscape's desired conditions. It will not be possible to please all stakeholders, but the planning team should accurately gauge the objectives of different stakeholders and develop responses to contentious or conflicting stakeholder views.

If the objective is no longer appropriate or relevant to achieving desired conditions, the plan may need to be amended or revised as necessary.

Where possible, list objectives in order of priority. Objectives for the landscape plan could be based on the following topics (linked back to a corresponding desired condition) but will be specific to the site in question:

- habitat and species (faunal and floral) conservation
- promoting scientific research
- preserving social and cultural features
- education and training

Objectives

Some examples of Objectives are:
1) Inventories of tree species 10 years after the plan establishment do not reveal any land areas where a tree species is no longer present and reveal declines of not more than 30 percent in population estimates for any single tree species.

2) Elephants and Bonobos are found in all PAs and ERZs, with stable or increasing populations 10 years after the establishment of the plan.

3) There is no loss of forest cover in protected areas, less than 5 percent loss of forest cover in ERZs, and less than 10 percent loss of forest cover in CBNRMs 10 years after plan establishment. .

- community participation and development
- income generation
- ecotourism development
- ecosystem services (e.g., water purification, reducing emissions from deforestation and degradation (REDD), etc.)

For each objective, explain challenges and opportunities related to achieving it.

Tasks:

1) *Convene landscape-level stakeholders to develop objectives. Multiple objective-setting meetings may be necessary.*
2) *Draft the landscape objectives and, if possible, list them in order of priority.*
3) *Describe opportunities and challenges to achieving each objective.*

4.5 Macro-Zones

Zoning decisions are often considered the heart of a land use plan and can be contentious. Base decisions on information gathered, including inventory information; legally designated concessions; areas and contracts already established across the landscape; stakeholder interests; as well as professional judgment. After data gathering is complete and macro-zoning has begun, include a validation step in the planning process to confirm that the proposed location for each macro-zone reflects on-the-ground reality.

An iterative approach to zoning the landscape is likely the most applicable to the CBFP Landscape land use planning situation. In this approach, the planning team develops an initial macro-zoning proposal, based on synthesizing information from the data-gathering step, as well as professional judgment. As data are gathered and stakeholder interests identified, the planning team refines or changes macro-zone boundaries to come up with a configuration that best responds to the desired conditions, objectives, and priorities of the landscape.

In some situations, the macro-zones will be identified based on previously established land use decisions. For example, areas already classified as national park would be a defacto protected area macro-zone. Likewise, an existing logging concession would be a defacto extractive resource zone. Moreover, trends may be occurring on the landscape (e.g., human settlement) that the plan cannot realistically control, and it would be unwise to zone against such clear trends even if the use is not legally established. In this manner, parts of the landscape will already be committed to certain use, but there will still be a need to review macro-zone boundaries, unclassified lands, and in some situations, to reexamine previous land use allocations.

Initially, it may not be possible for landscape planning teams to completely macro-zone the landscape. In that situation, there would be blank spaces on the landscape map, where no zones were designated for the time being. The advantage of this focused approach is that it invests the limited planning time and money on the areas considered critical within the landscape. As information is gathered and new trends or needs emerge, additional macro-zones can be designated. To add macro-zones, use an abbreviated approach to the landscape planning process, primarily focusing on stakeholder involvement.

At the landscape level, pay attention to issues that occur between or across macro-zones. Macro-zone management plans can address these issues or concerns only partially. Landscape-level assessments for example, should look at transportation routes and their impacts, wildlife corridors and their locations, infrastructure development, and population trends. Examples such as these require a frame of reference larger than the landscape scale can provide to demonstrate overall trends and possible future impacts.

It is important to keep in mind that, as with the other sections of the plan, macro-zoning is an adaptive process. Even after the plan is finalized and adopted, the boundaries of each macro-zone may be altered to adjust to local needs, unforeseen threats, improved data, or other changing factors.

Tasks:

1) *Delineate boundaries for macro-zones, reflecting landscape desired conditions, objectives, and information gathered; provide a justification for each zone created (e.g., this area is delineated an ERZ because three logging concessions are present).*
2) *Involve stakeholders to develop, respond to, and refine zoning options.*
3) *Develop a landscape scale map delineating the boundaries of each macro-zone.*

4.6 Guidelines (Optional)

Guidelines can be thought of as a set of rules or regulations describing permissible or prohibited activities across a landscape or zones within a landscape. Guidelines help achieve objectives that certain aspects of a landscape maintain their integrity and that various activities occur, or are prohibited, in such a way as not to harm valued attributes. Guidelines generally prohibit or permit specific activities or actions. These guidelines must also recognize both customary use and access rights, and ensure the use of resources as recognized in other legal decisions (e.g., concessions, parks, etc.).

Guidelines are more often used at the macro- and micro-zone level. However, at the landscape level, there is an opportunity to develop standard guidelines to apply to all similar macro-zones. Guidelines for any one type of macro-zone may have applications that can be used across all zones of the same type within that landscape, making planning more efficient. The planning team, along with stakeholders, will need to assess whether such an approach makes sense for their landscape.

If any exceptions to a guideline are to be granted, the guideline should explicitly describe the circumstances under which such an exemption would be granted and who has the authority to grant it. It is also important to note that pre-existing laws in the country where the landscape is located may address issues or activities to be outlined in a guideline. Where appropriate, these laws should be referenced in the guideline, however, the guidelines may set more stringent guidelines in addition to pre-existing regulations.

Guidelines that may apply across all macro-zones in a landscape

Guidelines that will apply to all macro-zones of a certain type within a landscape will usually focus on some attribute of the landscape that transcends any one given zone.

Examples:
If the landscape contains a particular forest type, which is rare and under-represented, yet scattered across the landscape, a guideline to protect its integrity would not permit road construction to bisect this resource.

To ensure minimal forest cover is well distributed throughout the landscape, all contiguous land areas in the three zones of at least 1,000 hectares will contain at least 200 hectares of forest cover.

Guidelines that may apply to all macro-zones of the same type in a landscape

Due to the particular sensitivity of a species of interest in a given landscape, the PAs in that landscape may be especially important for the long-term survival of that species. Therefore, a landscape-level guideline can be written to prevent that activity—be it road building, hunting, collecting particular plants, etc.—in all PAs in that landscape.

Examples:
Hunting of elephants and bonobos is not permitted in PAs.

No hunting of elephants or bonobos is permitted in an ERZ if the population falls below the level identified when the plan was established.

Tasks:

1) *Develop any standard guidelines for each of the three macro-zones, i.e., guidelines that would apply and be incorporated in each PA, CBNRM, and ERZ.*
2) *Describe any exemptions to the guidelines, as well as to whom and under what circumstances they can be granted.*

4.7 Management Actions

The plan should identify likely management actions to be implemented to achieve the desired conditions and objectives. Identify these management actions as general types of activities that follow the guidelines. Management actions can also identify some general sense of timing and location for where said actions would occur.

Management Actions

Examples:

- Train, equip, and deploy anti-poaching units
- Establish road access check points and procedures to prevent access by poachers and trafficking of illegal species
- Develop agricultural cooperatives to facilitate transfer of skills/techniques and access to markets in community XX by 20XX

Tasks:

1) *Identify the core possible actions that fall within guidelines to achieve specific objectives.*
2) *Assess the technical and financial feasibility of implementing the management action.*

4.8 Implementation

The plan should describe how it will be implemented. This includes a discussion of roles and responsibilities of the different parties participating in the plan implementation; the public participation strategy; the approach to monitoring and evaluating the plan; and a multi-year implementation schedule that presents a schedule of management actions to facilitate more detailed work planning.

4.8.1 Roles and Responsibilities

This section identifies the different roles and responsibilities of government agencies and other organizations for implementing the plan. Various institutions will be responsible for actions associated with implementation such as project design and approval, project execution, budgeting, and monitoring. In this section, describe who will be responsible for each action.

In the context of the CBFP Landscapes, it will not always be clear who or which organization or agency will be responsible for implementing the plan once it is complete. With limited land management capacity and resources within the government ministries that are the authorities by law, actual management of the land and its resources often falls to a mosaic of actors with a presence on the landscape. Government ministries and departments, conservation and other NGOs, private industry and local communities all bring an array of capabilities and resources to help implement the plan. Due to this uncertain nature, it will be important to create (or reinforce) the appropriate advisory and management teams and assign responsibilities for implementing various aspects of the plan to individuals or organizations with the ability and resources to carry them out.

One approach can be to establish teams of diverse actors who will take on management or advisory roles for implementing the plan. The participatory nature of the planning process should assist the planning team in identifying the management team or responsible individuals. It is recommended that a core group that will take on management of the landscape, be formed as the management leadership team, with one or two individuals responsible for each of the objectives identified on the landscape (e.g., habitat and species conservation, community participation and development, ecosystem services, etc.). Alternatively, leadership team members can be assigned discrete geographic regions within the landscape as their area of responsibility. Each representative(s) of these objectives or geographic areas will then be responsible for working with a broader group on that topic or area, and assigning additional responsibilities, as needed, to individuals or groups outside of this leadership team. The former option would help track the logical flow of desired condition (vision) to objective (action) to outcomes (change on the ground noted in monitoring efforts). The latter option may prove simpler to implement on the ground as roles and responsibilities tend to follow geographic rather

than thematic lines. Keeping the core group limited in numbers will allow for greater efficiency, more regular consultation, and clearer lines of responsibility.

Advisory and management team members should include representatives from the appropriate government ministries charged with managing the various land categories in the landscapes (national park agencies, rural development departments, waters and forests, mines, etc.). The management team should also include representatives from lead implementing NGOs, local communities (with representation across gender and the ethnic groups present on the landscape), industry active on the landscape, and other key stakeholders.

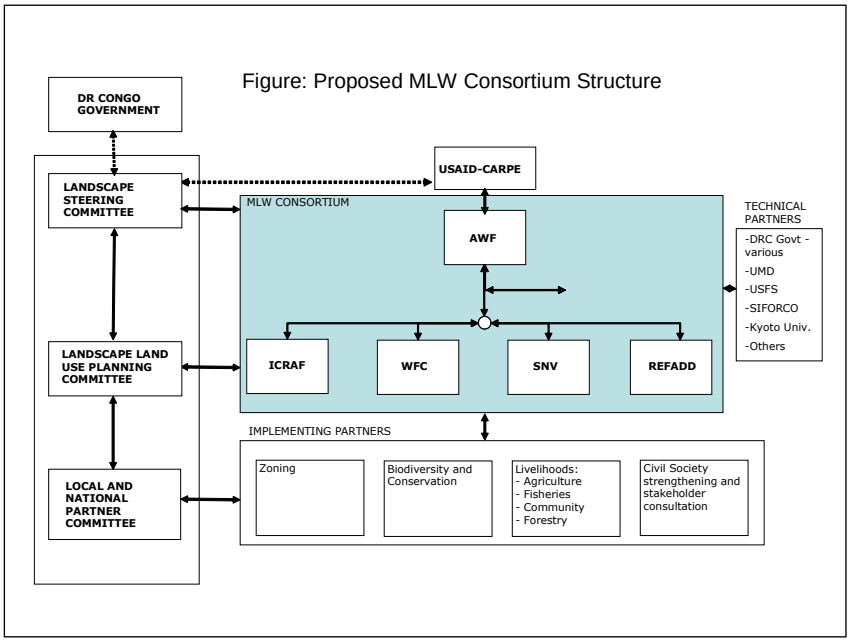
Management and Advisory teams: Example from the Maringa Lopori Wamba (MLW) Landscape[6]

Consortium members each bring specific and complementary thematic expertise for management plan implementation.

Local and national partner Committees have been created for the Landscape. At each of the four local "territory" levels, a Committee has been organized with representatives of diverse stakeholder and civil society groups involved. These committees meet once a year, and serve as information-sharing platforms between the local communities and the management team.

At the national level, a Landscape Steering Committee has been created. This Committee is composed of stakeholders of the national government. The committee reviews whether the MLW program is compatible with and responds to the priority agenda of the DRC-government. The figure below summarises the overall Consortium structure, developed from lessons learned during the initial phase of work in MLW.

Figure: Proposed MLW Consortium Structure



[6] CARPE – Maringa Lopori Wamba Landscape Land Use Planning – Lessons Learned November 2008

Once formed, the management team should meet on a regular schedule (at least quarterly) to plan implementation activities and report back on progress, challenges, concerns, or opportunities in their particular region or topic of responsibility.

Tasks:

1) *Agree on the structure of the management leadership, advisory teams, and any extended team, if needed.*
2) *Nominate and agree on management leadership and advisory team members.*
3) *Define a meeting schedule for the management and advisory team, and how the meetings will be conducted.*

4.8.2 Public Participation Strategy

This section describes public participation processes involving other parties. The process of creating the landscape land use plan is participatory in nature, drawing input from diverse users and interested parties. As the plan moves into the implementation phase, it is critical to maintain this participatory nature. Management actions that will impact the landscape resources should be communicated to the local stakeholders. In addition, implementation assistance will sometimes be needed from those local inhabitants of the landscape, particularly in and around the CBNRM zones. The management team will need to come up with a public participation strategy to describe how stakeholders will be involved in management decisions and actions, and how those decisions will be communicated to the public.

A great number of implementation activities will be needed to achieve those objectives and desired conditions. It will not be possible to carry out an extensive public participation process for every management action, as this would create great cost and extensive delays in managing the landscape. For this reason, it is preferable to open periodic formalized consultations to all relevant stakeholders. These consultations generally involve setting up a stakeholder forum or platform that meets anywhere from once to several times a year, and where new management decisions and/or implementation activities are presented and discussed in a transparent and participatory manner.

It is almost inevitable that management actions on the landscape will result in some level of dissatisfaction among one or more interest groups or conflict among groups and/or the management team. Yet management of the landscape must go forward. Formalized stakeholder consultations ensure that the actions of the management team are transparent and that those dissatisfied stakeholders have an opportunity to air their concerns and be heard by the management team and other stakeholders. As a result, the management team may decide to alter its course somewhat, or maintain the original implementation plan.

Task:
The management team should create a public participation strategy describing how stakeholders will be involved in management decisions and plan implementation. Typically, this participation strategy includes establishing formalized periodic stakeholder meetings. These platforms provide a mechanism for regular communication and dialogue between the management team and pertinent stakeholders.

4.8.3 Monitoring and Evaluation

The purpose of monitoring and evaluation is to determine if the landscape plan and the macro-zone plans under it are effectively contributing to achieving the landscape desired conditions and objectives. Monitoring will provide the feedback loop for evaluating the plan. Not everything can be monitored, particularly at the landscape level. Landscape-wide monitoring is typically conducted to evaluate condition and trends of specific resources on the landscape. Monitoring will allow observation of the impacts of management and suggest changes to management actions accordingly. Where implementation runs into problems, monitoring can be used to signal needs for re-deploying management resources to improve plan implementation. Evaluation of the monitoring results provides information important in determining the need for revising the plan.

Monitoring and evaluation should determine if key aspects of the plan are working as intended or if changes need to be made to the plan. Indicate the type and frequency of monitoring, as well as who is responsible for carrying it out and reporting on the monitoring. Specific monitoring activities will depend on the objectives that have been identified for the landscape, and may include, but are not limited to:

- Development of local communities
- Species of concern
- Human disturbances
- Wildlife corridors
- Infrastructure impacts
- External threats to the landscape
- Ecological function and condition

In addition to landscape-wide monitoring items, the planning team may want to identify standard monitoring items that should be included in each macro-zone plan. Those standard monitoring items would contribute to evaluating progress in meeting the landscape's desired conditions and objectives or for upward reporting for the State of the Forest report.

When the planning process is complete, the planning team can determine what landscape information was missing as they went through the process. The team should then prioritize the needs for collecting this information to improve the plan when it is revised. Based on this prioritization, targeted studies and research activities which will yield data useful to the planning process should be undertaken.

Examples of monitoring questions and measures:

Monitoring questions and measures can be constructed in four basic forms:

1) A form that essentially seeks knowledge about the area/resource in question, such as "What is the trend in elephant populations?" with no stated reference to the plan. Basic information about population and trends is all that is needed to answer this question.
2) A form that seeks knowledge about the plan's estimation of its performance such as "How do elephant populations compare to the objective in the plan?" This uses the same data as the first form, but evaluates the information relative to plan objectives or desired conditions.
3) A form that seeks to understand the influence of actions anticipated by the plan on the resource, such as "How are elephant populations responding to ecoguard protections?" To answer whether ecoguards are effective requires information comparing trends of elephant populations in areas with ecoguards and those without ecoguards.
4) A form that asks if the plan did what it said it would, such as "Were ecoguard protections put in place?" This information is simpler to collect, as only information on ecoguard deployment is needed, not elephant populations.

Type 1 is a kind of broad inventory and sampling design that can establish what is going on, but without other information, cannot establish why.
Type 2 combines with type 1 to validate whether or not the estimates and assumptions of the plan were reasonable or not.
Type 3 is probably the most complex question as it requires almost an experimental design to isolate the "effects" of management actions from broader influences in the environment.
Type 4 seems to be the simplest in compliance monitoring, but even in the USFS it is not always easy to get information about our own activities.

The type of question asked also generates the type of information and often the cost of information needed to answer it.

Tasks

1) *Identify landscape-wide monitoring items.*
2) *Identify any standard monitoring items that should be included in each macro-zone plan.*
3) *Identify missing landscape information that would improve the planning process if it were available during the plan's revision in 5–10 years, and prioritize research activities to gather that information.*

4.8.4 Multi-Year Schedule

In this section of the plan, prioritize action items into a multi-year implementation schedule, with a timeline and an indicative budget to accomplish the work. This section should specify what action items will be accomplished, by whom, when, and how much it will cost. It is appropriate to include a description of how stakeholders will be involved (see 4.8.2). Most actions will be concentrated within the macro-zone management plans, however, important cross-zone issues and current condition and future trends are better identified at the landscape scale. All implementation activities should be linked back to one or more of the landscape objectives.

Annual Workplans and Other Complementary Plans

Additionally, the management team should create annual workplans. These annual workplans are more specific in their prescriptions than the 5-year implementation schedule. Annual workplans lay out a specific timeline for accomplishing activities, and describe the budget, personnel, equipment, and any training needed for completion. Suggested templates for specific activity workplans are provided as an annex to the CARPE/USFS Protected Area Planning Guide.

Plan implementation may need other complementary plans such as finance and/or business plans. It may be useful for each zone to ultimately have such documents drafted and used for operations and fund raising.

These activities and further identification of macro-zones need to be itemized and prioritized within the implementation schedule. Prioritization is extremely important in the implementation schedule, as financial resources are always limited and it will not be possible to accomplish every task desired. It is useful to create implementation schedules for a period of approximately 5 years. This implementation schedule should lay out specific actions the management team expects to complete and illustrate which objective(s) and desired condition(s) of the plan those actions contribute toward. This 5-year plan is relatively broad and gives the management team more specific direction in what it would like to achieve through its actions and with the funds available, or expected to be available in that span.

Tasks:

1) *Throughout the planning process, prioritize activities to focus on management actions that are most critical to achieving the landscape desired conditions and objectives. This task is ongoing. Use the prioritization process when evaluating what data to gather, what management activities to implement, and what monitoring activities to undertake.*
2) *As a management team, create a 5-year workplan defining anticipated activities and the objectives and desired conditions each one is contributing toward.*
3) *Annually, create a detailed program of work defining budget, personnel, equipment, and training needs.*

4.9 References

For each reference cited in the plan, include author name(s), date, title of article (if applicable), title of publication, publisher (if available), and page(s).

APPENDIX A: SELECTED RESOURCES FOR LANDSCAPE PLANNING AND MANAGEMENT EFFECTIVENESS.

Planning:

Landscape-scale Conservation: A Practitioner's Guide. The Nature Conservancy - http://conserveonline.org/workspaces/cbdgateway/cap/practices/index_html

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Morrison, J., C. Loucks, B. Long, and E. Wikramanayake. 2009. *Landscape-scale spatial planning at WWF: a varitey of approaches*. Oryx, 43, pp 499-507.

Management Effectiveness:

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