Pastoralism and Conservation – Who Benefits?

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Introduction

Conservation is big business in East Africa. Tourism is regularly among the top three contributors to GDP and to foreign exchange earnings in Kenya, accounting for US$884 million in 2010 (KShs 73.7 billion).¹ Despite the global financial crisis, Tanzania earned US$1.16 billion from tourism in 2009.² In both countries, tourists are largely drawn by the appeal of wildlife alongside other attractions. Conservationists see tourists’ dollars as one of the principal means to generate meaningful income for the rural poor. Government policies (United Nations Development Programme et al., 2005; United Republic of Tanzania (URT), 2005), conservation NGO projects (African Wildlife Foundation, 2005), entrepreneurial initiatives (Nelson, 2004; Lewa Wildlife Conservancy, 2012) and research publications (Pearce & Moran, 1994; Hutton et al., 2005) all promote wildlife-based tourism. Maasailand, the region of Kenya and Tanzania dominated by Maa-speaking pastoralists, is a hotspot of conservation,

² See http://www.tanzania.go.tz/economicsurveyf.html.

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poverty and new initiatives to redistribute tourist income, and a good place to explore the dynamics and distribution of revenues in the pastoral context.

In Kenya, Maasailand and other pastoral areas are among the fastest growing tourism destinations (33% growth in bed-nights 2004–5: Ministry of Tourism and Wildlife (MTW), 2006). In Tanzania in 2009, 16 national parks earned US$43.8 million, Ngorongoro Conservation Area earned US$22.6 million and tourist hunting US$14.9 million. In both Kenya and Tanzania, the highest earning protected areas are situated within, and effectively excised from, Maasailand (Figure 15.1), as is a high proportion of the two countries’ conservation estate overall. Parts of Kenyan Maasailand have shown rapid economic growth driven by wildlife conservation, rising domestic and export markets for crops and rising land values (Norton-Griffiths and Said, 2010). However, pastoral areas including many Maasai communities in both Kenya and Tanzania continue to display wide and deep poverty with respect to international and national rural poverty thresholds (Oxfam, 2006; Kenya: Thornton et al., 2006; Boone et al., 2011; Tanzania: Tenga et al., 2008).

Kenyan and Tanzanian governments see pastoralist livestock management (mobile transhumance on unfenced, unmodified rangelands) as unproductive and environmentally damaging (e.g. URT, 1997; Ministry of Livestock and Fisheries Development, 2006). Pastoral migration to south Tanzania is perceived, without good data, to be driven by pastoralists’ own degradation of their rangelands (Brockington, 2006). Regional and district governments impose draconian confiscations of cattle and fines, constraining pastoral activities while benefiting from their productivity. Wildlife tourism is portrayed as a means for pastoral groups to diversify, generate revenues and improve well-being.

This chapter explores the role that livestock play in rural Maasai household economies, and the contribution of wildlife tourism to poverty reduction and local livelihoods. Taking a comparative approach across Kenyan and Tanzanian study sites, these data allow evaluation of conservation and poverty reduction policies and practices.

**Approach and methods**

Multisite studies (reported in detail in Homewood et al., 2009) sought a balanced view of the contribution of wildlife conservation to local livelihoods in rural Maasailand by asking:

- What do people do to meet their day-to-day and longer term livelihood needs?
- How well are they doing?

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3 Ibid.
Figure 15.1  
Study sites and their sources of household income, Kenya and Tanzania.

- What factors influence people’s choice of income-earning activities?
- What factors influence how well they do?

We summarise detailed findings from independent researchers working in three Kenyan and two Tanzanian sites (Homewood et al., 2009). The five sites represent

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4 Without detailing all those involved in data collection and analysis, lead researchers included (besides the present authors) David Nkedianye and Patti Kristjanson (Kitengela), Michael Thompson (Mara), Shauna BurnSilver (Amboseli) and Hassan Sachedina (Tarangire). See Homewood et al. (2009) for full details.
very different circumstances ranging from populations adjacent to high-earning conservation areas (Mara: Thompson et al., 2009), to minimal- (or zero-) earning areas (Longido: Chenevix Trench et al., 2009). They also range from remote rural areas where grazing, farming and wildlife tourism are the main options (Amboseli: BurnSilver, 2009; and Longido), to mining areas (Tarangire: Sachedina & Cheneivx Trench, 2009), to peri-urban populations (Kitengela: Nkedianye et al., 2009) where land leasing, sale of produce to urban markets and off-farm and non-farm employment are all significant sources of income. Standardised income and explanatory variables were collected or derived for each of the study sites. Cluster analysis identified groups of households pursuing similar livelihood and income-earning activities in each area; and regression analysis identified significant factors explaining variation in income levels across households. Family portrait studies captured qualitative, household-level pictures of livelihoods and livelihoods change (Homewood et al., 2009). Each case study sought to represent variation in wealth, poverty and environment (Homewood et al., 2009).

**Livestock, farming, off-farm work and livelihoods in Maasailand**

Most (91–100%) households have livestock, which account for well over half of their income (Figure 15.1). However, a significant proportion of households have too few livestock to fully support household members. Most livestock are concentrated in the hands of a few, with the wealthiest 10–20% owning from one-half to two-thirds of all livestock\(^5\) across all sites. Reliance on non-livestock income is therefore a necessity for most, especially for the poorest, quite apart from being a potentially positive investment option for the well-off. Nonetheless in each site, across all different wealth categories and across most livelihood strategies, people were actively purchasing livestock. Poor households continue to seek to rebuild their herds, while better off households continue to invest in new animals.

In addition to livestock ownership, cultivation is widely practised, despite the semi-arid nature of Maasailand as a whole, and most households’ limited access to agro-ecologically favourable sites. In four out of the five sites, over half of households engage in farming – with as many as 88% of households in Tarangire compared to only 13% in Mara. Despite the apparent attraction of cultivation, yields are poor and contribute little to overall incomes. Indeed, in Mara, Longido and Kitengela, over half of cultivating households harvested nothing. Crops account for just 2% of income in Mara, with the maximum contribution being 21% in Longido. There are,

\(^5\) Measured in tropical livestock units (TLUs).
however, additional benefits from cultivation. In particular, it is an effective means of staking claim to a plot prior to land privatisation and subdivision (e.g. Mara), and of forestalling the perceived threat of protected area expansion (e.g. Tarangire).

Both direct observation and remotely sensed land cover analyses show extensive large-scale commercial cereal farming around Mara. This is largely driven by a relatively small elite. Commercial cultivation dropped significantly between 1998 and 2004 with the completion of land titling across most of the area studied. Alongside poor rainfall and declining soil fertility, the transaction costs of dealing with multiple smallholders (as opposed to dealing with the group ranch committee for large areas) made large-scale farming in Kenya Maasailand difficult. Large-scale cereal farming has also spread around Tarangire. Maize cultivation has now become lucrative for households able to invest in mechanized farming (Sachedina, 2008). However, such large-scale farming is not widespread in most Longido villages. Formerly village-owned high-potential lands on the slopes of Mt Kilimanjaro (east of Longido) have long since been leased by the state to outside investors.

Off-farm work generally outranks agriculture as a source of income. Half or more households (50–85%) earn off-farm income from petty trade, business, wages or salaried income and remittances. Returns from casual unskilled work are a fraction of those for regular jobs such as teacher, driver or government official. Potentially large but ephemeral income streams from gemstone mining and brokerage, and land leasing, are seen as secondary in importance to livestock and other economic activities. Off-farm work accounts for between 8% (Mara) and 43% (Kitengela) of average household income – second only to livestock in most sites other than Mara. This bears out analyses emphasising the need for off-land work and the willingness of pastoral peoples to pursue these activities (e.g. Sandford, 2006; Tache, 2008).

Income from wildlife – what role in livelihoods?

In comparison to the universal engagement with livestock, and widespread involvement with farming and off-farm work, only a small proportion of households in most sites have wildlife earnings (3–14%). Averaging across those households which do derive income from wildlife, amounts are small in four of the five sites (Amboseli, Kitengela, Longido and Tarangire) contributing <5% of mean annual income. Some positive impacts on household income are arguably invisible – for example, the use of wildlife-related income at the village level to offset village-level taxes in Tanzania. Where data were available, it was clear that village-level benefits were easily captured by local elites and were not having the broader impacts on livelihoods that could influence household decision making (Sachedina, 2008).\textsuperscript{6} In Mara, though, two-thirds (64%) of

\textsuperscript{6} This is not universally the case across Maasailand and there have been instances of community-based tourism resulting in meaningful revenues that were then well distributed (Nelson & Makko, 2003).
households earn some income from wildlife. Wildlife conservation accounts for 21% mean annual income for Mara households in the sample. While overall few Maasai households earn income from wildlife, and the sums they make do not compare with main income streams from livestock, crops and off-farm sources (Figure 15.1), landowning households close to Maasai Mara National Reserve (MMNR) see real benefits from conservation-based enterprises.

MMNR is Kenya’s highest earning wildlife tourist destination, taking US$15–20 million annually (Norton-Griffiths, 2007). Numerous additional wildlife enterprises have grown up around the Mara, with landowners on the now-adjudicated, subdivided and privately owned former group ranch lands able to capture wildlife returns both directly (through participation in campsites or other enterprises which pay rent or dividends) and indirectly (through the 19% of gate takings which the MMNR disburses to neighbouring communities). Thompson et al. (2009) chart the history of the various revenue-sharing institutions which have evolved around the Mara since the 1970s, including 19% MMNR gate takings paid to the county council; group ranch wildlife associations; post–group ranch, politically constituted wildlife associations and, most recently, conservancy partnerships between tourism investors and landowners. These offer better security of income to landowners (through rent rather than bed-night payments) and require 5-year covenanting of the designated area, during which land sales, homestead construction, cultivation, fencing and grazing are excluded. Conservancy arrangements may offer a better deal for landowners (Thompson et al., 2009) and better conservation outcomes (Western et al., 2006), but remain to be evaluated.

In the Mara, wildlife revenue makes up 15–30% of mean household income from the poorest quintiles to the best off, and is second in importance only to livestock. However, the top 25% Mara households by wealth consistently capture 60–70% of conservation income. The bottom 25% by contrast capture around 5%, rising to 15% if all forms of associated conservation-related employment are included. The middle 50% get around 25% of conservation-related income across the board. Despite significant changes in the volume of tourism returns between 1998 and 2004, there was minimal change in this pattern of distribution across wealth ranks. The poorest 20% of households are consistently more likely to be engaged in cultivation and/or off-farm work, and are significantly less likely to receive wildlife income than other households.

The total volume of tourism returns in Kenya fell significantly between 1998 and 2004, probably largely as a result of the impact of 9/11 on tourism internationally, and tourism collapsed again in 2007–8 following post-election violence. In 2004, mean conservation incomes to households earning from Mara wildlife associations

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This chapter does not go into the process of privatization, which dispossessed many vulnerable families (Galaty, 1999) but focuses on the impact of conservation business on current, mostly landowning residents.
and campsites averaged just 25% of their 1998 value. Within that changing flow of revenue, the relative proportions captured by the wealthiest, middle and poorest Mara households stayed remarkably constant. However, between 1998 and 2004, the proportion of households receiving income from wildlife associations fell from 55% to 37%. Overall the proportion of households reporting income from wildlife associations and campsites dropped from 55% to 41%.

Despite inequalities, conservation earnings reach most households in the Mara sample, and returns at household level, while very variable, generally make a significant contribution to total income. However, comparison of Mara with the four other sites suggests that these benefits derive from conditions rarely met elsewhere. The MMNR is high earning compared to other tourism destinations. The households sampled are predominantly landowners situated close to the reserve and hence able to command reasonable payments for game viewing or accommodation on that land. By contrast, households in the other four study sites are either remote from tourist attractions or near lower earning sites, do not own the land, are unable to compete for conservation jobs and/or have little access to wildlife income overall. An example of this is the outer Amboseli households – although those close to Amboseli Park reportedly earn significantly more, possibly at levels comparable to those of Mara (David Western, personal communication, 2008).

Conservation, wealth and poverty in Maasailand

These findings underline the lasting importance of livestock to Maasai households. Livestock remain central to subsistence, to pathways out of poverty and to wealth storage and accumulation strategies, alongside the need to diversify into non-livestock activities. Were we to consider the social importance of livestock in maintaining social relations, and not just their economic value, their significance would be all the greater. Cultivation, while widely practised, gives very limited returns. However, besides adding to food security, it may be a tenure strategy, curbing what is perceived locally as the encroachment of conservation on customary rangelands (Sachedina, 2008). Perhaps surprisingly, off-farm income is a very significant component of present-day Maasai livelihoods, usually more so than agriculture, but ranges from poorly paid, insecure and often dangerous work (e.g. miners, watchmen and sex workers) to secure jobs with wider political or economic prospects (e.g. teachers and MPs). These findings also highlight that communities portrayed by some as the wealthiest land and stock owners in East Africa (Norton-Griffiths & Said, 2010) have average incomes far below

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8 Households which were not able to secure claim to a private plot have been excluded not only from the possibility of such wildlife income but from the landscape as a whole (Galaty, 1999). By definition, they cannot appear in our sample.
the dollar-per-day international poverty line, and often below national rural poverty thresholds. Given that these average income values are skewed upwards by a small number of well-off households (Homewood et al., 2009), and median incomes are in most cases around half mean values, poverty remains both wide and deep in Maasai rangelands despite potential land values and tourism earnings (Homewood, 2009).

These findings also emphasise the generally limited contribution of income from wildlife conservation to households (other than those under special circumstances as in the Mara). Wildlife generally performs poorly for livelihoods. With the exception of the Mara, wildlife brings little or nothing to the vast majority of Maasai. It is possible that the poor contribution of wildlife to local livelihoods is a factor in the drastic declines in Kenyan savannah wildlife populations over the last 30 years (Ottichilo et al., 2000; Homewood et al., 2001; Western et al., 2006, Ogutu et al., 2011) and declines beyond national park boundaries in some ecosystems in Tanzania (Stoner et al., 2007). If wildlife does not become locally valuable, it may continue to decline (Norton-Griffiths, 2007; Norton-Griffiths & Said, 2010; Ogutu et al., 2011).

Why does wildlife fail to generate local benefits?

Maasai communities have historically captured little of total tourism earnings, with ~95% accruing to tour operators, service industry workers and the state (Norton-Griffiths, 2007; Norton-Griffiths & Said, 2010). Even when tourism revenues are captured, the small amounts are then poorly distributed within and between communities. Proportions captured by local residents are even smaller in Tanzania than in Kenya (Sachedina, 2008) as they trickle through official channels (from central and district government through to the communal level via Wildlife Management Areas (WMAs)).

In part this reflects chronic problems of governance and accountability at local, district and national levels (e.g. Walpole & Leader-Williams, 2001; Homewood, 2009). Wildlife enterprises earned tens of thousands of dollars annually for one village on the edge of Tarangire and yet these revenues were easily dominated by local elites (Sachedina, 2008). Ololoskwan village east of Serengeti was able, briefly, to earn around $50,000 per year from photographic safari operator use of its lands. However the central government feared it would conflict with a hunting block, whose revenues they control. In November 2007, a surprise ministerial declaration criminalised local-level deals for wildlife-related enterprises, capturing all such returns for the state, with no requirement for a set proportion to be returned to the community (Tanzania Natural Resources Forum, 2007). Such unequal contests between the state and local communities for control of conservation enterprises and their returns have become
a common occurrence in Tanzania (Nelson, 2004, 2007; Baldus, 2009). They are made the more unequal by the involvement of global investors (Igoe, 2007). In their comparative study of community-based conservation, Nelson and Agrawal (2008) observe that the hunting industry in Tanzania is eminently corruptible, providing easily diverted revenues within a generally impoverished national economy.

The second reason is the historical experience of many Maa-speaking pastoralists. Conservation for them is associated with large-scale eviction and exclusion (from Serengeti, Ngorongoro, Tarangire, Amboseli and Mkomazi) with fines and harassment, compromises and deals that were not honoured and outreach programmes that provided few tangible benefits. Their experience of new revenue-sharing initiatives is rarely positive. The livelihood choices they face now are shaped by decades of such experiences, perceptions and stories as well as by complex communal politics, making it hard to build trust and co-operation.

A third reason results from the efforts of the conservation lobby itself. The financial success of the African Wildlife Foundation led to its growing out of touch with dilemmas in Maasai villages (Sachedina, 2008). This meant that it was poorly equipped to engage effectively with the fierce local politics that surround conservation initiatives in this region. Engaging with communities with such a record is an extremely difficult task.

The fourth reason may be the gloss accorded these conservation enterprises, portrayed by their advocates as win–wins, good for wildlife, good for people, good for the economy, participatory, empowering and liberating (Igoe, 2010). As they wallow in happy sentiment it is difficult for criticism to find purchase. Yet, when examined in detail these schemes rarely produce the benefits they claim. As this chapter underlines, revenues from wildlife rarely begin to compensate for loss of mobility, as well as loss of access to and control over important natural resources, which ‘community-based’ and other conservation restrictions entail. Even relatively successful schemes produce thoroughly dissatisfied groups marginalised from the lucrative revenue streams flowing past them (e.g. Il Ngwesi, Kenya: Castillo, 2004). In Tanzania, WMAs in Burunge (west of Tarangire: Igoe & Croucher, 2007) and Longido (Homewood et al., 2005) restricted the use of villages’ grazing lands while removing their right to control returns, or else caused local displacement and eviction.

Moving forward

Moving forward, the prospects do not seem good. In Kenya, the draft National Land Policy set out innovative and socially equalising reforms which have come up against vociferous challenge by vested interests (Ministry of Lands, 2007a,b; Homewood, 2009). The Wildlife Bill 2007 (MTW, 2007) proposes command and
control of wildlife-related activities on private land. Private conservancies buy out some pastoralist landowners, and establish set-aside agreements with others (Thompson et al., 2009). The extent to which they work for people on the one hand and wildlife on the other remains to be shown.

In Tanzania the situation is more alarming still. A strong anti-pastoral environmentalism pervades the country, driving evictions from Usangu in 2007, in which people died; removals from Loliondo; a resumption of attempts to evict pastoralists from the joint land use area of Ngorongoro Conservation Area and large-scale confiscations and fines in Kilosa and Mbarali. Meanwhile, in 2008 President Jakaya Kikwete was feted for his conservation commitments (before the Serengeti Road issue surfaced: Homewood et al., 2010) by US politicians and their sponsors at the International Conservation Caucus Foundation in Washington, DC. These are not incentives likely to make conservation-based enterprises work for Maasai communities in Tanzania. The short-sighted and self-defeating way in which Tanzania has implemented ‘community conservation’ has been severely criticised by one of the most experienced conservation practitioners in the field (Baldus, 2009). There is a real role for international conservation agencies to use maximum integrity and skill to encourage the state to consider local needs and voices and to foster policies and practices that can genuinely bring benefits to local poor people as well as to international conservation.

Conservation business is booming in East Africa; wildlife-based tourism remains a big earner for some, and conservation NGOs readily sell the idea to their northern support base. This is an arena where considerable profits can be made precisely because the distribution of revenues is so uneven, and local and national governments are so easily compliant. However, rural Maasai land use decisions do not support national- and international-level assumptions about the benefits of wildlife and tourism, nor those about a relatively lower economic importance of livestock production. If wildlife is to remain viable in East Africa, something significant has to change in order to deliver the mutually beneficial relationships sought by conservationists, governments and development organisations.

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**References**


