Rights, resources and rewards

Lessons learned on rehabilitating landscapes for livelihoods in the Benet landscape, Uganda

LIVELIHOODS AND LANDSCAPES STRATEGY - Landscape paper n°3

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Executive summary

The Mount Elgon region straddles Kenya and the east of Uganda, extending over an area of approximately 772,000 ha, of which 221,000 ha have been set aside as reserves and national parks. The remaining 550,000 ha consist of farmlands and settlements. Mount Elgon itself rises 4,321 m above sea level and stretches over a distance of 80 km from north to south and 50 km wide. It nourishes a vast array of rivers and streams that feed into the important river systems of Africa, most notably the Nile. The area is important for species conservation thanks to the richness of endemic plant and animal species found on the mountain.

The LLS intervention in this area targeted a relatively small part of the overall landscape, an area referred to as the 'Benet landscape' in Uganda, after its indigenous forest-dwelling inhabitants. The Benet landscape has long been a source of tension between the Benet peoples and the Mount Elgon National Park authorities following a 30-year old decision to resettle the Benet peoples outside the boundaries of the national park. In part as a result of these tensions, but also because of poorly-defined land tenure rights, unsustainable cattle grazing and crop-growing practices, the land in the Benet landscape has been degraded and no natural forests remain in the Benet landscape, not even remnants. Furthermore, efforts by the Benet to eke out a livelihood had failed to yield important benefits.

LLS interventions implemented in the landscape sought to improve the income opportunities of the Benet people through efforts to rehabilitate the severely degraded landscape through the planting of contours, improve farming and crop cultivation practices, and develop products, such as milk and honey, for sale in local and regional markets. The goal was that interventions would yield co-benefits in terms of improved livelihoods and environmental rehabilitation and conservation. Going forward, the objective was to take the lessons learned and scale them up in neighbouring landscapes and beyond.

The LLS interventions used a multi-stakeholder approach to engage with local communities and local and national authorities as part of efforts to identify common needs and approaches and common goals. At the same time, the approach sought to address tensions between the Benet indigenous people and the park authorities surrounding natural resource use and access rights.

As a result of the interventions described in detail in the following report, considerable progress was made to diffuse tensions, improve farming practices, increase and diversify products for sale at markets, enhance livelihoods and contribute to protection of the landscape. Much of the emphasis of the interventions was on stakeholder engagement to ensure that measures implemented corresponded to local needs and prevailing conditions and on learning-by-doing.

The project yielded a host of important lessons, including the need to manage expectations of stakeholders and communities. The LLS in the Benet landscape has on the whole been successful and the area and its communities have been selected as a REDD+ pilot site as part of efforts to tackle climate change.

About LLS

The Livelihoods and Landscapes Strategy (LLS) is a global project of IUCN's Forest Conservation Programme funded by the Directorate General for International Cooperation (DGIS) of the Netherlands Ministry of Foreign Affairs. Its first phase ran from 2007-2011. Its overall goal has been *"the effective implementation of national and local policies and programmes that leverage real and meaningful change in the lives of rural poor, enhance long-term and equitable conservation of biodiversity and ensure the sustainable supply of forest-related goods and services in line with nationally-defined priorities".*

LLS was intended as a direct response to two of the major challenges facing sustainable development at the time of its design in 2006:

- How to find practical ways to support governments and donors in ensuring that the benefits of national poverty reduction strategies reach the rural poor, and in particular those who are highly dependent on natural resources including forests and trees.
- How to reverse the current lack of momentum in implementing international commitments on sustainable forest use and conservation and therefore address the slippage of forest-related issues within international development.

The strategy is predicated on the belief that although these two challenges are inextricably linked, natural resource management and conservation organizations have yet to make a convincing case, on a large enough geographic or institutional scale, as to how improved resource use and conservation can make a difference to the livelihood security of the rural poor. It is hardly surprising therefore that ministries responsible for finance and economic Planning have tended to be unaware that forest goods and services remain as important as ever for many poor people and could be better harnessed to contribute to rural poverty reduction, as well as the national economy.

LLS has contributed to shaping a bold new vision of forests as multifunctional assets that can make a real difference to rural poverty, economic growth, environmental quality, human well-being as well as biodiversity conservation. It has promoted this vision among both the forest sector and decision makers in other sectors whose own goals and targets impact, or are impacted by, the state and integrity of forest resources.

What is a landscape?

A landscape is a mosaic of different types of land use such as agriculture, forests, pasture and conservation areas. Managed as a whole, a landscape serves a variety of needs for various stakeholders. The LLS vision of a landscape is of multiple and complementary land uses based on negotiation rather than centralized planning. Landscapes do not exist in a vacuum, but are influenced by a wide range of external factors including policies and economic conditions generated far outside it, land use in adjacent landscapes and perhaps remote physical features such as dams. Addressing landscape management issues always requires interventions outside as well as inside the landscape.

The strategy has four key thematic components, each addressed in a mutually integrated manner:

i) forests and poverty reduction,
ii) markets and incentives,
iii) governance, and
iv) transforming landscapes

Targeted geographic interventions in nearly 30 landscapes across 23 countries in Africa, Asia and Latina America looked at the linkages between the four themes thereby avoiding their treatment as stand-alone issues.

This paper is one of a series of case studies, exploring and reporting on the experiences from particular LLS landscapes, collectively contributing a host of lessons and insights. The diversity in the landscapes is

reflected in the Landscape Papers themselves, whose structures, purposes and outcomes vary depending on each respective case and context in question.

The papers draw on data and information generated over the last 5 years and in most cases, at the time of publication, successes on the ground have continued into 2012, when the first phase of the project officially closes. With sustainability integral to the LLS project design, the work of LLS will in effect live on in each landscape and often much more widely than that, influencing local, regional and international practice and policy in the manner already detailed and reported in the LLS Landscape Papers, Thematic Papers, Thematic Briefs and Research Papers.

Location of the Benet landscape

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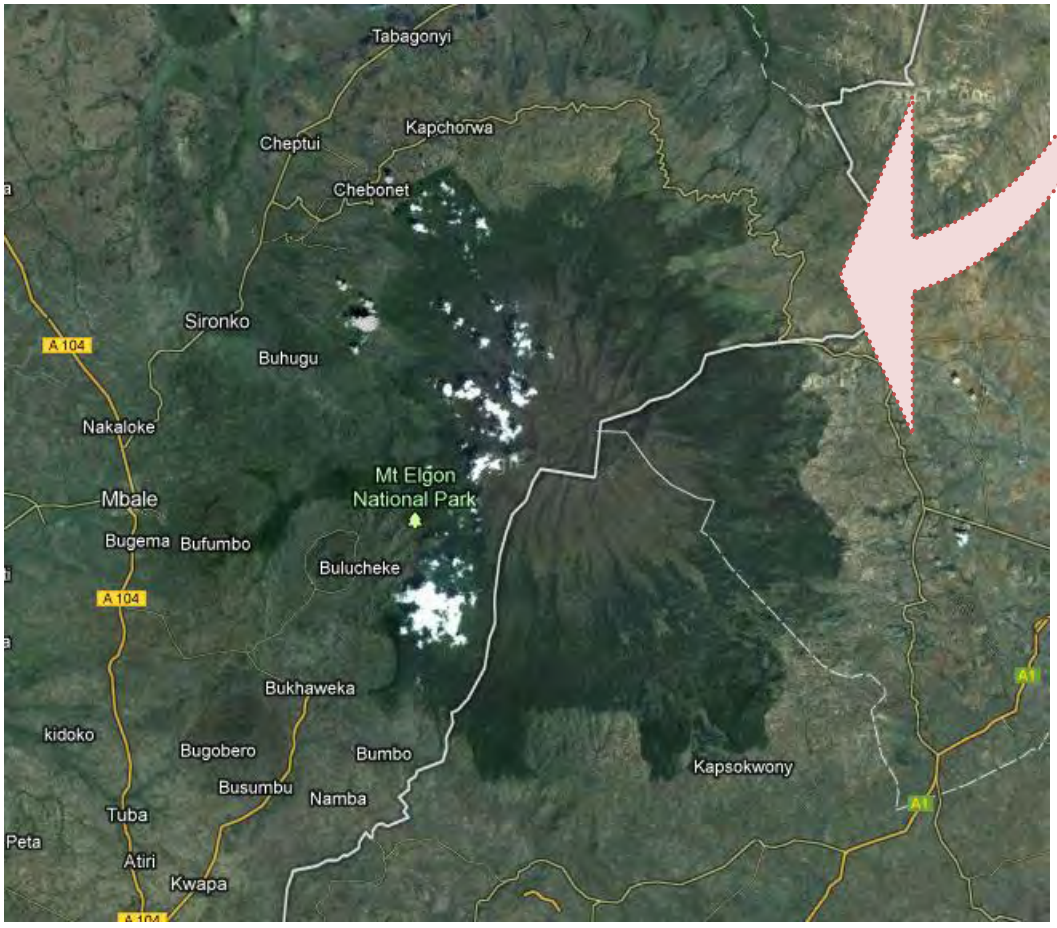

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Introduction

The landscape and its stakeholders

The Mount Elgon region straddles Kenya and the east of Uganda. It extends over an area of approximately 772,000 ha, of which 221,000 ha have been set aside as reserves and national parks.[1] The remaining 550,000 ha consist of farmlands and settlements. The Mount Elgon complex extends over an area of some 2,223 km^2 of which 1,145 km^2 are situated on the Ugandan side between 0°52' and 01°25'N, and 34°14' and 34°44'E (Howard, 1991).[2] Mount Elgon itself rises 4,321 m above sea level and stretches over a distance of 80 km from north to south and 50 km wide. It nourishes a vast array of rivers and streams that feed into the important river systems of Africa, most notably the Nile. The Kenyan side of Mount Elgon was designated a Man in the Biosphere Reserve by UNESCO in 2003. A similar process is currently underway in Uganda.[3]

Mt. Elgon is an important area for species conservation, thanks to the richness of endemic plant and animal species found on the mountain (Howard, 1991). IUCN has listed 37 faunal species in the area as 'globally threatened' (22 mammal, 2 insect and 13 bird species, of which nine species are endemic), making the area a priority for species conservation (IUCN, 2005[4]). Davenport *et al.* (1996)[5] provisionally ranked Mount Elgon forests among the top ten most species-rich forests in Uganda. The target landscape for LLS interventions was relatively small in comparison to the overall area. At the outset, it was assumed that target interventions would cover a more extensive area. However, as implementation began and the complexities of the issues in the larger landscape became apparent, coupled with limited time and financial resources available, it was decided to limit initial interventions to a single landscape that could serve as a pilot site. The longer-term objective was to scale upward and outward geographically and institutionally based on lessons learned in the initial years of implementation.

Uganda ©IUCN\Pauline Buffle

The landscape became known as the 'Benet landscape', after the ethnic Benet indigenous forest dwellers who inhabit it. The landscape consists of some 6,000 ha of land located on the northern edges of what is today Mt. Elgon National Park; it is characterized by moderate to steep slopes.

The Mt. Elgon region is considered the food basket of Uganda thanks to its rich volcanic and alluvial soils. In the past, cash crops were grown on the land including cotton and coffee, among others. While coffee is still cultivated in the area, cotton has been discontinued. Intensive agriculture is made difficult in the region because of one of the highest population densities in Uganda which averages 300 people/km^2. The population density in the Benet landscape is lower and averages approximately 113 people/km^2.[6]

Farming is based largely on subsistence; however, there is a cash economy as some products are traded in the district. Intercropping is common with maize and beans, as is rotational planting of crops such as wheat, potatoes and barley, etc. This may be starting to shift towards a cash economy as elements of the cash and market economies, coupled with more sustainable land use in some areas, are beginning to influence some land-use decisions. Shifting agriculture is not possible in the area as there is nowhere to shift to, given the population density in the landscape and lack of available land.

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1 IUCN (2007) MERECP Programme. Pro-poor and pro-conservation policies and operational procedures in the Mount Elgon ecosystem.
2 Howard, P.C. (1991). *Nature Conservation in Uganda's Tropical Reserves*. Forest Department/Ministry of Environment Protection Uganda.
3 www.unesco.org/mabdb/br/brdir/directory/biores.asp?code
4 IUCN (2005). MERECP Programme. Baseline survey of the biodiversity resources of Mount Elgon ecosystem,
5 Davenport, T., Howard, P. and Dickenson, C. (1996). *Mount Elgon Biodiversity Report*. Republic of Uganda, Forest Department, P.O. Box 1752, Kampala, Uganda.
6 IUCN (2005). Baseline survey of the socio-economics of the people living in the Mt. Elgon ecosystem.

The main crops grown are cereals – maize, wheat and barley – as well as Irish potatoes, bananas (matoke), vegetables, and fruit trees (passion fruit, citrus) close to the houses. Animal husbandry is also practised in the Benet, with donkeys used as beasts of burden, some sheep, but most importantly cattle. Cattle have traditionally played an important role for the Benet people, and have had a pivotal role in the landscape and on land-use decisions since the area was resettled (see below). Culturally, cattle play an important traditional role and serve as an indicator of wealth and status. Without cattle as wealth it is not

Cattle grazing, Uganda,©IUCN/Pauline Buffle

possible to marry in Benet culture. Previously, an indigenous breed of cattle was common, however this is now becoming mixed with other breeds. Once upon a time, the Benet were more pastoralist and semi-nomadic rather than fixed agriculturists; they lived and moved freely with their cattle throughout the larger Elgon landscape, including between Kenya and Uganda. However, this changed with the establishment of the park and government-imposed forced settlement schemes. Resettlement resulted in people being relocated on small parcels of land, which are extremely limited. As a result, those with large herds of cattle have been pushed back into the forest in search of adequate grazing land. Market forces that incentivize more than one crop rotation are further limiting land and/or increasing conflict where cattle are concerned. It became obvious during LLS implementation that one of the main impediments to more sustainable or more intensive agriculture was open grazing of cattle, which resulted in trampled crops, soil compaction and erosion, increased tension between farmers, and constraints on improving land use and agricultural productivity.

The Benet were removed and resettled from central areas of Mt. Elgon when the area was declared a forest reserve in 1939; a second wave of resettlement took place in 1993 with the creation of the national park. A natural ridge or escarpment was used to delineate the park boundary; however, the boundary has been a source of contention. The Benet were resettled on land adjacent to the reserve and subsequently-designated park boundary. At the time of resettlement each family was given secure tenure over land averaging about 2 ha/family, but this could be as large as 12 ha depending on the size of the family. However, the resettlement plan was poorly implemented. As a result some Benet did not benefit from land distribution and remained in the forest reserve. The areas where the Benet were resettled were made up of mature tropical moist forests. These forests were quickly slashed and burned to establish land claims and for subsistence farming, thereby quickly exposing soils in areas of high rainfall and on the moderate to steep slopes. As a result, today there are no remaining forests in the resettled Benet landscape, not even remnants.

The settlement schemes were developed and implemented after the national park was formally declared and gazetted in 1983. The current Benet landscape was included in the boundaries of the forest reserve at the time of its creation in 1939; the current areas were subsequently de-gazetted from the forest reserve and set aside for settlement by the indigenous Benet forest-dwelling communities and other displaced people in 1983. This marked the beginning of a more permanent from of agriculture and the start of the transition to a cash economy from a more traditional barter economy.

While population density is high in the Benet landscape, there are clearly-defined tenure rights in the resettlement areas as families were allocated clear allotments at the time of resettlement. However, land-tenure issues around the national park remain, with many of the local communities laying claim to the land. Land-use types in the focal landscape are roughly divided into 60% community family-owned settlement areas and 40% park buffer zone areas.

The conflict between the Benet and Uganda Wildlife Authority (UWA) authorities dates back to the establishment of the national park in 1983. At that time an estimated 6,000 ha were handed over to the Benet for settlement. However, later surveys indicated that the land handed over actually amounted to 7,500 ha, all of which had been settled by the Benet in accordance with the initial agreements. As a result of this more accurate survey, in 1993 the difference of 1,500 ha was once again designated for protection, essentially expanding the previously agreed park boundary and forcing a second resettlement of those families that had settled within the 1,500 ha area. This has remained a source of conflict between the park and the communities ever since, leading to increased illegal use of resources in the park and subsequent degradation.

Following many years of stalemate, in about 2005 the UWA, as part of efforts to resolve the conflict and move forward, proposed allowing the settlers to remain on the 1,500 ha. However, the president of Uganda did not endorse this option as he feared it might set a precedent for other indigenous and local communities who have been displaced from traditional lands. At the national level, park rules and regulations allow for negotiated management agreements; some of these are in place in other areas of the larger Elgon landscape. However, until recently, it has not been possible to negotiate in the Benet areas. That said, some progress has been achieved with the UWA adopting a more constructive approach to developing management agreements in this area. This is largely driven by the realization that perhaps it is futile to seek to maintain a strict enforcement policy. While there have been positive developments, much distrust nonetheless remains between the communities and the UWA and it will take time to resolve this and build trust. The momentum generated by the open attitude of UWA and the timely interventions of LLS have contributed to this process.

In addition to the Benet communities, other stakeholders identified as critical to the success of LLS in Elgon include the political and traditional leaders of the district and sub-district units in the area, including local NGOs and community-based organizations (CBO) as well as the UWA. Among these stakeholder groups the main interest in natural resources is for agriculture, grazing, Benet settlement, biodiversity, water and watersheds, etc. To these may eventually be added carbon sinks, as the Benet landscape has been selected by the government for pilot REDD+ activities.

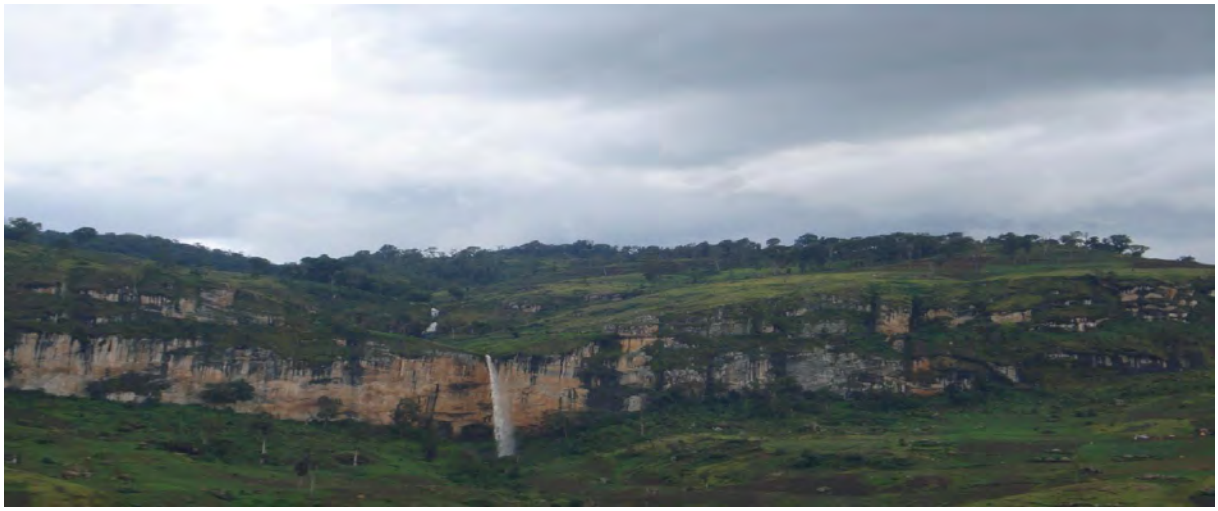
From the outset of the design of LLS interventions in Mt. Elgon, all key stakeholder groups and their constituents have been involved in an equal and participatory manner. This was achieved through the establishment of multi-stakeholder platforms thereby creating a space within which all stakeholders could engage in project design and implementation; these efforts build on work carried out by the Kapchorwa District land care chapter, a local CBO focusing on land management.

Problems and issues did arise early on in the process however, as the demands and expectations for the scale of LLS proved to be too ambitious for the available time and resources. CBO organizations and the administrative authorities wanted the activities to focus on all non-park lands in the Kapchorwa District, while one of the CBO groups (Kapchorwa Community Development Association) wanted the project to focus on downstream river catchment areas, and a sister CBO (Kapchorwa Soil and Water Conservation) was keen that the interventions focus on upper catchment areas. In addition, stakeholders wanted a focus on other issues including education and health which, were beyond the scope of LLS. Finally, UWA hoped that the interventions would address conflicts in the area; in this it was partially successful in the Benet landscape.

Developing the landscape concept

It is not surprising that the more formalized concept of landscape as embedded in LLS was neither fully understood nor articulated by residents of the target landscape. However, the people did seem to implicitly understand how landscape interactions and stresses contributed to livelihoods and quality of land problems. In initial discussions during LLS planning, stakeholders identified and described those landscape issues that most directly impacted upon their own personal experiences, needs and day-to-day existence in ways that, not surprisingly, reflected their own experiences and problems rather than in the context of the broader landscape. Issues identified were very often similar across the landscape, and included such items such as the problems inherent to living and farming on bare, steep deforested lands with high levels of erosion and related soil and crop losses. This situation in turn is partly a result of extensive and unconstrained grazing – another source of crop loss. The communities understood the physical landscape in which they lived day-to-day, however the interlinkages within the landscape and conceptual linkages embedded in LLS such as poverty, markets, forest landscape restoration, governance, etc., were not immediately understood. Issues flowing from the establishment of the national park and subsequent displacement and conflict, mainly land access and use rights for land and park resources, were also frequently raised during discussions of landscape issues.

Another area where the ecological aspect of the landscape was poorly understood is revealed by the perceptions of two local CBOs. One of these CBOs was working in a specific area of the lower catchment of one of the rivers in the district whose source was on Mt. Elgon. Initially, members of this CBO were not interested and/or did not understand the connections between the issues they were working to address, such as siltation and the establishment of riparian zones, and upstream issues being addressed by another CBO in the upper catchment, which was a source of much of the erosion and downstream siltation and flooding and which, in turn, negatively impacted upon the efforts of the downstream group.



View of the landscape, ©IUCN/Uganda

Key topics: baselines, and how they evolved over the course of the project

Biodiversity and landscape components

Baseline

It is important to articulate baselines in the landscape, including Mt. Elgon, within the global context. The LLS design represented a significant departure for IUCN in more ways than one. Not only was it one of the largest global initiatives implemented by the organization to date, but it was designed as a results-based initiative where changes in the landscape would be measured against clear baselines to generate evidence-based results against the four major thematic areas – governance, poverty, markets and restoration. In addition, LLS was intended to add value to ongoing initiatives, not to generate a host of stand-alone projects. As a result of this approach, many landscapes had baselines in place, but it took a while for LLS-wide landscape-level guidance for baselines to emerge. Hence, the approach to establishing baselines differed widely across LLS, and in some instances baselines were omitted altogether.

In the case of LLS Mt. Elgon, baselines were established against those outcomes that were considered most important for the interventions implemented in that landscape. There was no baseline for biodiversity established for Mt. Elgon under LLS because the LLS design did not call for one. However, project managers noted that if they were to continue interventions in and around Elgon through an LLS follow-up or other means, a biodiversity baseline would have to be established. This is crucial given the importance of biological diversity across the Mt. Elgon complex in both Kenya and Uganda; also given that one of the goals of LLS was to reduce degradation and enhance restoration within the park itself as well as in target areas outside the park boundary.

Given that landscape degradation was one of the key issues identified by virtually all stakeholders in the Benet landscape, restoration was one of the focal areas for intervention. In order to assess this, a number of quantitative measures of landscape improvement were established to monitor progress over time. These included:

- area replanted/afforested, as determined with local stakeholders
- increase in yields due to reduced erosion
- change in productivity as measured by changes in yields
- number of villages covered (scaling-up of activities)
- level of siltation measured using colour of water and depth of silt in the river

While quantitative measures are key, given the limited time-scale of LLS and the reality that some physical changes in a landscape take time to emerge, it was also important to establish qualitative measures or indicators as well. In the case of the Benet landscape, these were defined as:

- cleaner water available (less silt from erosion)
- contours established to enhance productivity
- reduced erosion
- ease of access to fuelwood
- lower incidence of landslides

The Benet landscape no longer contains any forest areas. At the start of the LLS intervention there was no management plan for forested agricultural areas. There was, however, a management plan for the national park established by UWA. The Mt. Elgon National Park management plan includes provisions for access and benefit-sharing of park resources to be negotiated between park authorities and communities. These provisions are clearly positive, but were not developed with the full participation of local communities and were not as inclusive as they could be. They were informed largely by technical and political leaders who did not necessarily understand the full livelihood and cultural context of local communities. Regardless of any weaknesses in these provisions, they are a step in the right direction and open up the possibility to develop more locally appropriate access and benefit-sharing arrangements with local communities. While this has been implemented in some border communities, these provisions were never operationalized in the Benet landscape because of the lack of resolution of the 1993 boundary issue.

Community planning ©IUCN/Uganda

Similarly, previously there were no management or land-use plans for areas outside the park, although national guidelines for the management of riparian zones, for example, existed. However, these guidelines were either not known or not respected.

Evolution and outcomes

Many changes took place at the landscape level during the relatively short implementation period of LLS. Many of these are directly attributable to the value proposition of LLS – where an incremental investment in time, tools, funding or approaches helped secure larger scale or more diverse outcomes.

In many instances there was a change in attitude among stakeholders, which served to empower people to work together in the landscape to effect change. People came to better understand the impact of some of the upstream/downstream linkages on water quality and quantity. Of critical importance, stakeholders in the landscape saw the need to work together to address the free-for-all grazing culture, and better understand some of the negative impacts this was having across the landscape. This positive attitude change was reflected in the perception created among individuals that they had become part of the solution as a result of acquiring greater control over landscape dynamics so as to collectively address them. The development and approval of land management by-laws, within the landscape and up to the district level, is a clear demonstration of these positive changes in attitudes and outcomes.

Addressing the grazing issue has significantly contributed towards reducing conflict between people in the landscape. The development of Community Resource Management (CRM) arrangements between communities bordering the park and the UWA, whereby people can now access specific resources based on sound management principles, has helped reduce some of the long-standing conflicts.

Working together, community members have constructed over 29 km of contours along eroded slopes or those prone to erosion – a critical issue identified by communities during stakeholder analysis and consultation. The planting of trees on farms was never an option given limited availability of land, however, the contours, considered an ideal place to plant trees, have been planted with trees.

While the role of LLS has been limited to providing technical support and training for contour construction, community members have organized themselves into collective action teams to assist each other with constructing contours – a task that would be near impossible for individuals. LLS essentially 'demystified' contour construction and supported extension agents in existing agencies to go and work among the communities and provide two-week training sessions in the building and maintenance of contour lines. As a result, most people in the landscape have now been trained in or seen a demonstration of contour building methods; learning-by-doing has proved an essential element of this. Contour-building has generated a lot of interest and continues to increase. This growth in interest can in part be attributed to the success of the early contours in protecting soil and water erosion during recent heavy rains. Anecdotal evidence and word of mouth have also played an important role in encouraging people to engage in collective contour building efforts. One community elder originally expressed scepticism about contours, suggesting that they were ineffective. He subsequently lost an important share of his potato crop during heavy rains when they were washed away along with important volumes of soil. The field adjacent to his, however, where contours had been built, was in much better shape following the same rainstorm. Faced with the evidence, the elder subsequently became a champion and advocate of the approach. This proved invaluable; in small communities buy-in by a village elder often sets an important precedent. Work on contours, the learning-by-doing approach, collective action and training are all direct results of the LLS.

Within small landholdings dedicating land to forest restoration or even tree planting can be a challenge. However, the communities did see an opportunity to plant agroforestry trees along the newly established contours. These included fodder trees, *Grevillia, makhamia, bamboo spp.* During the first two years of LLS implementation, this approach was challenged largely as a result of prevailing drought which led to poor growth rates. Furthermore, distance of the trees from water sources meant that it was not practical to water the trees. Overall, the one-year survival rate for the trees was about 40%; this has subsequently improved thanks to abundant rains. While most of the trees planted are for fodder and fuelwood, some eucalyptus trees have also been planted. In some areas, tree planting for fuelwood has been limited to very steep slopes on escarpments given that farming is not really feasible or practical on the steepest escarpments.

In addition to positive social and environmental outcomes resulting from contour building activities, another highly successful outcome that can be partly attributed to LLS is the establishment of Collaborative Resource Management (CRM) between communities adjacent to the national park and UWA. At present, 12 CRM agreements have been established in parishes adjacent to the park. Under these agreements use rights have been negotiated for the extraction of certain resources, including fuelwood (two head-loads per family per week), honey, bamboo, and non-timber forest products (NTFPs) for crafts, medicines, etc. One significant and previously unforeseen outcome of these agreements has been a massive reduction in illegal pit sawing in the park. Communities with CRMs no longer turn a blind eye to pit sawing, for fear of losing hives to loggers, most of whom are not from the area. In addition, communities were worried that UWA would hold them responsible for permitting pit sawing, thereby motivating them to take action to ensure that the provisions of the CRM were not put at risk.

As a range of natural resources management arrangements was established, including contour planting and the negotiation of CRMs, attitudes in the landscape began to change with residents seeking more detailed and firm land-use arrangements. This resulted in a demand for negotiated by-laws to govern land-use management.

Landscape restoration activities, ©IUCN/Uganda

Among the greatest challenges identified to implementing additional in-farm activities was the practice of free roaming animal grazing during the dry season. Free grazing traditionally inhibited communities from planting crops during the dry season. IUCN facilitated the development of a by-law with specific rules and regulations for land use. As a result, communities became so engaged in the process and the idea that they could take more control of the management of their lands and communities, that additional non-land use regulations were added to the final version. While existing national laws did prohibit open grazing, these were not widely known or implemented in the landscape. The communities themselves identified the need to develop locally-appropriate laws to deal with free grazing. To begin with, a 'land care' by-law was developed establishing rules and regulations to address free grazing animals. Key to this was an attitude change whereby community members agreed to address the issue as a collective problem, rather than as one problem among many. The importance of this step towards creating a sense of empowerment cannot be understated. Once the land care by-law was in place and agreed it acted as a catalyst for further joint action to address the root causes of crop destruction and soil erosion.

The initial by-law was expanded to include several other management issues, including farming and grazing in riparian zones, households, etc. It was decided collectively that by the end of 2010 all contours would be developed, which would also provide employment opportunities. The by-laws essentially became *de facto* management plans.

Alongside action in the community landscape, activities were also being implemented within the park. These included forest landscape restoration through replanting of park areas with indigenous trees, while other areas were set aside for natural growth; there was also impetus for UWA to inter-plant with indigenous species. IUCN and local communities supported UWA to replant about 106 ha with over 50,000 tree seedlings, with more planned.

Institutional arrangements

Uganda is divided into districts, counties and sub-counties. The latter constitute the lowest level of administrative unit, that closest to the community level. The sub-county of Kaproron had begun to protect an area around a micro-gravity water flow scheme that supplied water to the sub-county hospital and town. The CRM included arrangements for communities to work with the local CBO Kapchorwa

Community Development Association (KACODA) to restore a riparian zone on a river that flows from the park just outside the park boundary. Up to 10m on either side of this watercourse/river are being restored over a distance of about 200m. Since fencing is not a practical option, community members are having to take active measures to keep animals away from the river bank and the replanted vegetation to reduce soil degradation and erosion and to allow the trees to take hold. As with all Mt. Elgon interventions, IUCN does not hire project staff to implement activities. Rather LLS supports efforts by providing seedlings from National Forest Authority nurseries, and support to labourers provided by local communities. Thanks to these efforts, and a more humid ambient environment, the survival rate among the trees has been about 80%.

Across the Benet landscape, both inside and outside the park, restoration activities have been implemented and begun to take hold; although more time and resources are needed to enable these initial efforts to firmly take root – both literally and culturally. Overall efforts have included afforestation and tree planting on contours, around farms, and up steep escarpments, none of which were implemented prior to LLS mainly because of cattle grazing issues. There is potential for assisted and natural riparian re-growth along water courses and streams where cattle are restricted, and there is active and passive restoration and afforestation in degraded park areas. The riparian restoration has an additional objective to protect a sub-county (Kaproron) watershed/micro-hydro catchment. While it is still early days in terms of natural resource management interventions, it is possible to identify quantifiable improvements both in terms of the number of trees planted and in terms of improved farm productivity as a result of increased soil and water retention behind contours.

Over the course of LLS two types of management plan have emerged. A framework was already in place for one of these management plans, since the UWA had an overall management plan for the Mount Elgon National Park that allowed for CRMs with adjacent communities. These had not been developed in the Benet area, however, on account of long-standing tensions between the communities and UWA. However, today there are 12 pilot CRMs in place. In areas of the landscape outside the park, negotiated by-laws have become *de facto* management plans.

IUCN and local stakeholders realize that these efforts are in their infancy and will need time to become firmly integrated into the land-use patterns and land-use decisions in the Benet. The by-laws provide a positive and locally owned tool, agreed within the communities, to manage land and other social factors. These have been approved at the district level and indeed there are demands for similar by-laws elsewhere (note, IUCN has been clear that each sub-district needs to negotiate by-laws that are appropriate for the situation in that given place; there can be no 'cookie cutter' approach).

Another important factor has been the establishment of eight action learning groups, or task forces, across the landscape that have taken on responsibility for implementing and monitoring the by-laws at the community level. One of these has even registered as a CBO at the district level. In support of this a process a document has been produced to guide the task forces in transitioning from vision to action. The task forces meet regularly to assess progress; this measure has been facilitated by IUCN.

Similarly, under the project, district-level policy and decision makers have been invited to view first-hand the impacts of the changes in the landscape, including the new sense of empowerment among communities in the landscape. The result has been district-level monitoring of by-law implementation once or twice a year to enable communities to communicate their needs directly to district authorities. This has resulted in a better understanding of community and district-level interactions, roles and responsibilities. The task forces established under the by-laws have clear roles and responsibilities, including a mandate for increased interaction between the sub-county (Benet) and the district (Kapchowra) levels. These structures, which have been facilitated by the LLS interventions, have resulted in uptake and scaling-up of the project by other interested development agencies, including SNV. At the national level, the Benet landscape has been selected as a pilot for REDD preparedness, with potential national implications for REDD planning. The action learning groups/task forces are now in a position to assume the role of the REDD readiness committees.

While the causes of degradation are clearly better understood and have been addressed – especially in terms of a move to zero free grazing of cattle and the construction of contours – achieving long-term sustainability will take time. There have been indications, for example, that communities have yet to appreciate that contours need regular maintenance. The efforts to better manage the physical landscape cannot be a substitute for income; ideally, however, it is hoped that the changes to the landscape will result in increased incomes for the communities. What is needed is a concomitant increase in available cash 'in the pocket' to really ensure long-term sustainability. There remain, therefore, some real macro challenges that are beyond the scope of LLS, such as market access, poor roads and overall infrastructure.

That said, however, there are nonetheless some emerging opportunities and incentives for investment and sustainable management that warrant being explored and reinforced in relation to the changes established under LLS. These include the Payment for Ecosystem Services (PES) in general, and for ecosystem services such as carbon and water in particular. One idea, currently under discussion, would be for the water supply department to pay people to maintain the watershed and water courses. SNV is looking to expand related activities such as biogas production. Further clarity is needed to define who is responsible for, and how, investments are made in 'hardware' or infrastructure; greater incentives are required to support these efforts. Additional work is also needed to promote a better understanding of markets for NTFPs, especially given that CRMs are now in place that allow for managed access to these resources within the park.

Socio-economic components

Baseline

At the outset of the LLS interventions, the first step was to acquire a firm understanding of how the landscape supported livelihoods. Initial investigations revealed community-dependence on agriculture to produce cash crops; growing incidence of crop rotation; importance of cattle grazing both as a source of income and in the cultural context.

In order to assess changes in the landscape over the life of LLS (and hopefully beyond) the project team set out to establish baselines and monitor the following:

- incidence of water-borne illness
- increased incomes from beekeeping/honey, as a result of more stable access to the park for the placement of hives, as well as improved market linkages
- increased land/soil productivity leading to increased farm income
- increased income from the sale of milk, also linked to increased productivity
- increased income from the sale of handcrafts and ecotourism. The latter were subsequently dropped as handcrafts play a very small and very localized role in income generation, and there is not much market demand for increased production; ecotourism in the area is essentially non-existent, with no immediate likelihood of an increase.

At the outset of the LLS, the type and extent of forest dependency of target stakeholders was recorded, but in a non-systematic way. This was achieved using a forest-poverty toolkit that had been implemented earlier and which proved to be a helpful tool later in the project. Proxies for type and extent of forest dependency initially used included dependence at the household level on honey production, followed by improved use of animal husbandry on non-forest lands, and overall access to natural resources.

To assess this, a market potential analysis was undertaken to determine the number of people involved in apiculture. Initially it proved difficult to assess poverty levels, as on average the communities in the Benet

landscape are not considered poor according to national poverty indices and the Benet poverty index more specifically, largely on account of the relatively high productivity of the land. However, when the forest-poverty toolkit was applied it revealed that some 167 households were considered poor against the Benet sub-district poverty index. This stakeholder group was not initially identified in the project as the toolkit was not applied from the outset, and the understanding was that all families were given land as part of the resettlement scheme. However, it turned out that the poor, when defined using the toolkit and the poverty indices, were immigrants without land and without animals. In fact, this group consisted almost entirely of itinerant women, mainly widows, who had migrated into the landscape in search of income-earning opportunities. While they were identified late in the project, this group quickly became a focal group for project interventions.

Some of the women in their market gardens, ©IUCN/Uganda

Given the absence of secure access to resources it became clear that this focal group had to survive on a day-to-day basis and that therefore access to park resources was relatively more important. The decision was taken to identify and implement activities that could relatively quickly provide income generating opportunities before the LLS was completed. These included efforts to organize access to some land on which to cultivate some quick-growing vegetables that could be sold at market for income. Initially, the adaptive learning groups/task forces queried 'what do we do with these people?' However, they eventually worked with members of the community to identify small parcels of land where market gardens could be quickly established. Initial indicators are that this was an effective approach in the short-term and possibly also for the long term. After a relatively short period (one year) two to three women in this target group generated a sufficient return on production and sale of produce to send their children to school and procure a market stall for small commerce; one woman even bought a donkey to help with labour. Given the lateness of this intervention, LLS support was purely a one-off. However, subsequent monitoring and evaluation revealed that it yielded positive results. The goal of the women was not to get 'get rich quick', but rather to acquire land and implement good land management practices over the long term.

Evolution and outcomes

It is obvious that, as with land-use change, socio-economic changes take time to establish and to generate positive changes. However, some early results of positive change in livelihoods have been observed. In addition to the stable and increased incomes for poorer women identified late in LLS implementation, other market opportunities, too, have been observed that have resulted in increased incomes. The example of the Tegeres community adjacent to the forest is a case in point. Tegeres is a community within the Mount Elgon landscape but not of the Benet people. In Tegeres there were plenty of animals, but neither the market nor the price of milk were very stable. Thanks to better market information, Tegeres herders were able to transition from selling milk at irregular times, but at a relatively higher price, to daily sales at a minimally lower wholesale rate. As a result, a regular daily market for milk was created, albeit at a slightly lower price. However, the lower price was offset by regular access to

market. Income from milk now averages US$9/week; over the long term, this has increased incomes because there is now a stable market.

©Elgon Honey

Measurements have also demonstrated an increase in productivity and yields following LLS interventions, mainly for potatoes and maize; however more information is needed to fully understand the factors responsible for these differences. The market for honey has expanded considerably within the landscape. However, the LLS has not as yet been able to demonstrate conclusively that increased incomes are a result of greater market and better prices resulting from value-added in the landscape. Rather, it would seem that better returns on honey production may be the result of natural phenomena. There is a particular plant found in the park that flowers every 5-7 years; during its flowering period, the bees either stay in their hives and consume their own honey, or move to other areas. At present, this phenomenon is poorly understood but could be a result of a carnivorous or poisonous plant that negatively impacts bee colonies and thus honey production. This phenomenon has coincided with LLS interventions that have identified increased market opportunities for locally produced honey. Although increased incomes have not yet been realized, most households that produce honey have recognized the eventual value of better market opportunities, and are planning to establish 3-5 hives. One community set up 109 hives, a number which has since increased to 120. As a result of the CRMs and increased access to the park for bee hives and honey harvesting, there is increased confidence among community members about potential for honey; more hives are being established. The Dutch organization, SNV, which has also been implementing interventions in the area, has also identified improved honey hygiene and processing as factors that increase harvesting and value-added of honey. Importantly, an 'Elgon Honey' brand has now been established.

Thanks to LLS interventions there is better overall access to landscape goods and services. This is evidenced by the 12 CRMs in place which allow access to specific park resources; improved water quality thanks to cattle control and riparian management; the provision of healthier bulls for artificial insemination services to increase productivity; improved access to markets for various products; the ability to legally gather fuelwood from the park (although some problems remain); and better access to decision makers, local policy makers and technical agencies. This has resulted in a decrease in illegal activities, in particular pit sawing, thereby further strengthening the CRM process and facilitating more secure access.

It is relatively difficult to demonstrate a reduction in poverty per se within the LLS landscape, as only a limited sub-group fell into the established definitions of poverty. However, poverty reduction was certainly evident among the itinerant women focal group. There has however been a measurable increase in incomes due to more secure incomes from dairy, legal and stable access to park resources, and improved yields as a result of reductions in soil erosion and crop losses following contour establishment.

What has improved over the course of LLS implementation is livelihood resilience, even though this was not an explicit outcome of the LLS design. However, this outcome is nonetheless of critical importance.

Resilience can be demonstrated by regular income from dairy, more food available in the market, increased yields and productivity, and more overall food security/availability.

LLS efforts to facilitate decentralized and devolved natural resources management have stimulated greater income generation; it will however be important to monitor this over time to ensure sustainability of the gains. The establishment of the by-laws, and particularly the zero free grazing provisions, have resulted directly in reduced crop destruction and greater production for subsistence or markets. Improved soil protection has also increased the number of crops that can be planted in any one year. The establishment of contours has enhanced income generation, by reducing soil run-off and erosion, crop loss from run-off, and increased soil nutrients and water retention capacity above the contours.

In spite of positive steps and initial positive outcomes as a result of LLS interventions in the landscape, there have also been some unforeseen negative impacts of interventions on the local people. These have been identified and are manageable, but long-term monitoring will be important. These include the selection of a sub-group, in this case the Benet, as opposed to neighbouring groups who did not benefit from the same level of intervention. There were also some raised expectations in neighbouring communities, who, on their own initiative, adopted some of the techniques promoted among the Benet, under the assumption that more intensive interventions would then be implemented in their areas. This was offset, however, because the value of the interventions and the benefits were also evident in these other areas.

One of the KADLAAC CBOs operating in the upper watershed was also initially negatively impacted by the project. This group was charging people to build contours and thereby generating income, while IUCN was providing the same goods and services for free. The target communities and partner CBO in the lower watershed greatly appreciated and were empowered by the LLS, but this created some conflict between the two CBOs. Once identified, this issue was resolved in a transparent manner. Actions and reasons for them were fully explained and once the results were made known this helped promote greater acceptance thereby diffusing tensions. This was, however, a long process and iterative discussions were required to resolve the tensions; the outcome was largely successful thanks to the individuals involved in the process.

In addition to the issues identified above, some of the 'middle man' milk buyers and sellers lost out as community milk producers now had more direct access to markets, thereby reducing the need for the services of middle men and resulting in a loss of income for them.

Another potential unforeseen negative impact has arisen as a result of eucalyptus planting close to water sources and water courses. This has impacted the availability of water. However, now that these trees are established, the people do not wish to remove them as part of water-management efforts, as they are valuable as fuelwood and timber trees.

Some of these outcomes were foreseeable, especially as it was clear at the outset that not all groups would benefit equally from direct interventions. However, this was managed through honesty and transparency and by full disclosure about availability of resources and the scale at which interventions could be implemented.

Market analysis

Baseline

At the start of the LLS intervention the main products from the landscape being sold in local markets were cereals, farm crops (which largely benefited men), bananas (matoke), potatoes, and dairy/milk (which mainly benefited women). Individual famers and households also benefited from landscape production. Honey was previously a more important commodity, however its importance has decreased over time as it was felt that middle men benefited more than producers and failed to pay equitable prices; nonetheless, its potential for income generation has been recognized.

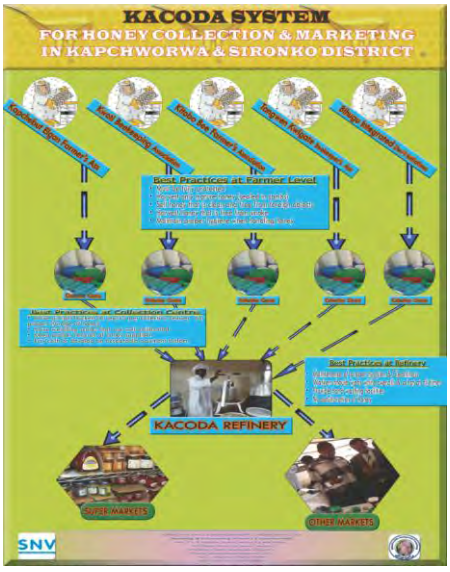
In terms of more distant markets, bearing in mind that this area is quite remote, making such market access difficult, the main products from the landscape being sold included cereals and potatoes, but not milk or honey. In these markets men and/or households were the main beneficiaries, but not women. For the Benet landscape a remote market is defined as one that is beyond the Kapchowra district, up to Mbale and sometimes beyond.

The main barriers to sustainable trade and markets, or to entry into new or improved markets at the start of the LLS intervention, were identified as lack of or inadequate market information and lack of community organization. Understanding of the market chain for specific products was totally lacking, for example there was plenty of honey available but private-sector buyers did not know this, and the middle men involved proved a barrier. The lack of coherent organization among producers of honey and milk was also a barrier. Distance to markets, remoteness of the area and bad roads were and remain real barriers.

Honey offers good potential as there is a big national market. One barrier to increased honey production and income generation identified was that in the absence of CRMs, honey production in the park was risky as it was considered an illegal activity. If individuals were caught, bee hives could be confiscated and/or destroyed. Lack of knowledge of the location of regional markets, and middle men, had also helped to stifle the honey market. Lack of access to credit to implement relatively small incremental steps to improve quality and guarantee better prices was also a barrier to increased income from milk production as evidenced by the lack of availability of sterile milk cans. LLS tried to build credit into one of the CBOs-KACODA to improve the milk market, notably to help milk producers acquire sterile containers for transporting milk to markets. The CBO offered interest-free credit as part of efforts to effect improvements in this sector. A percentage of income from increased milk sales was subsequently used to pay back the credit provided for improved milk containers, etc.

Evolution and outcomes

The range and quality of products being sold in local markets has improved during the course of the LLS. Milk is a good example of this improvement, while honey offers good potential once the bees restock. Ghee, a by-product of sour milk, is a relative newcomer to the market. It is sold as cooking oil to the population. Increased production of yoghurt has helped drive the market for milk, although the overall market in Kapchowra remains small. In the long term, as this market grows, it is estimated that incomes will also increase. However, it is also important to keep in mind that new markets take time to become established. Also, measures are needed to establish and maintain improved quality and quantities of milk in Kapchowra to provide incentives for regional buyers from Mbale to purchase their milk in the district.



Honey market chain study

Eastern Dairies in Mbale have expressed interest in the improved product, but have not as yet ventured as far as the district to buy milk, preferring instead to have it delivered to them in Mbale. This needs to change so that there is sufficient added value to prompt buyers to come from Mbale. With the by-laws in place and the potential for up to two crops a year more, existing products could be available at market for longer time periods. Today, some of the crops being produced on-farm, particularly cereals, are already being marketed to Kenya and Sudan.

Initial findings from the scaling-up and out of the LLS interventions indicate that some new stakeholders have benefited. However, these findings are relatively new and they remain difficult to quantify, measure and monitor. Examples of stakeholders that appear to have benefited include the itinerant and poor women described above, and in the Sironko sub-district, which was not an initial target area for interventions, there appear to be stakeholders keen to supply the collection centre in Kapchorwa with milk and honey. This will help increase the quantities of milk and honey available for more distant markets, and potentially add increased incentives for buyers to come to the district to purchase products. The production centre for milk and honey will also become a training centre to demonstrate the benefits arising from better quality and value addition techniques. At present, the manager of the collection centre keeps records on who he trades with, how much is traded, by how many households, what products are traded and their cash value. This provides a good indicator of sustainability as the private sector has taken on the monitoring function and is gathering useful information on the dynamics of production, trade and income.

New arrangements for processing and marketing of various products have been initiated under LLS. These include increased and improved milk production, processing and marketing. Improved equipment is now in place for processing, packaging and marketing of honey. As production increases it can be better processed and marketed.

Overcoming market barriers and enhancing incentives require action at both the landscape and national levels, and sometimes also at global scales. No direct linkages have been established yet at the national level, but there is now strong potential for marketing honey on this scale. Demonstrating the overall market chain for certain products has led to more informed production and marketing at the local level, while the provision of improved quantities and quality of milk and honey has resulted in a longer value chain that includes regional or national buyers. The introduction of a small credit facility, although limited to purchasing milk cans at this time, could be enhanced to reach a larger number of households.

As a result of these interventions, at least one new marketing organization has come into existence from an existing institution. The Kacoda CBO has now established a commercial arm called ‘Kacoda Enterprises’, which works on the value added, quantity, quality and marketing of milk and honey.

Given the short duration of LLS interventions to date and in the context of natural resources management, available evidence indicates that those who have benefited most are the women who sell milk and the poorer women who are now engaged in market gardening.

New economic and fiscal incentives have also been developed to promote marketing. These include the development of a consistent market for milk, more direct access between producers and processors, reductions in the influence of middle men, thereby guaranteeing that more income stays within the household. The provision of small credit for milk storage and transport has provided real benefits and incentives. Secure access to the park for honey production under the CRM is a real incentive as well.

Improved forest and ecosystem governance

Baseline

At the start of the LLS project interventions there were a number of official governance arrangements in place which determined the use of the landscape area. The shorthand for the structure is the local council or ‘LC’ system, ranging from LC1-LC5. The highest local village level council structure is LC1, which has

a chairperson. The next level down, the parish level, consists of a consolidation or clustering of villages managed by a parish chief. This is LC2. LC3 is a cluster of parishes; this level has an administrative leader, the sub-county chief. This is the lowest formal administrative unit whose development plans are recognized by the government; it receives some funds that are then disbursed to lower councils. Then there is LC4, and a cluster of sub-counties from the district comprises LC5. This level includes a chief administrative officer, representatives from various ministries that contribute to governance and planning (education, natural resource management, community development, agriculture, etc.). The district answers directly to the ministerial level. In addition, the UWA establishes and manages governance arrangements for the protected area but is not part of the LC system. UWA Mt. Elgon reports directly to UWA HQ in Kampala.

Landscape restoration activities, ©IUCN/Uganda

In addition to the official governance structures in place at the start of LLS there were also several informal/customary/traditional governance arrangements in place governing landscape use. These included family-based clans, with a structure and function geared toward promotion and protection of the clan's self interest, as well as community elders, who provided informal guidance and assistance in conflict resolution.

The most problematic laws or policies identified and addressed during LLS implementation were linked to the national level, and in the conservation sector, to the UWA in particular. These included a lack of clarity and therefore increased conflict arising from unclear and shifting park boundaries. Linked to this were issues surrounding access and benefit-sharing of park resources, both cash and non-cash. By law, 20% of park revenues generated through activities such as ecotourism are supposed to revert to the communities impacted by the park. In the case of the Benet, little external revenue was being generated. However, decisions governing the distribution of the small amount that was generated were not transparent, and only the elite were benefiting. This was reinforced by an additional barrier put in place by UWA, which directed that to access a portion of the 20% of available revenue proposals needed to be prepared and submitted to UWA. This process unfairly favoured the literate communities that were able to properly write proposals.

Unlike other landscapes across LLS, tenure arrangements among the Benet and around Elgon are fairly clear. Similarly, problems where land tenure was poorly defined were also very clear. Where land had been given to the communities as part of the resettlement process, land tenure was clear. However, in the case of the landless migrant women identified by the project, land tenure issues arose as a result of the ambiguous definition of the park boundary.

None of the major problems encountered at the start of the LLS programme related to decentralization policies. The only issue identified that required addressing was at the district and sub-district level, where government agencies have no resources to do their jobs and where there is a need to subsidize

government participation through such payments as sitting allowances, fuel, etc. This is however accepted as standard practice in Uganda.

Evolution and outcomes

During the course of LLS implementation some new and important official governance arrangements evolved. In one case this involved brand new arrangements and in another, the establishment of formal governance arrangements under existing frameworks.

The development and negotiation of 12 CRMs between the UWA and communities bordering the national park were put in place under the overall framework of the Mt. Elgon National Park management plan. These had been established in other segments of the park but not in the Benet area. The CRMs have been established in areas where the boundary is not an issue. IUCN helped facilitate the negotiation of the CRMs between UWA and communities. It could be said that LLS was in the right place at the right time, as UWA has recently shown an increased willingness to explore alternatives to working with local Benet communities in order to reduce conflict and allow for some sustainable use.

A new and exciting arrangement in the landscape was the establishment of the 'By-Law Implementation Committee', or BLIC. The by-laws themselves evolved from a facilitated multi-stakeholder process within the landscape initially in response to the 'tragedy of the grazing commons', a real concern for virtually all members in the landscape. Once communities saw the possibilities for self-empowerment by adopting new grazing practices and building contours, they went further and included other social issues such as video-watching, alcohol licensing hours and penalties for breaches of provisions.

Both the CRMs and the establishment of the BLIC evolved through the participatory identification of issues and a facilitation role played by IUCN, for the CRMs in particular. In both of these arrangements IUCN was able to fully use its value proposition as a 'trusted convenor' and to build trust and relationships on both sides of the park-people issue as regards CRMs, and within communities in terms of the development and negotiation of the by-laws and the BLIC. As part of these processes IUCN supported awareness-raising through radio programmes and outreach about the by-laws process. This was by definition a time-consuming and iterative process, but which yielded dividends in the end. Both arrangements include regulations for management, as well as sanctions if the agreements are not followed. In the case of the CRM, this includes spelling out specific resources that can be extracted from the park and during what periods, as well as sanctions for failure to follow agreements. An additional benefit has been the reduction of illegal logging activities, as communities now have incentives to maintain and respect the agreement and restrict the activities of illegal loggers coming from outside the landscape.

One of the task forces in action, ©IUCN/Uganda

Another very exciting and promising informal/formal governance arrangement also emerged during the implementation of LLS. Action learning groups were established in the landscape as a result of training by IUCN staff in action learning techniques. In all, eight action learning groups, also known as task forces, have come into existence. These groups are now recognized at the village level as having a key role to play in facilitating the implementation of the by-laws. They are seen by community members as the 'go to' point of departure to implement interventions. These task forces have also taken on the critical role of monitoring as they collect records, mobilize teams for collective action such as contour building, and undertake follow-up.

Through these newly-established arrangements, local people have become more involved in monitoring, managing and protecting the resource base. The task forces are a clear example of this, as are the CRMs, which are integrated with the community at the parish level and under which an agreed monitoring process has been established to monitor CRM implementation. A parish-level monitoring group organized a larger meeting with other parishes to underscore the rights and responsibilities agreed under the CRM and the need to adhere to these or risk sanctions. This process was facilitated by LLS.

LLS has supported improved community rights and benefits in the Benet landscape. Ownership per se has not been strengthened as it is not a major issue, except in so much as the Benet still maintain claims to the forests that are now included in the national park. The negotiation of the CRMs has helped to reduce some of the conflicts and tensions and strengthened use rights if not ownership.

There is increased community involvement in decision making. One additional example of this is demonstrated by the National Agriculture Advisory Services, or NAADS. NAADS receives a substantial amount of government funding to provide extension services, inputs and technologies to support communities. As a result of increased participation in the management of the landscape, communities have begun to request direct support from NAADS coordinators in the district; and to provide information as to how NAADS activities should be identified and prioritized. As a direct result, NAADS provided co-funding of US$ 5,000 toward the milk and honey collection centre, as well as to the value addition tools needed to improve yoghurt quality, including a sealing machine and logo stamp. As a result, NAADS will be able to provide some support to the sustainability of activities begun during LLS.

The improved and negotiated tenure arrangements have led to better protection and management of resources within the park and within the productive agricultural landscape, including the development and implementation of management plans. More secure access to park resources has led to better protection. There still remains a fair amount of pressure for fuelwood around the perimeter of the park, and this is an issue that needs to be monitored. There have been some improved cook stove projects that have come and gone but there does not seem to be a substantial impact in the demand for household-level fuelwood.

Institutional components

Baseline

As noted, there was a range of village-level institutions involved with LLS at the start of the work, both official and customary. The main concerns of these institutions included how to deal with the issue of over grazing, which was a real hindrance to improved management on many levels. During LLS implementation there was a notable check in illegal pit sawing undertaken by the communities in the Benet area. There is still some illegal grazing in the park but UWA and communities are working more closely together to manage this.

While the range of local government institutions involved with LLS at the start of the work has already been identified, an important emerging lesson concerns the importance of engaging with and involving

district-level authorities from the outset in order to have an impact. Taking the time to build the trust and the relationships with government officials at the outset proved an important investment. It remains a priority to ensure that LLS interventions are reflected in district development plans and there are strong indications that this will evolve. The local government is a partner in implementation and has played a vital role in terms of supporting and recognizing the by-laws and making extension staff from various agencies available.

Local authorities shared concerns about many of the land-use issues identified by the communities, such as over grazing, erosion, conflict, etc. Their concerns also extended to other areas – most of which were shared by communities but did not fall within the remit of LLS, such as infrastructure, access to markets, schools, health services, etc.

At the national level the only institution involved with LLS at the start of the work was the UWA. Engagement with NAADS came later during implementation. Related to this, LLS was explicitly building on the MERECEP project implemented by IUCN and partners, which had been transferred to the East Africa Community (EAC) for trans-boundary work around Mount Elgon. IUCN had expected to continue to work within the MERECEP structure, but this did not prove feasible in the end when the constraints of time, resources and geographic scale became more evident.

There were various other institutions involved with LLS at the start of the work. Notable among these is KADLACC (Kapchorwa District Land Care Chapter), which is a platform for various CBOs and NGOs in the area. KADLACC worked with local NGOs through the African Highland Initiative, which was sponsored by the ICRAF initiative. SNV came in later during implementation. The Nature Harness initiative funded by the ESARECA (East and Southern Africa Agricultural Research Centre) research group that had been doing research on PES around Mount Elgon, and LLS and ESARECA using each others' structures and platforms to undertake applied research. There was also a small grants programme in the lower watershed funded by UNDP. Most of these institutions were concerned with the same issues identified under LLS, and also those of the government authorities in the district.

There is now a district-level action working group which brings together representatives of all these partners and meets annually to assess progress and evaluate plans of the various institutions working in

One of the LLS Multi-stakeholder dialogue in Mt Elgon, ©IUCN/Uganda

the district. This platform is where some of the other partnerships like NAADS and SNV were identified.

Evolution and outcomes

As noted, the range of village-level institutions has positively evolved over the duration of LLS interventions. This is particularly clear and relevant in the case of the BLIC, the CRMs and the learning

groups/task forces. They have also taken on and internalized some tasks and approaches that are critical to the long-term success of the LLS interventions, such as facilitating community participation in the work of the BLIC and the task forces. These new institutions are working much more closely with local councils and with the LC3 level in particular. This was not the case in the past.

The national-level institutions involved with LLS have not changed radically over the life time of the project, although the changes that have taken place are significant. The engagement of NAADS in providing support to the BLIC and the task forces based on a demand-driven model is notable. The UWA itself has not changed structurally, but an attitude shift toward problem solving and conflict resolution has led to substantial gains in access and benefit-sharing of park resources, establishing more constructive working relationships with communities and engaging in the search for resolution and solutions to long-standing conflicts.

A number of other institutions were involved with LLS at the start of the work and these have grown and evolved over time, both in terms of the capacity and roles of the initial partners and engagement with new partners that have emerged over the course of implementation. The local CBO KACODA took on the day-to-day implementation of LLS activities in the landscape. Over the course of implementation, IUCN was able to help build its capacity in terms of approaches and methods of work, especially regarding the introduction of participatory processes to design interventions and deliver on interventions working with local stakeholders.

As a result, this has led to KACODA being recognized by the district government as an implementing partner for new interventions such as support to NAADS, thereby building on skills developed through LLS and helping to ensure sustainability. In the past, KACODA did not have a sustainable source of income to carry out its work programme on a regular basis, but the advent of KACODA Enterprises has helped define a more sustainable source of income, with a percentage of the revenue from the enterprise going to support the day-to-day operational costs of the CBO.

In addition, KACODA has been developing work with the UNDP small grants programme, which is funded by the Global Environmental Facility (GEF) and funds local NGOs up to US$75,000. UNDP has asked KACODA to develop and submit a proposal to scale-up its work on landscape restoration in other villages neighbouring the LLS villages. In addition to UNDP, there is an SNV programme in the district that supports the identification and development of market chains. To do this SNV identifies local capacity-building partners; KACODA has been designated as their 'local capacity builder' to provide services for training in apiary and dairy management. This includes production, value addition and quality improvement, evolving toward more direct work on markets and marketing.

One of the more exciting outcomes of LLS has been the evolution of the BLIC – or By-Laws Implementation Committee. This evolved as a result of the participatory processes undertaken by residents in the landscape to develop the by-laws to initially curb free grazing of cattle, but which evolved into a more comprehensive management plan for the landscape. Local residents basically became empowered to determine the changes they needed to improve their landscapes and livelihoods and developed the BLIC as an autonomous entity to implement and monitor the locally owned by-laws process.

Another marked achievement of LLS in Mount Elgon has been the establishment of the adaptive learning task forces in all of the villages of the landscape. These task forces were initiated following on from training on adaptive learning that was given to the LLS team at a pan-regional meeting in Tanzania in 2008. Furthermore, one of the task forces has evolved into a CBO; it has registered and is recognized at the district level. It is called KAPLAK, or the village soil and water conservation NGO. IUCN has tried to instil a sense of friendly competition between the task forces, and KAPLAK was very motivated and organized, even though the adaptive learning training and the establishment of the task forces came relatively late in the implementation of LLS.

As noted above, some key stakeholders were not readily identified at the outset of LLS and thus their views were insufficiently taken account at the outset. This group and these views were subsequently included. As a result of training in the forest-poverty toolkit provided to the African LLS landscapes in Burkina Faso in October 2009 (a training opportunity similar to the adaptive learning training provided in Tanzania the year before), a poverty assessment was applied and it became apparent that the Benet landscape was not homogenous as initially believed. The sub-group that emerged as a result of the assessment was comprised of people, mostly poor itinerant women or widows, that were landless or had very little land or access to land. Given that the majority of families in the landscape have land, this group was indeed unique. Once identified, IUCN worked with partners to implement fast impact interventions, particularly negotiating land use for the production of market produce; this yielded positive results in a relatively short timeframe. In addition, this group came to feel more empowered about their lives and livelihood choices.

An interesting aspect of this outcome was that the CBO KACODA initially did not see the value of working with this group. However, this eventually changed and KACODA did come to work with these women as a group, with positive results. Furthermore, they were able to convince other members of the community to support the group and the work. In Kambadja and Kaplac, the landowners were composed largely of absentee owners not farming their land themselves. Once the vision for the fast-impact approach was identified and agreed, KAKODA wrote to the absentee landlords describing the agreed vision to restore the landscape and provide new opportunities. The landlords came to a local meeting and as a result hired community members to establish contours on their lands for the fast-impact market gardens. As these lands were in the upper watershed and were having negative impacts on lower slopes, a win-win outcome was achieved in terms of slowing erosion on the farms, providing lands to landless poor, and enhancing achievements on the lower slopes.

It is evident that LLS has had a number of important social, institutional, economic and environmental impacts in the Benet landscape, the Mount Elgon National park and the Kapchowra district. There is much interest and demand to scale-up these activities.

The target LLS landscape has expanded and contracted during the course of implementation. The scale of action originally planned – covering almost the entire Mt. Elgon area in Uganda – proved much too ambitious for the time and resources available. This contraction initially alienated some stakeholders who shared these expectations, but these rifts were bridged as relationships and trust developed and outcomes began to emerge. The eventual starting scale was narrowed down after an outcome mapping exercise. It was further decided that, with the limited time and funding available under LLS, work would begin with the four communities that were most enthusiastic. This subsequently expanded to a total of eight focal communities, with direct support provided to six and two others that have observed progress in other communities and are keen to replicate the activities and results. Neighbouring districts are also expressing interest in applying and thus scaling-up the approaches in the Benet landscape, as they were present at a meeting when the results were presented and discussed. At the same time there is some reticence to implement activities because there remains a bit of a project mentality and external funds are necessary to get things going. One of the lessons learned is the importance of evaluating the initial resources needed to get a community up and running. The LLS outcomes have developed a champion in the UWA, who directs other stakeholders to investigate what has been achieved in the LLS sites.

There has also been more interest from the private sector, including the dairy marketers from Mbale. There is also a private sector entity known as the Eastern Private Sector Support that has expressed interest. There is high potential for small and medium enterprises (SMEs) as well through the support nodes set up by UNDP, but to access this fully requires more financial resources than were available in the current phase.

Among IUCN implementing staff the concept of the landscape approach did not radically change as a result of implementation. What was learned confirms that there are some forces that drive other forces and unforeseen outcomes. One of the lessons derived from the MERECEP programme that was applied

under LLS was related to beekeeping. MERECEP assumed that by providing hives to people they would produce more honey and thus generate more income. However the incentive to increase production lay not with hives, which people could produce themselves, but rather with access to markets and a better market price. It is also important to identify processes that can successfully catalyse change. LLS was designed explicitly as a learning programme so approaches and activities could be adapted as lessons were learned. Another interesting landscape-scale lesson rests in the manner in which the open grazing situation had an impact on many more aspects of the landscape and the livelihoods than originally believed. So addressing this helped establish the enabling conditions for other interventions.

The Mount Elgon/Benet landscapes have served as models for replication elsewhere within the Mount Elgon complex and possibly, eventually, beyond. The UWA is seriously promoting this model, particularly the participatory approach for the development of CRMs, in the Elgon area. IUCN has been clear that each landscape or community is distinct and needs to be treated as such; thus, it is not adequate to just replicate an agreement but negotiations need to target specific places and needs. The LLS approach is also being built upon by agencies such as SNV and the UNDP small grants programme, particularly as it relates to KACODA potentially getting more direct support from UNDP. The Nature Harness Initiative is looking to build on the notions of PES for water supply management.

Mt. Elgon is being considered by the Ugandan government as a pilot area for REDD, which potentially represents another scaling-up opportunity. The action learning approach established in pilot communities provides a framework for communities to identify needs, priorities and actions, and then adapt and modify self-generated solutions, which provides a built-in mechanism for scaling-up. There are also other communities that are now being linked to the collection centre for honey buying and marketing – expanding this opportunity for others. One of the District Councillors has actually written to other district leaders advocating for the LLS model to be replicated in the entire district. One of the approaches used by IUCN to create awareness was the organization of a study tour. Task force members and leaders from Kapchowara were brought to a similar degraded highlands landscape. The visit proved a real eye opener for participants when they saw the risk to their landscape if no action was taken, and they then became strong advocates for the programme. As a result, the district was able to mobilize its own additional resources to enlighten other leaders. Furthermore, one of the participants wrote a letter in support of LLS to district councillors who then came to see the work in the Benet.

There were thus a number of approaches employed to facilitate and replicate the LLS experiences in the landscape. These included learning-by-doing, annual learning meetings of stakeholders and others, site visits and the identification of champions. As noted, the LLS landscape did serve as a model for replication elsewhere by the government, particularly the UWA.

LLS has provided the opportunity for cross-learning within the overall Uganda portfolio, and to apply lessons and tools from other countries in Uganda. The Uganda experience and outcomes have also been shared with other LLS countries in Africa and in other regions, but it is not clear if any of this has been adapted in other countries. Certainly Uganda has learned from and applied experiences and lessons from other countries, notably the application of the forest poverty toolkit. In Uganda there is a livelihoods and wetlands project that has used some of the LLS methods and approaches, and that project clearly expressed excitement about the Elgon process and achievements.

At the time of writing, a study tour for the coordinator of that project to Elgon was planned.

LLS in Uganda can be said to have had a positive influence on various levels of government. This is clear in the case of the UWA in Uganda, which may yet apply some of the lessons from Elgon to other parts of the national park system. Local government was influenced by the by-laws process as evidenced by its eventual and formal recognition of these. The outreach undertaken to demonstrate the results and evidence were shared at various levels and through diverse fora such as meetings, trainings, site visits, etc. The intention of the outreach activities was to influence, raise awareness, garner support, integrate within larger district or regional plans and programmes, foster replication and adaptation, etc. This

outreach took many forms including site visits, photos, formal verbal presentations, workshops, etc. Outreach and awareness-raising were more visual and oral at the local level, and written for internal and global audiences.

Local presentations and other outreach activities have had impacts on policy change, although perhaps the impact has been more pronounced in terms of action on the ground than in formal policy change. There are cases of formal government policy recognizing the by-laws developed by the Benet, as well as the CRMs formalized between communities and UWA. In order to access NAADS funds and expertise, the district authorities need to approve the NAADS work plan, and they have now done this in Benet.

In addition to the local level some of the results and supportive evidence from the landscape have been presented at the national level, including to the national REDD working group and the Environment and Natural Resources Sector Working Group (ENRWG), which directs the sector within the ministry and is at a high level. Donors have also been present for these presentations to the ENRWG. The goal of making these presentations at the national level, using mainly power point presentations with text and descriptive

Children coming from the forest to collect firewood as part of resource access agreement in Tangwen, ©IUCN

photos, was to influence programmes, policies and actions, stimulate funding discussions and raise awareness about IUCN and LLS among a broader audience.

These presentations and the experiences shared from the Benet have had an impact on national policy decisions. This is indicated by the selection of the Benet landscape as a pilot site for REDD readiness.

LLS Sub-Outcome 8 states: “Decision-makers from government (both land-use and non-traditional ministries), civil society and the private sector demonstrate commitment to adopt the concepts, recommendations, tools and approaches generated by the Strategy’s activities”.

As noted throughout this paper the experiences in Mount Elgon catalysed by LLS have contributed substantially to this outcome and on various levels.

The experiences from LLS/Uganda have been fed into global fora in order to influence global thinking about the links between livelihoods, governance and conservation. It is of course difficult to gauge any direct influence from participation in these fora, but there is value in sharing the Uganda example as an indicator of the kinds of change catalysed by LLS. The Uganda LLS experience was presented at the Commonwealth Forestry Congress in Edinburgh in June 2010 and the presentation generated quite a bit of discussion and interest, particularly as regards the by-laws and the processes to develop these. Uganda was also the subject of a case study presentation at the UNFF in January 2011.

There have been a number of lessons learned over the course of LLS implementation in Uganda, relating to adaptive management, the importance of combining process and action, pilot activities as learning sites, and others noted above. One of the main lessons is also the need to try and identify and

understand the various landscape dynamics as a whole, rather than a singular observation in isolation from other factors. Something may look good on paper and be sound intellectually, but real-world on-the-ground dynamics can be totally different. This is why the adaptive learning elements are quite important.

Another major lesson appreciated by the Uganda LLS team was the importance, in this instance, of making livelihood improvements the primary focus of interventions. The team felt that if these are not addressed to show the linkages and dependencies of how resources support livelihoods then it may not have the same success. It was felt that this is why strict conservation approaches cannot work without addressing livelihoods. There is a need to make the clear link between resources and income generation and resilience and to translate concepts into locally relevant messages that are relevant for peoples' livelihoods and security. Communities also need to be able to see the interactions between various factors in the landscape, such as upstream-downstream linkages for water management and soil erosion. These lessons also have resonance and relevance for looking at responses to other issues such as climate change. It also became apparent that if people are empowered to make decisions and take actions there is more likelihood of success. There should be honest discussion and about trade-offs and what can be done by individuals or communities and what outside resources may be needed. Again, the local empowerment element is important.

In keeping with one of the underlying design constructs of LLS there have been some important value-added interventions introduced at the landscape level. These have included facilitating the establishment of locally-driven informal and formal decision-making structures, such as adaptive learning task forces, the BLIC, and increasing the critical mass available for improving production and marketing of targeted commodities. Communicating to decision makers in terms of outcomes and generating buy-in from various policy and political levels also added value to the overall outcomes and their sustainability.

Lessons in brief

In terms of the most valuable lessons that could be shared with others working on landscapes/natural resource management, these can be summarized from the above as follows:

- participatory process leading to empowerment;
- improving livelihoods as a point of departure;
- the need to show added value to government;
- the importance of income generation as an incentive.

Also included is the need to start interventions using participatory approaches to identify needs in the landscape, to identify action to address those needs followed by the joint formulation of approaches to trigger change. These need not necessarily be overly complex as demonstrated by the example of the grazing problem which was tackled with simple technologies like contours that also provide multiple outcomes against underlying and long-term issues, such as soil erosion.

There have been a number of tools applied and/or adapted during the implementation of LLS in Uganda that have helped to secure the successes in the landscape. These include elements of the forest-poverty toolkit (particularly wealth ranking), the action learning approach for participatory planning and implementation. That entire cycle has been very helpful in construct/approach, outcome mapping, employing Theory of Change to help focus on the desired outcomes rather than just activities, and building capacity, training of UWA, CBO staff and community members on LLS approaches.

There are increased prospects for the long-term management of the landscape in terms of structures in place now that were not in place at the outset, however this is also somewhat dependent on emerging partners on the ground to take it forward. Ideally some of the systems and structures put in place should facilitate this, although structures such as the task forces still need support.

Overall the major causes of landscape degradation have been successfully identified and addressed, chief among these being overgrazing and free range grazing and the lack of clear access and benefit-sharing arrangements for specific park resources. There definitely is positive traction, but these nascent structures and approaches need more time to fully take root, and this will depend in part on what local partners and institutions do going forward. There is also ongoing park degradation mostly as a result of the need for fuel wood. Ideally this pressure will diminish once the on-farm trees can be harvested for fuel wood, but this is a medium-term solution.

Challenges and difficulties

Needless to say, there were a number of major challenges and difficulties inherent to implementing LLS in Uganda. Based on lessons learned, biodiversity baselines should be established at the outset, as should a more comprehensive application of the forest-poverty toolkit. The status of forest quality should be established as should the quality and importance of ecosystem services such as water quality and quantity.

Of course mistakes and lessons learned provide an opportunity to improve upon things in the future, be it in Elgon or in other areas of the IUCN Uganda, or ESARO, portfolio. This should include keeping initial ambitions realistic so as not to raise expectations, as this took a fair amount of time to correct and adjust. Also, monitoring and evaluation (M&E) came in later but should have been implemented earlier, and should have been more outcome-based. Some baselines were established too late in the project, such as wealth ranking, although this still contributed to positive impacts.

Certain key factors were underestimated at the start. These included an appreciation of the scale of what could be accomplished with limited time and resources, and the reality that on-the-ground dynamics are different from planning documents. In addition, the landscape concept was difficult to communicate. It

also took time for IUCN HQ to put initial plans in place and for resources to flow. Leverage was too much of a driver in the absence of clear outcomes that could help to identify leverage points and opportunities from the outset.

There have also been some key institutional difficulties. The planning structures were too centralized and cumbersome at both HQ and regional levels. District governments don't have disposable funds and depend on projects like LLS, which also has limited funds. The restructuring of the ESARO region during the implementation period also posed challenges, as did the distance to landscap – meaning the team was not able to capitalize quickly on opportunities and address challenges –and local project management staff was brought in relatively late.

In terms of problems that do not seem to have a solution at this time, these include the need for funding to maintain gains, to scale-up and replicate on a larger scale, and to exert more influence on government policy and decision makers over time.

LIVELIHOODS AND LANDSCAPES STRATEGY

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