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Conservation
Development Centre

GEF IMPACT EVALUATION

Case Study Methodology

Impact Evaluation Information Document No. 6

Prepared by Conservation Development Centre

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This paper was commissioned by the GEF Evaluation Office (GEF EO) as an input into its program of **Impact Evaluation**.

A first annual report on this program will be presented to the GEF Council at its November 2007 meeting. The findings, interpretations, and conclusions expressed herein are those of the authors and do not necessarily represent the views of GEF Evaluation Office, the GEF Council, or the Governments they represent. The authors of this document would welcome any comments or suggestions on its contents.

The papers in the Impact Evaluation information document series, as of September 2007, are:

1. Approach Paper to GEF Impact Evaluation – *Brann and Todd*
2. Final Report on Proposed Approach to GEF Impact Evaluation - *Foundations of Success*
3. GEF Biodiversity Policy Review - *Foundations of Success*
4. Methodological Challenges in Impact Evaluation: The Case of the Global Environment Facility – Todd and Vaessen
5. Priorities and indicators for Global Environment Benefits from Biodiversity: The current international architecture – *Nair*
6. Case Study Methodology – *Conservation Development Centre*
7. Case Study: Bwindi Impenetrable National Park and Mgahinga Gorilla National Park Conservation Project - *Conservation Development Centre*
8. Case Study: Lewa Wildlife Conservancy – *Conservation Development Centre*
9. Case Study: Reducing Biodiversity Loss at Cross-Border Sites in East Africa *Conservation Development Centre*
10. Impacts of Creation and Implementation of National Parks and of Support to Batwa on their Livelihoods, Well-Being and Use of Forest Products – *Namara*
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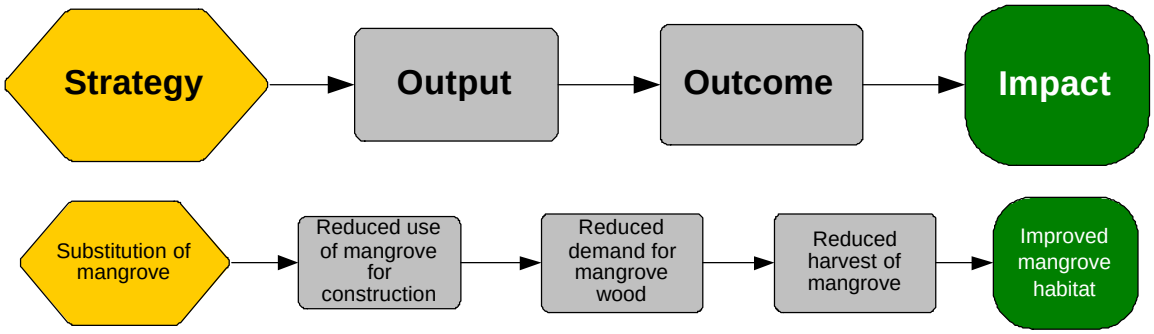
Introduction

The GEF East Africa Impact Evaluation study was undertaken by the GEF Evaluation Office, with technical support provided by the Conservation Development Centre, Nairobi Kenya. The aim of the study was to develop and test a 'Theory of Change' evaluation approach to measure the long-term impacts of GEF-funded activities towards achieving Global Environmental Benefits (GEBs). The Theory of Change (TOC) approach is a theory-based evaluation tool that maps out the logical sequence of means-ends linkages underlying a project and thereby makes explicit both the expected results of the project and the actions or strategies that will lead to the achievement of results.

The initial GEF study (Foundations of Success, 2006) to identify an effective approach to measure impact recommended the adoption of the Theory of Change approach and, where project information is sufficient, the specific technique advocated was the development of results chains that link project strategies to expected results by a series of "means-ends" statements. Figure 1 below shows the generic results chain that was developed, with a simple practical example provided underneath. The theoretical TOC model can then be tested by assessing whether the means-ends linkages can actually be confirmed in practice, and whether the intermediary states have actually occurred.

Generic results chain and example



In order to further develop and test this evaluation approach, the GEF Evaluation Office decided to field-test the approach on three former GEF-supported projects. The target projects were chosen from within the Protected Areas (PA) strategy theme of the Biodiversity Focal Area, which has been one of the primary thematic areas supported by the GEF in the past and, as a strategic priority, it remains a pillar of future GEF funding. East Africa was selected for the geographic focus of this study due to the high concentration and range of GEF-supported protected area projects (in terms of geographic scope, total and proportional GEF monetary contribution, and implementing agencies) and the relatively high quality of project and country information. The three projects were; the *Bwindi Impenetrable National Park and Mgahinga Gorilla National Park Conservation Project* in Uganda, the *Lewa Wildlife Conservancy* in Kenya, and the *Reducing Biodiversity Loss at Cross-Border Sites in East Africa Project*, which are discussed in sections 2-4 respectively. These three projects were specifically selected due to the positive terminal evaluations and the expectations of longer-term impacts.

The study was split into two phases. Phase 1 was undertaken between February and April 2007 and undertook, as far as possible, to directly measure impact through the application of a "Targets-Threats Analysis" (see section 1.5 below). The outputs of this analysis were discussed with GEF EO staff and representatives from the case study projects at Field Workshop #1, held at Ruhija in Bwindi National Park, Uganda, from 23-26 April 2007. Phase 2 was undertaken between May and August 2007 and undertook to indirectly measure the achievement of impact using a "Project Logframe Analysis" (section 1.3) coupled with an "Outcomes-Impact TOC Analysis" (section 1.4). The findings of Phase 2 were discussed at Field Workshop #2, held at Malu near Naivasha in Kenya from 25-26 July 2007. The rationale and key elements of the **Impact Evaluation Framework** utilised in the study is described in the next section.

The Impact Evaluation Framework

This section describes the overall Impact Evaluation Framework that was adopted by this study to understand and assess the impacts of the three case study projects. A key consideration in developing the framework was to design a methodology that is practical and achievable within the constraints of GEF project evaluation procedures and resources.

The ideal approach to understanding the long-term impacts of biodiversity conservation projects is to develop and test comprehensive Theory of Change models for the diverse intervention strategies that underpin each project and that make up and explain the steps leading to the delivery of impacts. In this study, we termed these strategies "Integrated Conservation and Development" or **ICD strategies**. A typical GEF biodiversity project may incorporate an array of such strategies, although they are rarely explicitly identified. For the case studies targeted in this study, a variety of ICD strategies were identified and modelled using a TOC approach during Field Workshop #1. These included so-called "Protection Strategies", "PA Co-management Strategies", "Benefit Sharing Strategies" and "Community Natural Resource Management Strategies".

A highly simplified example of this type of ICD strategy-based comprehensive TOC modelling is given in Figure 2 overpage, for a Community NRM Strategy. The model illustrates the underlying means-ends linkages (between the grey boxes) and assumptions (in blue boxes) that comprise a theory of change that delivers the intended impacts (in the green box).

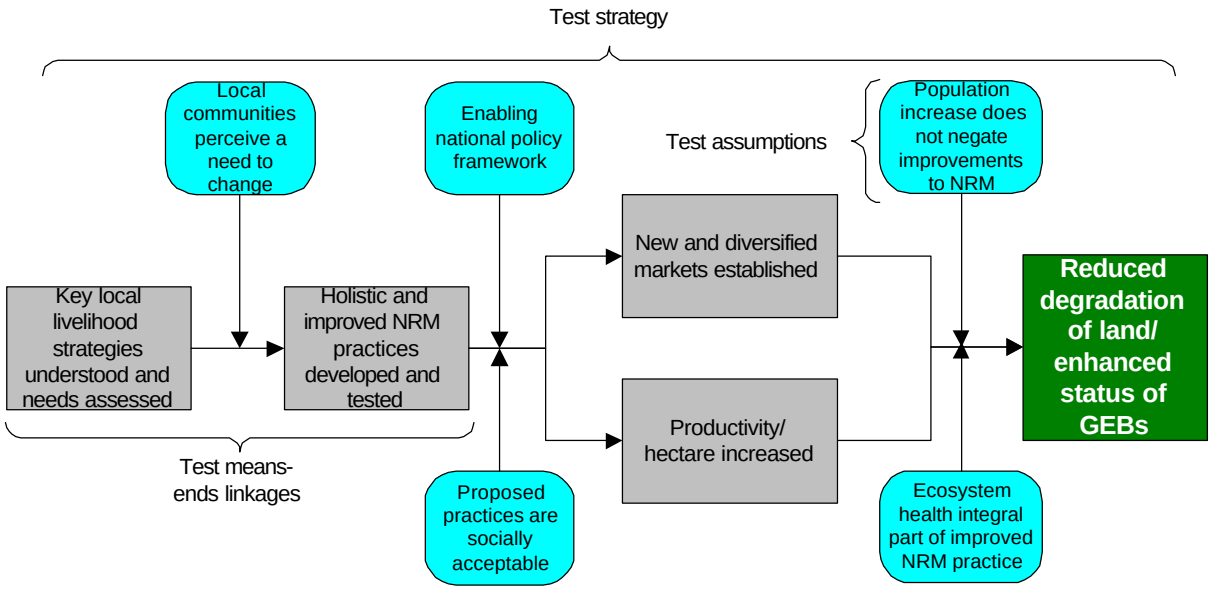
ICD strategy-based TOC models can potentially be assessed in three ways (see Figure 2 overpage):

1. **Testing the ICD strategy itself**, by comparing project outcomes with and without the strategy. This requires assessing not only the project site, but also a control site (counter-factual) where the specific project strategy has not been implemented, but which represents a comparable ICD situation.
2. **Testing key linkages**, by measuring whether means-ends relationships hold true. For

example, in the diagram above, if "*key local livelihood strategies are understood and their needs assessed*" does that lead to "*holistic and improved NRM practices being developed and tested*"?

3. **Testing key assumptions**, by measuring whether assumptions have been realised or not. For example, is the assumption that "*population increases will not negate improvements to natural resource management practices*" supported by evidence on the ground?

Community NRM Strategy Theory of Change Model



The comprehensive ICD strategies-based TOC approach is perhaps the optimal theoretical method for better understanding the relationships leading to the delivery of biodiversity impacts. However, it is unrealistic in most practical situations. This is because the models that are developed cannot be easily reconciled with the logical frameworks of most conservation projects. Project logframes are not normally aligned to the ICD strategies that underpin the projects, but rather focus on the packaging of project outputs and outcomes in an appropriate fashion for project delivery. For example, Outcome 1 of the Lewa Project is: "*Long-term institutional and financial capacity of LWC to provide global and local benefits from wildlife conservation strengthened*". While such an outcome may be appropriate in a logical framework, it is very unlikely to feature in an ICD strategy TOC model.

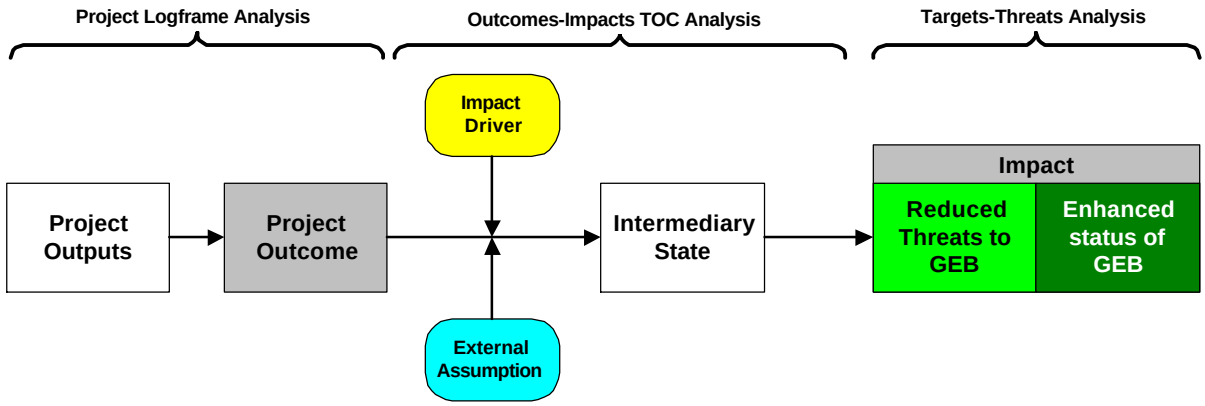
Since project monitoring and information collection is usually geared to the delivery of project outputs and outcomes, it is relatively easy for an evaluator to assess whether the project has delivered the anticipated outputs and outcomes, but much more difficult to probe to the level of the underlying strategies that the project is attempting to deliver – first because these strategies have usually never been explicitly formulated, and second because the data to test the means-ends linkages and assumptions of these strategies has not been collected. This means that in order to use the ICD strategies-based TOC approach, it is first necessary to generate the strategy-based TOC models as illustrated

above, and then to collect new data on the various elements of the model. This is a very time consuming process that was not even feasible in this detailed study, let alone in a routine evaluation of a GEF project.

Consequently, a more practical and realistic approach to measuring impact is needed that is chiefly based on the utilisation of **existing data** concerning the project. The Impact Evaluation Framework that this study has developed attempts to achieve this, by using three distinct analyses for measuring impact, which together can provide a comprehensive understanding of impacts largely based on available project data, as well as providing a useful means for triangulating the findings. As illustrated in the diagram of the framework in Figure 3 overpage, the three analyses are:

1. **Project Logframe Analysis**, which examines the delivery of project outputs and project outcomes as defined by the project logical framework.
2. **Outcomes-Impacts Theory of Change (TOC) Analysis**, which examines the process by which project outcomes are converted to ultimate impacts, thereby providing an indirect measure of project impacts.
3. **Conservation Targets-Threats Analysis**, which provides a direct measure of project impacts by assessing both the change in status of the expected global environmental benefits and the change in the level of threats to these GEBs.

Schematic of the Impact Evaluation Framework



The key features of the three complementary analyses comprising the Impact Evaluation Framework are described in the next sections.

The Project Logframe Analysis

Most GEF projects incorporate internal project monitoring systems that are designed to measure the delivery of the project against its defined activities, outputs and outcomes. The Project Logframe Analysis uses this monitoring information, alongside the mandatory mid-term and end of project evaluations, to assess the delivery of project outputs and outcomes.

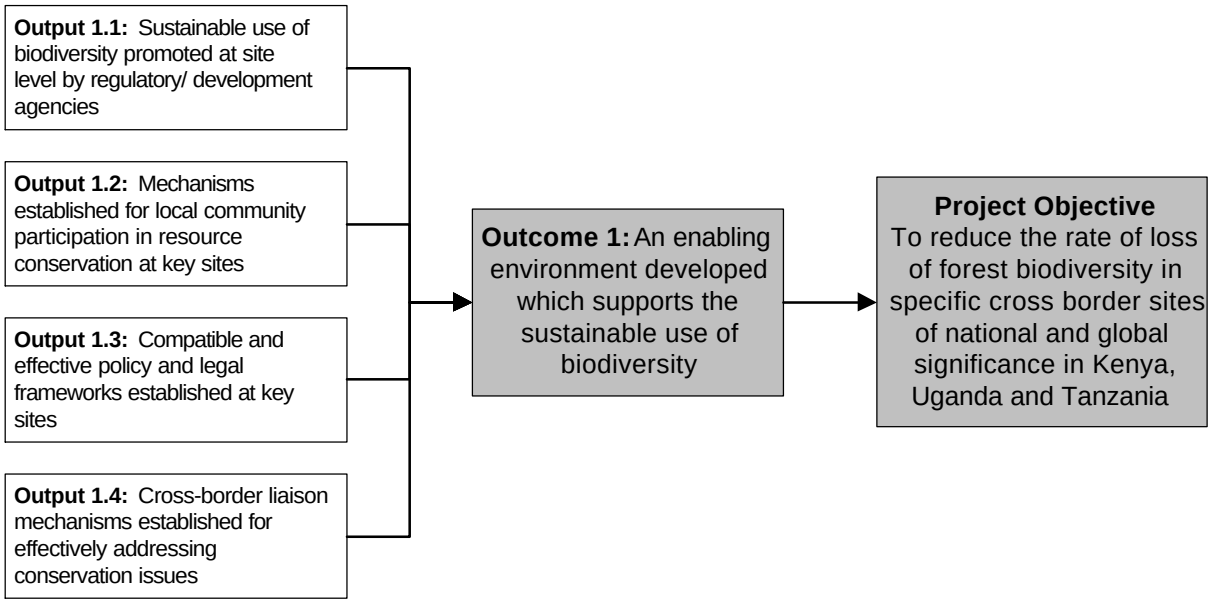
Since many agencies utilise their own terminology for project design, it is important to clarify the definitions for project outputs, outcomes and objective. The GEF bases its definitions on the terminology developed by OECD/DAC, which are as follows[1]:

- **Project Objective** (refers to OECD/DAC development objective). The intended impact contributing to global environmental benefits via one or more development interventions.
- **Outcomes.** The likely or achieved short-term and medium-term effects of an intervention's outputs.
- **Outputs.** The products, capital goods and services, which result from a development intervention, and are relevant to the achievement of outcomes.

For the three case studies examined here, project outputs and outcomes are taken from the original or modified GEF project briefs. However, where these project briefs do not have clearly defined logframes, it has been necessary to retrospectively formulate project outputs and outcomes based on the terminal evaluations and what the project actually did on the ground. This was the case for both the Bwindi and Lewa projects which, although they had an overall Project Objective, lacked clearly defined outputs and outcomes.

The Cross Borders project logical framework was well defined in the original project brief and later modified following the mid-term review. The modified logical framework for Outcome 1 is shown in Figure 4 below.

Extract from the Cross Borders Logical Framework for Outcome 1



[1] OECD/ DAC (2002). Evaluation and Aid Effectiveness: Glossary of Key Terms in Evaluation and Results Based Management. Source: http://www.oecd.org/dataoecd/29/21/2754804.pdf

Assessing logical frameworks

The steps required in assessing the project outputs and outcomes are defined below:

1. **Assess implementation logic.** Are the identified outputs and outcomes sufficient and appropriate to deliver the intended outcomes and contribute to the Project Objective respectively? If this is not the case, it is important to identify missing or inappropriate outputs or outcomes.

2. **Select or develop indicators.** This step seeks to clearly define indicators for measuring the extent of achievement of each output or outcome. These indicators have ideally already been identified in the internal project monitoring systems. However, often project monitoring focuses on measuring implementation, i.e. "*number of meetings held*", rather than the achievement of objectives. It is therefore necessary to select appropriate indicators from the project monitoring systems, or failing that to develop new indicators, which either measure lasting changes in the conditions in the project area of focus, or changes in behaviour (knowledge, attitudes, and practices) of affected individuals, groups and institutions.

3. **Score achievement of outputs and outcomes.** The final step involves the scoring of the outputs/ outcomes against the defined indicators. This assessment is based on the project monitoring dataset and the evaluations previously carried out. The scoring system used is as per the Outcomes-Impacts Analysis (see next section).

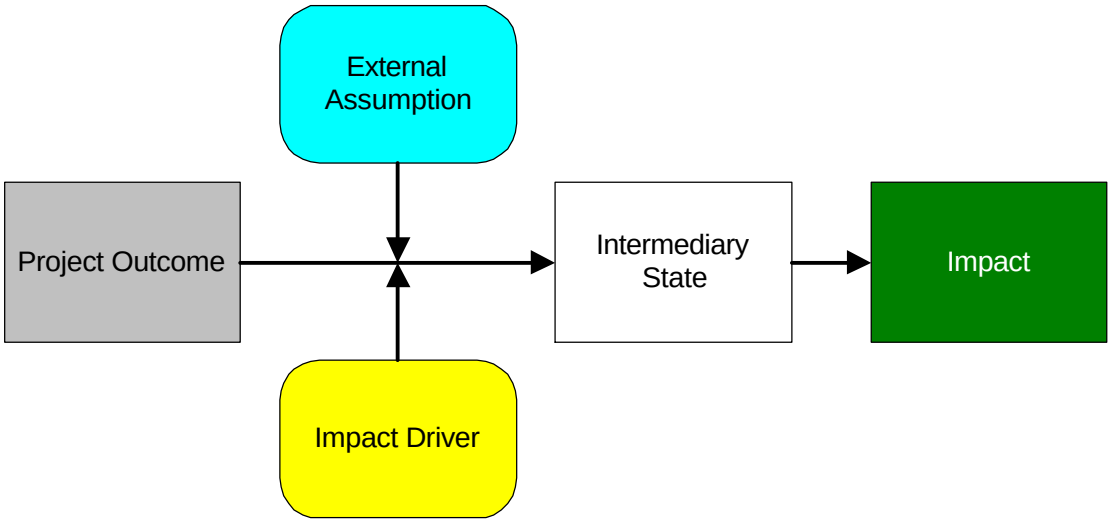
The Outcomes-Impacts TOC Analysis

As described in section 1.2 above, the second component of the Impact Assessment Framework seeks to understand the process by which project outcomes are converted to ultimate project impacts. A generic Outcomes-Impacts Theory of Change model has been developed for this process, which is illustrated in Figure 5 overpage.

The model incorporates three different elements that it is suggested are involved in the transformation of project outcomes into impacts, as follows:

- **Intermediary States.** These are conditions that are expected to be produced on the way to delivering the intended impacts.
- **Impact Drivers.** These are significant factors or conditions that are expected to contribute to the ultimate realisation of project impacts. Existence of the Impact Driver (ID) in relation to the project being assessed suggests that there is a good likelihood that the intended project impact will have been achieved. Absence of the ID suggests that the intended impact may not have occurred, or may be diminished.
- **External Assumptions.** These are potential events or changes in the project environment that would negatively affect the ability of a project outcome to lead to the intended impact, but that are largely beyond the power of the project to influence or address.

Outcome-Impact TOC Model components



Categories of Impact Drivers

The outcomes-impacts analysis adopted in this study is based on the premise that Impact Drivers are critical factors in the delivering of project impacts, and essential for understanding what makes a project successful. The rationale is that, if these IDs are not present in a project and are not maintained after the specific project intervention is over, it is unlikely that the intended project impacts will be achieved. Therefore, it is important that the IDs that are often implicit in a project are made explicit, and that their role in achieving impacts is understood. For this purpose, it is useful to identify the various types of IDs to serve as a checklist during this analysis.

In Table 1 below, three main categories of potential IDs are identified: Appropriateness, Sustainability and Catalytic Effects. Under each category, the potential generic IDs are identified, and these can serve as a basis for identifying the specific IDs for a particular project. The first category, Appropriateness, includes IDs that are related to environmental and socio-economic factors or conditions that are expected to create sufficient incentives amongst stakeholders to ensure their engagement and support in the delivery of the intended impacts. IDs under the Sustainability category relate to the socio-political, institutional and financial factors or conditions contributing to the continuation, post-GEF funding, of the mechanisms and other accomplishments generated by the project, which will ultimately lead to impacts. Finally, IDs under the Catalytic Effects category relate to those factors or conditions contributing to the scaling-up, replication and mainstreaming of intended project impacts within the broader ecosystem and further afield. This ID categorisation was adopted in the present study.

Typology of Impact Drivers

Code	Impact Drivers
Appropriateness	
A1	**Environmental ID** – a factor/ condition relating to the practices and policies of land owners and users in the targeted ecosystem that will complement and reinforce the achievements of the project outcomes in conserving the identified global environmental benefits
A2	**Socio-economic ID** – a factor/ condition that is likely to enhance socio-economic benefits and thereby encourage communities to be more engaged in and supportive towards the delivery of intended impacts
Sustainability	
S1	**Socio-political ID** – a factor/ condition that is likely to establish strong links and cooperation with the political and cultural/ traditional leadership and thereby encourage their constituencies to support the delivery of intended impacts
S2	**Institutional and human resources ID** – a factor/ condition within the institutions supported and/or established by the project that will enhance their long term viability and capacity to deliver the intended impacts
S3	**Financial ID** – a factor/ condition related to initiatives supported and/or established by the project that will enhance their ability to be financially self-sustaining, either through income generation or a secure source of long-term external support
Catalytic Effects	
C1	**Leveraging co-financing and resources ID** – a factor/ condition that is likely to secure further commitments of finance and resources for the continuation and wider application of successful project-supported initiatives, and thereby leading to the realisation of greater impact
C2	**Replication of interventions ID** – a factor/ condition that provides an opportunity to link organisations or individuals not targeted by the project to technical and financial support necessary to repeat successful project initiatives within the wider area, and thereby leading to the realisation of greater impact
C3	**Mainstreaming environment into policies and legislation ID** – a factor/ condition that establishes mechanisms for using the lessons learnt during project implementation to influence and strengthen national priorities and policies, and thereby leading to the realisation of greater impact

Developing Outcomes-Impacts TOC models

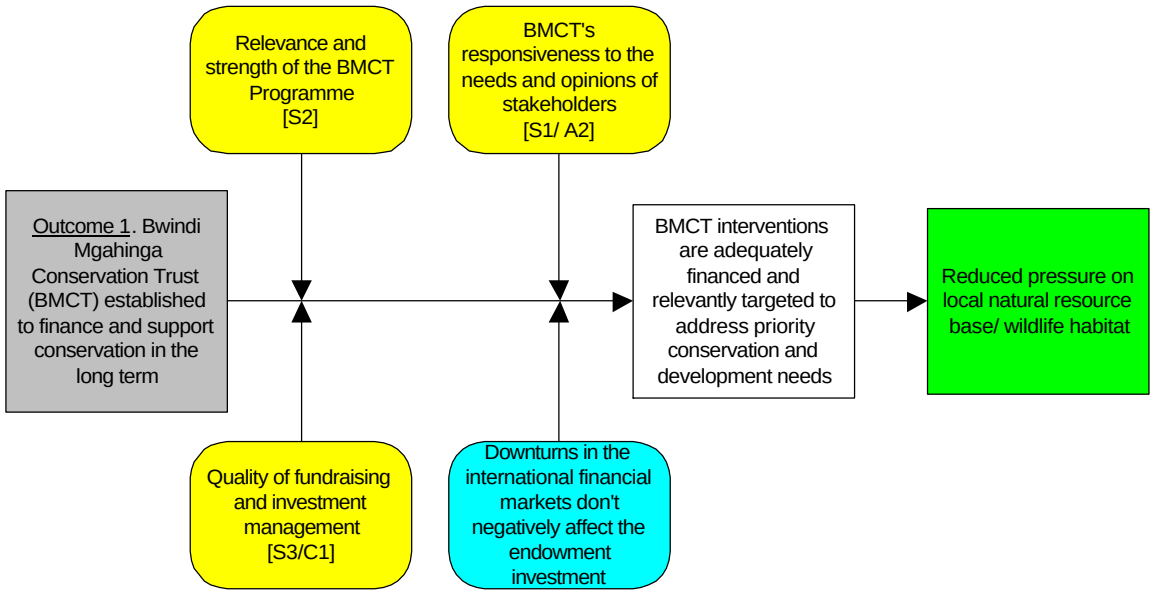
The process of developing an Outcomes-Impacts TOC model is best described by looking at an example, which is taken from the Bwindi Case Study, shown in Figure 6 overpage.

The steps involved in developing this TOC model are as follows:

1. **Identify Intermediary States.** The first step involves examining whether the successful achievement of a specific project outcome would directly lead to the intended impacts and, if not, identifying additional conditions that would need to be met to deliver the impact. In the example above, the project outcome "*establishment and development of the BMCT long-term conservation financing mechanism*" is not considered sufficient to lead to the intended impact. It is felt that an additional intermediary state must be attained in order to deliver the impact, which is that "*BMCT interventions are adequately financed and relevantly targeted to address the priority conservation and development needs*".

2. **Identify Impact Drivers.** The next step is to identify those factors that are likely to contribute to the realisation of the intermediary state(s) and impact, which are under the control of the project to influence and address. The starting point is to look through the typology of Impact Drivers (see Table 1 above) and identify opportunities for maximising impact. In the example above, three IDs (the yellow boxes) are identified, with the driver type given in square brackets. The first, *"relevance and strength of the BMCT programme*", is an institutional ID addressing issues of sustainability. The second, "*BMCT's responsiveness to the needs and opinions of stakeholders*", is both a socio-political ID addressing sustainability of impact as well as a socio-economic ID addressing the appropriateness of the project in achieving impact. The final one, *"quality of fundraising and investment manager*", serves as both a financial and leveraging of co-financing/ resources ID, addressing issues of sustainability and catalytic effects respectively.

Example Outcomes-Impacts TOC model from Bwindi Case Study



3. **Identify External Assumptions.** The final step seeks to identify those factors that are necessary for the realisation and sustainability of the intermediary state(s) and

ultimate impacts, but which are beyond the control of the project to influence. The starting point for this step is to look back at the assumptions originally identified in the project document. In the example above, one External Assumption is identified, which relates to the performance and stability of international financial markets and their effect on BMCT's endowment fund.

Assessing TOC models

Once the Outcomes-Impacts TOC models have been developed, as illustrated in Figure 6 above, the next stage is to develop an **assessment framework** for each model, aimed at identifying key information needs to assess the different components of the model. The assessment framework defines key indicators for measuring the extent of achievement for each ID, Intermediary State and External Assumption and the sources of information to make this assessment. Table 2 overpage provides an extract from the Bwindi Case Study assessment framework for the three Impact Drivers identified for Outcome 1 (see Figure 6 above). See Annex 2 for the complete assessment frameworks for all three case studies.

A large proportion of the data necessary for this analysis can be sourced from the project terminal evaluation reports and studies that have been carried out since the closure of the projects. However, in addition to reviewing the existing documentation, it is often necessary to collect new information through targeted consultations and studies.

Extract of assessment framework for Bwindi Outcome 1 Impact Drivers

ID	Indicator/ issue	Source of Information
Relevance and strength of the BMCT Programme	▸ Activities supported by the Trust are guided by an overall strategic framework for achieving the long-term conservation of the ecosystem	▸ BMCT 10-year Review
BMCT's responsiveness to the needs and opinions of stakeholders	▸ LCSC mechanism is representative of the community ▸ BMCT mechanisms complement UWA and local government activities	▸ ICD Strategies Assessment ▸ BMCT 10-year Review
Quality of fundraising and investment management	▸ Fundraising generating discrete projects with donor funding ▸ Asset managers showing good performance	▸ ICD Strategies Assessment ▸ BMCT 10-year Review ▸ TAU management

Once the information for the assessment framework has been collected and synthesised, the final stage is to score the achievement of the project in converting outcomes into impacts. Each Intermediary State, ID, and External Assumption is scored according to the

level to which it has been achieved. The scoring system adopted for assessing the achievement of these variables is outlined in Table 3 below.

Scoring system for Outcomes-Impacts TOC Models

Score	Description
0	No evidence available
1	Not achieved
2	Poorly achieved
3	Partially achieved
4	Well achieved
5	Fully achieved

The Targets-Threats Analysis

The Conservation Targets-Threats Analysis is the third and final component of the Impact Assessment Framework and is designed to provide a direct measure of project impacts, through an assessment of the status of the biodiversity values that the project has addressed coupled with an assessment of changes in the threat levels impacting on these biodiversity values. The methodology that has been adopted to achieve this is based on the Nature Conservancy's Conservation Action Planning (CAP) methodology. TNC developed the CAP approach over many years and it has now been widely tested around the world, especially in North and South America. The methodology was developed as a way of assessing and monitoring the status of an ecosystem or conservation area by focusing on the most important biodiversity and ecological characteristics of the area. The CAP approach was chosen here because its aims are similar to the requirements of this assessment and because it is a widely-practiced and well-tested methodology.

The cornerstone of the CAP methodology is the identification of **Conservation Targets**, which are the key biodiversity components of the ecosystem or conservation area that are believed to be critical for the long-term survival of the ecosystem. The Conservation Targets (CTs) are chosen to encapsulate the key ecological components of the system, and may be at the system level itself (e.g. river systems), or at the habitat/community level (e.g. a forest or woodland), or at the species level (e.g. a keystone species such as elephants that play a critical role in the ecosystem, or are a key characteristic of the ecosystem). The premise underpinning the CAP methodology is that focusing conservation action on the CTs will result in the maintenance of the ecological health of the entire ecosystem. Equally, an understanding of the status of the CTs is a strong proxy measure for assessing overall ecosystem health.

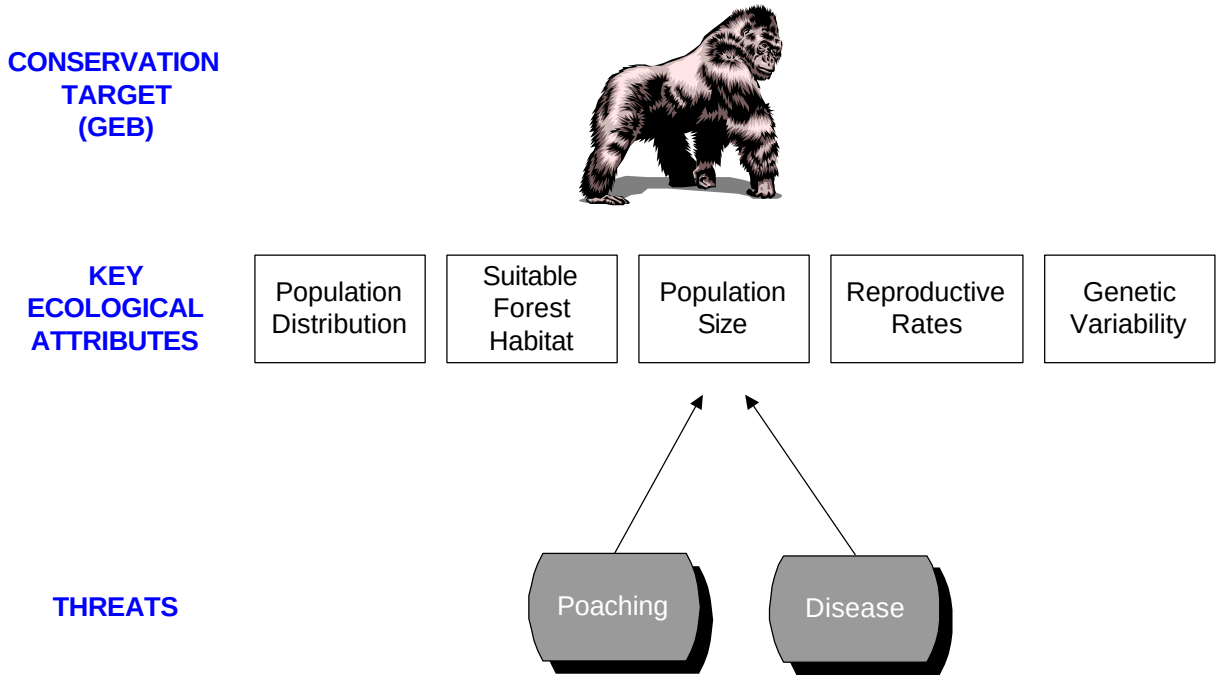
The CAP method also uses the concept of the **Key Ecological Attributes** (KEAs) of the Conservation Targets, which can be defined as "*those factors of a Conservation Target's ecology that if degraded would seriously jeopardize the target's ability to survive over*

the long-term". KEAs are generally attributes of: biological composition (e.g. population size/structure, sex ratios, genetic diversity); environmental requirements (e.g. key habitats, prey species, connectivity); or ecological interactions (e.g. keystone species, fire). The KEAs provide a mechanism for determining the status of the CT in question – if the KEAs are found to be deteriorating, it is an indication that the conservation status of the CT is declining, and *vice versa*. The assessment of the KEAs and the detection of trends in the KEAs was an important aspect of this component of the study.

The final component of the CAP methodology used in this assessment is the determination of **Threats** to the Conservation Targets, or more appropriately to their Key Ecological Attributes. The CAP defines threats as "*human pressures that result in the destruction or degradation of a Conservation Target or its Key Ecological Attributes*". These threats may either be current or likely to occur in the next ten years. The assessment of Threats impacting on the CTs in the case study areas was another important aspect of this component of the study.

Figure 7 below illustrates the relationship between the CT, it's KEAs and Threats to the KEAs in the case of the Mountain gorilla (the Bwindi project). Five KEAs were identified for the Mountain gorilla, i.e. the aspects of the gorilla's ecology that are considered vital for the survival of the species. One of those KEAs, population size, was considered to be impacted by two main Threats, poaching and disease.

Example KEA's and associated Threats for the Mountain gorilla Conservation Target



In sum, the key principle of this component of the Impact Evaluation Framework is that any improvement in the status and viability of the identified Conservation Targets or their Key Ecological Attributes, or a reduction in the Threats to the CTs/KEAs, serves as a direct measure of the production of a project impact. Depending on the nature of the

Conservation Target, this impact also potentially represents the delivery of a Global Environmental Benefit.

Identifying Conservation Targets, KEAs and Threats

Conservation Targets & KEAs

The CAP methodology recommends that approximately eight Conservation Targets be identified for the selected conservation area, drawn from the system level, community/habitat level, and species level as mentioned above. The detailed methodology for identifying CTs and their KEAs is explained in the CAP information materials that have been prepared by TNC and will not be elaborated on here[2]. This study adopts a similar methodology, except that a further step was added to determine whether the CTs selected were potentially of global significance, i.e. a GEB. This was done mainly by reference to international ranking and prioritisation mechanisms (e.g. IUCN Red Lists of Biodiversity) and their underlying significance criteria.

Table 4 below gives an example of the KEAs identified for the Mountain Gorilla for the Bwindi Case Study.

Key Ecological Attributes for the Mountain Gorilla Conservation Target

Conservation Target	Key Ecological Attribute
Mountain gorillas	Suitable undisturbed forest habitat
	Population distribution
	Population size
	Reproductive rates
	Genetic variability

Threats to Conservation Targets/ KEAs

Once again, the study adopted the CAP methodology for the identification and assessment of Threats, although the main focus was on the direct threats (termed stresses in the CAP) rather than the sources of the stresses (termed sources in the CAP). The sources of threats in this assessment essentially align with the various elements of the comprehensive Theory of Change modelling shown in section 1.2 (Figure 2), and for the reasons given earlier were not investigated further in this analysis.

Once the Threats to the CTs/KEAs were identified, the threat assessment criteria proposed in the CAP were used to rank the different Threats according to their severity and scope, as shown in Table 5 below. This ranking exercise enabled the analysis to be focussed on the most significant threats impacting on any particular CT.

[2] TNC (2007). Conservation Action Planning. Developing Strategies, Taking Action, and Measuring Success at Any Scale: Overview of Basic Practices. February 2007 (http://conserveonline.org/workspaces/cbdgateway/cap)

Scoring system for Threats analysis

Threat Level	**4**	**3**	**2**	**1**
Severity (level of damage)	Destroy or eliminate GEBs	Seriously degrade the GEBs	Moderately degrade the GEBs	Slightly impair the GEBs
Scope (geographic extent)	Very widespread or pervasive	Widespread	Localised	Very localised

Threats were prioritised at **pre-project intervention** levels. An example of the outcome of this assessment and ranking exercise is given in Table 6 overpage.
The CTs, KEAs and Threats in the three case study areas were all identified by specialists participating in the study who had an intimate knowledge of the ecosystems concerned.

Example ranking of Threats to Black rhino CT (Lewa project extract)

Threats to the CT/KEAs	**Severity Score (1-4)**	**Scope Score (1-4)**	**Overall ranking**
Black rhino			
Poaching and snaring	3	3	**3**
Insufficient secure areas	2	3	**2**
Habitat loss (due to elephant density)	1	1	**1**

Assessing conservation status and threat to the GEBs

The next stage in the process was to develop a data collection framework for assessing the status of the CTs, their KEAs and the associated Threats. The framework identifies indicators for each KEA and Threat, along with the potential sources of information for measuring the indicator. For the Bwindi and Lewa projects, the task of collecting and assessing this information was undertaken by scientists from the Institute of Tropical Forest Conservation, headquartered in BINP, and the Lewa Research Department respectively. For the Cross Borders project, this exercise was done by CDC based on the existing project documentation, a field visit to the project site and consultations with key informants. The objective of this exercise was to provide quantitative measures for each indicator from before the project (**baseline**), at the **project close**, and **present day**. Where quantitative data was not available, strong qualitative data has been used.

The findings from these assessments were discussed at Field Workshop #1 at Ruhija and the emerging trends were finally presented in summary tables. Table 7 below provides a sample extract from the Lewa project assessment of the conservation status and threat level to the Black rhino CT.

Black rhino conservation and threat level status (Lewa project extract)

Variable	Indicator	Unit	Baseline	Project end	Now	Trend
Key Ecological Attribute			**Conservation Status**			
Population size	Total population size of Black rhino	No.	29	40	54	⇧
Productivity	Annual growth rates	%	12	13	15	⇧
Threats to the GEBs			**Threat Level**			
Poaching and snaring	Number of black rhinos poached and snared in Lewa	No.	0	0	0	⇔
	Number of black rhinos poached and snared nationally	No.	2	15	15	⇧

Key to trends

⇧	Conservation status is improving	⇧	Threat level is increasing
⇩	Conservation status is deteriorating	⇩	Threat level is decreasing
⇔	Conservation status is stable	⇔	Threat level is unchanged

Conclusion

The Impact Evaluation Framework adopted in this study helps to understand the complex Theories of Change that underlie the implementation of GEF projects, the outcomes of those projects, and the ultimate delivery of global environmental benefits. The Framework is built upon the Theory of Change approach but, unlike the comprehensive ICD strategies TOC approach, it adapts the approach to take account of the realities of project execution and the practicalities of data availability. The approach builds on the existing project logical frameworks, which means that a significant part of the Framework can be relatively easily tested through an examination of existing project documentation and, where available, monitoring data.