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Conservation Development Centre

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Case Study: Lewa Wildlife Conservancy Project

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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.

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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*
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Project overview

The Lewa GEF Medium-Sized Project provided support for the further development of Lewa Wildlife Conservancy ("Lewa", or LWC), a not-for-profit private wildlife conservation company that operates on 62,000 acres of land in Meru District, Kenya. The GEF awarded Lewa a grant of $0.75 million for the period 2000 to the end of 2003, with co-financing amounting to $3.193 million.

The objectives of the project, as outlined in the original proposal (GEF 1998), were:

- To enable Lewa to continue and further strengthen its conservation of endangered species
- To enable Lewa to implement its strategic and financial development plan, making it more viable in the long term and increasing the sustainability of its conservation activities and benefits
- To extend conservation benefits to biologically important community-controlled land and slow down environmentally negative land use patterns
- To facilitate the development of other community-based conservation initiatives as well as private NGO support of such initiatives in Kenya and elsewhere, by serving as a model and by providing training opportunities on a modest scale.

In 2004, LWC supported the formation of the Northern Rangelands Trust (NRT) to take lead responsibility for supporting community conservation and sustainable land management initiatives throughout the northern rangelands of Kenya. NRT has since become an independent institution with its own donors and management capacity.

Project Logframe Analysis

The first analytical component of the Impact Evaluation Framework used in this case study assesses the delivery of the project outputs and outcomes identified in the project logical framework, or logframe.

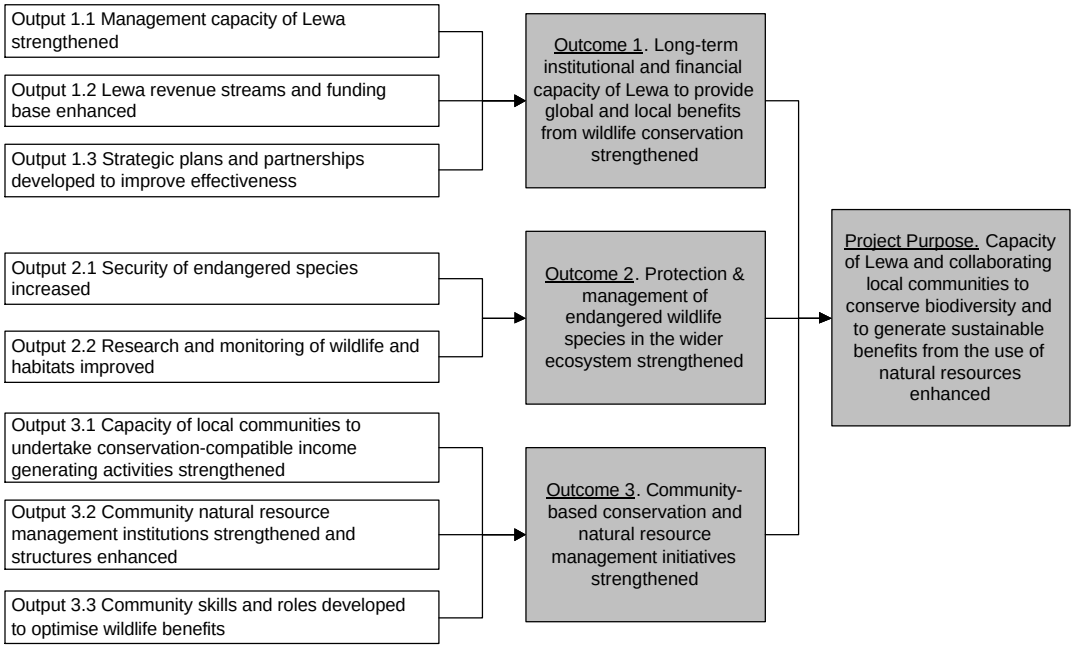
No project logical framework or outcomes were defined as such in the original GEF project brief. However, the GEF Lewa Local Benefits Study (2004), with the participation of senior Lewa staff, identified five project outcomes and associated outputs that reflected the various intervention strategies employed by the project and identified missed opportunities in achieving the project goals. The retrospective logframe was subsequently adopted in the GEF Evaluation Office Terminal Evaluation Review (August 2006). The five outcomes identified were:

1. Long-term capacity of LWC to provide global and local benefits from wildlife conservation strengthened
2. Protection & management of endangered wildlife species in the wider ecosystem strengthened, in collaboration with local communities
3. Economic benefits to local communities from sustainable use of wildlife and natural resources improved
4. Pastoralist natural resources management and institutions sustainably enhanced
5. Local and national policies supporting wildlife conservation and community livelihoods in semi-arid landscapes influenced and strengthened

Overall, the terminal evaluation assessed that the Lewa project's delivery of project outcomes was Highly Satisfactory (the highest rating). The project was assessed to be especially successful in increasing Lewa's institutional capacity (Outcome 1), and in the protection and management of biodiversity (Outcome 2), which were the focus of the project funding support (80%). In addition, it was concluded that a strong foundation was laid with the project's work on improving community livelihoods (Outcome 3-5). For the purposes of this study, the retrospective logframe has been condensed into three main outcomes. Outcomes 3 and 4 have been combined into one community conservation and natural resource management outcome, and Outcome 5 has been removed from the logframe as it is regarded as an issue for mainstreaming that is addressed by the Outcome-Impacts Theory of Change Analysis (see section 3).

The resultant logframe (see Figure 1 below) organises the various intervention strategies employed by the project, which were felt to be sufficient and adequate for achieving the project objectives.

Project Retrospective Logframe



The following sections examine the three project outcomes and the level of achievement at the end of the GEF project support; and present the rationale underlying the outcomes and an assessment of the actual achievement of the project outputs/ outcomes. The assessment of the achievement of the three project outcomes is summarised in Table 1 below.

Summary of Achievements of Project Outcomes

Project Outcome	Assessment
Outcome 1: Long-term institutional and financial capacity of Lewa to provide global and local benefits from wildlife conservation strengthened	**Fully achieved (5)**
Outcome 2: Protection and management of endangered wildlife species in the wider ecosystem strengthened	**Well achieved (4)**
Outcome 3: Community-based conservation and natural resource management initiatives strengthened	**Well achieved (4)**

This analysis largely draws on the findings of the Lewa Local Benefits Study (GEF, 2004) and the Terminal Evaluation Review (GEF, 2006).

Outcome 1: Long-term capacity of Lewa strengthened

The rationale for this outcome was that establishing LWC as a well-resourced, effective and sustainable conservation institution was an essential underpinning for achieving lasting conservation impacts. To this end, the focus of this outcome was on improving LWC's human resources capacity, consolidating its management and financing systems, building a strong and lasting funding base to support LWC's operations, and upgrading equipment and infrastructure.

The main outputs towards achieving this outcome were as follows:

- Output 1.1: Management capacity of Lewa strengthened
- Output 1.2: Lewa revenue streams and funding base enhanced
- Output 1.3: Strategic plans and partnerships developed to improve effectiveness

A detailed reporting of the qualitative and quantitative assessment of the delivery of these outputs and the ultimate outcome is provided in Table 2 overpage. The assessment has been carried out based on a series of indicators that have either been extracted from the project documentation or determined by the study team.

Output 1.1 (*management capacity of Lewa strengthened*) was necessary in order to improve Lewa's ability to sustain and increase the scope of its activities in the region. This output was expected to enable Lewa to re-establish wildlife in the community areas of the broader ecosystem, which requires a sizeable, skilled and well-resourced cadre of staff. During the project, the staffing numbers and expertise significantly improved and a large investment (about 80% of the total GEF project financing) was made to improve infrastructure and to purchase machinery and equipment. The overall assessment of the delivery of this output was therefore: **FULLY ACHIEVED (5)**.

Output 1.2 (*Lewa revenue streams and funding base enhanced)* was incorporated to ensure a proactive fundraising programme and sound financial management systems were established to maximise the potential to generate revenue and to ensure the proper accountability and administration of donor funds. This is particularly important for Lewa where over 75% of its expenditure is covered by donations. By the end of the project significant progress had been made in hiring qualified finance and fundraising staff and putting in place effective accounting systems and a proactive and successful international fundraising programme

aimed at diversifying Lewa's donor base. The overall assessment of the delivery of this output was therefore: **FULLY ACHIEVED (5)**.

Output 1.3 (*strategic plans and partnerships developed to improve effectiveness*), was aimed at facilitating a structured approach towards conservation and at establishing partnerships to provide additional expertise, resources and land which Lewa needed to achieve its objectives. During the project, Lewa developed a management plan (2002-2012), which set out expected management targets. LWC also developed important formal and informal partnerships with diverse stakeholders including government institutions, local communities and regional and international institutions; although it was observed that there was a lack of scientific partners to support their activities in the community areas. The overall assessment of the delivery of this output was therefore: **WELL ACHIEVED (4)**.

At the end of the project therefore, Lewa had been successfully strengthened as an institution to promote and support conservation efforts in the broader ecosystem. A consequence of this institutional strengthening was that the associated operational costs also increased. However, the financial and fundraising systems put in place were considered sufficient to ensure these costs were met, as long as external events, such as a major downturn in tourism, didn't take place. **As a result of this, the study team considered the achievement of this outcome as: FULLY ACHIEVED (5).**

Logframe assessment for the strengthening of the institutional and financial capacity of Lewa (Outcome 1)

Indicators	Quantitative/ qualitative assessment		Source
Output 1.1: *Management capacity of Lewa strengthened*		**5**	
Human resource capacity	Senior professional staff were hired and general staffing levels rose from 190 at the start of the project to 282 in 2003. The Lewa Standard was also developed, setting out Lewa's guiding philosophy and management approach to wildlife conservation, which served as a powerful management tool for stimulating effective teamwork, motivation and performance.	5	LBS and TER
Infrastructure and equipment	New offices and staff accommodation were built during the course of the project. Access was improved with an all-weather, resurfaced airstrip and progress was made to improving roads. Equipment purchased included office equipment, vehicles, hand held radios and generators	5	LBS and TER
Output 1.2: *Lewa revenue streams and funding base enhanced*		**5**	
Finance and fundraising staff	Lewa hired a qualified accountant in 2001 as Finance Manger, along with eight other support staff. For international fundraising purposes an Overseas Director and Public Relations Officer were hired	5	LBS and TER
Financial management systems	A fully computerized Sage accounting package was introduced as well as a Budget Allocation Mechanism to account for annual expenditure and facilitate fundraising efforts.	5	LBS and TER
Fundraising programme	Coherent fundraising strategy developed to diversify funding sources. Improved publicity materials (newsletters, brochure) and website. Overseas liaison offices established to coordinate fundraising trips of senior staff to Europe and USA	5	LBS and TER
Output 1.3: *Strategic plans and partnerships developed to improve effectiveness*		**4**	
Strategic plans	LWC Strategic Planning Framework 2002-2012 developed, laying out action plans with management targets. Other communities were identified for further expansion of community conservancies	5	LBS and TER
Establishment of partnerships	Partnerships were developed with communities (Il Ngwesi, Namunyak, Lekurruki, Kalama and West Gate), national organisations (Kenya Wildlife Service and Kenya Police Reservists), international and regional organisations. Although limited scientific partnerships established to support work in the community areas	4	LBS and TER
Outcome 1. Long-term institutional and financial capacity of Lewa to provide global and local benefits from wildlife conservation strengthened		**5**	
Lewa institutional and financial capacity	Key achievements were made in improving Lewa's human resources, consolidating and upgrading Lewa's management systems and upgrading Lewa's equipment and infrastructure. The challenge associated with these achievements is the increased cost of operations.	5	LBS and TER

The following sections look at how the strengthening of LWC led to the project's conservation and livelihood outcomes.

Outcome 2: Protection and management of endangered wildlife strengthened

This project outcome directly addresses the generation of the intended global environmental benefits, namely the protection of endangered wildlife species. The approaches for achieving this objective were two-fold: firstly, to ensure the effective protection of wildlife within the boundaries of Lewa itself; and secondly, to re-establish secure areas for wildlife within their former natural range in the wider ecosystem, which had been displaced by the predominantly pastoralist communities. The former approach was targeted mainly at the conservation of the Black rhino, whilst the latter approach was targeted at the Grevy's zebra.

The main outputs towards achieving this outcome were as follows:

- Output 2.1: Security of endangered species increased
- Output 2.2: Research and monitoring of wildlife and habitats increased

A detailed reporting of the qualitative and quantitative assessment of the delivery of these outputs and the ultimate outcome is provided in Table 3 overpage. The assessment has been carried out based on a series of indicators that have either been extracted from the project documentation or determined by the study team.

Output 2.1 (*security of endangered species increased*) was focused on building the capacity of LWC's Security and Wildlife Management Department and improving Lewa's security infrastructure, in part addressed by Outcome 1 above. The resulting wildlife management and security operations on Lewa were judged to be extremely effective, as demonstrated by the high number of trained and equipped staff and the stable wildlife population on Lewa, with a notable improvement in the population of Black rhino. In addition, the newly established community conservancies were given substantial support to improve wildlife protection through the provision of training, equipment and radios to enable them to link up with Lewa's security team when more substantial back-up was required.

Due to the high wildlife populations within Lewa, it was possible and necessary to introduce translocations as an important management tool, serving to regulate Lewa's population levels of large mammals and to restock depleted or newly established protected areas with sufficient management capacity within the ecosystem. The main recipient of the translocation programme was Meru National Park. However, due to the success of Lewa in training community scouts in the established community conservancies, it was possible to relocate one Black rhino and two White rhinos to a secure rhino sanctuary on neighbouring Il Ngwesi conservancy. The overall assessment of the delivery of this output was therefore: **FULLY ACHIEVED (5)**.

Output 2.2 (*research and monitoring of wildlife and habitats improved*) was aimed at developing the capacity of Lewa's Research Department to undertake detailed data collection and analysis on endangered species for use in adaptive management. During the project, the Research Department adopted standardised research methodology to enable comparison of data between years and to establish greater confidence when inferring trends and patterns in population dynamics. More detailed information concerning the ecology of Black rhino and

Grevy's zebra was collected and the assessments of breeding performance and overall population trends were particularly influential for the management of Black rhino. However, less emphasis was placed on research and monitoring in the wider ecosystem, which was relevant for the conservation of the Grevy's zebra. Although initial progress was made in establishing a community-based monitoring system in the community conservancies, no wildlife, habitat or socio-economic baselines were established. In addition, there was limited

Logframe assessment for the strengthening of protection and management of endangered wildlife (Outcome 2)

Indicators	Quantitative/ qualitative assessment		Source
Output 2.1: *Security of endangered species increased*		**5**	
Endangered species populations	Lewa's **Black rhino** population showed an enhanced status with falling inter-calving intervals in breeding cows leading to an increase in population during project implementation from 25 to 32. The **Grevy's zebra** population remained stable at about 500, although suffered a reduction in numbers attributed to predation from the increasing lion population on Lewa.	5	LBS and TER
Security capacity	By the project close there were 158 staff in the Security and Wildlife Management Department carrying out daily patrols. 17 were armed Kenya Police Reservists. A major capacity improvement was a comprehensive communication network established at Lewa covering a number of the community areas. In addition, Lewa trained, equipped and provided backup to the newly established community conservancies.	5	LBS and TER
Translocations of excess wildlife from Lewa	Lewa started translocations of their excess wildlife to restock other depleted areas. The main recipient was Meru National Park, which received 20 Grevy's zebra,1 Black rhino and 2 White rhino (2002) and 950 Burchell's zebra, impala and giraffe (2003). There were also translocations to restock newly established and sufficiently secure community conservancies, the main recipients were Namunyak with 15 giraffe (1999) and Il Ngwesi with 1 Black rhino and 2 White rhino	5	LBS and TER
Output 2.2: *Research and monitoring of wildlife and habitats improved*		**4**	
Endangered species monitoring	Black rhino and Grevy's zebra populations were closely monitored with information collected on population dynamics and breeding, individual home ranges and animal health. In addition, ear-notching of ten Black rhino was introduced in 2003 to help distinguish individuals. Radio collaring of Grevy's zebra in Lewa and community areas was carried out in 2002 and community-based monitoring through scouts in the conservancies was introduced. However, there was limited habitat monitoring and no wildlife/ habitat or socio-economic baselines were established for target community areas.	4	LBS and TER
Collaborations with research institutions	Lewa collaborated with research institutions, such as Earthwatch from 2000, and Mpala Research Centre. But research was not a priority of Lewa, as reflected in the 2% allocation of the 2004 expenditure budget for research activities and the lack of a scientific advisory board.	3	LBS and TER
Outcome 2. Protection & management of endangered wildlife species in the wider ecosystem strengthened		**4**	
Security and research operations	The emphasis on improved infrastructure, equipment and communications and well-trained staff significantly increased Lewa's capacity to protect and manage endangered wildlife within the conservancy and enabled a good start to supporting the community conservancies to protect and manage wildlife in the broader ecosystem	4	LBS and TER

involvement or collaboration with scientific research bodies to support assessments in the broader ecosystem. The overall assessment of the delivery of this output was therefore: **WELL ACHIEVED (4)**.

At the end of the project therefore, Lewa had been extremely successfully in effectively managing and protecting the Black rhino and Grevy's zebra populations resident on Lewa conservancy. The successful management of these protected species enabled Lewa to start translocations of these species to other secure protected areas in the greater ecosystem. In addition, a good foundation had been laid for the protection and monitoring of Grevy's zebra in the greater ecosystem through the support given to community conservancies in wildlife protection and monitoring. The resulting improvement in security in the community conservancies had also contributed to the increased support for conservation in the ecosystem. **As a result, the study team assessed the overall achievement of this outcome as: WELL ACHIEVED (4)**

Outcome 3: Community-based conservation and natural resource management initiatives strengthened

The rationale for this outcome is that community support and involvement in conservation is essential for realising the vision of LWC to restore and secure the traditional wildlife range, and in particular endangered species, within the greater ecosystem. Providing economic benefits to communities for supporting conservation, which are competitive with other land uses, was seen as fundamental to achieving the outcome. Particular focus was on the pastoralist communities to the north of Lewa, where increasing livestock numbers were displacing wildlife and degrading the natural habitat.

The main outputs towards achieving this outcome were as follows:

- Output 3.1 Capacity of local communities to undertake conservation-compatible income-generating activities strengthened
- Output 3.2 Community natural resources management institutions strengthened
- Output 3.3 Conservation awareness and education improved

A detailed reporting of the qualitative and quantitative assessment of the delivery of these outputs and the ultimate outcome is provided in Table 4 overpage. The assessment has been carried out based on a series of indicators that have either been extracted from the project documentation or determined by the study team.

Output 3.1 (*capacity for conservation-compatible income-generating activities strengthened*), was designed to improve economic benefits to local communities from wildlife and natural resources. The main focus was on strengthening eco-tourism initiatives in three community conservancies, Il Ngwesi (Il Ngwesi Lodge), Lekurruki (Tassia Lodge) and Namunyak (Sarara Tented Camp). Support included refurbishment of Il Ngwesi Lodge, training in the management of the enterprises, and support in marketing these community lodges to the national and international tourism market. In recognition of the achievements made, Il Ngwesi Lodge won a number of eco-tourism awards as well as the 2002 UN Equator Initiative Prize for its work to reduce poverty and conserve biodiversity. However, by the end of the project it was still assessed that more capacity was needed to manage these ecotourism enterprises, and

the lodges were still reliant on external support in areas such as financial management and marketing.

Outside of ecotourism there was limited success in identifying or supporting other conservation-compatible income generating activities in the pastoralist communities. The main success noted was achieved in establishing community-based organisations and user groups around Ngare Ndare Forest Reserve (incorporated in Lewa conservancy), but by the close of the project it was too early to see whether the adopted income generating activities delivered any significant returns. Although eco-tourism was the only significant income generating activity established in the community areas, considering the lack of economic opportunities in the region and the ban on consumptive utilisation of wildlife, the overall assessment of the delivery of this output was: **WELL ACHIEVED (4)**.

Output 3.2 (c*ommunity natural resources management institutions strengthened*) was important in ensuring that the management and governance of the community conservancies were stable and sustainable. By the end of the project, progress was made with the further registration of community conservation institutions, such as the Ngare Ndare Forest Trust and the Il Ngwesi Community Trust, although the newer conservancies (e.g. Lekurruki, Sera and Kalama) were still not legally registered. Governance structures were clearly established for Il Ngwesi, Namunyak and Lekurruki community conservancies, each building where appropriate on traditional mechanisms. In general, each of these three conservancies established a Board of Directors/ Trustees with oversight and decision-making responsibility, supported by various committees formed to oversee natural resource management. This institutional arrangement was deemed to be appropriate and effective, although competition and rivalry for leadership position within these institutions did threaten their longer-term stability.

Regarding the practical natural resource management capacity in the conservancies, training was provided to improve the management and security aspects of the conservancies, with the head of security at Il Ngwesi conservancy receiving further training in South Africa. The natural resource management committees controlled the grazing of livestock within the conservancies and introduced land-use zoning, which included exclusion zones that resulted in improved utilisation of the land and the regeneration of grasses and dry season emergency fodder. Improved rangeland management was also promoted through the increased levels of cooperation between community conservancies. However, the Lewa project did not provide any substantial support for natural resource management and the issue of livestock husbandry and marketing within these conservancies was not addressed. The overall assessment of the delivery of this output was therefore: **PARTIALLY ACHIEVED (3)**.

Output 3.3 (*conservation awareness and education improved*) was seen as an important vehicle for encouraging the buy-in and adoption of conservation practices in the surrounding communities and ultimately realising the catalytic role of Lewa. The GEF funding helped to established Lewa's Community Development Office and their activities were instrumental in raising awareness in the existing community conservancies, as well as influencing other communities within the former wildlife rangeland to adopt the community conservancy model (e.g. Sera, Kalama and West Gate). However, this department was under-resourced to fully respond to the requests and interests shown by the communities. The "*GEF committee*", which was formed at the grassroots levels to oversee GEF funds allocated for community support activities, also provided a useful mechanism for awareness raising, especially through the funding of cross visits to more established community conservation projects.

To increase conservation awareness around the borders of Lewa Downs, the Lewa Education Trust was formed in 2001 with a full time Education Officer. The Trust supported five primary schools within a one-mile radius of Lewa, through infrastructure improvements and around 50 secondary school bursaries. This support provided an entry point for raising awareness amongst the staff, pupils and parents and the establishment of wildlife clubs (Roots and Shoots Clubs). As with the Community Development Office, the main constraint on the Trust was the lack of resources. The overall assessment of the delivery of this output was therefore: **WELL ACHIEVED (4)**.

At the end of the project therefore, Lewa had made significant progress in improving economic benefits to local communities from activities that are compatible with conservation, mainly through the strengthening of existing community ecotourism initiatives, especially the security and business management aspects. This success helped to leverage support for new conservation initiatives in other pastoralist communities and around the Ngare Ndare Forest Reserve. The effort put into strengthening community management systems and

Logframe assessment for strengthening community-based conservation and natural resource management initiatives (Outcome 3)

Indicators	Quantitative/ qualitative assessment		Source
Output 3.1: *Capacity of local communities to undertake conservation-compatible income-generating activities strengthened*		**4**	
Community-based ecotourism	Three conservancies were supported to strengthen/ establish eco-tourism enterprises; Il Ngwesi Lodge, Tassia Lodge (Lekurruki) and Sarara Tented Camp (Namunyak). Training courses in driving, cooking, hotel accounting, staff management and computer literacy were supported. Remaining challenges included the need for further management strengthening, poor accessibility and unrealistic community expectation of potential benefits	4	LBS and TER
Diversified income generating activities	Community Based Organisations and User Groups formed around Ngare Ndare Forest Reserve in 2002. Some of the activities undertaken which included women's Micro Credit loans and a hay-bailing project started in 2003. However, little progress had been made by these initiatives in generating money by the project close. The pastoralist communities did not develop alternative IGA's outside of ecotourism.	3	LBS and TER
Output 3.2: *Community natural resource management institutions strengthened*		**3**	
Formalisation of institutional and governance structures	Draft deed for establishing Il Ngwesi Community Trust and legal establishment of Ngare Ndare Forest Trust (Nov 2001). Transparent election processes for leadership positions at Il Ngwesi, Namunyak and Lekurrruki. However, there was poor representation of women in these community structures and rivalry threatened leadership stability	3	LBS and TER
Establishment of management systems	Management and conservation of natural resources effectively done by natural resource committees, although the Lewa project had limited involvement and livestock issues in general were not addressed	3	LBS and TER
Enforcement of natural resource byelaws and security	Natural Resource byelaws, especially concerning core community conservation areas were effectively enforced by community scouts, NRM committees and community leadership. Lewa provided training and security back-up	5	LBS and TER
Output 3.3: *Conservation awareness and education improved*		**4**	
Conservation awareness raising	The formation of the Community Development Office at Lewa was the principle vehicle for raising conservation awareness, which was very effective, although under-resourced to fulfil its mandate. The "GEF Committee" established to allocate community support activities, was a useful instrument for awareness raising.	4	LBS and TER
Environmental education	Lewa Education Trust formed to support primary schools adjacent to Lewa conservancy. Environmental education promoted through the establishment of wildlife clubs (Roots and Shoots Clubs) and school visits to Lewa Downs.	4	LBS and TER
Outcome 3: Community-based conservation and natural resource management initiatives strengthened		**4**	
Adoption of community conservation	The project made significant progress in increasing community support for conservation, especially through strengthening existing community eco-tourism initiatives and enhanced security associated with the conservancies. However, there was a missed the opportunity to improve pastoralist natural resource management practices	4	LBS and TER

structures has improved the institutional capacities of these community conservancies, although issues of pastoralist natural resource management and livestock management and marketing were not adequately addressed by the project. However, considering the small component of the GEF project allocated to community support**, the study team considered the overall achievement of this outcome as: WELL ACHIEVED (4).**

Outcomes-Impacts Analysis

The extent to which project outcomes have been converted to impacts is assessed by an Outcomes-Impacts Analysis, which forms the second part of the Impact Evaluation Framework. As identified in the Project Logframe Analysis above, the project had three major out-comes:

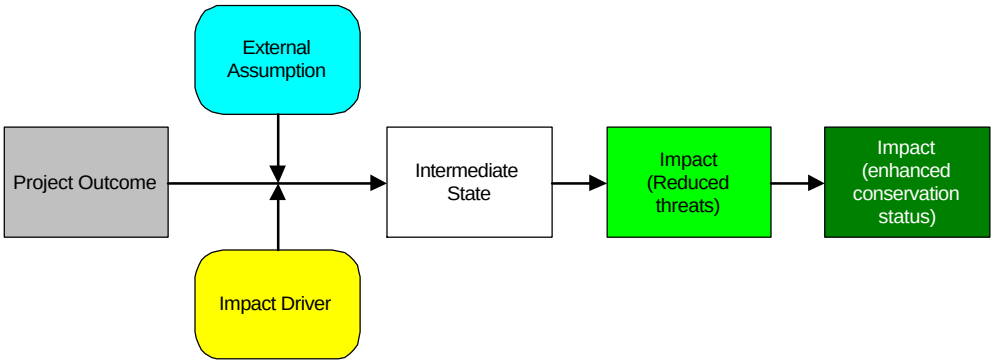
- Outcome 1: Long-term institutional and financial capacity of Lewa to provide global and local benefits from wildlife conservation strengthened
- Outcome 2: Protection & management of endangered wildlife species in the wider ecosystem strengthened
- Outcome 3: Community-based conservation and natural resource management initiatives strengthened

Each of these outcomes was assessed to have been well to fully achieved at the end of the project. The following sections examine how the three outcomes have led to impacts.

Since the GEF grant, Lewa has been instrumental in initiating the formation of the **Northern Rangelands Trust** (NRT) in 2004. NRT is an umbrella local organisation with a goal of collectively developing strong community-led institutions as a foundation for investment in community development and wildlife conservation in the Northern Rangelands of Kenya. The NRT membership comprises community conservation conservancies and trusts, local county councils, the Kenya Wildlife Service, the private sector, and NGOs established and working within the broader ecosystem. The overall objective of the Trust is "*to conserve biodiversity and to improve the livelihoods of communities who share their land with wildlife through the management and sustainable use of natural resources*" (Northern Rangelands Trust, 2004). NRT provides a forum for exchanging ideas and experiences, and is a technical, advisory and implementing organisation for its members. In essence, the NRT has taken over the role of Lewa in supporting the establishment and development of the community conservancies, thus enabling Lewa's Community Development Office to focus on the communities directly bordering Lewa Downs, and for Lewa to focus more on wildlife management and security, its core competency. The establishment and functioning of the NRT is therefore a very important aspect in understanding and assessing the ultimate achievement of impacts from the original GEF investment.

The analysis draws on the findings of the Lewa Local Benefits Study (GEF, 2004) and the Terminal Evaluation Review (GEF, 2006). However, as these reports are rather outdated, additional consultations were undertaken by CDC and GEF Evaluation Office in May and July 2007 with the staff of Lewa and the Northern Rangelands Trust as well as with community representatives from the more recently established community conservancies.

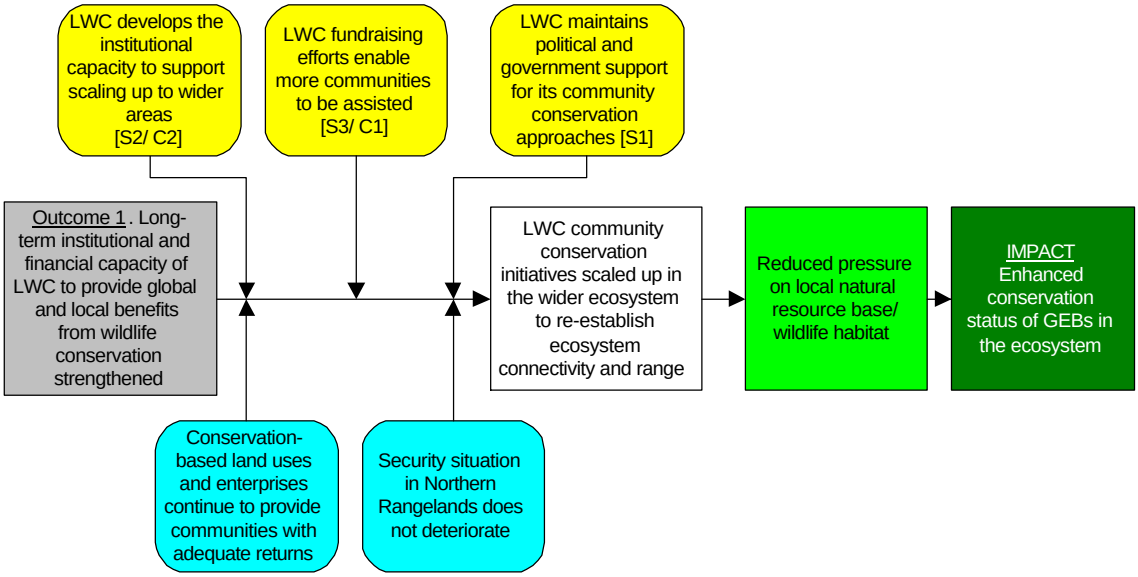
The Theory of Change models developed for the Outcomes used the following key for the different coloured/ shaped boxes:



Outcome 1: Long-term institutional and financial capacity of Lewa strengthened

As discussed in section 2.1, the overall logframe assessment of the institutional strengthening of Lewa indicates that this outcome was *fully achieved*. The theory of change model for linking Outcome 1 to the intended impact of enhanced conservation status of the ecosystem is illustrated in Figure 2 below.

Lewa TOC Model for Outcome 1



The rationale for the TOC model is that the project outcome, *"Long-term institutional and financial capacity of LWC to provide global and local benefits from wildlife conservation strengthened"* will realise impact provided that the Intermediate State "*LWC community conservation initiatives scaled up in the wider ecosystem to re-establish ecosystem connectivity and range"* is achieved. That is, the achievement of this intermediate state will ensure that replication of LWC's initiatives through institutional strengthening and the scaling up of community-led initiatives will lead to the achievement of the intended impact, i.e. *a reduced pressure on the local natural resource base*. The achievement of this intermediate state depends on a variety of factors, including three impact drivers and two external assumptions.

The rationale and assessment of the impact drivers are described in the following section, followed by an assessment of the evidence that the intermediate state has actually been achieved. The detailed qualitative and quantitative analysis for the achievement of Outcome 1 to Impact is provided in Table 5 at the end of this section.

Achievement of impact drivers

LWC develops the institutional capacity to support scaling up to wider areas (Institutional and Replication Impact Driver)

A key factor behind successfully scaling-up of any intervention is the presence of institutions on the ground with sufficient capacity to stimulate and drive the necessary process of change. By the end of the GEF project in 2003, Lewa realised that it did not have the institutional capacity to adequately respond to the growing interest for conservation in the broader ecosystem, nor to the increasing need to address broader development issues impacting on conservation outcomes, such as land degradation and high livestock populations. Two steps were taken to develop this institutional capacity as outlined below.

Firstly, Lewa played a major role in initiating the formation of the Northern Rangelands Trust to take over leadership in supporting the establishment and strengthening of community conservancies. NRT has a strong governance and institutional structure, with oversight provided by a Board of Trustees, made up of political and community leaders, conservation practitioners and business professionals. A Council of Elders is elected from the community conservancies, local county councils, the Kenya Wildlife Service and the NGO/ private sector to take responsibility for drawing up bylaws for the operation and administration of the Trust and to ensure the equitable distribution of benefits arising from the conservancies. Finally, there is the Executive Team, made up of conservation, development and finance professionals, who provide the technical support to practically build the capacity of the community conservancies.

Secondly, Lewa entered into a mutually beneficial collaboration with the newly established Ol Pejeta Conservancy, which was formed in 2004 through the merger of Sweetwaters Game Reserve (25,000 acres) and Ol Pejeta Ranching Ltd. (65,000 acres), to form the largest Black rhino sanctuary in East Africa, alongside commercial cattle ranching operations. Lewa was given a management contract to oversee the development of the conservancy, building on the Lewa Wildlife Conservancy model, whilst Ol Pejeta Conservancy had the necessary technical capacity and facilities (e.g. abattoir) from its continued cattle ranching operations to support the Northern Rangelands *Trust's Linking Livestock Markets to Wildlife Conservation Programme*, which aims to reduce livestock densities through improved returns per head and access to markets. The study team's assessment for the achievement of this driver was therefore: **FULLY ACHIEVED (5)**

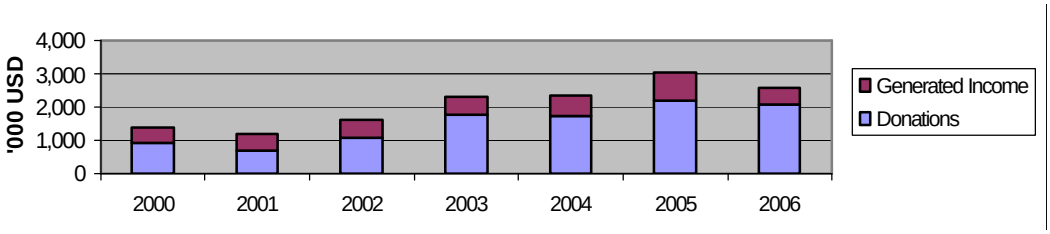
LWC fundraising efforts enable more communities to be assisted (Financial and Leveraging of Co-financing Impact Driver)

The number of conservancies that can be supported and established is directly related to the amount of money that can be fundraised. The establishment of a new community conservancy requires substantial start-up capital, in addition to the associated costs to LWC in providing

wildlife management and security back-up, and the administrative technical and support costs of NRT.

Lewa's revenue generation and fundraising capacity has improved from an average annual income of $1.7 million during the GEF project implementation (2000-2003), to an annual average of $2.8 million between 2004-2006 (see Figure 3 below). This increased fundraising is attributed to a number of factors, including an increase to six global liaison offices in the USA, UK, Canada, Switzerland, Austria and Asia and improved local fundraising events, such as the Lewa Marathon, which raised a gross total of just over US$1 million in 2007. Furthermore, Lewa is still seeking ways to increase its revenue generating capacity. One new initiative has been the establishment of Lewa Enterprises, comprising of 80 highly qualified and motivated staff, with a mandate to manage all income-generating activities in Lewa conservancy and with a target that these activities contribute to at least half of lewa's budget by 2008. In addition, Lewa is looking into establishing an endowment fund to complement the existing sources of finance, as well as targeting institutional donors in order to provide further sources of financing (*pers comm.* Isaac Njagi, LWC Finance Manager).

Lewa Trends Analysis 2000-2006



NRT has a separate donor-fundraising programme, which since NRT's formation in 2004, has been fully supporting its operational and community support costs, due to the lack of revenue generating capacity. Fundraising levels to cover the costs of NRT and each individual community conservancy have been steadily increasing, with the major source being from private foundations and zoos – a list of the various donors for each community conservancy is provided in Annex 1. Each community conservancy has secured donor financing for annual operating budgets ranging from US$30,000 (Melako Conservancy) to US$120,000 (Namunyak Namunyak Wildlife Conservation Trust) per year. NRT is also in negotiations with USAID, the French Agency for Development (ADF) and the French Ministry of Foreign Affairs (FFEM) to gain larger funding grants. Consistently raising funds against a rapidly expanding scope of operations in the wider ecosystem continues to be a large challenge for the NRT. The study team's assessment for the achievement of this driver was therefore: **WELL ACHIEVED (4).**

LWC maintains political and government support for its community conservation approaches (Socio-political Impact Driver)

National and local political support is essential for mobilising community support as well as in influencing conservation-related policy development that is supportive of the wider vision of Lewa/ NRT. Both Lewa and NRT have obtained high level political support, with national and local political representation on both their management boards. The speaker of the National Assembly is on both the Lewa and NRT boards, whilst almost half of the members sitting on the Board of Trustees for NRT are politicians, including three MPs. The study team's assessment for the achievement of this driver was therefore: **WELL ACHIEVED (4)**

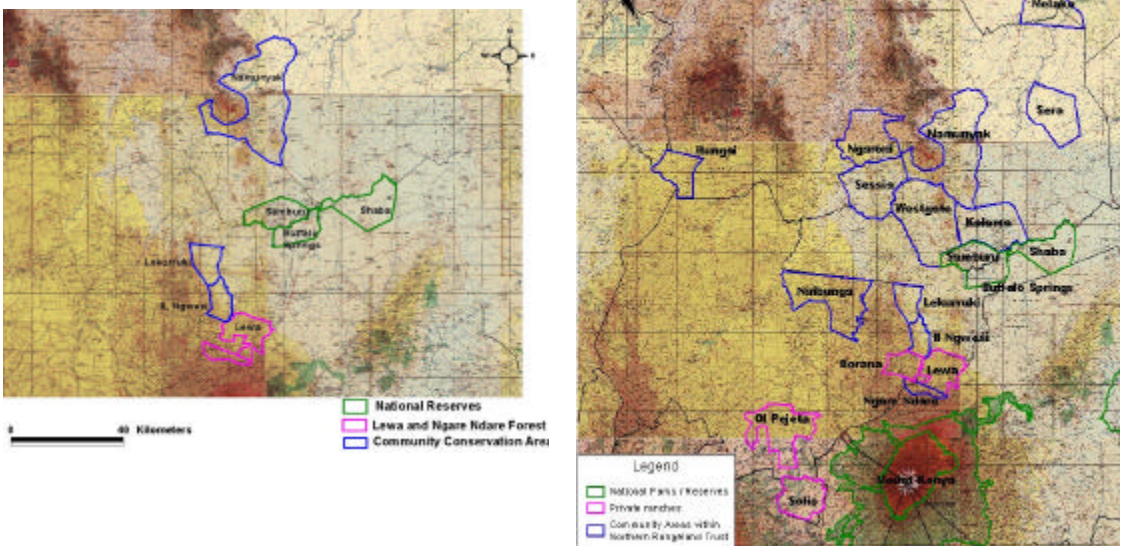
Achievement of intermediate state and impact

The assessment of impact drivers and external assumptions presented in the previous section and in Table 5 overpage suggests that there is good evidence that the conditions were in place for the delivery of both the intermediate states identified in the TOC model for Outcome 1. The next stage is to assess what evidence exists that the intermediate states were actually achieved, which then enables conclusions to be drawn from the TOC model about the ultimate achievement of impact from Outcome 1. This is discussed below.

Intermediate State: LWC community conservation initiatives scaled up in the wider ecosystem to re-establish ecosystem connectivity and range

This state was supported with good evidence from the increase in land set aside for conservation in the region over the past decade. During the GEF project, the area under conservation in the region increased from 364,420 acres at the 1999 baseline to 670,210 acres in 2003. Since NRT has taken over support for community conservancies, the area of land under conservation has increased from the 2003 figure to over 1.2 million acres in 2007 (see Figure 4 below). This has in turn increased the conservation area set aside for the endangered Grevy's zebra whose range lies in these community areas. Although factors beyond the control of Lewa and NRT, such as insecurity, remain a threat to the substantial conservation gains, the success achieved in the past few years towards increasing land set aside and the increased institutional and financing capacity and political support all suggest that scaling up will continue. Consequently, the study team's overall assessment for the achievement of this intermediate state is: **WELL ACHIEVED (4)**.

Increase in the area under conservation between 1997 and 2007



A. Area under conservation in 1997 (364,420 acres) B. Area under conservation in 2007 (1.2 million acres

In conclusion, the Outcomes-Impacts TOC model approach for assessing impact from Outcome 1 suggests that Lewa has made significant progress towards scaling up community conservation initiatives and creating the conditions needed to achieve conservation impact in the broader ecosystem. The strong institutional,

financial and political support for the emerging conservation mosaic in the communities areas seems to provide the necessary conditions needed for the enhanced conservation status of the ecosystem.

Section 4 below examines the direct evidence of whether impacts have actually been achieved in Kenya's northern rangeland ecosystem as an alternative means of triangulating the impact conclusions of this TOC model.

Outcome 1 - Impact TOC assessment

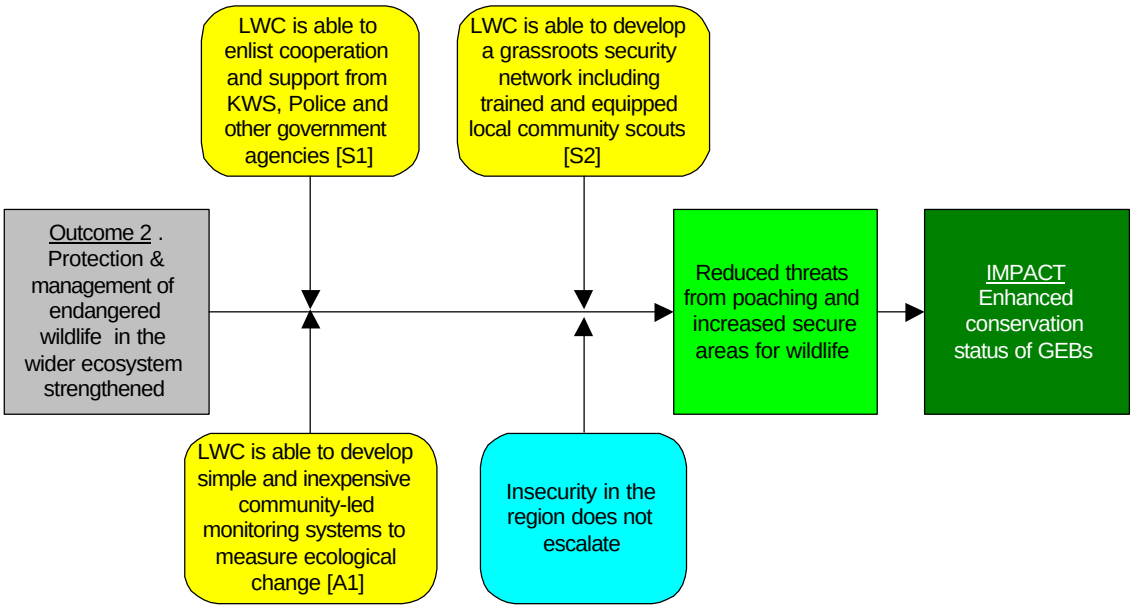
Indicators	Quantitative/ qualitative assessment		Source
Impact Driver 1: *LWC develops the institutional capacity to support scaling up to wider areas [S2/ C2]*		**5**	
Establishment of Northern Rangelands Trust	The formation of Northern Rangelands Trust in 2004 to develop strong community-led institutions for community development and wildlife conservation in the ecosystem. A Board of Trustees provides oversight, supported by a Council of Elders, with technical support provided by an Executive Team of conservation, development and finance professionals.	5	Lewa/ NRT literature & website
Collaboration with Ol Pejeta Conservancy and Borana Ranch	Lewa's mutually beneficial collaboration with Ol Pejeta Conservancy has led to enhanced Black rhino conservation and support to NRT's community livestock programme. Collaboration between Lewa and Borana Ranch have also contributed to the development of community conservation projects (e.g. Lekurruki).	5	NRT/ Ol Pejeta documentation & website. LBS
Impact Driver 2: *LWC fundraising efforts enable more communities to be assisted [S3/ C1]*		**4**	
Annual income generated	Lewa had an average annual income of $1.7 million between 2000-2003, which supported all its activities, including to the adjacent communities and the northern community conservancies. The average annual revenue for Lewa has increased to $2.8 million between 2004-2006, which supported LWC and its adjacent communities only. Since 2004, the northern communities conservancies have been supported by NRT, which is generating funding to cover operational costs from private foundations and zoological societies, although there are expectations for new funding from USAID, French GEF and ADF	4	Lewa and NRT Finance Departments
Fundraising programmes	Lewa have six global offices raising funds for its operations, while NRT has diverse donors, linked to specific conservancies or activities. The Lewa Marathon raised over US$1 million in 2007. Donor funding for the two institutions forms a vital percentage of their annual revenues.	4	Lewa website
Impact Driver 3: *LWC maintains political and government support for its community conservation approaches [S1]*		**5**	
Political representation in Lewa and NRT Boards	The speaker of the National Assembly is on both Lewa and NRT Boards. Five members sitting on the Board of Trustees for NRT are politicians, including three MPs. In addition local county councils and community leaders are represented.	5	Lewa & NRT websites/ annual reports
External Assumption 1: *Conservation-based land uses and enterprises continue to provide communities with adequate returns*		**4**	
External events (terrorism)	Terrorism and travel advisories negatively affect tourism, as evidenced by the downturn in visitors to Kenya following the 1998 bomb attacks in Nairobi and following the terrorism attacks in USA on September 11, 2001. The reduced visitors at LWC and Il Ngwesi Lodge during 2002 were attributed to reduced numbers in visitors. However, since then tourism number has steadily been increasing.	4	NRT Finance Department
Opportunity costs	The opportunity costs for land set aside have so far been low, especially as alternative pasture is available in abandoned	4	LBS (2004)

Indicators	Quantitative/ qualitative assessment		Source
	land in Laikipia. However, if these opportunity costs were to rise, and other more productive land uses were discovered, then community support for conservation would reduce		
External Assumption 2: *Security situation in the Northern Rangelands does not deteriorate*		4	
Trends of security incidents	Security incidents recorded in the areas covered by NRT have been increasing mainly due to increased scope of operations. Security has been relatively stable during the past five years. However the future of security is uncertain due to broader factors such as the neglect and marginalisation of the region by the government and cross border conflict threats from Ethiopia and Somalia.	4	NRT management
Intermediate State 1: LWC community conservation initiatives scaled up in the wider ecosystem to re-establish ecosystem connectivity and range		**4**	
Land set aside for conservation	Under the leadership of NRT, the number of community conservancies has increased from four by the end of 2003 to 15 conservancies in 2007. This represents an increase in the area set aside for conservation from 670,210 acres to 1,236,483 acres by 2007.	5	NRT
Migratory patterns of collared elephants (STE)	Provisional evidence from tracking collared elephants and Grevy's zebra, demonstrates that wildlife is utilising the newly secured areas within the community conservancies during the course of their migration	4	Save the Elephants (STE) data base
Interconnectivity of conservation areas	The main block in the conservation range is a piece of state owned land (5,000 acres) that is characterised by high insecurity and degraded habitat. There are plans to have this land purchased by Il Ngwesi Conservancy for its members, which will lead to better security and habitat regeneration	4	NRT
Achievement of Impact: reduced threats from poaching and increased secure areas for wildlife		4	

Outcome 2: Protection & management of endangered wildlife species in the wider ecosystem strengthened

As discussed in section 2.2, the overall logframe assessment of the project's strengthening of protection and management of endangered wildlife was *well achieved.* The theory of change model for linking Outcome 2 to the intended impacts is illustrated in Figure 5 below.

Lewa TOC Model for Outcome 2



The rationale for the TOC model is that if the project outcome, *"long-term institutional and financial capacity of LWC to provide global and local benefits from wildlife conservation strengthened"* is achieved it will directly lead to impact without the need for an intermediate state. This is due to the fact that this outcome deals directly with the reduction of threats to the global environment benefits. However, the achievement of this impact does depend on a variety of factors, including three impact drivers and one external assumption.

The rationale and assessment of the impact drivers are described in the following section, followed by conclusions from the TOC model about the ultimate achievement of impact. The detailed qualitative and quantitative analysis for the achievement of Impact from Outcome 2 is provided in Table 6 at the end of this section.

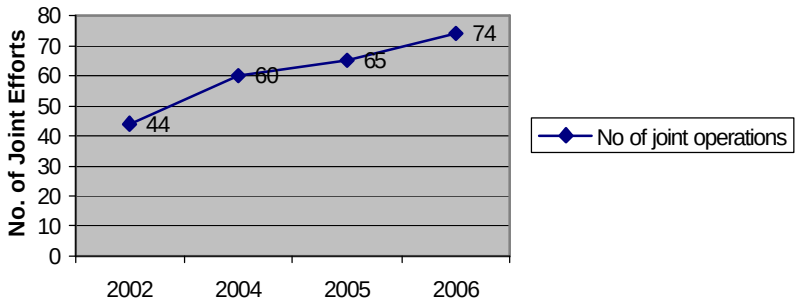
Achievement of impact drivers

LWC is able to enlist cooperation and support from Kenya Wildlife Service, Police and other government agencies (Socio-political Impact Driver)

The rationale behind the importance of this driver is that Lewa does not have the capacity or the mandate to provide security for the Northern rangelands, which is characterised by frequent incidents of insecurity, aggravated by the area's close proximity to Somalia and Ethiopia. As a result the support and cooperation of the relevant government agencies is needed. Over the years Lewa has established very good levels of cooperation with the Kenya Wildlife Service, Kenya Police Reservists and the Anti stock theft unit of the police force, and

they are regularly undertake increasing joint security follow-ups as illustrated in Figure 6 below. The study team's assessment for the achievement of this driver was therefore: **WELL ACHIEVED (4)**.

Joint Lewa-government security follow ups (2002 – 2006)



LWC is able to develop a grassroots security network including trained and equipped local community scouts (Institutional Impact Driver)

Security has been a key problem within the community areas and has been characterised by cattle rustling and banditry. For the success of the community conservancies, a security network with good backup is essential in order to safeguard the security to residents, visitors and the wildlife. Without this security, other activities related to conservation and community development cannot effectively operate. Lewa has been instrumental in establishing an integrated security network in the NRT area, which received a boost during the GEF project with the provision of hand held radios. Since 2003, the network of well-trained and equipped community scouts has been extended to the newly established conservancies, with a total of 157 scouts (see Annex 1). In 2007, NRT estimated that in the ten most developed conservancies there is an average of one community scout per 28km^2, which although not comparable to the high rhino security operations on Lewa (with one ranger per 4km^2), does represent a substantial coverage of the northern rangelands. The radio communication network links the community scouts to Kenya Wildlife Service, the Kenya Police and additional support in the form of aerial back-up, tracker dogs and armed security from Lewa when required. The link between improved security and support for wildlife identified in the Local Benefits Study (2004) still remains very important. However, long-term security efforts by Lewa and its partners have not been formalised in an agreement. The study team's assessment for the achievement of this driver was therefore: **WELL ACHIEVED (4)**.

LWC is able to develop simple and inexpensive community-led monitoring systems to measure ecological change (Environmental Impact Driver)

The rationale behind this driver is that as the community conservancies cover a vast area and with limited resources, there is a need for simple community-led monitoring systems to measure ecological change, which can be analysed locally in order to inform community decisions about conservation and development activities. NRT is currently in the process of developing a rigorous community-led ecosystem monitoring programme for key wildlife species, threats and rangeland condition, complemented by aerial surveys and remote sensing of vegetation changes carried out by NRT and other conservation partners. Although this comprehensive monitoring system is still being established, the Grevy's Zebra Scout Programme has been collecting data since May 2003 on the distribution and abundance of Grevy's zebra, which is providing useful information to better understand ecological pressure

on this endangered species in areas of high livestock density. The study team's assessment for the achievement of this driver was therefore: **PARTIALLY ACHIEVED (3)**.

Outcome 2 - Impact TOC assessment

Indicators	Quantitative/ qualitative assessment		Source
Impact Driver 1: *LWC is able to enlist cooperation and support from Kenya Wildlife Service, Police and other government agencies [S1]*		**4**	
Joint security operations	There has been an increase in the number of joint security follow-ups between LWC, KWS, KPR, and Anti-stock theft unit. In 2002 where there were only 44 joint security efforts while in 2006, there were 74 joint security operations.	4	LWC Research Department.
Impact Driver 2: *LWC is able to develop a grassroots security network including trained and equipped local community scouts [S2]*		**4**	
Community Scouts	There are an estimated 157 Lewa-trained community scouts in the NRT conservancies, with a coverage of about one / 28 km^2 that are integrated into the Lewa security radio network	4	LWC/NRT Research and Departments
Improved attitudes from community members	One of the most important reasons still cited for conservation support is the improved security that it provides the community	4	LBS and Sera Strategic Plan (2007)
Impact Driver 3: *LWC is able to develop simple and inexpensive community-led monitoring systems to measure ecological change [A1]*		**3**	
Monitoring information	The Grevy's Zebra Scout Programme has been collecting and analysing information since 2003, however comprehensive community-led ecosystem monitoring programme still being developed by NRT	**3**	
External Assumption: *Insecurity in the region does not escalate*		**4**	
Trends of security incidents	See Outcome 1 above	4	NRT management
Achievement of Impact: Reduced threats from poaching and increased secure areas for wildlife		**4**	

Achievement of impact

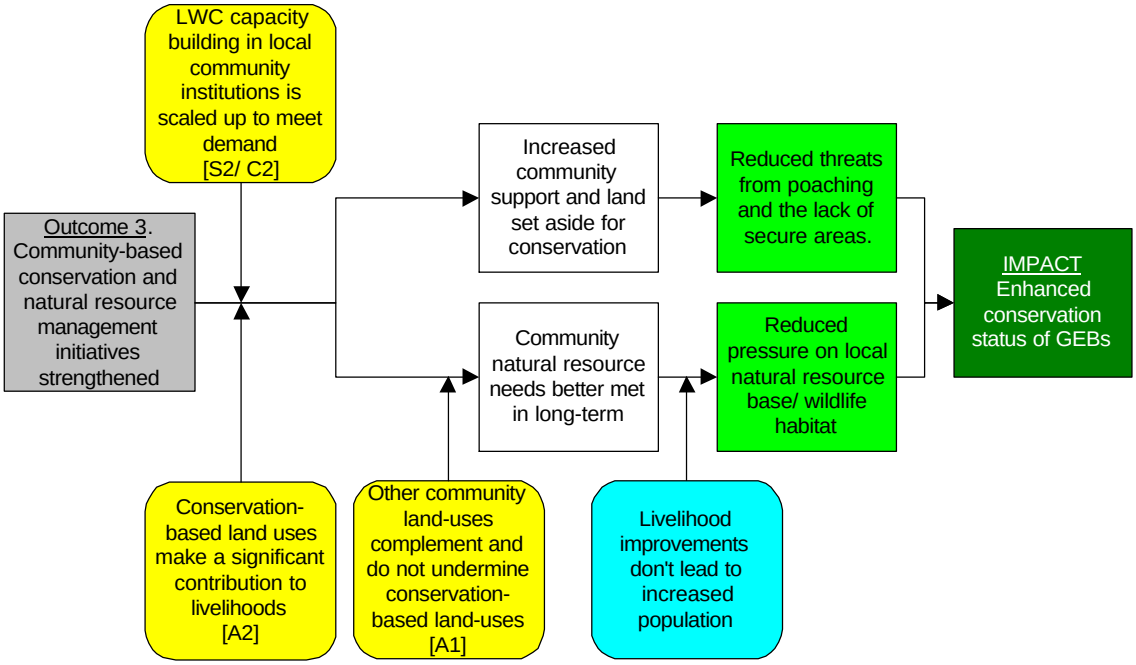
In conclusion, the Outcomes-Impacts TOC model approach for assessing impact from Outcome 2 suggests that the work of Lewa and the NRT to strengthen wildlife protection within the wider ecosystem has been well achieved, although greater impact will potentially be achieved when NRT has the community-led ecosystem monitoring programme established and with further expansion and concentration of the community security network.

Section 4 below examines the direct evidence of whether impacts have actually been achieved in the ecosystem, as an alternative means of triangulating the impact conclusions of this TOC model.

Outcome 3: Community-based conservation and natural resource management initiatives strengthened

As discussed in section 2.3, the overall logframe assessment of the project's support for community-based conservation and natural resource management was *well achieved*. The theory of change model for linking Outcome 3 to the intended impacts is illustrated in Figure 7 below.

Lewa TOC Model for Outcome 3



The rationale for the TOC model is that the project outcome, *"Community-based conservation and natural resource management initiatives strengthened"* will realise impact provided that the Intermediate States *"Increased community support and land set aside for conservation" and "Community natural resource needs better met in long-term"* are achieved. That is, the achievement of these intermediate states will ensure that improved community livelihoods and impact will lead to the achievement of intended impact, i.e. *a reduced pressure and threats to the local natural resource base*. The achievement of these intermediate states depends on a variety of factors, including three impact drivers and one external assumption.

The rationale and assessment of the impact drivers are described in the following section, followed by an assessment of the evidence that the intermediate states have actually been achieved. The detailed qualitative and quantitative analysis for the achievement of Impact from Outcome 3 is provided in Table 7 at the end of this section.

Achievement of impact drivers

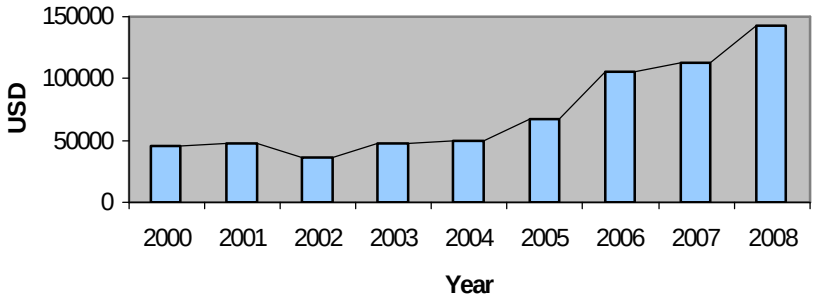
LWC capacity building in local community institutions is scaled up to meet demand (Institutional/ Replication Impact Driver)

Strong community led-institutions are seen as the foundation for investment in community development and wildlife conservation in the broader ecosystem. The philosophy behind the NRT scaling up of community institutions is that their formation is driven by community needs and aspirations and that the principles underlying the institutional development adopted by NRT is to develop high standards of community governance and management structures, with the view that they eventually become institutionally and financially independent. The apparent success of NRT in increasing the number of community conservancies from four to 15 is mainly attributed to the expected financial benefits and improved security associated with eco-tourism ventures in the established conservancies. Community members are often initially sceptical about establishing community conservancies, but NRT has found that initiating cross visits to established conservancies has proven effective in persuading communities to adopt the model (*pers. comm*. Tom Lalampaa). The study team's assessment for the achievement of this driver was therefore: **WELL ACHIEVED (4).**

Conservation-based land uses make a significant contribution to livelihoods (Socio-economic Impact Driver)

The rationale for this driver is that even is there is a substantial scaling up of community intiatives, it will not lead to the intended intermediate states if the quality/ quantity of the returns are not sufficient to satisfy community needs or aspirations. The most significant return has been provided by eco-tourism, which has provided sustained profits over the past six years for Sarara Tented Camp (Namunyak) and Il Ngwesi Lodge (see Figure 8 below for Il Ngwesi revenues). However, even with these successful tourism ventures, there is a constant need to ensure professional standards and procedures are followed. A pertinent case is the current lawsuit against Il Ngwesi Group Ranch, which has been ordered by a court to pay $1.5 million to a visitor, who, whilst on the conservancy, was badly injured by an elephant. Although the conservancy is currently appealing the decision, such an incident could easily reverse the support for conservation.

Il Ngwesi Lodge revenue (projected for 2007/8)



None of the other conservancies established are yet financially sustainable, but they have been successful, through the support of NRT, in securing donor funding to cover their basic operational costs. NRT has also introduced alternative initiatives to generate income, whilst reducing pressure on the natural resources. One promising initiative in this regard is the NRT Livestock Project, which has been established with support from Ol Pejeta Conservancy to reduce livestock densities through improved returns per head of cattle. This, coupled with the re-opening of the Kenya Meat Commission, provides opportunities for cattle products to become more competitive. Initial financial returns from this project have already proven to be substantial in Il Ngwesi and Leparua communities. Although good progress has been made to diversify and develop innovative way to generate income, many of the initiatives are yet to truly take off. The study team's assessment for the achievement of this driver was therefore: **PARTIALLY ACHIEVED (3).**

Other community land-uses complement and do not undermine conservation-based land-uses (Environmental Impact Driver)

The rationale for this driver is that the creation of conservation-based land uses will be linked to a reduction in environmentally unfriendly activities. The problem encountered is that alternative conservation-based activities are often not targeted at the population responsible for the environmentally damaging activities, or not contingent on stopping damaging practices. This can lead to a scenario where environmentally unfriendly activities co-exist alongside new conservation activities. The initiatives of Lewa have shown indications of curbing deforestation, human encroachment at Ngare Ndare forest (LBS, 2004) and there are signs indicating that poaching is reducing in the community conservancies, but at this stage there is limited quantitative data to back this up. The study team's assessment for the achievement of this driver was therefore: **PARTIALLY ACHIEVED (3).**

Achievement of intermediate state and impact

The assessment of impact drivers and external assumptions presented in the previous section and in the table below suggests that there is reasonable evidence that the conditions were in place for the delivery of the intermediate states identified in the TOC model for Outcome 3. The next stage is to assess what evidence exists that the intermediate states were actually achieved, which then enables conclusions to be drawn from the TOC model about the ultimate achievement of impact from Outcome 3. This is discussed below.

Intermediate state: Increased community support and land set aside for conservation

The study team's assessment of achievement of this state was that there is evidence that Lewa's community supported initiatives have been scaled up to re-establish ecosystem connectivity and range. Community conservancies have increased from just three in 1997 to 15 in 2007. Incidents of cooperation between community members and Lewa/NRT has been high, with an increased network of well-trained and equipped community scouts in all but the three most recently established conservancies. Consequently, the study team's overall assessment for the achievement of this intermediate state is: **WELL ACHIEVED (4)**.

Intermediate state: Conservation compatible natural resource needs better met in the long-term

The study team's assessment of the achievement of this intermediate state was that a great deal of innovative ways have been developed since the end of the GEF project, to develop conservation-compatible sources of income, in addition to eco-tourism, which has been proven to work well at Il Ngwesi and Namunyak. However, these new initiatives were in the early stages of development and it was too early to assess their long-term potential to generate sustainable returns. However, the most notable long-term potential was the *Linking Livestock Markets to Wildlife Conservation Project*, which not only should provide significant income, as demonstrated by the pilot phase at Il Ngwesi and Lekurruki, but also has a great potential to reduce livestock densities and improve rangeland and grassland management. Consequently, the study team's overall assessment for the achievement of this intermediate state is: **PARTIALLY ACHEVED (3)**.

In conclusion, the Outcomes-Impacts TOC model approach for assessing impact from Outcome 3 suggests that Lewa/ NRT have made substantial progress since the GEF project to achieve the intermediate states needed to generate impact. However, livelihood development is a slow process and the study team assessed that if the current initiatives proceed as expected then substantially greater impact would be realised in future.

Outcome 3 - Impact TOC assessment

Indicators	Quantitative/ qualitative assessment		Source
Impact Driver 1: *LWC capacity building in local community institutions is scaled up to meet demand [S2/ C2]*		**4**	
Institutional development process	NRT support for scaling up is focused on developing high standards of community governance and management structures, so that they can eventually become institutionally and financially independent and are driven by community needs and aspirations	4	NRT admin/ website
Community institutions	NRT has increased the number of community conservancies from four to 15 since 2004	4	NRT Admin
Impact Driver 2: *Conservation-based land uses make a significant contribution to livelihoods [A2]*		**3**	
Land ownership	The long-term goals of the community conservancies is to achieve formal land ownership through acquisition of land title deeds from the Government of Kenya, providing empowerment in decision-making on resource management, and confering a community pride of ownership and long-term security	4	NRT website
Ecotourism	Tourism has been proven to be the most successful enterprise, bringing in substantial profits for two conservancies. 60% of these profits are put back into community prioritised projects	4	LBS & NRT
NRT Trading/ micro-credit	NRT Trading was recently initiated to support women to benefit from and conserve wildlife through the creation of a sustainable fair trade enterprise focused on hand-made gifts, although still in early stages	3	NRT website
NRT Livestock Project	The pilot phase of the NRT Livestock Project has provided in excess of $40,000 to members of Leparua and Il Ngwesi communities	3	NRT Admin
Community attitudes	Community attitudes were compared between community members in Lekurruki (NRT) and Samburu National Reserve. Lekurruki members were more positive about conservation due to the way benefits are shared, as opposed to the county council managed reserve where certain community members benefit significantly more than others (King, 2007).	4	Laikipia Wildlife Forum Newsletter (2007)
Impact Driver 3: *Other community land-uses complement and do not undermine conservation-based land-uses [A1]*		**3**	
Trends in environmentally unfriendly activities	Deforestation, human encroachment and charcoal burning on Ngare Ndare Forest Reserve have been curbed through fencing and community sensitisation (LBS, 2004). There is some evidence that poaching has reduced in community areas such as Kalama (*pers comm.* Anne Lepirei)	3	LBS & Community visit
Land availability	Community members have set aside grazing land within their conservancies. During the dry season, the pastoralists graze their livestock on abandoned land in Laikipia during the dry season (LBS, 2004). Land ownership change in Laikipia would restrict future access to land hence making the resource insufficient	3	LBS (2004)
External Assumption: *Livelihood improvements don't lead to increased population*		**4**	

Indicators	Quantitative/ qualitative assessment		Source
Immigration rates into conservancies	Population densities in the community areas need to remain low to ensure sustainable natural resource use. Although population growth is high, the establishment of community conservancies has been an effective way for communities to control immigrations of non-members. However cases are reported of immigrants being granted membership of community conservancies after a specified period.	4	LBS (2004)
Intermediate State 1: *Increased community support and land set aside for conservation*		**4**	
Number of community-led conservancies	The number of community conservancies has increased from three in 1997 to 15 in 2007 bringing the total land under conservation in the region currently to just over 1.2 million acres compared to 364,420 acres in 1997.	4	Lewa/ NRT research and monitoring
Intermediate State 2: *Community natural resource and livelihood needs better met in long-term*		**3**	
NR based income generating activities developed	Eco-tourism has been successfully developed at Il Ngwesi and Namunyak, providing the principle long-term conservation compatible income. Other innovative income generating activities are being tested, but are mainly in the development phase. The most notable new initiative is the NRT Livestock Project, which has provided over $40,000 to members of pastoralist communities since its inception in February 2007	3	NRT Community Department
Achievement of Impact: Reduced threats from poaching and the lack of secure areas		4	
Achievement of Impact: Reduced pressure on local natural resource base/ wildlife habitat		3	

Targets-Threats Analysis

A direct measure of the project impacts is provided by the third and final component of the Impact Evaluation Framework – the Targets-Threats Analysis. This analysis firstly assesses the status of the biodiversity values that the project has addressed (section 4.2) and secondly, assesses the changes in the threat levels impacting on these biodiversity values (section 4.3 below).

Scientists from Lewa and the Northern Rangelands Trust research departments undertook the information collection and assessment for this analysis. The Lewa Research Department has been operating since 1995, although baseline ecological data, such as rainfall and wildlife numbers, have been collected on Lewa since the 1970s. The NRT Research Department was established in 2004, and has since developed a network of community scouts on the ground collecting data from the community conservancies, although it is still too early for this monitoring to provide any information on the trends in conservation variables.

Identification of GEBs, Key Ecological Attributes and threats

The process of identifying the specific global environmental benefits for the Lewa project, and their associated Key Ecological Attributes and threats, was undertaken jointly by CDC and the Lewa Research Department.

The identification of the global environmental benefits (GEBs) was carried out using the Conservation Action Planning methodology. The six GEBs identified for the broader ecosystem, which incorporates Lewa and its sphere of influences, were:

1. Ewaso Ngiro River catchment area	System
2. Traditional elephant migratory routes	
3. Indigenous Tropical Dry Forest	Habitats
4. Grevy's zebra	Species
5. Black rhino	
6. Wild dogs	

In line with the GEF project brief, the Lewa project and the subsequent scaling up has been focused on the two critically endangered species, the Black rhino and Grevy's zebra. As a result, monitoring and research undertaken by Lewa and NRT has focused on these two species and their habitats. Although efforts were made to collect data on the other identified global environmental benefits, there was insufficient data available to make this assessment. As a result, the Targets-Threats Analysis has only considered and assessed the conservation status of the Black rhino and Grevy's zebra and their associated habitats. Although ideally all six GEBs would have been assessed, it was felt that these two key species provided a good proxy for the conservation status of the other GEBs. For example, the Key Ecological Attributes for the migratory Grevy's zebra rely on the Ewaso Ngiro River catchment and utilise a similar range to the elephants (the two system level GEBs) and the indigenous Tropical Dry Forest is a natural habitat for the Black rhino.

The assessment framework for the analysis is provided in Table 8 overpage, which defines both the Key Ecological Attributes to be assessed to gain a better understanding of the status

of the GEBs, as well as the major threats to be assessed to understand changes in the threat levels impacting on the GEBs.

Lewa GEB Assessment Framework

Conservation targets	Key Ecological Attributes	Threats
1. Black rhino	▸ Suitable woodland habitat ▸ Population size ▸ Productivity ▸ Genetic diversity	▸ Poaching ▸ Insufficient secure areas ▸ Habitat loss due to high elephants density
2. Grevy's zebra	▸ Suitable habitat (grassland & secure water) ▸ Population size and distribution ▸ Productivity ▸ Genetic diversity	▸ Poaching ▸ Diseases ▸ Predation ▸ Habitat degradation by livestock ▸ Competition with livestock ▸ Habitat loss ▸ Upstream abstraction of water ▸ Lack of national Grevy's zebra strategy plan ▸ Hybridisation

Assessment of achievement of GEBs

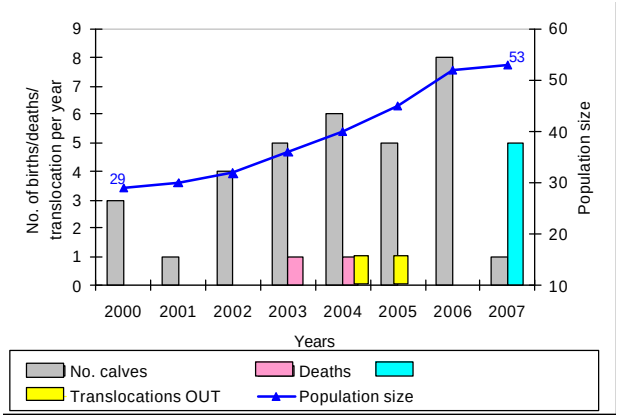
The first aspect of the Targets-Threats Analysis is to determine the conservation status of the GEBs. The analysis below presents, as far as possible, the trends in the conservation status of the GEBs from before the project (baseline), at the project close, and currently. A summary table of this analysis is presented in Table 9 at the end of the section.

Black rhino

The Black rhino (*Diceros bicornis*) is on the IUCN critically endangered Red List as well as the CITES Appendix 1, and the global population is estimated to be less than 4,000 individuals (WWF 2004). The eastern subspecies (*D.b. michaeli*), which had a historic distribution from south Sudan, Ethiopia, Somalia down into north-central Tanzania, maintains its current stronghold in Kenya.

The Key Ecological Attribute, **population size,** has shown a significant increase from the baseline to the current period. The project baseline number of Black rhino in the Lewa Conservancy was 29 individuals, which increased to 40 individuals by the project close, and has further increased to its current number of 54 (see Figure 9 below). This population of the eastern sub species of Black rhino represents 10% of the national total and 8% of the entire global population. Therefore, the assessment of the conservation status of this KEA is **IMPROVING**.

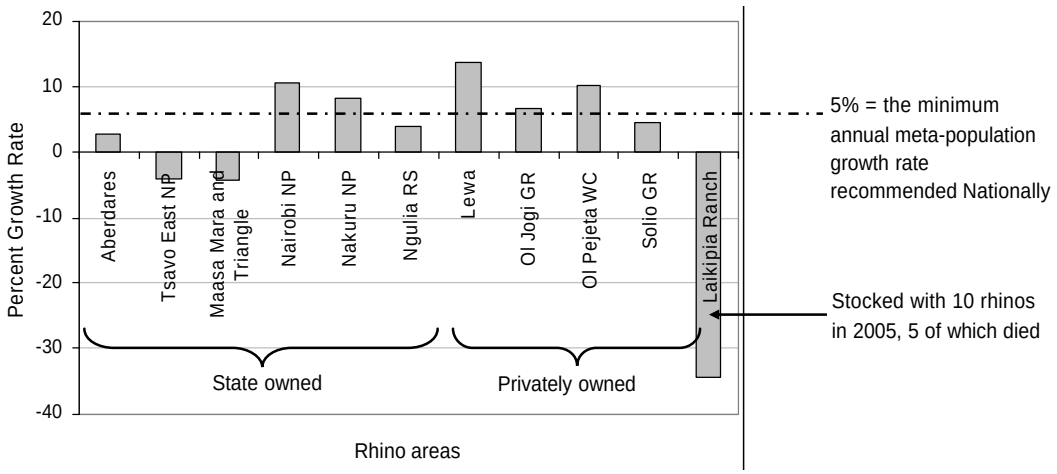
Trend in black rhino population including births, deaths, translocations and temporal growth rates on LWC, 2000-2006



Predicted births - 2007

The second Key Ecological Attribute of the Black rhino population at Lewa, ***productivity,*** is a function of a secure and healthy population. The growth rates have been steadily improving from an annual growth rate of 12% at the start of project implementation to 15% in 2007. These growth rates are substantially higher than the national recommendation of 5%, and other Black rhino populations in Kenya (See Figure 10 below). This high productivity is attributed to systematic biological management of this metapopulation, which includes translocations between rhino areas to increase genetic diversity and reduce social pressure. For example, two male rhino have been translocated out of Lewa since the project close to lessen male pressure and conflicts within the metapopulation. Currently, the population at Lewa has a young age structure with most females being of breeding age. This marks a substantial improvement in the population structure since 1984 when the sex ratio of males to females was 2:1, all of which comprised of adults, compared to the present sex ratio of 1:1.2, with an age structure of 19 calves; 11 sub adults and 23 adults (March 2007). Overall, the assessment of the conservation status of this KEA is **IMPROVING**.

A comparison of average growth rates of rhinos in selected areas in Kenya, 2003-2006



The third Key Ecological Attribute, ***suitable secure habitat***, was measured through the availability of secure Black rhino sanctuaries. The amount of land available to Black rhino on Lewa was increased from 7,200 acres in 2004 (through the addition of Manyagalo Ranch) to its present size of 62,000 acres. With a density of about one rhino guard per 4.5km^2, Lewa is one of the most intensively protected and patrolled rhino reserves in Kenya, which is

demonstrated by the fact that no rhino has been poached from Lewa to date. In addition, Lewa has introduced several exclusions zones within Lewa to protect key rhino habitats.

Within the broader ecosystem, neighbouring ranches have increased their rhino sanctuaries. For example, Ol Pejeta Conservancy, to which Lewa provides management support, increased from 24,000 acres to 75,000 acres in 2006, Ol Jogi Ranch increased by over 20,000 acres in 2004, and Ngulia Rhino Reserve was similarly increased in size in 2004.

This positive trend in secure Black rhino areas is likely to continue with Lewa planning to remove its fences with neighbouring Borana Ranch and Il Ngwesi Conservancy to form a much larger rhino sanctuary. Therefore, the assessment of the conservation status of this KEA is **IMPROVING**.

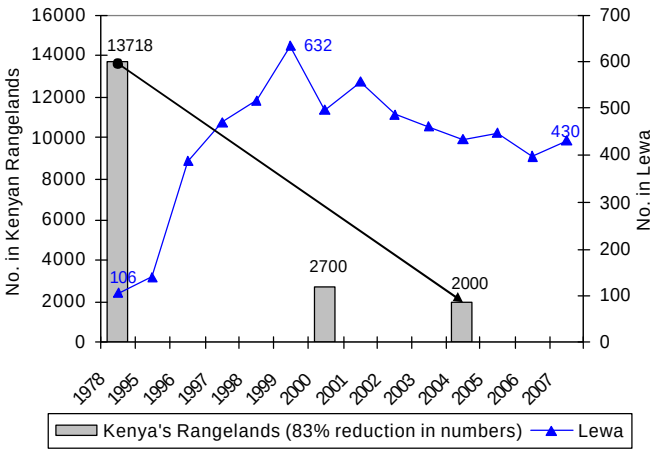
Based on the status of the Key Ecological Attributes, the overall assessment is that the conservation status of Black rhino is **IMPROVING**.

Grevy's zebra GEB

Grevy's zebra (*Equus grevyi)* is on the IUCN Endangered Red List, and has undergone one of the most substantial reductions of range and numbers of any African mammal (Kingdon, 1997). Today, the total population is estimated to be about 2,000, which is located in northern Kenya and, to a lesser extent, southern Ethiopia (Williams and Low, 2004). Lewa's efforts to conserve Grevy's zebra extend beyond the boundaries of the Conservancy to the communities in the northern rangelands.

The first Key Ecological Attribute, **population size**, can only be accurately assessed for the resident population at Lewa. As shown in Figure 11 below, the population of Grevy's zebra on Lewa had significantly increased prior to the GEF project, from 140 in 1995 to 632 in 1999, which was in contrast to the declining national trend.

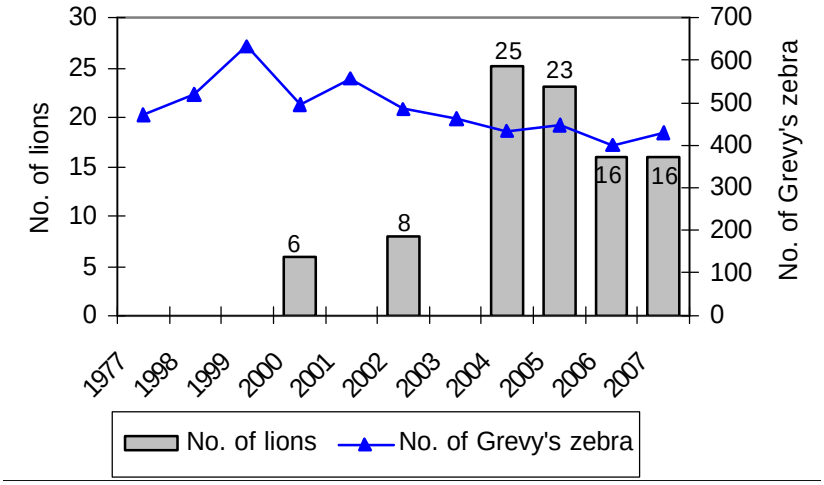
Trend in the number of Grevy's zebra on Lewa and on Kenya's Rangelands



However, the population size experienced a decline from 497 to 435 individuals during the implementation of the GEF project. The explanation for this decline has been attributed to predation by lions, which dramatically increased in number during project implementation to a level of 25 resident lions and 10 migratory lions in 2004 (See Fig 12 below). The Grevy's zebra population size has remained stable since the project, which is currently estimated to

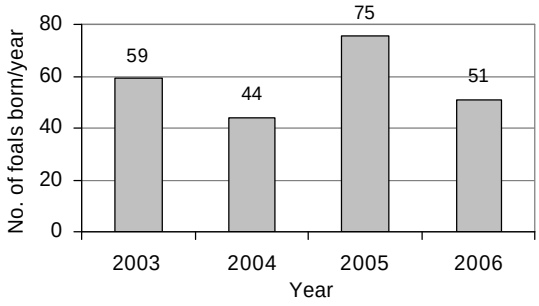
represent 18-35% of the global population. Therefore, the assessment of the conservation status of this KEA on Lewa is **STABLE**.

Trends in Grevy's zebra and lion populations at Lewa



The second Key Ecological Attribute, **productivity**, was also only possible to measure for Lewa. Figure 13 below shows the number of foals born per year at Lewa from the project close in 2003 until 2006. The associated growth rates have been calculated to be between 11 and 12%, which is the rate that is also estimated for the project baseline. Therefore, the assessment of the conservation status of this KEA on Lewa is **STABLE**.

Comparison of the number of Grevy's zebra foals born on LWC, 2003-2006



Although there is currently no substantive research and monitoring to provide a measure for the third Key Ecological Attribute, **population distribution**, it is possible to measure the related Key Ecological Attribute, **suitable secure habitat,** for the Grevy's zebra in the community areas. Through the community initiatives of the GEF Lewa project and the subsequent establishment and support of the Northern Rangelands Trust, the number of community conservancies has increased from three at the baseline to 15 in 2007, which represents an increase of land available for community wildlife conservation from 364,420 to 1.2 million acres (see Figure 4 in section 3.1.3 above). Early indications show that these new conservation areas are providing secure habitat for the Grevy's zebra, especially in the community conservancies of Il Ngwesi, West Gate, Kalama, Namunyak and Sera, which have set aside core conservation areas where livestock are excluded. At West Gate and Meibae Conservancies, up to 600 Grevy's zebra have been observed by the community scouts and since 2004, Grevy's zebra have been reported at Kalama Conservancy, in part due to the installation of a permanent water hole at the conservancy headquarters. Therefore the

assessment of the conservation status of this KEA on Lewa and in the broader ecosystem is **IMPROVING.**

Based on the status of the Key Ecological Attributes, the overall assessment is that the conservation status of Grevy's zebra is **IMPROVING**.

Changes in conservation status levels before and after the GEF support

Key Ecological Attribute	Indicator	Unit	Conservation Status			Trend	Data Source
			Baseline	Project end	Now		
Black rhino							
Population size	Total population size of Black rhino on Lewa	Number	29	40	54	⇧	Annual population counts, 2000, 2004 & 2006
Productivity	Annual growth rates at Lewa	%	12	13	15	⇧	Lewa research and monitoring records, 2000, 2004 & 2006
Suitable secure habitat	Size of Lewa rhino sanctuary	Acres	55,000	55,000	62,000	⇧	Lewa Administration
Genetic diversity	Degree of genetic variation	-	No data available				
Grevy's zebra							
Population size	Total population size of Grevy's zebra on Lewa	Number	497	435	430	⇔	Annual population counts, 2000-2007
Productivity	Annual foaling rates on Lewa	%	11	11	12	⇔	Lewa research and monitoring records
Population distribution	Number of known sub-populations and connectivity		No data available				
Suitable habitat (grassland & secure water)	Community conservancies set aside for conservation under NRT	Number	3	4	15	⇧	NRT Administration
Genetic diversity	Degree of genetic variation		No data available				

Assessment of reduction of threats to GEBs

The second aspect of the assessment was to understand the changing threat level to the identified GEBs. The ranking of threats was done according to severity and scope at **pre-project intervention levels,** as given in Table 10 below. This assessment was undertaken by the Research Officer for Lewa in consultation with other staff at Lewa and NRT. The key to the scoring system is given in Table 5 in the methodology section of this report.

Expert assessment and ranking of threats

Threats to the GEBs	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**
Grevy's zebra			
Poaching	2	2	**2**
Disease	4	2	**3**
Predation	3	1	**2**
Habitat loss/ degradation	3	3	**3**
Insufficient secure areas	2	2	**2**
Hybridisation with Burchell's zebra	1	1	**1**

Understanding the key threats affecting the GEBs helps to put the changes in the level of threats in context. The analysis below presents, as far as possible, the trends in the threat levels from before the project (baseline), at the project close, and currently. A summary of this analysis is presented in Table 12 at the end of this section.

Threats to Black rhino

The threat from ***poaching and snaring*** received a pre-project intervention threat ranking of high severity and scope, and was considered the greatest threat to Black rhinos. There are currently 540 Black rhinos in the country, with Lewa's population accounting for 10% of the national population. Since the inception of Lewa until the present, the armed security on Lewa has ensured that no Black rhino have been poached. In addition, the Lewa security department also provides support to other rhino sanctuaries, which are estimated to represent 40% of Kenya's Black rhino population. Table 11 shows the number of security deployments to respond to poaching incidences outside of Lewa Downs. Despite the improved security at the national level, which has led to a recovery of Black rhino in Kenya, the threat from poaching is still high. Before, during and after the GEF project, small numbers of rhinos have been poached each year in Kenya. The overall assessment is that there is an **UNCHANGED** threat level from poaching and snaring.

Lewa security deployment to combat poaching incidents outside Lewa Downs

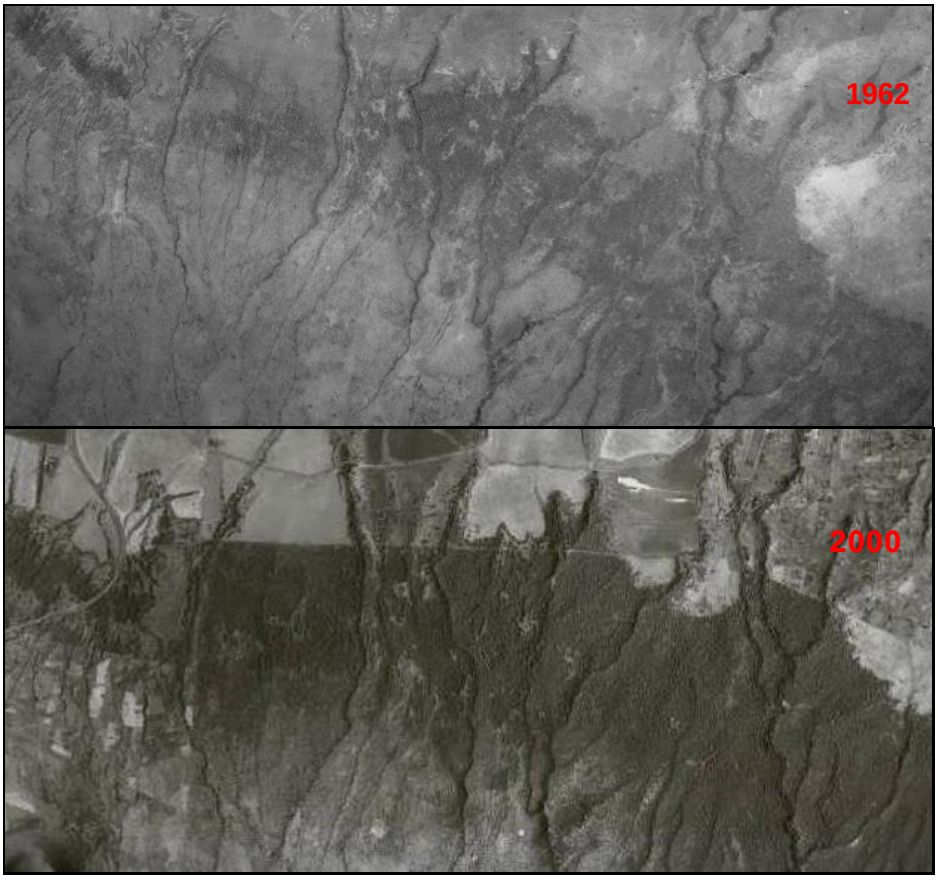
Year	No. of deployments
2002	44
2003	No data

2004	60
2005	65
2006	74

The threat from ***insufficient secure areas*** received a pre-project intervention threat ranking of medium severity and high scope, and was the second most significant threat facing Black rhinos after poaching. Between 2003-2005, the Kenya Wildlife Service assessed that out of the eight areas identified as potential new locations for the establishment of Black rhino populations in Kenya, only four (Mugie Ranch, Meru National Park, Ol Pejeta Conservancy and Ngulia Intensive Rhino Protection Zone) passed the yardstick (KWS, 2007). However, existing rhino sanctuaries have been expanded in size, as described under the *suitable secure habitat* Key Ecological Attribute for Black rhinos above. Nationally, the land available for Black rhino conservation has increased from the baseline 6,749 km^2 to the current level of 8,607 km^2. Therefore, the overall assessment is that there is a **DECREASING** threat level from insufficient secure areas.

The threat from ***habitat loss due to elephant density*** received a pre-project intervention threat ranking of low severity and scope. This threat related to the Lewa Conservancy has reduced over the years, as a result of increased density of woody vegetation, as illustrated by the aerial photos in Figure 14 below. The density of trees in the area has more than doubled from 35% coverage in 1962 to 80% coverage in 2000. This threat level has subsequently been ranked low, and therefore the overall assessment is that there is a **DECREASING** threat level from habitat loss due to elephant density.

Increase in woody vegetation at Ngare Ndare Forest between 1962 and 2000



Based on the changing status of the threats to the Black rhino, the overall assessment is that the threat level to Black rhino is **DECREASING**.

Threats to Grevy's zebra

The threat to Grevy's zebra from ***poaching*** received a pre-project intervention threat ranking of medium severity and scope, although there is limited information available on poaching levels of Grevy's zebra. Historically, Grevy's zebra have been killed for their skins, but in more recent years they have been poached for meat and the utilisation of Grevy's zebra fat to treat tuberculosis. At present, killing of Grevy's zebra for meat and medicinal purposes has mainly only been reported in the lowland populations of Baragoi, which is generally north of the Northern Rangeland Trust area, and it is widely considered that poaching levels in the NRT conservancies have been reduced, although no scientific dataset have been established yet to confirm this. The overall assessment is that there is a **DECREASING** threat level from poaching.

The threat from ***disease*** received a pre-project intervention threat ranking of very high severity and medium scope. The main disease threat is from anthrax that is passed to Grevy's zebra by unvaccinated livestock. In 2005, an anthrax outbreak killed 5% of Kenya's Grevy's zebra population. The populations affected were those in areas where there is a diffuse wildlife/ livestock interface, such as Wamba in the northern sector of the Northern Rangeland Trust area. To deal with this threat in the future, a *Preparedness and Action Plan for Disease Epizootics in Grevy's Zebra Range* is currently under development by Kenya Wildlife Service. Due to the unpredictability of a disease outbreak, the overall assessment is that there is an **UNCHANGED** threat level from disease.

The threat from ***predation*** received a pre-project intervention threat ranking of high severity but low scope. This is due to the fact that the threat is localised to Lewa and other protected areas with resident lion populations. In the community areas, the threat of predation is not significant. As shown in Figure 12 above, the reason for the decline in the Lewa Grevy's zebra population was attributed to predation from the increasing numbers of lions within the Lewa Conservancy. Therefore, as a result of the successful conservation efforts of Lewa and rising predator numbers, the population of Grevy's zebra is under greater threat. The overall assessment is that there is an **INCREASING** threat level from predation in the Lewa conservancy.

The threat from ***habitat loss/ degradation*** received a pre-project intervention threat ranking of high severity and scope and was considered to be the greatest threat to the Grevy's zebra. This is due to the fact that the majority of their range falls within community land whose main economic activity is livestock keeping. This threat has been countered by the increase in land set aside for conservation through core conservation areas in conservancies. Land set aside for conservation in the region has increased from 364,420 acres (Baseline) to 1,236,483 acres (Current). The current NRT Livestock Marketing Programme, which links pastoralists with better markets for their cattle, is intended to help reduce cattle densities and the threat to Grevy's. The overall assessment is that there is a **DECREASING** threat level from habitat loss/ degradation resulting from competition with livestock.

The threat from ***insufficient secure areas*** received a pre-project intervention threat ranking of medium severity and scope. As shown in Figure 4 above in section 3.1.3, this threat has been decreasing due to the establishment of the community conservation areas by the Lewa Project and subsequently by NRT. Early readings from tracking collared Grevy's zebras are indicating that Grevy's zebra are already seeking refuge in the established community conservancies. This pattern of wildlife seeking refuge in these community conservancies is also emerging from the tracking of collared elephants in the region by the conservation organisation Save the Elephants. Currently there are over 1.2 million acres of land set aside

for conservation in the region, which is up from 364,420 acres ten years ago. The overall assessment is that there is a **DECREASING** threat level from insufficient secure areas.

The threat from ***hybridisation*** received a pre-project intervention threat ranking of low severity and scope. Hybridisation between Grevy's and Plains zebra has mainly only be recorded at Lewa. However, it is potentially a significant threat to the genetic diversity of Grevy's zebra, especially because the resulting hybrid species have proven to be fertile (verified at Ol Pejeta Conservancy). The overall assessment is that there is an **UNCHANGED** threat level from hybridisation.

Based on the changing status of the threats to the Grevy's zebra, the overall assessment is that the threat level to Black rhino is **DECREASING**.

Changes in threat levels before and after the GEF support

Threats to the GEBs	Indicator	Unit	*Threat Level*			Trend	Data Source
			Baseline (Pre 2000)	**Project end (2000-03)**	**Now (2004-06)**		
Black Rhino							
Poaching and snaring	Black rhinos poached and snared in Lewa	Number	0	0	0	⇔	Lewa security department
	Black rhinos poached and snared nationally	Number	2 (1998-1999)	15 (2000-2002)	15 (2003-2006)	⇔	KWS, 2007 (Confidential info.)
Insufficient secure areas	Black rhino areas nationally	Number	12 (1993)	13	16	⇩	National Rhino Management Plans, 1993, 2000 and 2006
	Land set aside for Black rhino conservation in Kenya	Km^2	6,749 (1993)	7,376	8,607	⇩	National Rhino Management Plans, 1993, 2000 and 2006
Habitat loss (due to elephant density on Lewa)	Changes in density of woody vegetation	Aerial photos	The density of woody vegetation on Lewa has increased between 1962-2000 as demonstrated by the aerial photos			⇩	Giesen *et al*., 2007
Grevy's zebra							
Poaching	Grevy's zebra poached	Number	Poaching levels reduced in community land under conservation due to community security personnel and awareness.			⇩	NRT community conservancies' managers
Disease	Grevy's zebra killed by anthrax	%	0	0	5	⇔	Grevy's zebra draft Strategic Plan, 2007;
Predation	Lions on Lewa	Number	0	25	16	⇧	Lewa Annual Counts
Habitat loss/ degradation (competition with livestock)	Land secured for conservation in the region	Acres	364,420	670,210	1,236,483	⇩	Lewa research department and NRT
Insufficient secure areas	Established NRT community conservancies	Number	3	4	15	⇩	NRT Administration
Hybridisation with Burchell's zebra	Confirmed hybrid populations	Number	4	4	4	⇔	Grevy's zebra draft Strategic Plan, 2007

Conclusions

The main conclusions from this case study have been summarised according the three components of the analysis.

Project Logframe Analysis

The Terminal Evaluation Review rated the achievement of the project outcomes as satisfactory with respect to their relevance to GEF objectives and effectiveness in addressing the identified problems and intended project objectives, and highly satisfactory with respect to the efficiency and cost effectiveness. The GEF Lewa project was especially successful in increasing Lewa's institutional and financial capacity (Outcome 1), and in the protection and management of globally important biodiversity (Outcome 2). These two Outcomes were the central thrust of the project. In addition, a strong foundation was laid with the project's work on improving community livelihoods and their capacity and willingness to support conservation in the wider ecosystem (Outcome 3); however, this was the area that was identified as needing additional attention in future if the project's initial gains in this area are to be consolidated.

A major learning point was that well trained and resourced local institutions are critical to producing conservation outcomes. As Lewa had a long and positive history and commitment to the targeted area and had already built up the trust and confidence of the neighbouring communities, it was in the best position to successfully introduce new community conservation initiatives. Therefore, with a relatively small amount of GEF funding, it was possible to achieve some significant outcomes in terms of safeguarding key endangered species, such as Grevy's zebra and Black rhino, on Lewa and the community areas within the broader ecosystem.

Outcomes-Impact TOC Analysis

The major finding of the Outcomes-Impacts TOC is the importance of sustainable and appropriate institutional mechanisms in achieving global environmental benefits. The establishment of the Northern Rangeland Trust as a local umbrella organisation to facilitate and catalyse the further replication and scaling up in the wider ecosystem was both very innovative and effective. In addition, the formation of collaborative partnership with Ol Pejeta Conservancy demonstrated the synergies created by matching different skill sets and capacities, which added a new and important dimension to the scaling up of activities that were not adequately addressed by the GEF project; namely livestock marketing and improved natural resource and rangeland management.

The Lewa project demonstrates the practical conservation impact of a relatively small investment by the GEF, which, has been subsequently successfully scaled up. However, the situation in the northern rangelands ecosystem is still precarious and it will be a while before the community institutions are institutionally and financially independent. Until that time, it will be important for continued levels of support, otherwise the situation could quickly reverse.

Targets-Threats Analysis

The final analytical component provides good information regarding the conservation status of the two main global environmental benefits accruing from the Lewa project and subsequent scaling up. The conservation status of Black rhino is improving on Lewa, with the steadily increasing population showing significant improvements in structure and growth rates. In addition, extensive security operations to counter the continuing poaching threats to the Black rhino at Lewa have meant that not one rhino has been poached to date. Today Lewa's Black rhino represent about 8% of the global population of the eastern sub species. The Grevy's zebra population on Lewa has remained stable and represents about 20% of the global population.

Although the analysis provides a clear indication that the Black rhino and Grevy's zebra populations on the Lewa Conservancy are extremely well managed and protected, perhaps the most notable achievement is the visionary, catalytic and support role that Lewa has provided for the conservation of these endangered species in the broader ecosystem. Lewa has played a significant role in the protection and management of about 40% of Kenya's Black rhino population and is providing leadership in finding innovative ways to increase the coverage of secure sanctuaries for Black rhino. Regarding the conservation of Grevy's zebra, Lewa's role in the establishment of community conservancies, which have added almost one million acres of land set aside for conservation, has been unprecedented in East Africa and is enabling the recovering of Grevy's zebra populations within their natural range. However, the costs and resources required to manage and protect this increasing conservation estate is substantial and unless the continued and increasing financing streams are maintained, it is likely that the substantial gains in the conservation of this ecosystem and its global environmental benefits could eventually be reversed.

Statistics on Community Conservancies

NRT donors and the current number of community scouts

NRT and community conservancies	Donors (since 2004)	Community scouts
NRT headquarters	St. Louis Zoo, Institut zur Cooperation bei Entwicklungs-Projekten (ICEP), Safaricom, United States Agency for International Development (USAID), Metcalf Foundation, Summer Trust Marathon, Christensen Fund, The Nature Conservancy (TNC), Panthera Foundation, Flora and Fauna International (FFI)	
Il Ngwesi Group Ranch	Tourism Trust Fund (TTF), White Oak	13
Kalama Community Wildlife Trust	St. Louis Zoo	16
Lekurruki Group Ranch	Tourism Trust Fund	15
Ltungai Community Conserv ation Trust	Tourism Trust Fund	12
Meibae Conservancy	Community Environment Facility (CEF)	15
Melako Conservancy	Busch Gardens, The Christensen Fund	13
Naibunga Trust	Mpala, Loisaba	Under training
Namunyak Wildlife Conservation Trust	Tusk Trust, San Diego Zoo, Summer Trust Marathon, International Fund for Animal Welfare (IFAW)	25
Ngare Ndare Forest Trust	Ford Foundation	No information
Ruko	Tourism Trust Fund (TTF)	10
Sera Conservation Trust	United States Agency for International Development, Flora and Fauna International	22
West Gate Community Conservancy	San Diego Zoo, Tourism Trust Fund, African Wildlife Foundation (AWF)	16
	Total	**157**

Source: NRT, July 2007