

# Vulnerabilities in the Conservation–Tourism Alliance: The Impacts of COVID-19 in Laikipia and the Galapagos Islands

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## Abstract

In East Africa and the Galapagos Archipelago, as in other important biodiversity conservation areas, tourism has been presented as a means of addressing community development aspirations in a way that is compatible with conservation objectives. Local livelihood practices are an important element in this, and in order to advance conservation and tourism goals, strategies derived from a conservation–tourism alliance may aim either to support traditional livelihood practices, to modify those practices, or to encourage transitions from those practices to new livelihoods. While this has proven successful in many areas, and tourism revenue has succeeded in supporting conservation and in opening new opportunities for communities, it has also created vulnerabilities that have been highlighted by the COVID-19 pandemic. The paper explores implications for two areas—Laikipia, Kenya, and the Galapagos Islands, Ecuador—and draws conclusions about engineered livelihood transitions.

Keywords: biodiversity conservation, COVID-19, livelihoods, nature-based tourism, protected areas

## Introduction

*Homo sapiens* evolved in East Africa, and has occupied the landscape there continuously for 200,000 years. The Galapagos Islands, by contrast, were discovered only in 1535 and have been settled for less than 200 years. However, in both areas, human communities have coexisted to the present with what we now call *charismatic*

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*megafauna* and, consequently, both areas have been identified as priority conservation areas (IUCN, 2016). Both areas have attracted international attention through conservation organizations that advance the perspective that the local ecological resources are part of a global heritage that must be protected (Gunter, 2004) and, significantly, in both cases, the prospects of an enduring, sustainable, and lucrative alliance with tourism has been presented to local communities as a means of meeting development aspirations.

The sustained loss of biodiversity, often described as the “Sixth Extinction” (Ceballos et al., 2020), threatens human well-being (Wilson, 2016), and so successful strategies for conservation are essential. Early efforts to protect biodiversity were rooted in the “fortress” approach to conservation, which aimed to isolate natural systems from human activity (Adams, 2004). While areas that are deemed as important conservation sites are valuable precisely because they have not been extensively developed or converted, a corollary is that communities associated with conservation sites are likely to have a distinct cultural heritage and an established dependency on local resources. This implies important “human dimensions” to conservation initiatives and, as early as 1980, The World Conservation Strategy recognized the need to link biodiversity conservation with economic development (IUCN, 1980), and to identify new collaborative approaches (Adams & Hulme, 2001; Roe, 1991) that would reverse “top-down, center-driven conservation by focusing on the people who bear the costs of conservation” (Western & Wright, 1994, p. 7). Major conservation advocates proposed that tourism could advance conservation objectives, while also enhancing “local people’s quality of life” (IUCN, 1993), and while many factors have been cited to demonstrate the potential value of conservation management to local communities (Buckley, 2008; Wardle, et al., 2018), tourism has been the most explored and promoted (CBD, 2010).

Clearly, tourism can play an important role in protecting biodiversity. An alliance between conservation and tourism effectively means that tourists—who will be drawn by landscapes and wildlife (and perhaps local cultures)—will pay to see precisely what conservationists wish to protect (Boley & Green, 2016; Buckley et al., 2012). This conservation–tourism alliance (CTA) rests on the presumed compatibility of the interests of these two stakeholder groups, but also on the assumption that benefits from tourism can be made appealing to a third group, arguably the most important group: the members of the local community.

Livelihoods link members of a community to their environment, and the sustainable livelihood approach (Chambers & Conway, 1992) and social ecological system (SES) models (Ostrom, 2009) outline parameters of these linkages. Within livelihood diversification studies, Turner (2007) has demonstrated how important selective livelihood diversification is as a means of adapting to changing local conditions. Communities that have persisted in areas important for biodiversity conservation have necessarily found mechanisms to adapt to ecological variability. For example,

in pastoral systems, such as those in East Africa, “new range ecology” describes a resilient SES with multiple-stables states, functioning adaptively in response to environmental variability and uncertainty. The ability to adapt to circumstantial change is essential to survival. Where conservation and tourism influence an SES, tourism may provide a stabilizing alternative, but it may also introduce new vulnerabilities by altering the pressures that drive or inhibit livelihood change (Burbano & Meredith, 2020).

This paper summarizes research on how three stakeholder groups—conservationists, tourism promoters, and local communities—have interacted in Laikipia, Kenya, and in the Galapagos Islands, Ecuador, where the promise of the CTA has been great, and the impacts to date have been transformative. However, the emergence of the COVID-19 pandemic has exposed vulnerabilities linked to the CTA that must be acknowledged in order to optimize the prospects of sustainable long-term development. COVID-19 has seriously affected both countries: at the time of writing (October 2020), there is a total of over 44,000 reported cases and 825 deaths in Kenya and over 150,000 cases and 12,375 deaths in Ecuador (WHO, 2020). The research is based on over 15 years of direct engagement with communities in Laikipia, and over 10 years of engagement in the Galapagos. Assessments of the impact of COVID-19 are drawn from government reports, local agency reports, media coverage, and from interviews with key informants in affected communities. In this paper we briefly describe the history of the CTA in the two sites and discuss the immediate impacts of the collapse of tourism following the pandemic. We conclude with comments about retaining human adaptability in these unique conservation areas.

## **The conservation–tourism alliance and COVID-19 impacts**

### **Laikipia, Kenya**

Tourism is critically important in Kenya, as the country’s third largest source of foreign exchange and employing up to 1.5 million people (World Bank, 2017). The decline of tourism in Kenya could cost the country 3–5 percent of its GDP (UNCTAD, 2020). Laikipia is a biodiversity-rich area (9,700 km<sup>2</sup>) in north-central Kenya where tourism has become an important economic factor. It is a semi-arid landscape where land uses include communal rangelands, large-scale ranches, and, increasingly, areas of small-scale cultivation. The rich biodiversity persists due to centuries of semi-nomadic pastoralist land use across “soft-boundary” rangeland ecosystems (Reid, 2012), and contemporary large parcels of open rangeland, on both private and group ranches. Severe drought is common, and has necessitated cultural and institutional strategies to deal with uncertainty. Recent droughts highlight the

extreme livelihood stress, with many pastoral communities losing 70 percent of livestock in 1997–2000 (Flintan & Puyo, 2012), and estimated cattle and sheep losses of over 60 percent in 2008–2009 (Zwaagstra et al., 2010). In the past 25 years, many of these communities have shifted into wildlife conservation management and the CTA is promoted as a way to address vulnerabilities exacerbated by rangelands that have become constricted, fenced, and developed.

Laikipia's abundant wildlife—the second highest density in Kenya (Kinnaird & O'Brien, 2012)—is found entirely outside of state-run protected areas. Tourism in Kenya is the leading foreign exchange earner (KWCA, 2019) and Nairobi, a short distance from Laikipia, is the international tourism hub. Wildlife tourism accounts for approximately 70 percent of Kenya's tourism and, prior to 2020, the sector experienced sustained growth, employed thousands, and provided critical individual and community income and support, justifying an optimistic view of the contribution conservancies could make (KWCA, 2019). In Laikipia, regional nongovernmental organizations (NGOs), including the Laikipia Wildlife Forum (LWF, founded 1992) and the Northern Rangelands Trust (NRT, founded 2004), have coordinated agreements among private land owners and group ranch leaders on managing land to protect wildlife and to benefit from tourism (Blair & Meredith, 2017; LWF, 2017). Tourist visitors increased 1,400 percent between 1996 and 2009 (LWF, 2013). Tourism's proliferation in Laikipia provides an important opportunity for examining whether, or how, the CTA functions.

Estimates indicate that 90 percent of revenue generated by community-based tourism in Laikipia each year comes from philanthropic sources, with only 10 percent coming directly from tourist spending (King et al., 2015; LWF, 2013). While this philanthropy clearly supports development of the tourism sector, and provides a buffer during setbacks, it also shows clearly the extent to which outside agencies, motivated by an interest in conservation, have intervened to advance the CTA. Few, if any, of the projects are financially self-sufficient, yet because of the administrative and financial intervention of outside agencies, local support for conservation projects has grown, and new ecotourism projects involving partnerships with investors, NGOs, and government have emerged. But as the influence of the CTA has grown, so too have government regulations that restrict the freedom of landholders to engage in commercial land uses that are not seen as being compatible with conservation. Such regulations have the potential to inhibit traditional, adaptive, rangeland livelihood strategies that have been critical to pastoralist survival (Mwangi & Ostrom, 2009). These constraints must be considered when assessing options for adaptive livelihood diversification arising from the CTA. The long-term commitments of tourism contracts, government land-use regulations, and increasing partnerships with regional and international NGOs may open opportunities, but may also challenge the autonomy and flexibility of communities when inevitable shocks arise.

The full extent of COVID-19 impacts in Laikipia remain to be determined, but initial indications are huge losses in income for enterprises and in employment for community members. Full-time employee numbers have dropped significantly, with staff released on unpaid leave or with heavy (often 50 percent) pay cuts (LTA, 2020; NRT, 2020). Over 80 percent of hospitality operations reported being closed in May 2020, and revenue losses of over 50 percent were experienced by over three-quarters of businesses (LTA, 2020), and are estimated to be up to 90 percent overall (LWF, 2020). For local conservation organizations, concerns over illegal grazing, charcoal burning, and wildlife poaching have increased as tourism-based benefits been reduced (NRT, 2020). In response, local stakeholders are looking for support from international agencies or local government to maintain operations for conservancies and business (LTA, 2020; NRT, 2020). Though the scale of the current crisis is unprecedented, disruptions such as this are not novel: political violence and global economic crises have caused volatility in the past. Learning from this case may help protect the adaptive capacity that will be essential to community resilience and sustainable development.

## **Galapagos, Ecuador**

In 2018, Ecuador reported over 2.5 million foreign tourists, generating over US\$1.5 billion, and accounting for over 7 percent of its foreign earnings (World Bank, 2020). The Galapagos Islands are a major attraction, and in 2018 the islands received almost 276,000 visitors (GNPS, 2018). The Galapagos Archipelago is located in the Pacific Ocean, about 1,000 km west of mainland Ecuador. The islands were discovered in 1535, but settlement began only in the early nineteenth century and, even now, only four of the 13 main islands have human settlements, and they occupy only 3 percent of the total land territory. Subsistence agriculture was the main livelihood but, over time, the development of commercial fishing drew people away from agriculture. Charles Darwin famously visited the islands in 1835 and made observations based on the islands' unique ecology that became central to the understanding of processes driving evolution. The same ecological resources that intrigued Darwin attracted international biodiversity conservation interests, and as fishing increased significantly in the 1980s, and increased immigration in the 1990s intensified pressure on land and marine resources, more regulatory restrictions were imposed on established livelihood practices. For example, agriculture is permitted only in very limited areas and is strictly controlled by the Ministry of Agriculture and Cattle Ranching, and only coffee can be exported from the islands. Only local small-scale fishing is allowed within the Galapagos Marine Reserve and is regulated by the Galapagos National Park Service (GNPS).

Tourism began during the early 1900s with foreign sailboats stopping occasionally on the islands. In the 1960s, local fishers began taking occasional visitors around the islands. The cruise ship tourism model followed, and expanded dramatically, but with operations managed by foreign or mainland companies (Quiroga, 2014),

the uneven distribution of benefits resulted in local rejection of this model. Land-based tourism has subsequently grown in importance—by 2015, 68 percent of tourists were land-based (Izurieta, 2017)—and tourism has become the main driver of the island economy, where, unlike Laikipia, it is not dependent on external philanthropists.

The CTA has been proactive in the islands. Three resulting factors have influenced the human ecology of the islands. First, regulatory constraints have been imposed on both farming and fishing sectors that have limited their viability. Second, new opportunities have opened in tourism, which have encouraged livelihood shifts, bringing new benefits but also new risks. Third, government programs have been introduced with the deliberate aim of promoting transitions into tourism—for example, the *experiential artisanal fishing* initiative, advanced by the GNPS and local NGOs, was intended to convert commercial fishers to tourism operators (Burbano & Meredith, 2020). These factors have advanced conservation goals, have supported the growing tourism sector, and have provided economic development opportunities for those in the local communities. But they have also created vulnerabilities.

The vulnerability became evident in 2019 when political uncertainty in Ecuador caused a 10 percent decline in tourism to the Galapagos Islands (GNPS, 2019). But with the outbreak of COVID-19 in mid-March 2020, non-essential economic activities and travel to the Galapagos were banned (Villón, 2020), generating an economic impact without precedent. Prior to the pandemic, between 70 and 75 percent of the Galapagos economy was based on tourism, with important multiplier effects on other economic sectors (Gozzer, 2020). With the outbreak of COVID-19, the entrance to the Galapagos' protected areas were closed to all tourists with an estimated loss from entry fees alone of US\$9.5 million (Díaz-Sánchez & Obaco, 2020). The loss of tourism revenue has affected livelihoods and conservation efforts, and the reduction of air and sea cargo transportation to the archipelago has led to shortages of basic commodities, including food normally supplied from the mainland (España, 2020). This has also prevented the export of fish to the continent and abroad, meaning severe economic impacts on the fishing sector (local informant, personal communication, April 23, 2020).

Even though the government reopened the islands to tourists on July 1, only 387 tourists entered the Galapagos during the month (*El Comercio*, 2020), compared with about 25,000 in the same period in 2019 (GNPS, 2019). The governor of the islands reports that “the base of [the] economy has entirely collapsed” (in Gozzer, 2020): hotels and restaurants have closed and farm and fish sales have declined. Local authorities are supporting the agricultural and fishing sectors to ensure production, but acknowledge that as the island population has grown in response to the tourism expansion, and farming and fishing have been restricted by conservation, food production on the island can no longer meet the needs of the resident population (Gozzer, 2020).

These conditions led to protests demanding government action to address pressure arising from the collapse of tourism (*El Comercio*, 2020). Civil society and local and national government are working together to develop a plan to reactivate the economy (Villón, 2020), but a former director of the GNP noted that the Galapagos should rethink two elements related to its economy: one, that the islands should reduce their economic dependency on tourism; and two, that they should reduce dependency on the continent for goods and food. He suggests that it is the time to rethink the sustainability model of the Galapagos (Carrere, 2020). The CTA will continue to be important, but in rethinking, can vulnerabilities be reduced?

## Discussion and conclusion

In both Laikipia and the Galapagos, the CTA has demonstrated the potential to help balance the interests of three implicated stakeholder groups: the conservation advocates, the tourism proponents, and the members of the local community. The ramifications of COVID-19 have been felt globally and the effects on the tourism sector have been profound; there is no reason to assume that these two areas would be spared serious impacts. However, the collapse of tourism has exposed a vulnerability particular to communities in conservation areas that must be considered, and from which insights can be drawn that could be beneficial to each of the stakeholder groups.

For conservationists, tourism is not, in itself, an asset but is rather a surrogate means of giving fungible economic value to local resources. Conversely, for the tourism industry, the success of biodiversity protection is important: without charismatic megafauna and natural landscapes, tourists will not be drawn. As these two case studies show, for the third stakeholder group, those living in or near conservation areas, the cost–benefit assessment of participation in the CTA can include both material and cultural considerations, but must also include consideration of opportunity costs—that is, consideration of what might be lost from being unable to develop, use, or sell local assets in an open market (Norton-Griffiths, 2007).

While conservation areas are valued because they have not been extensively modified, the human ecology of the areas—including the relation between human livelihoods and local resources—must be considered in attempting to advance a CTA. As shown in these cases, conservation initiatives may aim to protect resources that have sustained local communities, but they may do so by limiting access to them; tourism may provide valued economic opportunities, but those opportunities may compromise community adaptability, resilience, self-sufficiency, and cohesion. Targeting livelihoods to address conservation and tourism goals may be seen as supporting community development, but it may also be seen as attempting to engineer livelihood transitions.

In both Laikipia and the Galapagos, outside agencies actively promoted the CTA as being beneficial to local populations, and they supported programs designed to promote livelihood transitions. In both cases there have been community members who have been drawn to and successful in activities arising from the CTA, but, also, in both cases there has been resistance: in Laikipia, based on the loss of access to grazing, and on human–wildlife conflicts; in the Galapagos, based on fishing and land use restrictions and on concerns that revenues from tourism do not accrue to local communities; and in both areas, based on frustrations regarding promised employment opportunities that have not materialized. The CTA may be the most promising avenue for addressing the human dimensions in conservation, including concerns of cultural autonomy, locally adapted livelihood strategies, and community development aspirations. However, the pandemic has shown the vulnerability that comes with restrictive and narrow reliance on a sector where demand can always be volatile.

Given concerns about biodiversity loss, communities in or near biodiversity-rich areas will continue to be affected by conservation interests, and this may well imply potential benefits from the CTA. However, for the CTA to be beneficial to all three stakeholder groups, consideration must be given to the unique position of communities inhabiting environments that have, to date, supported rich biodiversity assets, but which have also demanded flexible and adaptive responses in livelihoods. The ability to adapt to circumstantial change has been essential to survival in these areas, and may continue to be so. Outside of the exclusionary fortress approach to conservation, the proponents of the CTA must attempt to find ways to ensure that communities in biodiversity-rich areas retain the ability to respond sustainably to variability and uncertainty.

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