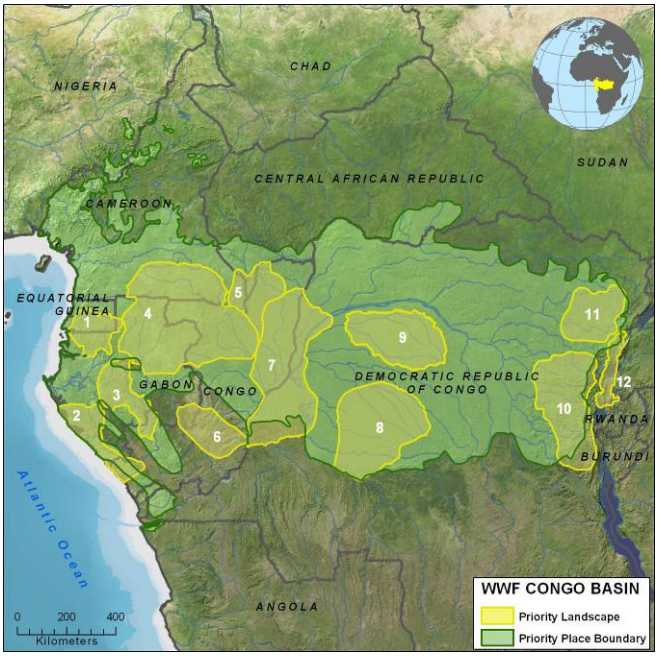
A Toolkit for Assessment of Landscape Conservation (TALC)



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EXECUTIVE SUMMARY

Within the conservation community, there has been a growing awareness of the need for systematic planning in order to increase the effectiveness of conservation initiatives. A key aspect of conservation planning is the assessment of progress, especially when carried out under an adaptive management framework. A number of tools have been developed to aid field practitioners in assessing their progress towards achieving success in conservation. Such tools have often focused on site specific projects, such as protected area management and community forestry. More recently, however, many conservation organizations have expanded their scope to include entire landscapes or seascapes, encompassing a mosaic of land-uses, and a wide range of stakeholders.

Since many currently available conservation assessment tools do not scale up well to the landscape level, the Toolkit for Assessing Landscape Conservation (TALC) has been developed to aid field practitioners in reviewing their progress in planning and implementing landscape conservation initiatives. The toolkit addresses a wide range of issues that can impact conservation at a landscape scale, and devotes special attention to stakeholders, especially local communities, whose involvement is crucial to the success of conservation programs.

TALC was developed by graduate students enrolled in a course on Problem Solving in Conservation and Development at the University of Maryland, at the request of Allard Blom, Deputy Director of the Congo Basin, Namibia and Madagascar program at World Wildlife Fund – US. It is laid out as a series of statements summarizing the desired state of some key aspects of progress, impacts and outcomes to be achieved by a landscape conservation program. Guidelines are provided for assigning a numerical score to each statement based on the extent to which the state described by it has been attained. References have also been provided to other resources that can help practitioners address the topics covered by the statements and related rating criteria.

Many conservation experts and practitioners generously contributed their advice and feedback in the development of this tool. We hope that this input from a wide spectrum of the conservation community will make this toolkit especially valuable to users. This is, however, considered this to be a living document and as such, further feedback from readers is welcomed*. We have also provided recommendations for further development of the toolkit, and encourage future developers to pay attention to these as they continue to improve the toolkit.

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* Feedback can be submitted to the TALC discussion group at http://groups.google.com/group/talc_toolkit

BACKGROUND

Within the conservation community, there has been a growing awareness of the need for increased accountability and assessment of conservation actions to allow for lessons learned to be incorporated into ongoing management strategies. Such a process, termed adaptive management, is intended to ensure that anticipated conservation outcomes are achieved with a maximum level of effectiveness and success.

To address this need, a number of frameworks have been developed to guide the design, management and monitoring of conservation interventions. The Open Standards,[1] developed by the Conservation Measures Partnership (CMP),[2] is one such framework which outlines seven key steps within the adaptive management cycle (Fig. 1): conceptualize, plan, implement, analyze, adapt, communicate and iterate. Several member organizations of the partnership, including the World Wildlife Fund (WWF-US), have created their own standards based on the CMP framework, and are in the process of instituting these across their field programs.

The CMP member organizations have also developed reviews, or "audits" to assess the extent to which the standards are being followed at the project level. A recent evaluation of such reviews conducted to date has highlighted the value of such a process in improving the management of projects. In addition, a survey of assessment participants revealed the need for the "creation of tools and resources that support self-auditing", as well as "complementary tools and guidance that support project impact assessment and technical/strategy review".[3]

A number of monitoring and evaluation toolkits have already been developed to assess progress in implementing conservation projects. The majority of these address specific

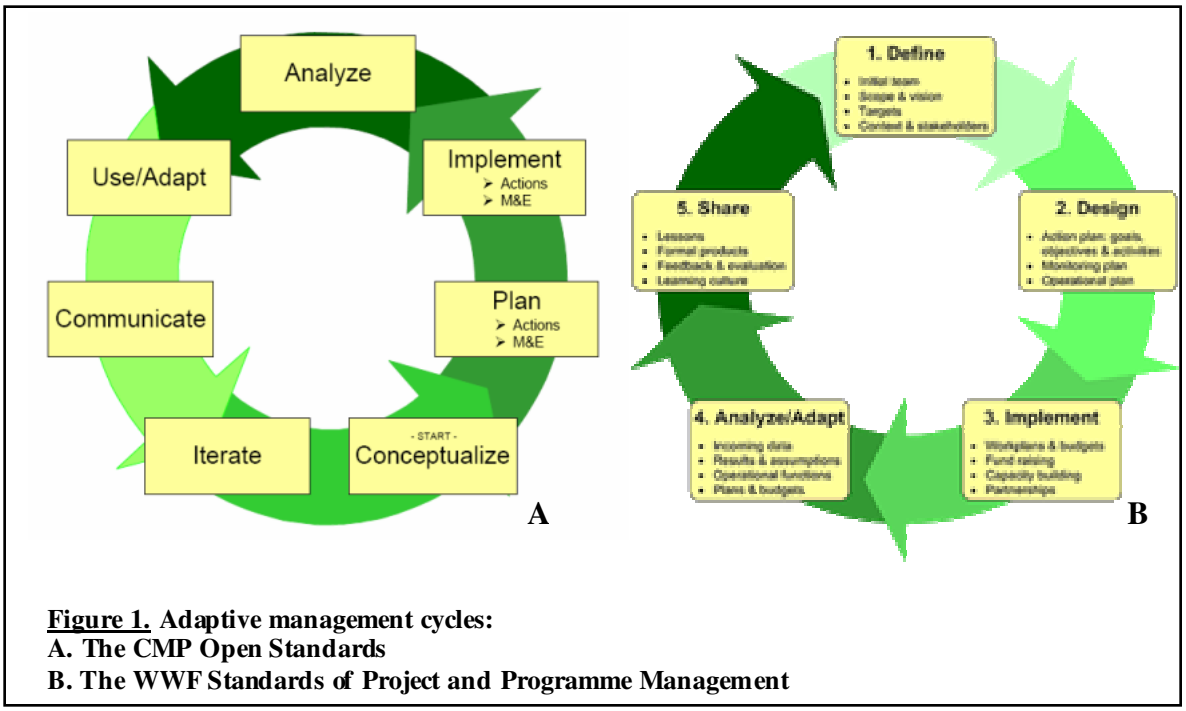

Figure 1. Adaptive management cycles:
A. The CMP Open Standards
B. The WWF Standards of Project and Programme Management

focal areas, such as the World Commission on Protected Areas Evaluating Effectiveness Framework,[4] the WWF Management Effectiveness Tracking Tool[5] for assessing progress within protected areas, and a proposed evaluation framework for community conservation projects.[6]

Many conservation programs, however, are increasingly expanding their scope to include entire landscapes. These areas may encompass large regions that are affected by a mosaic of land and water use patterns, with varying levels of human activity (see the definition of 'landscape' below). This has led to a need for a scaling up of current tools to encompass not only protected areas, but all land use types that include the biophysical, social, economic and political aspects of landscape scale conservation.[7]

Furthermore, existing toolkits have primarily emphasized the assessment of processes (i.e. the management of activities and production of outputs) rather than the actual achievement of conservation-related outcomes and impacts. While it is difficult to include the monitoring of outcomes in a tool which is applicable across projects, careful assessment of both outputs and outcomes is crucial to achieving conservation success.

The Toolkit for Assessment of Landscape Conservation (TALC) has been developed to assist field practitioners and project managers in conducting an assessment of progress in implementing conservation programs at a landscape scale. While the toolkit mainly focuses on assessing processes, the evaluation of outcomes and impacts is also addressed.

In developing the toolkit, the authors obtained input and feedback from over 30 conservation practitioners around the globe. In addition, many documents addressing the implementation of effective conservation programs were consulted (refer to the Additional Tools and Resources section). The assessment criteria in the TALC were then framed around the key recommended actions identified from these resources. These criteria may not be entirely comprehensive due to the large scale to which this toolkit applies, or the variations in strategies that may need to be employed. However, they should provide a sufficient outline of what practitioners would hope to achieve in planning and implementing conservation interventions at the landscape scale.

PURPOSE OF THE CURRENT TOOLKIT

The toolkit can be used to assess effectiveness of landscape scale conservation programs, either through self-evaluation, or evaluations conducted by peers, such as managers from another landscape. It is envisioned that this toolkit will be used at regular intervals (potentially every 2-3 years) to assess progress in conservation within one landscape. It is, however, not intended to be used to make comparisons between landscapes.

While primarily a tool for tracking management effectiveness, grading criteria are also presented along the lines of the adaptive management framework (Fig 1). This toolkit therefore serves two purposes: 1) to assist landscape managers in identifying areas for improvement within their design, planning, implementation and monitoring/evaluation

processes, following adaptive management guidelines, and 2) to fulfill the needs of field practitioners in monitoring progress of program implementation over time. In this sense, the toolkit aims to address each of the biophysical, social, economic and political aspects of conservation conducted at the landscape scale. Where possible, references are also provided to further materials that may assist practitioners in addressing subject areas included in the TALC.

DEFINITION OF LANDSCAPE

Within a conservation context, various definitions of the term "landscape" are used, some of which differ substantially from one another.[8,9,10] The concept of landscape conservation emerged primarily out of the recognition that conservation activities that focused solely on protected areas, or the creation of protected area networks, would not be sufficient to conserve much of the biodiversity we value.[11] It was therefore recognized that conservationists needed to increase the scale of their activities to address issues beyond the boundaries of protected areas.

For the purposes of this toolkit, landscapes are defined as management units typically found within biomes or ecoregions, the latter of which are defined by entire areas of shared ecological function.[12] Landscapes are heterogeneous in terms of ecosystems, physical and environmental factors (e.g., climate, topography), and land use types. In this sense, they may include a matrix of protected areas, community conserved areas, agricultural lands and extractive zones.

Due to their large scale, the boundaries of a landscape may be determined in very different ways. For example, some landscape boundaries might reflect input from political authorities, such as a number of the Congo Basin landscapes that extend across national boundaries. Other landscapes' boundaries could be defined primarily by donor requirements, or by biophysical characteristics identified by landscape managers.

A useful definition of a conservation landscape might therefore be "a unified area managed with an overall conservation vision in mind".[13] Ultimately, perhaps, it is not important to have a standardized definition of landscape that is consistent across all programs, but rather to define the landscape for a given program in a manner that, at a minimum, encompasses all of the area that is required to address the overall vision set forth for the program.

STRENGTHS OF THE TOOLKIT

1. Questions relating to the conservation of biodiversity and ecosystems both within and beyond protected area boundaries, as well as to human (social, political, economic) dimensions of conservation, allow this toolkit to be applied to conservation at the larger landscape where a wide range of direct and indirect threats to conservation can be addressed.
2. The questions contained within the toolkit are general and include simple scoring criteria, making the toolkit widely applicable across programs and easy to use.
3. Where possible, references to other toolkits and guidelines have been provided. These additional resources should assist practitioners in addressing program gaps that have been identified using this toolkit.
4. Questions that address meeting conservation goals (measuring outcomes and impacts) are included to remedy the issue of insufficient attention to outcomes that is inherent in many existing toolkits.
5. This toolkit attempts to encompass the involvement of local communities, extractive industries and other stakeholders into an overarching conservation framework at the landscape scale.

LIMITATIONS OF THE TOOLKIT

1. To make the toolkit widely applicable across landscapes, and easy to complete in the absence of data, the questions are of a rather general nature. Therefore, the toolkit cannot be used to assess the finer details of landscape program management.
2. The toolkit does not provide detailed guidance or protocols for measuring and monitoring variables (although references are provided that can help with this aspect).
3. This toolkit is a work in progress, so areas for improvement are likely to be identified. We hope for this to be remedied through feedback received from a wide spectrum of conservation practitioners

LANDSCAPE CONSERVATION ASSESSMENT FORM GUIDANCE NOTES

General instructions:

The following is a list of statements that can be used by conservation practitioners to assess progress in landscape scale programs. While it is unlikely that all of the statements will be applicable to any given program, users should select those that are relevant to the landscape under review. Practitioners are, however, encouraged to consider whether the remaining statements may help identify gaps or areas for future effort.

Criteria are provided for assigning a numerical score to statements in the assessment form. We hope that these criteria will aid in maintaining consistency in scoring among practitioners and over time. To achieve a given score for a statement, all of the criteria for that score must be met. If not, a lower score should be applied, even if that score does not indicate the exact extent of progress.

Where possible, references have also been provided to other appropriate tools that may assist practitioners in addressing specific issues that are covered in this toolkit. The following are several overarching tools which may help practitioners in integrating adaptive management into their planning processes.

Tools:

- Miradi (www.miradi.org)[14] is a useful software package for conservation planning and design. Miradi can be used to draw a conceptual model of the landscape, including the conservation targets, threats (ranked according to their importance) and strategies to mitigate those threats. Goals, objectives and indicators can also be included, using standardized protocols and terminology from the Conservation Measures Partnership.
- The World Wildlife Fund has a number of online resources that explain their adaptive management cycle, and these can be helpful in learning about and implementing conservation planning. These include: the WWF Standards of Conservation Project and Programme Management[15] and Delivering Large-Scale Conservation Results: WWF Program Management Standards for Ecoregions and Large Programs[16].
- The WWF document From the Vision to the Ground provides a guide to implementing ecoregion conservation in priority areas by synthesizesing the experiences being generated across and beyond WWF itself.[17]

The Additional Tools and Resources section of this document contains a more comprehensive list of tools relevant to implementing landscape scale programs.

Quick Fact Sheet

Name of landscape		
Location of landscape (countries, provinces/regions, and if possible map reference)	Country/Countries: Province/Region: Map Reference:	
Size of landscape		
Date of legal establishment of the landscape		
Date landscape planning began		
Main land use types	Key Landscape Components	Protected Areas (Per IUCN Categorization[18])
Number of staff	Permanent	Temporary
Annual budget		
Landscape vision		
Primary landscape conservation targets		
Goals for the above targets		
Key partners	.	

Two primary landscape objectives		
Objective 1:		
Objective 2:		
Top two threats to the landscape (with reasons for why these were chosen)		
Threat 1:		
Threat 2:		
Two potential opportunities that can help to achieve the landscape vision		
Opportunities 1:		
Opportunities 2:		
Two critical strategies that can be employed to achieve landscape goals		
Strategy 1:		
Strategy 2:		
Two gaps in your landscape that are your top priorities for future action		
Gap 1:		
Gap 2:		
Top two successes of the specified landscape initiatives		
Success 1:		
Success 2:		
Name of assessor		Date of assessment
Contact Information		

Team Composition

Critical to the effectiveness of any landscape conservation initiative are the individuals who will be involved in its design and implementation[19]. The following questions therefore aim to assess whether the core program team has the appropriate capacity to effectively manage the landscape.

Tool: Refer to Team Composition and Operations in Step 1.1 of the WWF Standards[20] for a guide to defining team composition and operations, including the appointment of team leaders and institutional buy-in of the team operations.

#1	**The core team consists of an adequate number of staff, with appropriate skills to manage the landscape and implement the necessary conservation activities**
0	- Core team lacks adequate number of staff with appropriate skills
1	- Adequate number of staff in core team, but likely lacking some core skills and competencies*
2	- Adequate number of staff and skills present in core team - Some form of capacity assessment has been conducted - Potential sources for addressing gaps in staff numbers and competencies have been identified
3	- A formal capacity assessment has been completed - Adequate numbers of staff present in core team - Staff have the appropriate competencies to carry out their assigned tasks - Gaps in staff numbers and/or competencies have been addressed - Ongoing training and development opportunities are provided to staff that are appropriate to their needs

* Core competencies and skills might include:

- wildlife management and ecology
- law enforcement
- (eco) tourism
- human dimensions - social/economic (e.g., geographers, economists, anthropologists, psychologists)
- conflict resolution
- GIS
- Program/project management
- statistics for analyzing data
- communications/outreach
- financial / business administration
- fundraising,
- financial/business planning and sustainable finance,
- human resource / personnel and organizational management
- civil engineering and maintenance

Tool: The Programme Capacity Assessment Template in Step 3.3 of the WWF Standards[21] can be used to identify skills needed and solutions for addressing gaps.

#2	**Qualified people from local communities have been hired whenever possible***
0	< 50 % of staff are from local communities
1	> 50 % of staff are from local communities > 10 % of staff in senior management positions[+] are from local communities
2	> 75 % of staff are from local communities > 25 % of staff in senior management positions are from local communities
3	> 90 % of staff are from local communities > 50 % of staff in senior management positions are from local communities

* This statement may not apply to certain positions, for example some law enforcement staff, where conflicts of interest may arise if these positions are held by members of the local community

[+] Roles which involve leadership or decision making

#3	**Adequate incentives and opportunities are provided for staff development, career advancement, and retention of high-quality staff**
0	- No staff training or incentive mechanisms have been put in place
1	- Two of the statements below apply
2	- More than two, but not all of below statements apply
3	- All of the statements below apply
	- Regular on-the-job training is offered to staff - Opportunities exist for junior staff career advancement* - Incentives are provided for staff motivation[+] - Staff salaries are competitive with adequate cost-of-living pay increases - Job security is provided to staff through long-term employment guarantees of 5+ years

* Examples: salaries commensurate with skills, performance-linked pay raises

[+] Examples: newsletter recognition, performance awards, cash bonuses

Operational Plan

An operational plan includes an assessment of human and other resource requirements, financial requirements and risk analysis. Such steps are important for ensuring that capacity exists for the ongoing implementation of proposed activities and monitoring.

#4	**A detailed yearly work plan, based on a multiple year management plan has been developed and is in use**
0	- No work plan with corresponding timeline exists
1	- A work plan has been developed, but is not complete or implemented
2	- A detailed work plan has been completed - Many activities have been implemented according to the work plan timeline
3	- A detailed work plan has been completed - > 75 % of activities have been implemented according to the work plan timeline

Tool: Gantt Charts[22] are an effective visual tool for planning out a timeline of project or program activities

#5	**A detailed annual financial plan has been developed and budgets are well managed**
0	- No financial plan exists - Budget management is poor and constrains program effectiveness
1	- A financial plan exists but is broad and/or incomplete - The budget is not managed according to the financial plan, constraining program effectiveness
2	- A detailed financial plan exists - The budget is not managed according to the financial plan, but program effectiveness is not significantly constrained
3	- A detailed financial plan exists - The budget is well managed to meet management needs and largely follows the financial plan

Tool: The WWF Budget Template[23] guides the development of a detailed 5-year budget, outlining projected costs per activity as well as projected income

#6	**Political approval for the management plan has been received from both provincial and central government representatives**
0	- Political approval has not been sought
1	- Communications have been initiated with government representatives, but approval has not yet been indicated
2	- Approval has been received from both provincial and central government representatives, but has yet to be formalized
3	- Formal approval has been given by both provincial and central government representatives

#7	**A SWOT* analysis has been conducted and risk+ mitigation strategies incorporated into the management plan**
0	- No SWOT analysis has been conducted
1	- A SWOT analysis was conducted at an early stages of the program, but has not been repeated or revised at any time within the past three years
2	- A recent SWOT analysis has been conducted (within the past three years) - The major potential risks to the success of the program have been identified and ranked according to their level of impact - Realistic mitigation strategies to address these threats have been identified, but not yet implemented
3	- A detailed risk assessment has been conducted - The major potential risks to the success of the program have been identified and ranked according to their level of impact - Realistic mitigation strategies to address these threats have been identified and implemented where necessary

* Strengths, Weaknesses, Opportunities and Threats

+ Risks may include the potential actions of opposition stakeholders, political instability, economic instability, technical issues, leadership issues etc.

Tool: The WWF Programme Risk Assessment Tool helps projects and programs to identify and rank threats to guide the development of mitigation strategies.[24]

Tool: A SWOT analysis can also be useful for outlining the strengths, weaknesses, opportunities and potential threats that can affect the success of a project or program.[25]

#8	**The management plan has been shared with, and endorsed by, the main stakeholders within the landscape**
List the main stakeholders: _____ _____ _____ _____ _____	
0	- The plan has not been shared with stakeholders outside of the core team
1	- The plan has been shared with some, but not all, of the main stakeholders
2	- The plan has been shared with all of the main stakeholders - Endorsement has been received from some, but not all, of these stakeholders
3	- The plan has been shared with all of the main stakeholders - Endorsement has been received from all of these stakeholders

* A management plan includes both the work plan and financial plan

#9	**A central database and analysis center has been established, equipped and staffed (to aid in monitoring and evaluation)**
0	- No central database exists
1	- A central database has been developed - There is no plan for analysis of the data
2	- A central database has been developed - Some analysis of data occurs, but staff and equipment are insufficient for conducting ongoing analysis
3	- A central database has been developed - An analysis center has been established, and adequately equipped and staffed - Staff have the appropriate skills* necessary for conducting data analysis, or partnerships have been formed to fill staffing gaps - Ongoing analysis of data occurs

* These may include database management, Geographic Information Systems (GIS) mapping abilities or statistical expertise

#10	**The current budget is sufficient for the next three years of core program implementation**
0	- Significant gaps exist in the current year's budget, in addition to future years
1	- Significant gaps exist in the budget for the next three years, but the current year's budget is secure - Funding has been sought to address budget gaps, but there is uncertainty as to whether these funds will be received
2	- The current budget is largely sufficient for the next three years of implementation - Some budget gaps exist, but funding has been sought to address these gaps and confidence that these funds will be received is high
3	- The current budget is sufficient for the next three years of program implementation

#11	**A sustainable* funding plan is in place to support long-term conservation initiatives (> 5 years)**
0	- No long-term, sustainable funding plan exists
1	- A long-term funding plan has been developed - Present funding sources only provide short-term funds (grants covering <5 years), and therefore are not sustainable
2	- A long-term, sustainable funding plan has been developed - Some present funding sources provide long term funding (> 5 years)
3	- A long-term, sustainable funding plan has been developed - Present funding sources provide > 75 % of needed funding in the long term

* Sustainable refers to a continual flow of funds for which there is no projected significant decline at any point in the future. Examples: trust funds, user charges, debt for nature swaps

Tool: Refer to the Conservation Finance Alliance website (www.conservationfinance.org) for examples of sustainable finance mechanisms implemented in various regions.[26]

#12	**A formal review of management, including strategies and activities, is conducted on a regular basis (< 3 years)**
0	- Strategies and activities have never been audited/peer reviewed
1	- An informal audit/peer review was conducted more than 3 years ago - No further audit/peer reviews have been conducted
2	- Informal audit/peer reviews occur on a regular basis at least every 3 years - Or: formal audit/peer reviews are conducted, but not on a regular basis
3	- Formal audit/peer reviews are conducted at least every 3 years

Stakeholders

While the success of landscape level conservation is not solely dependent on stakeholder involvement and compliance, it a critical element to the viability of any initiative set forth by the landscape planning team and field personnel. It is also important to identify and understand the viewpoints of stakeholders opposed to the conservation program. Furthermore, local stakeholders are the ones likely to be most directly impacted by the conservation program, and therefore they deserve to be involved.

In order for people to take action to protect and manage the environment, they need to understand how the natural ecosystem works and what role they can play as potential stewards.[27] Stakeholders with enhanced knowledge and understanding of natural and biological history tend to be more receptive to management initiatives and provide more support.[28] Similarly, stakeholders are the vehicles by which this knowledge will be passed on to other community members, local leaders and subsequent generations, so it is crucial that be involved throughout the duration of any landscape level initiative.

Stakeholders may include (but are not limited to), indigenous and local non indigenous communities, large land parcel holders, local or national or regional government authorities, commercial or industrial agents, as well as other conservation or development agencies, organizations or research institutions within the landscape.

#13	**Stakeholder analysis has been conducted and their participation in management has been formalized**
0	- No stakeholder analysis has been conducted
1	- Stakeholder analysis has been conducted
2	- Informal participation of main stakeholders in management decisions
3	- Participation of main stakeholders in management decisions has been formalized

Tool: Refer to the Stakeholder Analysis in Step 1.1 of the WWF Standards.[29]

#14	**Stakeholders have been continually informed and involved in the design, implementation and monitoring of the landscape**
0	- Stakeholders have not been contacted or invited to directly participate in landscape planning
1	- Communication with stakeholders has been established but limited input has been incorporated into ongoing management decisions
2	- Input has been sought and received from these stakeholders regarding program planning and design, resulting in key issues for stakeholders being identified and addressed but their involvement could be improved.
3	- Effective working partnerships have been established and remain ongoing with stakeholders, resulting in direct participation in all relevant decisions making processes

Scope, Background and Context

Understanding the context is an essential first step in the landscape assessment process. Landscapes are established to conserve critical species and their associated habitats and communities. Thus, it is important to understand them and their significance at global, national or local scales, as this is vital to successful landscape planning and evaluation. By examining the context, we are able to capture how realistic our goals and objectives are as well as realize external threats and influences. In addition, it can allow for the identification over time of benefits which may be external to the initial focus of the program. While some context elements are likely to be constant, others will change over time.[30]

#15	**The vision for the landscape is inspiring, brief, and adequately captures its desired ultimate state as well as its role in sustainably fulfilling human needs**[31]
0	- No vision has been stated for the landscape
1	- A vision for the landscape has been stated but is not adequate[32] - The vision is not inspiring, succinct, or does not sufficiently address priority places*, particular threats+, key species✧ or human needs°
2	- The vision captures most of the above features - Some aspects remain to be incorporated into the vision
3	- The vision is inspiring - The vision adequately captures the desired state of the landscape as well as the sustainable fulfillment of human needs

* Examples: a protected area, or a matrix of protected areas and human-dominated areas

+ Examples: bushmeat, pollution, rapid industrialization, commercial agriculture

✧ Examples: one or a few charismatic species, an entire ecological community, genetic variability / connected within populations of a species

° Examples: agricultural importance, forest products, water resources, cultural significance

#16	**Appropriate targets have been identified and agreed upon by stakeholders**
0	- No targets have been identified
1	- Some targets identified - The targets do not include some critical species, habitats or ecological processes necessary to achieve landscape vision
2	- Targets include most, but not all, of the critical species, habitats or ecological processes necessary to achieve landscape vision
3	- Targets include an adequate representation critical species, habitats or ecological processes needed to adequately address landscape vision

Tool: Refer to Selecting Conservation Targets for Landscape-Scale Priority Setting[33] for a discussion of target selection processes used for landscape programs.

#17	**Land use and land cover types within the landscape have been identified and mapped**
0	- Land use and land cover types within the landscape have not been mapped
1	- Some efforts at mapping and analysis of land use and land cover have been made, but significant work remains to be done*
2	- Significant mapping and identification of land use / land cover has been accomplished - Mapping was not conducted with input from stakeholders
3	- Extensive mapping and identification of land use / land cover conducted - Mapping was conducted through a participatory process with stakeholders, and their needs and interests regarding land use were incorporated into landscape planning

* Good maps for landscape planning might include the following information:[34]

- Land cover
- Historical and current distributions of targets
- Historical and current land and resource use patterns
- Major access routes (including rivers)
- Land/resource ownership, management and governance
- Habitat types including fresh water / marine
- Economic data
- Population data
- Infrastructure developments
- Areas under no or reduced human impact

#18	**Appropriate legal / political structures and strong enforcement of laws* are present in the landscape**
0	- Little or no legal structure or law enforcement exist to support conservation
1	- Some legal structure is in place, however, enforcement is weak or non-existent
2	- Legal structures to support conservation are adequate - Some enforcement in place[+]
3	- A strong legal framework for conservation exists - Conservation laws are strongly enforced

* Examples: legal status and enforcement for protected areas, land use regulations, law enforcement capacity, government support of environmental law enforcement, international agreements for transboundary landscapes

[+] Example: cases have been brought to court

#19	**There is formal (legal) and informal recognition of community and indigenous rights within the landscape**
0	- Indigenous and other communities are marginalized, with few or no rights
1	- Indigenous and other communities have some control over land use and resources, but their rights are not formally recognized or protected
2	- Indigenous and other local communities' rights have some legal recognition - Enforcement and protection of their rights is insufficient
3	- Indigenous and other communities are empowered through secure legal rights to land and resources, representation in government, and enforcement of laws

#20	A strong conservation ethic exists among communities in the landscape
0	- Little or no appreciation of the need for conservation exists among local communities
1	- Some conservation awareness exists, but communities have little involvement in conservation initiatives
2	- Some community institutions and initiatives for conservation exist - These are localized and do not involve widespread community involvement
3	- Communities are actively involved in conservation*

* This could involve traditional resource management systems (e.g., community reserves), spiritual and cultural connections to the natural world (thus resulting in hunting taboos and conservation of sacred sites); community leaders who are active in conservation, social institutions and networks for conservation; new partnerships forged between conservation organizations and communities

#21	Economic benefits accrue to local communities from activities directly related to the landscape conservation program
0	- Local communities receive little or no economic benefits as a result of landscape conservation program activities
1	- Limited economic benefits accrue to communities - These benefits are mostly generated by independent initiatives of individual community members, and are not integrated into or supported by landscape program planning
2	- Some efforts have been made to provide economic opportunities to local communities through the landscape conservation program
3	- Providing economic benefits to local communities are an integral part of the landscape conservation program*

* Examples: through employment opportunities, development of alternative income streams such as ecotourism, revenue sharing from tourist taxes and park visitor fees, payments for ecosystem services, and direct use of conserved natural resources such as fuel, fodder and food.

Goals and Objectives

The identification of goals and objectives is an important step in planning to guide the activities of the program. The setting of SMART (Specific, Measurable, Achievable, Results-Oriented and Time-Bound) goals and objectives ensures that they are both realistic and measurable, allowing for effective monitoring of the success of a program in achieving its desired conservation impacts. Goals and objectives should be reviewed throughout the life of the project to reflect increases in knowledge in regards to the targets and threats, and changes in external conditions that may affect the extent to which they can be achieved.

Goals relate to the desired status of the conservation targets over time, whereas objectives relate to the reduction of direct threats to those targets.

Example goal: By 2020, at least 100 pairs of white spotted monkeys of reproductive age will be established and breeding successfully in Lithocarpus National Park.[35]

Example objective: Within five years of the start of our project, the number of kilos of monkey meat sold in the two main local markets (Bokono and Kilompa) will decrease by 75% from 2005 values.[36]

Tool: Refer to the Action Plan in Step 2.1 of the WWF Standards[37] for a description and examples of SMART goals and objectives.

#22	SMART goals have been set for each of the conservation targets of the program[38]
0	- No defined goals have been set for the conservation targets
1	- Goals have been set for some of the conservation targets - The goals do not meet all of the SMART requirements
2	- Goals have been set for all of the conservation targets - The goals do not meet all of the SMART requirements
3	- Goals have been set for all of the conservation targets - The goals meet all of the SMART requirements

#23	SMART objectives have been set for each of the identified direct threats to the program targets
0	- No defined objectives have been set for the threats to the conservation targets
1	- Objectives have been set for some of the direct threats - The objectives do not meet all of the SMART requirements
2	- Objectives have been set for all of the direct threats - The objectives do not meet all of the SMART requirements
3	- Objectives have been set for all of the direct threats - The objectives meet all of the SMART requirements

Strategies and Activities

Strategies should be selected to address threats and opportunities that relate directly to the primary objectives and goals defined for each landscape. Strategies will often be unique to each landscape to reflect variations in land cover, land use and social context. The following, therefore, provides only a guide to some effective strategies and activities that may be considered at the landscape scale.

#24	**Partnerships have been developed with key private sector land managers to ensure conservation concerns are integrated into land management plans***
List the key private land managers: _____ _____ _____ _____ _____	
0	- No partnerships have been developed with private sector land managers
1	- Conservation concerns have been communicated to land managers, but no action has been taken to integrate these into their land management plans
2	- Partnerships have been developed with some land managers - Conservation concerns have been integrated into their land management plans - Action has yet to be taken to address these concerns
3	- Partnerships have been developed with all of the key land managers - Conservation concerns have been integrated into their land management plans and related strategies have been implemented

* These may include areas with commercial agriculture, and extractive zones (e.g. logging, mining, oil)

#25	**Policies have been introduced and implemented to address major threats* to landscape targets**
0	- No policy strategy has been drafted or introduced to government
1	- Policy strategies have been drafted and introduced to government
2	- Policy strategies have been drafted and introduced to government
3	- National and local government policies address the major threats to the landscape adequately support long term landscape conservation efforts

* Examples: policy interventions for the regulation of extractive industries, monitoring and law enforcement for environmental crimes

#26	**Community outreach and education strategies help to reinforce landscape goals and objectives**
0	- Community outreach and education strategies have not been developed
1	- Community outreach and education strategies have been developed, but not implemented on a significant scale
2	- Community outreach and education strategies are implemented and reach part (>25%) of the community on a regular basis
3	- Community outreach and education strategies are implemented and reach >50% of community on a regular basis

* Examples: sponsored field trips, support to local education institutions, or the provision of scholarships and grants for conservation education initiatives

#27	**Alternative economic activities* have been developed in an effort to reduce threats to the ecosystem**
0	- No alternatives have been explored
1	- Potential alternate activities have been explored but not implemented
2	- Some conservation friendly alternatives have been instituted to assist in the provision of economic sustainability
3	- Substantial conservation friendly alternatives have been instituted to assist in the provision of economic sustainability

* Examples: domestic animal farming, the provision of fuel-efficient stoves, sustainable agriculture, locally-run ecotourism, non-timber forest products, indigenous arts and crafts

#28	**Payment schemes for ecosystem services* have been implemented**
0	- No payment schemes for ecosystem service have been considered
1	- Potential payment schemes for ecosystem services have been identified - No steps have been taken to implement these schemes
2	- Some payment schemes for ecosystem services have been implemented - The payment schemes have yet to be proven successful in generating revenue for conservation activities within the landscape
3	- Payment schemes for ecosystem services have been implemented - The schemes have been successful in generating revenue for conservation activities within the landscape

* Examples: carbon storage (forests), clean water (wetlands, river sources), buffer from natural disasters such as hurricanes and tsunamis (wetlands, mangroves)

#29	**Conservation concerns with regards to infrastructure developments* are being adequately addressed**
0	- No plans are in place for addressing proposed infrastructure developments within the landscape
1	- Concerns regarding infrastructure developments have been communicated with relevant authorities (Or, conservation concerns with regards to infrastructure development have been recognized, but no action has been taken)
2	- Concerns regarding infrastructure developments have been communicated with relevant authorities, media and general public - Conservation concerns have not been incorporated into infrastructure development plans.
3	- Effective collaboration have been developed with relevant authorities - Conservation concerns have been incorporated into infrastructure development plans

* Such as industrial areas, transportation networks, power plants

Monitoring and Analysis

Monitoring outputs, outcomes and impacts are a critical step in assessing the progress of your landscape. Outputs help us examine the extent to which conservation strategies have been implemented. Outcomes however, specifically focus on whether the outputs of our conservation activities have achieved the desired goals for the landscape. The key to successful assessment of outputs, outcomes and impacts are the indicators by which we evaluate our progress.

#30	**Adequate baselines are available for conservation targets, as well as threats and other relevant factors**
0	- No baseline data has been identified or generated
1	- Some baselines in the form of historical records or early studies have been identified - Gaps in this data has not been supplemented by further investigation by the program team
2	- Extensive baseline data has been collected - Some gaps in this data have been addressed through the generation of new data, however, some gaps in baselines remain
3	- A complete set scientifically rigorous baseline data* has been identified and/or generated that will allow for comparisons of conservation progress over time

* A complete set of baseline data might include the following:
- historical records
- past states or trends in the targets
- livelihood data before conservation measures were implemented
- scenarios envisaged for future state of landscape in the absence of conservation measures
- suitable control areas identified for comparison, where conservation measures will not be implemented

#31	**Indicators have been developed to monitor outputs*, outcomes[+] and impacts[✧]**
0	- No indicators addressing outputs, outcomes or impacts have been developed
1	- Indicators may address a few outputs, outcomes or impacts, but there are significant gaps in indicators that do not allow adequate monitoring
2	- Indicators allow monitoring of many of the key outputs, outcomes and impacts
3	- A suitable number of indicators that allow adequate monitoring of outputs, outcomes and impacts have been developed

***Outputs** measure the extent to which activities have been implemented in the conservation program Examples: wildlife and habitat research and management, landscape mapping, visitor management, facility and equipment maintenance, patrolling and enforcement, community townhall meetings, outreach materials produced, staff management and training, budget and financial control, and increased stakeholder participation.

[+] **Outcomes** measure the extent to which threats have been reduced as a result of activities
Examples: improvements in socioeconomic conditions that result in a reduction of direct pressures on environment, improved local community attitudes and perceptions towards landscape conservation initiatives, reductions in negative consequences of resource extraction, and increased support from local, regional or national governments

[✧] **Impacts** measure the extent to which changes in targets have occurred as a result of threat reduction
Examples: stable or increasing population of species targets, along with maintenance of genetic diversity, maintenance of a representation of all critical habitats, maintenance and/or restoration of essential ecological processes

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Tool: Genetic structure within populations of a species across the landscape can be assessed with molecular genetic techniques

Tool: Integrity of habitats, corridors and other areas of conservation importance can be assessed with remote sensing and GIS

#32	**Indicators cover an adequate range of subject areas*, meet criteria for being good indicators[+], and are being monitored at an appropriate frequency**
0	- Little or no indicator development has taken place
1	- Some indicators have been developed - Many of these require further development or modification to be considered good indicators
2	- Substantial work has been done to develop suitable indicators - Some additional work or gaps in coverage remain, and / or the indicators need to be monitored on a more frequent basis
3	- An appropriate, useful set of indicators has been developed - These indicators are being monitored on a regular basis

* Indicators should be designed to cover some or all of the areas mentioned below as feasible or appropriate:[39]
- Natural capital (such as populations of key species, landscape and ecosystem integrity)
- Social capital (such as number of social organizations and local networks in conservation, awareness and support of conservation issues)
- Financial capital (such as remittances, household income, the presence of financial institutions, employment)
- Human capital (Such as quality healthcare, infant mortality, quality of education)
- Physical capital (Such as rural access to roads, rural electrification, village water supply, housing quality)

[+] Good indicators should have the following characteristics:
- They are linked to goals, objectives or activities[40]
- They are SMART (Specific, Measurable, Achievable, Reachable, Timely)
- They are cost effective and practical to measure
- They have been developed with input from stakeholders, including local communities, preferably as equal participants rather than just informants who are not included in the selection process
- They include national level indicators if possible, so that factors operating from outside the landscape can be considered as possible external pressures or factors

Tool: The Millennium Development Goals, Indicators for Monitoring Progress[41] can be useful in selecting indicators of human well-being in the landscape.

Tool: For a discussion on conducting participatory workshops to reach stakeholder consensus on project indicators, see: Sayer, et al. 2006,[42] Bell & Morse 2004,[43] and Reed & Dougill 2002.[44]

#33	**The trade-offs between conservation outcomes and socioeconomic benefits from the implemented strategies and activities are analyzed to ensure that conservation goals are not compromised while addressing human needs**
0	- Such trade-offs are not being considered
1	- There is implicit recognition of potential trade-offs between conservation outcomes and socioeconomic benefits - No systematic analysis of trade-offs has been conducted
2	- Some effort has been made to analyze potential trade-offs using data collected from monitoring indicators of conservation outcomes and socioeconomic benefits - Analysis of the data has not been completed
3	- Potential trade-offs have been explicitly recognized and factored into monitoring and analysis - There is a systematic and rigorous effort to analyze such trade-offs, including unintended / unanticipated costs or benefits to both conservation and human needs

Tool: A Sustainable Livelihoods Analysis can be used to identify the assets (including biodiversity/natural resources) that people both build up and draw upon in the course of making a living, factors that contribute to the vulnerability and insecurity of livelihoods (such as natural disasters or price fluctuations), the social, institutional and policy contexts that shape people's livelihoods, and livelihoods strategies, trends and outcomes.[45]

Tool: Refer to WWF's Payment for Ecosystem Services (PES) scheme for a discussion of the steps involved in PES and examples of projects in which PES has been implemented.[46]

#34	**Economic and non-economic benefits* resulting from conservation actions have been identified and reach a significant portion of the local community**
0	- Economic and non economic benefits have not been identified
1	- A preliminary assessment of benefits has been conducted but is incomplete
2	- A benefits assessment has been completed - Economic and non economic benefits have been identified - These benefits have not been widely realized by the local community (i.e. only a subset of potential recipients of benefit have actually received them)
3	- A benefits assessment has been completed - Economic and non economic benefits have reached a significant portion of the local community - These benefits are clearly linked to conservation interventions

* Benefits can be related to values of food, water, culture, spiritual practice or religion, health, recreation, knowledge, environmental services as well as infrastructure.

Share

The sharing of knowledge generated and lessons learned is a key component for increasing efficiency and effectiveness within the conservation field. Sharing can be both internal to a program and external, aiding in the prioritization of strategies and incorporation of best practices.

#35	Scientific and technical products* have been generated
0	- No scientific or technical products have been generated
1	- Very few scientific or technical products have been generated - These are mostly unpublished, or not widely distributed
2	- Some scientific or technical products have been generated - These products have been published or presented in limited forums (i.e. local conferences or low distribution journals)
3	- An extensive range of scientific or technical products have been generated - Many of these have been published in peer-reviewed international journals and prominent books, and/or presented at national and international conferences

* Examples: journal articles, technical books and monographs, presentations at conferences, electronic resources online and offline such as databases, data CDs/DVDs, data analysis software.

#36	Knowledge acquired* and lessons learned^{+} have been shared
0	- Knowledge acquired or lessons learned is not shared with other landscapes
1	- A limited level of informal sharing occurs with some other landscapes
2	- Some formalized sharing of information has taken place^{+}
3	- Extensive formalized dissemination, targeting all other relevant landscapes, has taken place

* Knowledge gained about the landscape, i.e. from collection and analysis of data

$^{+}$ Lessons learned about successes and failures of conservation programs based on experience

$^{\diamond}$ This may be carried out through means such as: workshops, inter-landscape training efforts, and disseminations of program reports

Glossary

Activity – A specified action or set of tasks undertaken by staff and/or partners to reach one or more objectives.

Adaptive Management – The incorporation of a formal learning process into management action. Specifically, it is the integration of design, management, and monitoring, to provide a framework to systematically test assumptions, promote learning, and supply timely information for management decisions.

Direct Threat – a human action that immediately degrades one or more biodiversity targets. Typically tied to one or more stakeholders. Also referred to as a pressure or source of stress.

Ecoregion – A relatively large unit of land or water containing a characteristic set of natural communities that share a large majority of their species, dynamics and environmental conditions[47].

Evaluation – The judgment or assessment of achievement against some predetermined criteria (usually a set of standards or objectives).

Factor – A generic term for an element of a conceptual model including direct and indirect threats, opportunities, and associated stakeholders. It is often advantageous to use this generic term since many factors could be both a threat and an opportunity.

Goal – A formal statement detailing a desired status of conservation targets over time. Successes towards achieving goals are considered as impacts of conservation interventions.

Indirect Threat – A factor identified that is a driver of direct threats. Also referred to as a factor, root cause or underlying cause.

Impact - the extent to which changes in targets have occurred as a result of conservation interventions.

Indicator - a measurable entity related to a specific information need, such as the status of a target, change in a threat, or progress toward an objective a measure.[48]

Monitoring – The process of repeated observation of landscape parameters over a specified length of time.

Objective – A formal statement detailing the desired outputs or outcomes that are aimed to be achieved as a result of conservation interventions. Realization of objectives should ultimately lead to the fulfillment of the landscape vision and target related goals.

Opportunity – A factor identified in an analysis of the program that potentially has a positive effect on one or more targets, either directly or indirectly.

Output - the extent to which activities have been implemented (for example: number of people hired, number of workshops held, number of brochures and posters produced)

Outcome - the extent to which threats have been reduced as a result of activities.

Pressure – Processes, activities or events that have already had a detrimental impact on the integrity of the landscape. Pressures may include both legal and illegal activities and may result from direct and indirect forces. Often used synonymously with threat.

Project - a unit of conservation management, which focuses on a specific focal area and is generally led by a single management team.

Program - a wider unit of conservation management than a project, which may encompass a number of projects within its scope.

Scope – The broad geographic or thematic focus of a project or program.

Stakeholder – Any individual, group, or institution who has a vested interest in the program area and or who potentially will be affected by project activities and have something to gain or lose if conditions change or stay the same.

Strategy – A broad course of action that includes one or more objectives and the activities required to accomplish each objective.

Target – Selected species, habitat/ecological system, or ecological process that represents overall biodiversity within a landscape, and that can be measured to indicate the effectiveness of conservation efforts over the long term.[49]

Threat – Potential processes, activities or events in which a detrimental impact is likely to occur or continue in the future.

Vision – A description of the desired state or ultimate condition that a project or program is working to achieve. A complete vision can include a description of the biodiversity of the site and/or a map of the program area as well as a summary vision statement.

Work plan – A short-term schedule for implementing an action, monitoring, or operational plan. Work plans typically list tasks required, who will be responsible for each task, when each task will need to be undertaken, and how much money and other resources will be required.

Additional Tools and Resources

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Resource	**Reference**
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LANDSCAPE CONSERVATION ASSESSMENT FORM
ANSWER SHEET

Team Composition		**Score**
#1	**The core team consists of an adequate number of staff, with appropriate skills to manage the landscape and implement the necessary conservation activities**	
#2	**Qualified people from local communities have been hired whenever possible**	
#3	**Adequate incentives and opportunities are provided for staff development, career advancement, and retention of high-quality staff**	
Comments:	**Average score:**	

Operational Plan		**Score**
#4	**A detailed yearly work plan, based on a multiple year management plan has been developed and is in use**	
#5	**A detailed annual financial plan has been developed and budgets are well managed**	
#6	**Political approval for the management plan has been received from both provincial and central government representatives**	
#7	**A SWOT analysis has been conducted and risk mitigation strategies incorporated into the management plan**	
#8	**The management plan has been shared with, and endorsed by, the main stakeholders within the landscape**	
#9	**A central database and analysis center has been established, equipped and staffed (to aid in monitoring and evaluation)**	
#10	**The current budget is sufficient for the next three years of core program implementation**	
#11	**A sustainable funding plan is in place to support long-term conservation initiatives (> 5 years)**	
#12	**A formal review of management, including strategies and activities, is conducted on a regular basis (< 3 years)**	
Comments:	**Average score:**	

Stakeholders		Score
#13	Stakeholder analysis has been conducted and their participation in management has been formalized	
#14	Stakeholders have been continually informed and involved in the design, implementation and monitoring of the landscape	
Comments:	Average score:	

Scope, Background and Context		Score
#15	The vision for the landscape is inspiring, brief, and adequately captures its desired ultimate state as well as its role in sustainably fulfilling human needs	
#16	Appropriate targets have been identified and agreed upon by stakeholders	
#17	Land use and land cover types within the landscape have been identified and mapped	
#18	Appropriate legal / political structures and strong enforcement of laws are present in the landscape	
#19	There is formal (legal) and informal recognition of community and indigenous rights within the landscape	
#20	A strong conservation ethic exists among communities in the landscape	
#21	Economic benefits accrue to local communities from activities directly related to the landscape conservation program	
Comments:	Average score:	

Goals and Objectives		Score
#22	SMART goals have been set for each of the conservation targets of the program	
#23	SMART objectives have been set for each of the identified direct threats to the program targets	
Comments:	Average score:	

Strategies and Activities		Score
#24	Partnerships have been developed with key private sector land managers to ensure conservation concerns are integrated into land management plans	
#25	Policies have been introduced and implemented to address major threats to landscape targets	
#26	Community outreach and education strategies help to reinforce landscape goals and objectives	
#27	Alternative economic activities have been developed in an effort to reduce threats to the ecosystem	
#28	Payment schemes for ecosystem services have been implemented	
#29	Conservation concerns with regards to infrastructure developments are being adequately addressed	
Comments:	Average score:	

Monitoring and Analysis		Score
#30	Adequate baselines are available for conservation targets, as well as threats and other relevant factors	
#31	Indicators have been developed to monitor outputs, outcomes and impacts	
#32	Indicators cover an adequate range of subject areas, meet criteria for being good indicators, and are being monitored at an appropriate frequency	
#33	The trade-offs between conservation outcomes and socioeconomic benefits from the implemented strategies and activities are analyzed to ensure that conservation goals are not compromised while addressing human needs	
#34	Economic and non-economic benefits resulting from conservation actions have been identified and reach a significant portion of the local community	
Comments:	Average score:	

Share		Score
#35	Scientific and technical products have been generated	
#36	Knowledge acquired and lessons learned have been shared	
Comments:	Average score:	

APPENDIX

Recommendations

The following recommendations are provided for the ongoing development and refinement of the toolkit.

1. We recommend that the toolkit be widely circulated to conservation practitioners (especially field personnel and social scientists) so that their input can be used to refine it, thus making it more useful.
2. Other groups within WWF and in other organizations are engaged in developing toolkits that overlap at least in part with this effort. We recommend coordinating with these departments / agencies so that efforts can be consolidated. The following are some of the individuals involved in related toolkit development:
   - Alessandra Giuliani, Research Assistant, Poverty and Conservation Learning Group is working on a toolkit for socioeconomic impacts of protected areas
   - Graeme Worboys, Vice Chair (Mountains Biome), IUCN World Commission on Protected Areas, is currently editing a volume on Connectivity Conservation Management in landscapes, which will appear in 2008.
   - Jeffrey Sayer, Senior Scientific Adviser, IUCN Forest Conservation Programme, is currently working on Landscape Outcomes Assessment Methodology (LOAM).
   - Tim Reed, Conservation Audit Manager, The Nature Conservancy, has developed and conducted adaptive management audits of conservation projects.
   - Robert Horwich, Director, Community Conservation, has developed tools for the assessment of community conservation interventions.
3. So far, this toolkit has been designed with terrestrial/freshwater areas in mind, although many of the questions will be relevant to marine areas as well. However, it may currently be lacking in the area of marine conservation assessment. We recommend consulting with marine experts to remedy this gap.
4. Currently, the toolkit places more emphasis on the assessment of process rather than the monitoring of conservation outcomes and impacts. To an extent, this is unavoidable, as its main purpose is to aid practitioners in evaluating their progress in implementing landscape conservation. However, further work would be needed to make this toolkit more useful for impact and outcomes assessment.[50]
5. A system for summarizing the scores across all questions and presenting these in a graphical format should be developed. This could include summary scores or charts that offer a snapshot of progress in the different areas covered in the toolkit (refer to the Rapid Assessment of Progress in Protected Area Management[51] and Sayer et al. 2004[52] as examples). Such a system would facilitate tracking of progress over time.

Potential Additional Statements

A comprehensive list of all statements initially considered for inclusion in the TALC

In developing the toolkit, a list of criteria was compiled that is potentially important for assessing landscape conservation. However, many of these criteria were condensed or eliminated in the final toolkit to make it more usable, and to focus attention on some of the key issues. We felt that some of the criteria that did not make it into the final version might be useful to consider during further development. Therefore, we have stated all of our initial criteria (including those that are in the final version) here as a resource for future developers.

Operational Plan

Determining Requirements

- Core competencies / skills needed in landscape team have been identified
- Plans have been made for contracting out to third parties or partnering with them, in areas in which you do not have expertise in your core team (e.g., monitoring and evaluation experts, social scientists and workers, financial consultants).
- Adequate numbers of staff present in your core team.
- Infrastructure requirements have been planned out (e.g., building space, vehicles, computers, other technology, field equipment, miscellaneous supplies)
- Adequate levels of resources are available to conduct activities.
- A detailed financial plan / budget / financial requirements have been worked out.
- A long-term funding strategy is in place
- Sufficient institutional support available (from head office / superiors)
- A central data base and analysis center has been established, equipped and staffed.

Division of effort among sub-projects and personnel

- There is sufficient representation of various projects within the landscape (so that key issues or sites do not get overlooked)
- Programs are being broken down and adapted to local sites within the landscape (e.g., with community conservation, a landscape-level program might need to be broken down into smaller local projects with different partners in each area).
- Tasks have been assigned to individuals or groups with the appropriate competencies
- A detailed work timeline has been worked out (Gantt chart can be used for this)

Human Resources

- People with the right background / core competencies have been hired
- Qualified people from local communities are hired whenever possible
- Staff are encouraged to speak out on issues of concern, even if they disagree with management
- Job security is provided to staff through long-term employment (so conservationists don't have to seek other careers or migrate to other areas)

- Staff are paid in a timely manner
- Staff receive adequate cost-of-living pay increases
- Regular on-the-job training is offered to staff
- The following incentives are offered for staff motivation:
  - Direct financial incentives
  - Benefits like health insurance (self and family); paid vacation; housing and justifiable use of company vehicles in remote areas
  - Scholarships to support higher study, or attend training workshops / conferences
  - Flexible schedules, work-life balance
  - Encouragement and support of employees' independent research / initiatives when they are compatible with landscape vision
  - Recognition of achievements
  - Opportunities to publish / coauthor publications
  - Opportunities to travel to workshops, conferences and work sites of peers/exchange or exposure visits to other conservation sites

Risk analysis

- A SWOT (strengths, weaknesses, opportunities, threats) analysis has been conducted
- Pilot projects conducted for testing in the field prior to launching a full fledged program (in order to ascertain weaknesses and correct them before the full program starts)
- A detailed assessment of potential risks has been carried out, and possible mitigation strategies worked out
- Opposition stakeholders (i.e., those likely to oppose conservation) and the risks they pose have been identified
- Strategies to engage with opposition stakeholders (if possible) have been worked out

Bringing stakeholders on board

- All stakeholders have been consulted on the management plan
- The main stakeholders have endorsed the management plan
- Endorsement has been received from the (local) government for the implementation of the program
- The landscape vision has been shared with stakeholders

Planning for the long term

- Planning is done on a multi-year cycle (e.g., a 5-year management plan)
- Yearly implementation plans have been developed
- An estimate of project life span has been developed
- An exit strategy has been developed
- Plans have been developed for the sustainability of program components in the long run

Stakeholders

- A stakeholder analysis has been conducted to identify:
  - Stakeholders who will have an impact on the success of the program
  - Stakeholders who will be impacted (both positively and negatively) as a result of the implementation of the program of the program
  - Community leaders and other vital liaisons

Stakeholder Involvement

- The following stakeholders are continually informed and involved in the design, implementation and monitoring of the program (as appropriate):
  - Indigenous communities
  - Local communities (non-indigenous)
  - Large land parcel holders
  - Local government authorities
  - Regional or national government authorities
  - Commercial agencies whose activities significantly impact the conservation of biological resources within the landscape (possibly)
  - Other conservation or development agencies, organizations or research institutions and individuals working within the landscape
  - Local politicians / village heads or leaders / local councils / local decision making bodies
  - Funding bodies (though not necessary in some cases).
  - Some media outlets
- A sufficient proportion of each stakeholder group has been represented in these interactions with the program

Indigenous and Local Communities

- Community leaders and other vital liaisons have been included in stakeholder communications and participation
- A truly representative section of the local society is being involved in stakeholder communications and participation
- The program is supporting already established local groups who are providing conservation benefits

Political Support

- Political approval and support for the program has been received from both provincial and central government representatives

Scope, Background and Context

Vision

- A clear vision has been stated for the landscape
- The vision been shared with all staff
- The vision been shared with all stakeholders
- The vision is clearly communicated in organization materials

Targets

- All critical focal species have been identified
- All critical habitats have been identified
- All critical ecological processes have been identified
- All identified targets address the vision of the landscapes
- Principal stakeholders involved reached a consensus on the targets of the landscape and their ecological needs

Contextualizing the Landscape

- The landscape was designated to achieve the following goals:
  - Conserves priority areas
  - Combats particular threats
  - Protects key species
- The following land use types are included in the landscape:
  - Strict Nature Reserve: protected area managed mainly for science
  - Wilderness Area: protected area managed mainly for wilderness protection
  - National Park: protected area managed mainly for ecosystem protection and recreation
  - Natural Monument: protected area managed mainly for conservation of specific natural features
  - Habitat/Species Management Area: protected area managed mainly for conservation through management intervention
  - Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation
  - Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems
  - Community Conserved Areas
  - Logging Concessions: in naturally occurring forests
  - Agro forestry: plantations
  - Mining or oil extractive zones
  - Dams and major river flow modification: such as irrigation
  - Sport hunting/safari hunting
  - Rural areas with small-scale agriculture
  - Commercial scale agriculture
  - Urban areas

Identification of Land Use and Land Cover Types

- A land use / land cover map has been produced which includes:
  - Land cover
  - Historical and current distributions of targets
  - Historical and current land and resource use patterns
  - Major access routes (including rivers)
  - Land/resource ownership, management and governance
  - Habitat types including fresh water / marine
  - Economic data

  - Population data
  - Infrastructure developments
  - Areas under no or reduced human impact
- The size of the landscape and configuration of potential land uses meets the long-term ecological requirements of the vision as well as targets of the landscape
- The needs and interests of other stakeholders with regard to land and resource use have been identified (through consultation with those stakeholders)

Threats / Pressures
- A threats analysis (identification & ranking) has been conducted
- Root causes [indirect threats/factors] of the [direct] threats and opportunities identified
- Local communities contributed to the identification of threats and opportunities
- Potential future threats identified

Governance
- Areas requiring strict protection have appropriate legal status
- Appropriate regulations are in place to control land use and activities
- Enforcement capacity is sufficient in areas which require protection
- If landscape crosses national / administrative boundaries, formal transboundary agreements are in place
- Local communities have secure legal rights to their land
- The rights of local communities are supported and enforced by government authorities

Local Values and Lifestyles
- Local religious and cultural traditions that are tied to the protection of nature and natural resources have been identified
- Spiritual or sacred sites of conservation importance have been identified
- The interactions between local and indigenous peoples and their land /other natural resources (water/wildlife/forests) have been documented

Community Institutions and Local Capacity
- Community members are active in governance in the landscape
- Communities have sufficient technical capacity to manage their natural resources
- Social institutions/networks for conservation currently exist
- Community leaders are sympathetic to conservation.

Conservation Awareness
- The community is aware of the endangered status of species and ecosystems within the landscape
- The community is aware of their impacts on species and ecosystem integrity; aware of the threats to species / ecosystem
- The community is aware of the local benefits that will accrue to them from conservation interventions

- Communities are aware of existing land use boundaries and zones and laws if any
- Community members are actively involved in the conservation of critical landscape targets

Existing Conservation Programs
- Other conservation plans have already been proposed, or are in progress in the landscape
- How long existing plans have been in operation, and the nature of their interaction with stakeholders

Attitudes and Relations
- Local communities have historically been compliant with rules and regulations
- The current perceptions from local communities concerning conservation activities are positive
- The general relationship between conservation/landscape managers and the community is positive

Development Status
- The current resource and development needs of local communities have been identified
- Non-monetary benefits to communities generated by their surrounding environment (recreation, green spaces, aesthetic, cultural, spiritual value) have been taken into account
- Potential employment opportunities that may derive from conservation and related activities have been identified (eco tourism, adjacent land values, sustainable resource harvesting)

Goals and Objectives

Goals
- Goals have been developed for each of the targets
- These goals take into account the spatial requirements needed for the targets to remain viable
- The goals are SMART (i.e, Specific, Measurable, Achievable, Results-oriented, Time-limited)

Objectives
- Objectives have been set
- These objectives are SMART (i.e, Specific, Measurable, Achievable, Results-oriented, Time-limited)

Strategies and Activities

Landscape Planning

- The human and biological landscapes have been mapped and different land use zones planned
- Agreement from stakeholders and political support has been obtained regarding land use zoning and governance
- Implementation is being done jointly with stakeholders where appropriate
- Activities are integrated with stakeholders' existing plans or activities (conservation-related or otherwise)
- Planning is being coordinated with already existing conservation initiatives in the landscape
- Planning and information exchange workshops / meetings held among stakeholders at an adequate frequency

Political

- Policies have been introduced and implemented at the appropriate scale to address the major threats to the landscape targets
- Accountable governance of environmental resources has been secured
- The rights of indigenous communities to their land have been secured

Biophysical

- Changes in designated land uses have been achieved where necessary to fulfill the ecological requirements of the landscape targets
- Land management practices to support biodiversity have been implemented and/or strengthened
- Biodiversity surveys, ecosystem assessments have been conducted at a sufficient level

Social

- Existing and potential problems associated with migration have been addressed and appropriate mitigation measures been put in place
- If there are plans for relocating communities from protected areas, this is done with their full consent (or at their request), under mutually acceptable terms, with follow up after relocation to ensure relocated communities' welfare.
- Conservation related educational opportunities have been provided for local youth
- Social amenities have been provided to local communities, perhaps in partnership with social service agencies
- Non-economic (social and cultural) incentives are sufficiently emphasized and incorporated
- Town-hall style meetings held with community members on regular basis to promote transparency and good communication
- Co-ownership / co-management of projects with local community has been developed, with an existing community-based institution, or by setting up a new one if none currently exists

Economic

- Analysis of feasibility of alternative economic activities has been conducted
- Viable economic alternatives to current practices which result in biodiversity degradation or destruction have been implemented
- Business consultants have been hired or consulted for marketing the products of sustainable economic activities to external markets
- Finance mechanisms have been instituted to assist in the provision of economic sustainability
- Relationships have been explored / developed with commercial enterprises

Capacity Building

- Capacity is being built among staff, project partners and local community (as appropriate) in the following areas
  - Laws and governance
  - Natural resources management
  - Communications
  - Training (e.g. environmental education)
  - Community outreach
  - Tourism

General

- The strategies implemented by the program are clearly linked to the goals and objectives stipulated for the targets within the landscape
- Strategies have been evaluated in terms of their benefits, feasibility and social and economic costs

Monitoring and Analysis

General Baseline Data

- Baseline data are available for conservation targets, as well as other relevant factors
- Historical records are available for consultation
- Past states/trends of the targets have been identified
- Livelihoods analysis have been conducted and incorporated into baseline
- Scenarios for the future state of the landscape in the absence of conservation actions have been developed
- Control areas have been identified for comparison, where conservation actions will not be implemented

Indicator Selection and Use

- The indicators developed effectively address the goals of the landscape
- Indicators are SMART (Specific, Measurable, Achievable, Reachable, Timely)
- Indicators are cost effective to measure
- The indicators can be practically measured

- Agreement has been reached between implementing stakeholders on the indicators of program success
- Agreement been reached with local community on the indicators of program success
- National level indicators also being assessed, so that factors operating from outside the landscape can be considered as possible external pressures or factors
- Indicators are being monitored at an appropriate frequency

Indicator Development

- Indicators have been developed for the following areas:
  - Financial capital (Such as remittances, household income, credit associations, employment)
  - Social capital (Such as social organization, corruption, local networks, awareness of boundaries)
  - Physical capital (Such as rural access to roads, rural electrification, village water supply, housing quality)
  - Human capital (Such as quality healthcare, infant mortality, quality of education, skill level)
  - Natural capital (Such as deforestation rate, frequency of fires, level of erosion), for attributes that provide conservation benefits, and those that provide local stakeholders benefits

- Indicators have been developed for outputs – the extent to which activities have been implemented
  - Wildlife and habitat research and management
  - Landscape mapping
  - Visitor management in parks
  - Regular facility and equipment maintenance
  - Patrolling and enforcement
  - Ongoing community town hall meetings
  - Outreach materials produced
  - Staff management and training
  - Budget and financial issues
  - Level of stakeholder participation

- Indicators have been developed for outcomes – the extent to which threats have been reduced as a result of activities, e.g.,
  - Trade-offs between conservation and local needs nearing equilibrium, in a manner favorable to conservation
  - Socioeconomic conditions are improving
  - The negative consequences of resource extraction have decreased
  - Local communities' attitudes and perceptions towards landscape conservation initiatives has improved over time
  - Governments (local, regional or national) show increased support for landscape conservation

- Indicators have been developed for impacts – the extent to which changes in targets have occurred as a result of activities/threat reduction, e.g.,
  - Biodiversity conserved; target species' populations are stable or increasing, with sufficient genetic diversity
  - A sufficient representation of critical habitats have been protected
  - Essential ecological processes have been maintained / restored

Data Analysis

- The people conducting the analysis have the appropriate skills (i.e., statistical background, adequate GIS skills, etc)
- Where in-house expertise is not sufficient, partnerships have been formed with (if possible, local) research institutions for analysis expertise
- Appropriate techniques are being used for analyzing data

Benefits and Costs Assessment

- Socioeconomic benefits resulting from conservation actions have been identified
- Cost / benefit analyses of socioeconomic benefits and conservation outcomes have been conducted
- Benefits reach a significant portion of the local community
- Data obtained through monitoring have been analyzed to extract unanticipated / unintended benefits (i.e., socioeconomic and conservation benefits that are beyond the ones originally intended)
- Unintended / unanticipated costs or negative outcomes have been recognized and analyzed
- Non-economic benefits identified

Ecosystem Services

- Ecosystem services have been identified
- Payments for ecosystem services are feasible
- Payments for ecosystem services are desirable

Reevaluate and Adapt

- A financial audit of the program has been conducted
- A conservation audit has been conducted
- Targets within the landscape have been reviewed and updated
- Landscape zoning and boundaries of priority areas within the landscape have been updated
- Incentives are offered to staff to take part in self-audits
- Strategies and activities have been reevaluated with regard to their effectiveness in mitigating threats and achieving outcomes and impacts, given the investment in time, effort and finances
- Conservation strategies have been adapted over time to account for changing conditions

Share

Resources Generated

- Community members have been consulted and included in development of outreach materials
- Outreach materials have been targeted to different audiences (e.g, school children, community elders, farmers, government officials, conservation professionals)
- Outreach materials distributed to central community places
- Outreach materials used as training tools to enhance community of target being conserved
- Outreach materials shared with public, private and non governmental sectors of community
- Scientific and technical literature has been generated for outreach to professional / academic community

Knowledge Acquired / Shared

- Scientific understanding has been expanded through research and monitoring, and shared with wider conservation community through journal articles, book chapters, conference presentations, websites, etc
- Knowledge and lessons learned have been used to update organization / landscape website
- Knowledge and lessons learned have been shared with governments / local representatives to build institutional support and goodwill
- Knowledge and lessons learned have been shared with local communities to improve their 'conservation awareness', and also to report progress, promote transparency and good relations.

Feedback Solicited

- Mechanisms in place for staff to provide anonymous feedback to managers
- Landscape-level meetings held within the organization at appropriate intervals, so that core staff from different areas across the landscape can come together for sharing feedback
- Meetings and workshops held at appropriate with stakeholders for sharing feedback
- Community members encouraged to provide feedback on conservation activities and outreach initiatives
- Landscape managers able to provide feedback of lessons learned to local government, community partners and other pertinent stakeholder groups
- Feedback is received by landscape managers from stakeholders

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