



Luc Hoffmann
Institute

THE FUTURE OF NATURE-BASED TOURISM

Impacts of COVID-19
and paths to sustainability

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The COVID-19 pandemic has created enormous disruptions to the way society works, including the near total suspension of global travel. The subsequent travel restrictions, lockdowns and closures of protected areas have led to an abrupt halt in nature-based tourism throughout the world. And when tourism stops, so too do the benefits of conservation.

For decades, global tourism revenues have been helping to deliver biodiversity conservation and livelihoods. These revenues from nature-based tourism create financial incentives to conserve important wildlife populations and the areas where they live, as well as support local communities and economies. The pandemic, however, is dramatically changing all this, causing systemic shock with widespread implications.

There have been some positive impacts, such as a decrease in overtourism at popular destination sites, giving ecosystems space to recover. In many places, marine and terrestrial wildlife and their habitats have flourished and re-emerged in areas that emptied of people and vehicles.

Negative impacts have included severe declines in funds for conservation, particularly for areas

that depend on tourism for anti-poaching and patrols. Wildlife crime has increased in some areas (although it has declined in others due to the lockdowns and difficulty of movement). There are also concerns that without alternative income sources, lands reserved by communities for conservation will be converted for agriculture or livestock.

In addition, people living in communities in and around protected areas have seen their livelihoods decimated: nature-based tourism operators have made wage reductions, furloughs and redundancies, greatly affecting their workforces. Procurement of local produce, hospitality services and local community initiatives has also been severely cut because there are no customers. With thousands of job losses, there are widespread concerns that people living close to protected and conserved areas will resort to wildlife crime in the absence of viable alternatives.

The nature-based tourism sector urgently needs a smooth transition through the COVID-19 pandemic. It will be most important to allow for enough short-term stability while building enhanced capacity to rethink the role of this industry for conservation and communities in the longer term. Alternative and more resilient funding sources are required.

The Luc Hoffmann Institute has worked to achieve this, particularly in Africa, with the incubation of an African-led Collaborative Platform. This platform aims to increase existing fundraising efforts, connect funders with beneficiaries and build resilience within African wildlife communities, in response to COVID-19. The platform encompasses all those actors in the wildlife tourism sector that need support to survive the current disruption, whether they are private sector or community based.

This report outlines the challenges facing the nature-based tourism sector and offers recommendations to help ensure future resilience and sustainability.

EXECUTIVE SUMMARY

The COVID-19 pandemic led to an abrupt halt in nature-based tourism in Africa and elsewhere. This was caused by a combination of international travel restrictions, domestic lockdowns and closures of protected areas that aimed to slow the spread of the virus. The pandemic has caused systemic shock with widespread implications for the survival of wildlife tourism, conservation financing and poverty.

This report by the Luc Hoffmann Institute brings together knowledge generated on COVID-19 and nature-based tourism, focussing on tourism that uses natural resources in a wild or undeveloped form for the purpose of enjoying undeveloped natural areas or wildlife.¹

The primary audience for the report includes donors, policymakers and investors supporting nature-based tourism as well as protected and conserved areas. It will also be of interest to implementing agencies, community-based organisations and practitioners.

The report begins with an overview of the COVID-19 pandemic, including how it emerged and the global impact it has had on societies and economies. The scope of the report is outlined, focussing on the nature-based tourism sector, and profiling wildlife economies of Africa.

The following section reviews nature-based tourism before the pandemic. This includes a description of the contribution it made to conservation financing and local economies, such as through jobs, revenue-sharing sales of products and services, and other benefits. Links are made with sustainable development, and the need to match market demand with supply of credible tourism experiences to mainstream good practices.

Next comes a description of the impacts of COVID-19 on nature-based tourism

globally, and across Africa. This includes impacts on tourism operators, conservation and livelihoods, and recovery strategies and support to assist safe reopening, and ideas to re-establish a more sustainable and resilient tourism sector in the future. Surveys conducted with protected areas and tourism operators clearly demonstrate the devastating impact that the pandemic has had on their businesses, and on the livelihoods and conservation economies their operations supported.

The pause in tourism has meant that overtourism ceased to be a problem in popular destinations, at least briefly, but conservation funding dried up in many areas. Examples from several African countries illustrate the size of the decline and the profound implications for wild spaces in the future. Unexpected benefits were observed on nature too, and examples are provided where wildlife has reclaimed open spaces, waterways, beaches and even city streets across the world. Incidents of increases (and some declines) in wildlife crime are shared, ranging from illegal forest extraction in India, to rhino poaching in southern Africa. Results of several surveys demonstrate substantial reductions in wages paid to local staff members and game ranchers, and redundancies that had to be made.

The recovery of the nature-based tourism sector is considered in another section. This includes trends, proactive and innovative actions that are building resilience, the financial and technical support required, and paths to a sustainable future. Positive trends identified from market surveys highlight increased interest in nature, adventure travel and sustainable experiences. Where protected areas have reopened, domestic trips have provided a vital lifeline to businesses that previously relied on international visitors – even though they tend to pay less – and have



sometimes overwhelmed natural spaces. Safety precautions have been recommended by numerous nations, international bodies and others to guide visiting that prevents the spread of COVID-19 between visitors and their hosts. Governments, donors and non-governmental organisations (NGOs) have provided financial grants for interim support to the tourism sector until it can recover. Operators are using crowdsourcing platforms to raise money to support the salaries of hospitality and conservation staff; for example, those conducting anti-poaching and wildlife monitoring. While these are necessary emergency measures, longer-term support is being designed through the development of investment and match-making platforms.

Technical guidance is also being generated on recovery strategies for destinations and tourism operators.

The pause has also given many tourism and conservation professionals an opportunity to reflect on sustainability. Not wasting the moment, United Nations agencies and coalitions of tourism companies and NGOs are mobilising to tackle climate change, plastic pollution and biodiversity loss by applying sustainable tourism approaches.

The analysis concludes with some thoughts for the future, reflecting on the system-wide implications for biodiversity and society and for nature-based tourism as an ecosystem service.

INTRODUCTION

In March 2020, the World Health Organization officially declared the novel coronavirus (COVID-19) outbreak a global pandemic.² Since then, it has wreaked havoc on societies and economies, including the global tourism sector, which has been decimated by travel restrictions. With tourism mostly on pause, many are using this time to reassess priorities and to build back better and greener, with a focus on recovery, resilience and sustainability.

This report examines the impacts of COVID-19 on nature-based tourism – tourism that uses natural resources in a wild or undeveloped form for the purpose of enjoying undeveloped natural areas or wildlife. This includes both non-consumptive and consumptive tourism, including hunting.³ It also explores the recovery strategies for reopening safely and re-establishing a sustainable and resilient tourism sector.

Geographically, the report considers the overall global situation, but delves deeper into African

issues, concentrating on nature-based tourism taking place in protected areas and other areas of high biodiversity, both terrestrial and marine. The reason for profiling Africa in particular is that wildlife tourism's value is greater on this continent than any other. Africa has iconic wildlife destinations, diverse protected and conserved area systems, and support for local livelihoods is immersed in wildlife economies. However, conservation in Africa is threatened by funding shortages, habitat loss, fragmentation, encroachment, wildlife crime and climate change combined with poor governance and poverty.

The report's primary audience includes donors, policymakers and investors supporting nature-based tourism and protected and conserved areas. It will also be of interest to implementing agencies, community-based organisations and practitioners.

For more information on trophy hunting visit: https://wwf.panda.org/discover/our_focus/wildlife_practice/species_news/wwf_and_trophy_hunting



NATURE-BASED TOURISM BEFORE COVID-19

Overview of the nature-based tourism sector

Before the coronavirus pandemic, growth in international arrivals and tourism receipts outpaced the world economy in emerging and advanced economies. According to the United Nations World Tourism Organization (UNWTO), the sector generated US\$ 1.7 trillion in export earnings from international tourism receipts and passenger transport, with 1.4 billion international tourism arrivals in 2018. This makes it the world's third-largest export category after chemicals and fuels.⁴

Protected areas received roughly 8 billion nature-based tourism visits annually,

generating approximately US\$ 600 billion per year in direct in-country expenditures and US\$ 250 billion per year in consumer surplus.⁵ Furthermore, wildlife tourism, according to the World Travel & Tourism Council (WTTC), contributed 4.2% of direct in-country expenditure and 6.8% of employment globally.⁶

In Africa, over a third of all direct tourism contributions to gross domestic product (GDP) and 8.8 million jobs were attributed to wildlife tourism globally in 2018 (see **Table 1**). In 2014, the UNWTO estimated the entrance, gate and park fees from all types of protected areas in 14 sub-Saharan African countries at US\$ 142 million per year.⁷ Safari tourism in Kenya alone generated an estimated US\$ 1.1 billion in 2019.⁸

Table 1: Direct and total economic contribution of wildlife tourism, 2018

CONTINENT	DIRECT				TOTAL	
	Expenditure (US\$billion)	GDP (US\$billion)	Share of Travel & Tourism	Employment (million)	GDP	Employment (million)
North America	25.4	13.5	2%	0.2	37.6	0.5
Europe	28.5	13.3	1.6%	0.2	35.4	0.6
Africa	48.8	29.3	36.3%	3.6	70.6	8.8
Asia-Pacific	118.2	53.3	5.8%	4.5	171.2	10.4
Latin America	19.9	10.7	8.6%	0.5	28.9	1.4
Total	241.0	120.1	-	9.1	343.6	21.8
Share of Total Global Travel & Tourism (%)	4.2%	4.4%	-	7.4%	3.9%	6.8%

Source: Oxford Economics. In World Travel & Tourism Council (WTTC) (2019) 'The Economic Impact of Global Wildlife Tourism: Travel and Tourism as an Economic Tool for the Protection of Wildlife'.

Note: Figures may not sum to totals due to rounding.

How tourism benefits conservation and local economies

Revenues from tourism – whether through entrance fees paid by tourists, or from concession and lease fees paid by tourism operators – generate a substantial proportion of the budgets of conservation areas in some countries (see **Table 2**). Certain protected areas retain tourism revenues for local

conservation and management activities; for example, areas under co-management agreements, conservancies and private protected areas. Other protected areas' tourism revenues go to a central budget, and the protected areas receive government budget allocations, particularly state-operated protected areas. Many tourism companies make further contributions to conservation, including species and habitat conservation, directly through their operations, or by channelling donations towards them.⁹

Table 2: Examples of conservation funding from tourism in Africa and elsewhere

COUNTRY	TOURISM FEES SUPPORTING CONSERVATION
Bolivia	Visitor receipts account for up to 40% of protected areas in Bolivia. Prior to the pandemic, the Eduardo Avaroa Andean Fauna National Park generated about US\$ 19,000 a month from tourists. ¹⁰
Kenya	50% (US\$ 30 million) of Kenya Wildlife Service's annual budget comes from tourism, supporting management in 39 national parks and reserves. ¹¹ 80% of operating budgets of Kenya's community and private conservancies come from tourism, covering >60,000 km ² , and supporting >3,000 rangers and >700,000 households. ¹² Maasai Mara community conservancies receive about US\$ 7.5 million per year in lease fees from tourism partners, benefiting 14,500 landowners and 116,000 community members. ¹³
Namibia	Trophy hunting finances the budgets of 82 conservancies, which cover ~20% of the country (162,000 km ²) and encompass ~189,000 community members, or 9% of Namibia's population. ¹⁴
The Philippines	50% of the conservation budget for the Tubbataha Reefs Natural Park depends on tourism. ¹⁵
South Africa	80% (US\$ 52 million) of South African National Parks' annual budget comes from tourism, supporting 19 national parks. ¹⁶
Tanzania	68% of protected areas rely on income from trophy hunting, covering 250,000 km ² . ¹⁷
Uganda	The Uganda Wildlife Authority generates 88% of its revenue from tourist entrance fees; 50% of its budget is from gorilla-based tourism. ¹⁸
Zimbabwe	80% of the budget of the Zimbabwe Parks and Wildlife Management Authority is from tourism, including trophy hunting. ¹⁹



A boat leaving Nambwa tourism lodge at dawn, Bwaabwata National Park, Namibia

Local people also benefit from economic links with nature-based tourism²⁰ through employment, by selling products and services to tourism companies and tourists, by owning tourism businesses, or through revenue sharing systems.²¹ The direct economic effects can be substantial at both local and national levels. To illustrate, the total economic effects of tourism in South Luangwa National Park in Zambia come to US\$ 34.8 million, which includes US\$ 7.4 million in local wages and 1,759 jobs.²² Aside from direct financial benefits, local communities may benefit from infrastructure development, telecommunications, education, training and healthcare. Communities are also strengthened through skills development, empowerment and improved governance.

However, many of these benefits are at risk due to dramatic reductions in wildlife populations and natural habitats, coupled with increases in wildlife crime and habitat conversion and climate change.²³ Collectively, these problems threaten human health and the health of the planet.

Nature-based tourism and sustainability

There are numerous guidelines and national and international policies that

support sustainable tourism practices.²⁴ Many wildlife tourism operators base their business models on sustainable development principles, and have actively contributed to biodiversity conservation and local economic development.²⁵ However, it is difficult to reliably establish the extent of sustainable practices in the tourism sector globally.

Much of the industry has focussed on numbers of visitors and returns on investment rather than long-term sustainable destination management. One of the few reliable indications of sustainable practices is independent certification, but only a minority of accommodations, tour operators and destinations use it.²⁶

The tourism sector needs to match increasing demand for environmentally and socially responsible experiences with operators and destinations that provide them.²⁷ To address this challenge, various initiatives are working to establish a common understanding and to bring sustainable tourism into the mainstream. These include comprehensive criteria for tourism industry and destinations,²⁸ customer scoring on sustainability attributes by online travel agencies,²⁹ efforts to mobilise action by destinations, industry and practitioners,³⁰ and compendiums of good practices.³¹

IMPACTS OF COVID-19 ON NATURE-BASED TOURISM

COVID-19 has caused a systemic shock to the tourism sector globally. According to the UNWTO, between January and May 2020, 100% of global destinations imposed travel restrictions, and 45% totally or partially closed their borders for tourists.³² Other measures have included restrictions on transiting travellers, suspension of flights, quarantine or self-isolation requirements, and the need for medical certificates.³³ International tourist arrivals declined by 65% in the first half of 2020 compared with the same period last year, and June arrivals were down by 93%.³⁴ In Africa, there was an overall decline by 56% in international tourism by the end of June 2020, and by 99% in April, May and June 2020.³⁵

The UNWTO estimates that this massive decline in international tourism translates into a loss of 440 million international arrivals and about US\$ 460 billion in export revenues.³⁶ The WTTC

estimates that there could be a global loss of 197 million jobs and US\$ 5.5 trillion in revenue due to the pandemic.³⁷ This is five times the loss in receipts recorded in 2009 from the global economic and financial crisis.³⁸ A survey by the Kenyan government estimated a loss of US\$ 750 million in tourism revenues, and a reduction of almost 1.3 million jobs due to the pandemic; more than 81% of tourism companies have reduced staff and 85% made pay cuts for staff.³⁹

The nature-based tourism sector has been hit hard by travel restrictions, with severe and systemic repercussions for conservation and local livelihoods (see **Figure 1**). Travel restrictions have led to declines in revenues normally used for conservation finance, for salaries of tourism employees, and also for entrepreneurs and small businesses that provide products and services within the tourism value chain.⁴⁰



*Tourists in vehicle looking at lions,
Lewa Wildlife Conservancy, Kenya*

Figure 1: Potential cascading impacts of COVID-19 on conservation in Africa

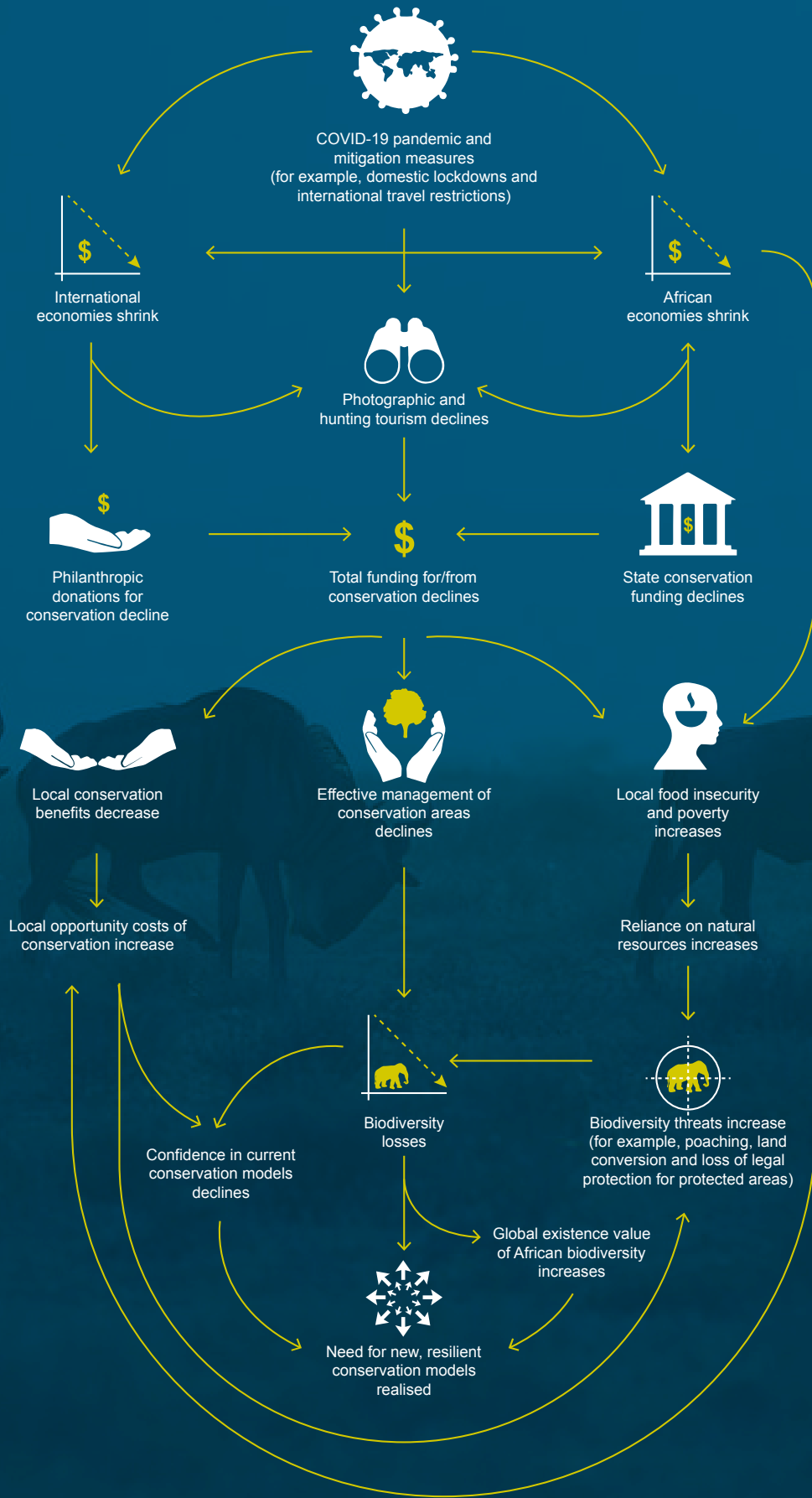


Figure adapted from Lindsey, P. et al (2020) 'Conserving Africa's wildlife and wildlands through the COVID-19 crisis and beyond'. *Nature Ecology and Evolution*.

Impacts on tourism operators

COVID-19 has caused massive reductions in customers and revenues for nature-based tourism operators, especially in Africa. Research undertaken for the European Union (EU) demonstrated the dramatic effect of the pandemic on tourism economies around protected areas across Africa.⁴¹

As part of the research, a survey was undertaken between April and June 2020, with responses from 736 operators (accommodations, tour operators, activities, restaurants, hunting operators) working in 41 African countries. Results showed a 63% decline in clients in March 2020 compared with the same period in 2019, and a 72% drop in future booking requests. Nearly all clients (83%)

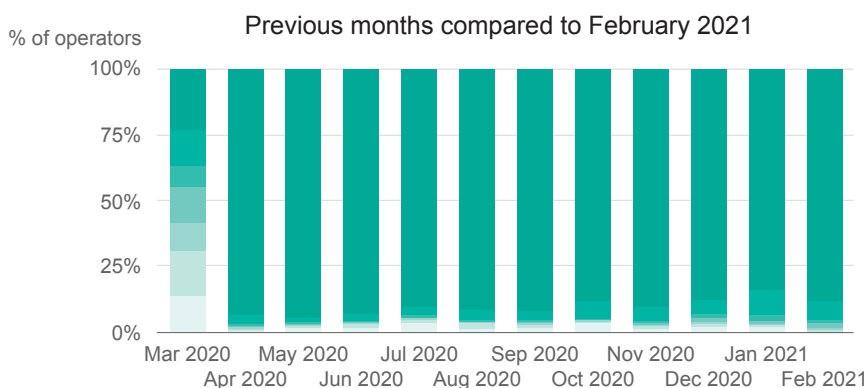
cancelled their reservations between March and June 2020, with a substantial impact on local economies. Most offered their clients options to reschedule their trip (86%), but many had to close facilities temporarily (72%) or downscale their operations (62%).

The operators' most immediate concerns related to financial consequences for staff (94%), cash flow and business resiliency (92%) and the health and safety of staff (91%). Three-quarters sought finance of up to US\$ 249,000 and were definitely or quite likely to look for grants (82%), loans (46%) or equity in their businesses (24%) to survive.⁴²

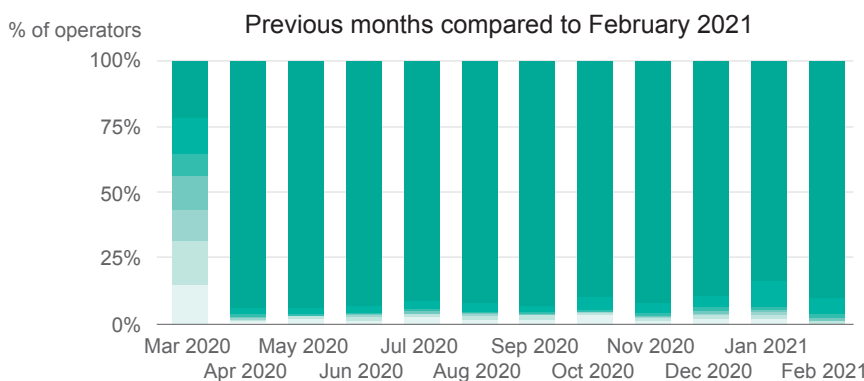
Similarly, monthly tour operator surveys by Safaribookings.com illustrate the dramatic decrease in bookings in Africa since March 2020, with marginal improvements observed by October (see **Figure 2**).

Figure 2: Changes in actual bookings and booking requests for African tour operators

Decrease in actual bookings due to the COVID-19 outbreak



Decrease in booking requests due to the COVID-19 outbreak



Source: Safaribookings.com. 'The impact of the coronavirus pandemic on the safari industry (February Update)'.



Nambwa Lodge, a joint venture with Mashi Conservancy, within Bwabwata National Park, Namibia

In South Africa, the average future bookings for lodges and protected areas in May 2020 were 70% lower than in 2019; 61% of lodges were fully closed while 33% were only partially operational. For those that were closed, two-thirds only planned to reopen when international travellers returned.⁴³ Among South African game farms and lodges, there was an 86% decline in tourists and hunters visiting during April and March 2020. Financial losses associated with cancellations by tourists and hunters were estimated at ZAR 1.5 billion (US\$ 81.5 million) among 601 survey respondents.⁴⁴

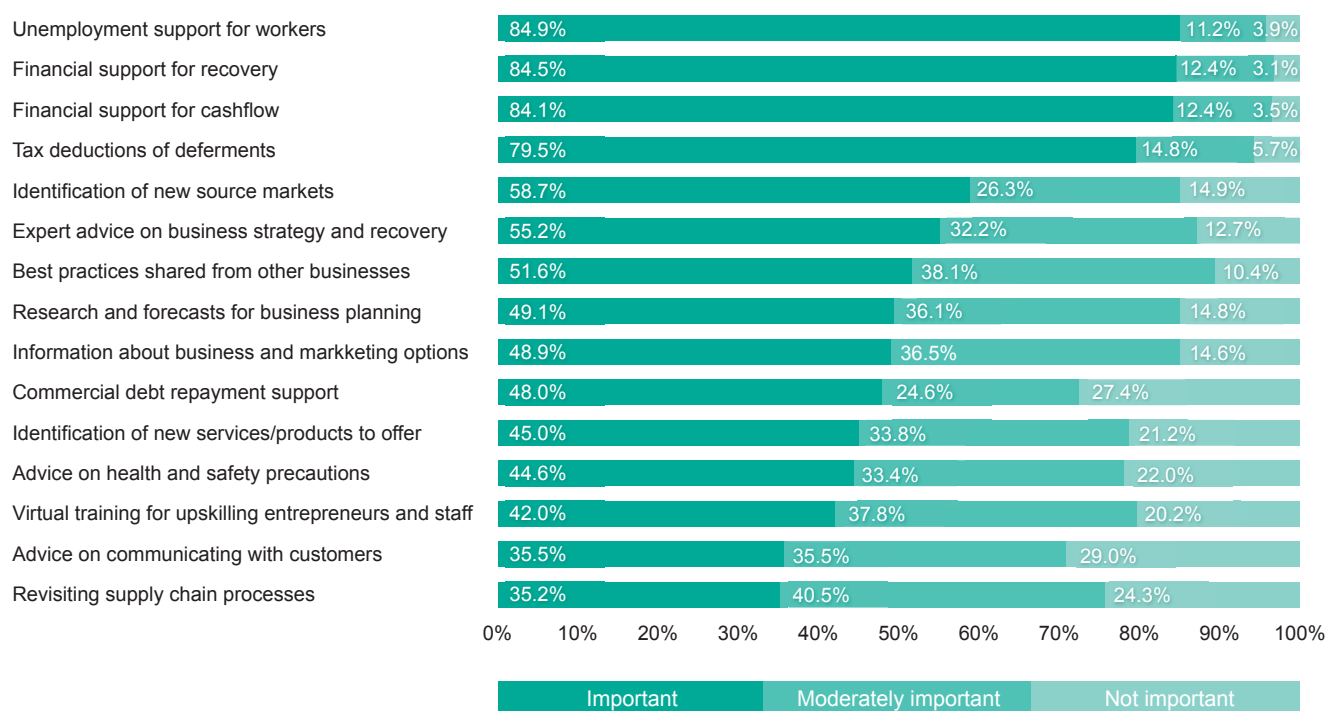
Revenue losses from cancelled trips were compounded by international policies. The EU's Package Travel Directive and associated regulations govern the relationship between European consumers and European agents.⁴⁵ Under these rules, payments made for travel arrangements must be refunded if the trips are cancelled (subject to some conditions). However, the regulations do not govern the relationships between European agents and the global network of tourism service providers that provide the actual service consumed in destinations, including in Africa. African suppliers of accommodation and tours typically require deposits and pre-payments, and they impose cancellation fees (again subject to conditions).⁴⁶

Amid the pandemic, where European agents had credit terms with African suppliers and had not paid any deposits or pre-payments to

them, some were unable or unwilling to do so, especially when their own clients cancelled and demanded refunds.⁴⁷ Furthermore, difficulties arose as the insurance industry refused to pay claims for business interruption in South Africa. Insurers argued that their policies are only triggered if a case of COVID-19 took place on or near a particular property, and tourism operations can prove that the infection led to closure, and disagreed about whether 'notifiable disease' wording in policies covered lockdown losses.⁴⁸ However, a UK High Court ruling found that the insurers were liable and needed to pay.⁴⁹

Operators have called for a broad range of financial and technical support, including business strategy and recovery, business and marketing options, health and safety precautions, virtual training for entrepreneurs and staff, and advice on communicating with customers (see **Figure 3**). Three-quarters of surveyed operators required finance of up to US\$ 250,000 through grants (54%), loans (27%) or equity (14%);⁵⁰ and there was a real urgency to obtain this financial support. Among 87 safari lodges surveyed in South Africa, 65% were spending between ZAR 200,000 and ZAR 1 million (US\$ 11,500 and US\$ 57,900) on unavoidable monthly expenses during their 'hibernation' state.⁵¹ These expenses included salaries (29%), rental and concession fees (13%), insurance (10%), fuel and power (8%) and maintenance (8%). Half of the lodges estimated they would run out of funds by September 2020, and 85% would not last until the end of the 2020.⁵²

Figure 3: Support needed by tourism operators working in African protected areas



Source: Spenceley, A. (2021) 'COVID-19 and protected area tourism: A spotlight on impacts and options in Africa.' European Commission.

Impacts on conservation

The pandemic and the subsequent decline in nature-based tourism have led to positive and negative consequences for conservation, although the net impact is not fully understood. Impacts described here relate to overtourism and undertourism, conservation funding, wildlife recovery and wildlife crime.

Overtourism and undertourism

During the initial phases of lockdowns, severe travel restrictions and park closures in the first half of 2020, the numbers of visitors to protected areas, outdoor spaces and World Heritage sites declined dramatically across the world, with many of these areas closed due to COVID-19.⁵³ Public health officials and natural attractions in some areas urged visitors to stay away to avoid spreading COVID-19 to staff, local people and to other visitors.⁵⁴

Park closures between March and August/September 2020 caused considerable financial

impacts. In Brazil, for example, about 5 million visits to parks were lost, with an estimated impact of US\$ 1.6 billion in reduced sales for businesses working directly and indirectly with tourism around protected areas. Brazil predicted a loss of 55,000 permanent or temporary jobs and losses of US\$ 410 million for employees and businesses, plus a GDP decline of US\$ 575 million.⁵⁵ According to the research platform Our World in Data, for East and southern Africa, Mauritius experienced the deepest decline of visitor numbers to parks and outdoor spaces during 2020 in March and in Zimbabwe, Zambia and Rwanda visits had largely recovered by September.⁵⁶

Many popular tourism destinations, including natural attractions, have struggled with overtourism and crowding in the past.⁵⁷ An indirect benefit of the pandemic, however, has been the reduction of overtourism, at least temporarily. Lower numbers of visitors, coupled with increased quality of tourism, could lead to lower levels of pollution and slower habitat loss.

Researchers in Bolivia and Peru have used the opportunity of closed protected areas to assess

the state of biodiversity, and plan for when tourism resumes.⁵⁸ Similar research has been more difficult on Australia’s coral reefs due to travel restrictions.⁵⁹ Amid COVID-19, rangers in Tusheti National Park in Georgia have had more time to focus on biodiversity observations than previously, and have drafted plans for new trails, improving signage and other tourism infrastructure.⁶⁰ With appropriate research and planning, destination managers can redistribute visitors and avoid overtourism in the future.

Conservation funding

There are significant negative impacts of COVID-19 on management capacity, budgets and effectiveness of many protected and conserved areas (see **Table 3**), as well as impacts on the livelihoods of communities living in and around

these areas. The reduction of wildlife tourism globally due to COVID-19 has led to lower revenues for conservation and local anti-poaching conservation programmes, and increases in the levels of poaching in some locations.⁶¹

A survey of 19 protected area authorities in Africa in April 2020 suggested that 79% would only be able to sustain their basic operations for up to six months.⁶² Closure of the Virunga National Park in the Democratic Republic of the Congo took place to protect endangered mountain gorillas from the virus, but the financial effect on the park has been devastating.⁶³

African tourism operators estimate a likely reduction of their own expenditure on local environmental services due to the pandemic. In the previous financial year, 369 operators spent a total of

Table 3: Impacts and examples of conservation funding from tourism in Africa

COUNTRY	IMPACTS OF COVID-19 ON CONSERVATION REVENUES FROM TOURISM
Botswana	Botswana’s resumption of trophy hunting was scheduled for April 2020, but as of March 2021 had still been delayed, likely resulting in major financial losses for the government and community-based organisations. For example, US\$ 2.2 million raised by the government through hunting quota auctions is no longer guaranteed. ⁶⁴
Democratic Republic of the Congo	Virunga National Park averages about US\$ 280,000 in an off-season month, but with the park closed the revenue stream from mountain gorilla tourism has disappeared. ⁶⁵
Kenya	Kenya Wildlife Service’s revenue dropped by 98.8%, and conservancies-related revenue declined by 95% (US\$ 3.5 million–4 million) due to the COVID-19 outbreak. Park operations have been reduced to 60–70% in 20 parks and reserves across the country, suspending wildlife censuses, corporate social responsibility projects and education efforts; conservation fixed costs have to continue even without any revenues. As anti-poaching activities represent 50% of their operational budget, poaching has increased, alongside human–wildlife conflicts, and bushmeat consumption has gone up. ⁶⁶ Kenya Wildlife Service is working with partners, especially conservancies, which have community scouts. ⁶⁷ The OI Pejeta Conservancy expected to lose US\$ 3 million in 2020 (70% of its normal business) – income that would normally be used for conservation of black rhino and other species. ⁶⁸
Madagascar	Madagascar National Parks anticipated a financial loss of US\$ 2.5 million in 2020, as tourism was down 100% since parks closed in March. ⁶⁹

COUNTRY	IMPACTS OF COVID-19 ON CONSERVATION REVENUES FROM TOURISM
Namibia	Communal conservancies receive approximately 90% of their income from photo tourism and hunting. Reduced tourism could decrease payments to conservancies by US\$ 3.5 million to US\$ 4.5 million in 2020, jeopardising the future of the conservation partnerships. ⁷⁰
Rwanda	Tourism, research and gorilla trekking activities in its national parks were suspended as a preventative measure against COVID-19 transmission. This will cause a significant loss of tourism revenues from gorilla trekking permits (US\$ 1,500 per person), which go into conservation. As a result, the Government of Rwanda has cancelled community projects planned in national parks. ⁷¹
Uganda	Uganda Wildlife Authority expected a shortfall of US\$ 1.4 million for priority activities from July to December 2020; 50% of its budget comes from gorilla-based tourism. ⁷²
Zimbabwe	The Zimbabwe Parks and Wildlife Management Authority projected a ~US\$ 3.8 million (~50%) shortfall in the second quarter of 2020 due to reduced tourism-related spending. ⁷³
Global	A survey of international National Trust organisations in July 2020 found that many had been significantly impacted by COVID-19. More than a quarter (27%) receive at least half their income from visitors through admission fees, rentals and gift shops. ⁷⁴

US\$ 106.6 million on environmental services for security, anti-poaching, park or concession fees, and 54% of this (US\$ 57.7 million) was spent locally.⁷⁵ Of the operators reporting local environmental expenditure and a change in local expenditure, the prediction was for a US\$ 25.5 million decline in spending in the 2020 financial year due to lower tourism turnover.⁷⁶ With visitors absent, tourism employees worked on conservation efforts, including planting coral in Australia⁷⁷ and patrolling for forest fires in Cambodia.⁷⁸

While government-financed protected areas continued to receive government grants, for community conservancies the challenge was different. The OI Pejeta Conservancy in Kenya operates an integrated land-use system, and the tourism revenue losses meant that it had to rely more on alternative revenue from livestock to finance fixed conservation costs.⁷⁹ The OI Kinyei Conservancy agreed only half of the usual rent to

the Maasai, as they had to pay back deposits to the tourists who cancelled their trips. The rental fees are an exchange for not settling or grazing livestock in the conservancies, and usually each landowner earns US\$ 220 per month this way.⁸⁰

These problems were compounded because pastoralists like the Maasai and Samburu largely relied on income from livestock, but local markets were closed due to COVID-19. This meant they lost tourism income and the option to sell livestock to buy essential household items.⁸¹ In 2019, there were 15 operational conservancies in the greater Maasai Mara, covering 1,425 km² and supporting the livelihoods of over 14,500 households. The lease fees to the conservancy landowners were over US\$ 5 million.⁸² Fears of uncertainty over tourism recovery may lead community conservancies to sell their land, or convert wildlife habitats to agriculture or cattle ranching, or charcoal production.⁸³

Wildlife recovery

Numerous reports have shown how wildlife and natural areas are thriving in the absence of visitors.⁸⁴ There have been reports of nesting turtles undisturbed on beaches in India and Thailand,⁸⁵ lions napping on roads in the Kruger National Park in South Africa,⁸⁶ Indo-Pacific humpback dolphins returning to Hong Kong waters⁸⁷ and pipistrelle bats roosting in a car park in the UK's Lake District⁸⁸ (see **Table 4**).

However, there have been numerous challenges with wildlife that had become dependent on tourists. Monkeys that were used to being fed by visitors were found brawling on the streets of Thailand and India, while herds of sika deer that had been fed rice crackers by tourists in Nara's public park in Japan were taking to the streets in search of food.⁸⁹

There are also concerns that tourists could spread COVID-19 to great apes, including gorillas, and calls for guidance to avoid such transmission.⁹⁰

Table 4: Impacts of COVID-19 on the environment and wildlife

REGION	REPORT OF IMPACTS	LOCATION
Global	Examples of wild animals returning to streets of cities ⁹¹	India, Argentina, UK, Corsica, Italy, Japan, Nepal
Asia	Monkeys on roads; sika deer on streets ⁹²	Thailand, Japan
	Indo-Pacific humpback dolphins have returned to local waters without ferries ⁹³	Hong Kong
	Turtles nesting on Thai beaches in numbers not seen in two decades; wild boars in Haifa ⁹⁴	Thailand, Israel
	Monkeys in Lopburi that are usually fed by tourists, brawling and scavenging on streets ⁹⁵	Thailand
	Sea turtles thriving on closed beaches ⁹⁶	Thailand
	Deer on roads; lesser whistling duck on lakes around Dighilipukhuri; Malabar large-spotted civet on roads in Kozhikode ⁹⁷	India
	Monkeys on the streets of Himachal Pradesh, Shimla, Kasauli, Chail and Manali ⁹⁸	India
Sika deer leaving Nara Park in search of food on streets ⁹⁹	Japan	
Africa	Lions napping on roads in Kruger National Park ¹⁰⁰	South Africa

REGION	REPORT OF IMPACTS	LOCATION
Europe	Peregrine falcons returning to Corfe Castle, Dorset; badgers exploring Mount Stewart estate; pipistrelle bat roosting in a car park in the Lake District ¹⁰¹	United Kingdom
	Wild goats on streets of deserted tourist town of Llandudno, Wales ¹⁰²	United Kingdom
	Nightjar birds vanish when hundreds of campers arrived in Devon National Park ¹⁰³	United Kingdom
	Wild boars on streets in Barcelona ¹⁰⁴	Spain
	Dolphins in waters off a port of Sardinia ¹⁰⁵	Italy
	Fish and ducks in empty canals in Venice ¹⁰⁶	Italy
	Common murre (a seabird) with increased predation from eagles in the absence of tourists ¹⁰⁷	Sweden
	Canals clearing in Venice; dolphins in port of Cagliari, Sardinia ¹⁰⁸	Italy
North America	Wildlife in parks in British Columbia are becoming more active during the day ¹⁰⁹	Canada
	Humpback whales singing, without cruise ship interference in Alaska ¹¹⁰	USA
	Surge of megafauna in fields and open spaces in Yosemite National Park ¹¹¹	USA
Latin America	More observations of white-tailed deer, pumas and birds in Tumbes, and more species seen on roads and trails ¹¹²	Colombia

Wildlife crime

The reduction of tourism due to COVID-19 has led to lower revenues for conservation and anti-poaching local conservation programmes and increased levels of poaching in some locations.¹¹³ Wildlife crime threatens the existence of iconic, charismatic species that attract visitors to

wildlife destinations. The security, safety and conservation of ecosystems, coupled with quality tourism products and services, are prerequisites for successful tourism development. There have been widespread fears that people living in wildlife areas will be forced to exploit natural resources because of their reduced incomes from tourism-based livelihoods.¹¹⁴

Closures of protected areas have led to reduced protection for wildlife and lost incomes as rangers, guides, animal caregivers and others have been made redundant,¹¹⁵ and there have been reports of increased poaching incidents (see **Table 5**). For example, Botswana has lost at least six rhinos since the start of the pandemic.¹¹⁶ The Uganda Wildlife Authority recorded more than double the number of poaching incidents between February and May 2020 (367 incidents) than in 2019, including giraffes, lions and gorillas.¹¹⁷ Within days of closing Bolivia's protected areas, a shipment of illegally caught fish and a tapir were seized by authorities in the Madidi National Park, while 200 invaders broke past checkpoints to access Carrasco National Park.¹¹⁸

In Nepal's Chitwan National Park, the first month of the lockdown saw more cases of forest-related crime, such as illegal logging and harvesting, than the previous 11 months combined.¹¹⁹ In Koh Tao, Thailand, the lack of dive boats has emboldened fishermen to work in areas that are officially off limits to them, which has resulted in fewer fish.¹²⁰ The escalation in poaching in some places seems to be caused by a reduction in conservation staff coupled with the absence of tourists and guides and a demand for bushmeat.¹²¹

However, there have been some positive impacts. In May 2020, South Africa reported substantially lower rhino poaching due to international air travel shutdowns and reduced options to move rhino horn to consumer countries.¹²²

Table 5: Wildlife crime and the pandemic – increases, declines and adjusting strategies

WILDLIFE CRIME REPORTS	LOCATION
NEGATIVE IMPACTS	
Pangolin poaching ¹²³	Africa
Increased poaching of rhino and elephant ¹²⁴	Botswana, South Africa
Rhino poaching in the Okavango Delta, coupled with relocating them to safer areas ¹²⁵	Botswana
Poaching increases in national parks, including of rhino, giraffe ¹²⁶	Uganda
Silverback gorilla killed in Uganda ¹²⁷	Uganda
Giraffe poaching in Uganda ¹²⁸	Uganda
Fear of increase in poaching in conservancies, and compounded issue of lack of option for pastoralists to sell livestock during COVID-19 ¹²⁹	Kenya
Elephant killed in Ethiopia and India ¹³⁰	Ethiopia and India
Tigers killed in India ¹³¹	India

WILDLIFE CRIME REPORTS	LOCATION
Forest-related crime (e.g. illegal extraction, logging, harvesting) in Chitwan National Park ¹³²	National Park, Nepal
Ibis poisoned ¹³³	Cambodia
Illegal fishing and hunting of Tapir in Madidi National Park ¹³⁴	Bolivia

POSITIVE IMPACTS

Rhino poaching decline during lockdown ¹³⁵	South Africa
No increase in poaching in protected areas ¹³⁶	Georgia

Impacts on livelihoods

Travel restrictions and reduced tourism turnover have led to lower salaries for tourism employees, and reduced incomes for entrepreneurs and small businesses that provide products and services within the tourism value chain.¹³⁷

A survey conducted on behalf of the EU found that 543 tourism operators working in African protected areas collectively employed 48,000 people, of whom more than half were recruited locally (59% on average).¹³⁸ On average, 65% of local staff members were on reduced wages and hours because of the pandemic. More than half (52%) have put some (or all) of their local employees on leave without pay since February 2020, and half have made redundancies (50%). An estimated 94% of local employees would be affected by being on reduced wages, unpaid leave, being made redundant or unemployed if the crisis continues. In practical terms, over 17,000 local employees – including those living within and adjacent to protected areas – would be adversely and directly affected, as would their dependants.

Furthermore, procurement of local produce, hospitality services and payments to

community initiatives by the tourism operators in the survey is predicted to be US\$ 80.9 million lower than in the previous financial year. Some former tourism workers have been forced to sell their belongings and are struggling in survival mode. Others have continued to maintain tourism assets out of pride, despite only being on small salaries.¹³⁹

In South Africa, another survey found that a third of the 87 game lodges surveyed furloughed more than 50% of their staff, while 16% have furloughed all of their staff.¹⁴⁰ Closure of the South African lodges is estimated to lead to a loss of over 33,600 jobs in communities, and the disappearance of ZAR 3.7 billion (US\$ 214 million) in local salaries, procurement, conservation and community project contributions.¹⁴¹ Between April and March 2020, 67% of permanent employees of South African game ranchers were affected by being on reduced wages, unpaid leave or being made redundant.¹⁴² Many game lodges supported emergency COVID-19 response measures locally, including increasing local employment (78%) and local procurement (76%).¹⁴³ Private sector tourism companies have used donations and cash reserves to provide food parcels to communities, or paid their food suppliers for products to feed community members instead of tourists.¹⁴⁴

RECOVERY OF THE NATURE-BASED TOURISM SECTOR

Trends in recovery

Reopening of the tourism industry

As the COVID-19 pandemic progressed, its transmission became better understood, and safety precautions were put in place in many countries. According to the UNWTO, travel restrictions were eased in 40% of global destinations by June 2020, and in 53% of destinations by September 2020.¹⁴⁵ By October 2020, several African countries, including Madagascar, Botswana, Eritrea, Libya and Algeria, remained closed to international tourists.¹⁴⁶ Destinations that depended on tourism had to decide whether to open up for visitors for economic survival with acceptable levels of coronavirus infection and potentially death of their citizens.¹⁴⁷

The UNWTO suggested three scenarios for the recovery of international tourist arrivals in 2020, based on different timeframes for opening national borders and lifting travel restrictions. Destinations

that depended on tourism had to decide whether to open up for visitors for economic survival, risking an increase in COVID-19 infection rates and the potential death of citizens.¹⁴⁸

South Africa, for example, cautiously phased reopening of tourism and aviation first to domestic, then regional and finally international tourists.¹⁴⁹ In June 2020, South Africans were only allowed self-drive day trips within their province of residence, while only business travellers could stay overnight in hotels.¹⁵⁰ Trips by locals have provided vital revenue to struggling private game reserves in the country.¹⁵¹

The scenarios suggest that a return to 2019 levels of international arrivals could take two-and-a-half to four years, and this is supported by UNWTO expert assessments.¹⁵² Certainly, recovery of the global industry will be hampered by damage to tourism, including the decline in airline routes and cruises and workforce reductions across the sector.¹⁵³



Tourists birdwatching in the Central African Republic

Research on recovery

Market research is being used to predict how the tourism industry will emerge and what types of travel experiences people desire. Research shows people prioritise health, hygiene and social-distancing measures and are more interested in sustainable tourism, social wellbeing, benefiting local economies, adventure and trips to natural destinations.¹⁵⁴ People are becoming more aware of the value of nature and wildlife and the need to steward these resources.

They are drawn to natural destinations to escape lockdowns and to improve mental health, and they are easily amenable to social distancing.¹⁵⁵ This is expected to lead to more demand for close-up and purposeful experiences with nature.¹⁵⁶ Travel seems likely to re-emerge with experiences that include immersion in nature, staying active and visiting remote communities (see **Table 6**). Countries are therefore focussing their travel on nature and open-air activities, including in natural protected areas, adventure and ecotourism, and cultural and rural tourism.¹⁵⁷

Table 6: Market research evidence for sustainable and nature-based tourism

DATA SOURCE	RESEARCH FINDINGS
Air Travel Sustainability survey	A survey of 464 people in April 2020 found that 58% were thinking more about the environment and sustainability now compared to before COVID-19. ¹⁵⁸
Booking.com	Travellers are becoming even more conscientious about how and why they travel, with over two-thirds (69%) expecting the travel industry to offer more sustainable travel options. ¹⁵⁹
Destination Analysts survey in the US	A survey of 1,200 US leisure travellers found that 40% are rethinking the types of destinations they will select, with beach destinations (38%) and small towns and rural areas (30%) topping the list. ¹⁶⁰
Euromonitor International	<p>Priorities in the new normal include health, social wellbeing, economy, sustainability and capacity building. The new normal will include a fear factor, social distancing, health protocols and testing. Hotel occupancies may be 40–50% and airlines may have a 50–75% load factor.¹⁶¹</p> <p>Domestic adventure, nature, beach wellness, luxury and camping holidays will accelerate; long-haul travel, unsustainable models and mass tourism, corporate business tourism and mega cruises will decelerate. Sustainability becomes a key value proposition and social issues become more balanced with the environment.¹⁶²</p>
MT Sobek & Intrepid Travel	Adventure companies are noticing a trend towards chartered raft trips and private trips to national parks, as well as bookings to remote destinations such as Alaska. and chartered raft trips, and private trips to national parks. ¹⁶³
Responsible Tourism Advisor and Solare	A global online survey of 1,764 individuals that took place in April–May 2020 found that there was stronger conviction for sustainable tourism among younger respondents, and all nationalities mostly wished to avoid mass tourism destinations and large cities. ¹⁶⁴
Trip.com	Travellers are cautious about health guidelines, prefer to travel in smaller groups (such as with friends and family) and travel domestically. Boutique hotels may prosper as customers seek less crowded experiences. ¹⁶⁵

DATA SOURCE	RESEARCH FINDINGS
Tripadvisor	<p>There is a desire to get back to nature and use small group tours. Customers are 218% more likely to want to take a trip where they can relax, compared to before the pandemic. Nearly two-thirds (59%) prefer to go somewhere off the beaten track versus a popular destination. There has been a spike in traffic researching lodgings featuring boating, skiing, canoeing and horse riding.¹⁶⁶</p> <p>There is increased consciousness of travellers of the impact of their tourism expenditure on local communities and small businesses because of the stories arising of the pandemic's impacts.¹⁶⁷</p>
World Travel & Tourism Council	Adventure travel, including active, outdoor and nature-based keywords and destinations, stands out as the leading recovering segment in online travel searches in August 2020. ¹⁶⁸

Re-emerging domestic tourism

Destinations worldwide are prioritising domestic tourism as travel restrictions ease, and as travellers look for shorter trips that are closer to home.¹⁶⁹ Prior to the pandemic, the domestic tourism sector, according to the UNWTO, was actually six times larger than the international tourism sector. An estimated 9 billion domestic overnight trips took place in 2018, and trip expenditure was three times higher than for inbound tourism in Organisation for Economic Co-operation and Development countries.¹⁷⁰ However, in sub-Saharan Africa, the proportion of international guests compared with domestic travellers varies greatly, ranging from 25% in Cameroon to 94% in Chad and contributing 43% of total tourism revenues in Kenya.¹⁷¹

Domestic tourism can be encouraged through financial incentives, such as offering holiday vouchers and prices and packages attractive to local people, and through marketing and promotion; for example, digital promotion and use of social media channels.¹⁷²

While domestic travel may offer operators and destinations some respite from the drop in tourism revenues, it is unlikely to resolve the challenges in developing countries. In Kenya, around 25% of revenues are generated by high-end tourism, and Kenyans only pay around a third of the price paid by international visitors,¹⁷³ while at the OI Pejeta Conservancy the domestic

market contributes less than 20% of its tourism income.¹⁷⁴ In Rwanda, permits to view gorillas usually cost US\$ 1,500 per person, but to encourage domestic trips promotional prices were introduced in June 2020. Rwandans and East African citizens living within the country pay a discounted rate of US\$ 200 and US\$ 500 for foreign residents. To ensure safety, all visitors need to have tested negative for COVID-19 prior to their visit.¹⁷⁵

Some nature-based tourism operators are creating new tourism products with lower rates for domestic visitors.¹⁷⁶ There are concerns that swarms of domestic tourists may overwhelm destinations and more discerning customers will go elsewhere to locations that can accommodate social distancing and be a more pleasant experience.¹⁷⁷

Nature-based tourism recovery

Promoting the role of protected and conservation areas in sustaining human physical and psychological health, especially after a long period of lockdown or enforced isolation, is important.¹⁷⁸ Protected and conservation areas that allow visits should aim to reopen where disease risks permit, using appropriate social or physical distancing rules. By October 2020, visits to some protected areas and World Heritage sites, especially in the northern hemisphere, were actually higher than at the start of the pandemic.¹⁷⁹

Protected areas have reopened where the number of cases has declined, or when policy measures allowed, such as in Brazil, Ecuador, Egypt, Hong Kong, Rwanda, South Africa and South Korea.¹⁸⁰ Some protected areas reopened for specific types of visitors or activity. For example, in South Korea, public facilities, including campsites, shelters and visitor centres that were closed in February 2020, gradually reopened as COVID-19 cases decreased.¹⁸¹ In-person visitor programmes were banned, but alternative services were provided through YouTube and social media. In South Africa, national parks were opened first for day visits and then intra-provincial overnight visits, followed by inter-provincial leisure travel, then regional travel and finally international travel.¹⁸² In Brazil, protected areas in the Amazon Lower Negro River were also reopened for visitors.¹⁸³

Safety precautions

Safety precautions have been established to reduce risks to visitors and their hosts from the disease. New tools include the WTTC's SafeTravels standards and the Adventure Travel Trade Association's COVID-19 health and safety guidelines.¹⁸⁴ Rwanda's parks can be visited by people who confirm they are free of the

disease while Fernando de Noronha in Brazil is accessible by tourists who have recovered from COVID-19.¹⁸⁵

International agencies and national governments have produced policy responses for their countries on travel and tourism in light of COVID-19. Several countries and protected area authorities have produced information specifically for their visitors (for example, in Australia, Belgium, Brazil, Canada, Costa Rica, Egypt, France, Italy, Rwanda, South Africa, South Korea, the UK and the US).¹⁸⁶ A collation of this guidance developed under an EU project provides information for protected areas on operating tourism amid COVID-19.¹⁸⁷ It includes examples and links to guidance based on reputable international and national advice, and also protected area authority recommendations.

There is also information on health and hygiene standards, planning and distribution of visitors, consultation and coordination, risk assessments and managing interactions between wildlife and people (that is to say, to avoid further zoonotic disease transmission). Specific information is shared for accommodation, restaurants, tours and trails. The guidance material explains how to manage visits safely – with recommendations



for before and during visits – including in gateway communities. There are concerns that gateway communities could be at risk of infection if tourists return without the necessary precautions and safety measures.¹⁸⁸ There is advice on training and equipment for staff, financing interventions and options for online visits, particularly where protected areas are not yet able to open.¹⁸⁹ It is likely that responses in different destinations will differ greatly; for example, the number of passengers on ferry rides at Niagara Falls in the US and in Canada.¹⁹⁰

Challenges with rapid recovery of domestic nature-based tourism

Despite the safety precautions and guidance provided, several natural destinations have faced considerable challenges with large groups of domestic travellers. In Germany's Black Forest National Park, there was an increase of 100,000 visits between April and June 2020 compared with the same period in 2019 (a 50% increase), coupled with challenges where new visitors have not complied with park rules.¹⁹¹ In the UK's Devon and Snowdonia national parks – with increased camping, wood collection, makeshift toilets, anti-social behaviour and litter – birds like the nightjar have vanished.¹⁹² As a result, emergency powers were used to temporarily ban camping in August.¹⁹³ Also in the UK, visitors have disturbed nesting birds and seal rookeries in the Holkham Estate nature reserve, nitrous oxide canisters were left on Marsden Moor, illegal boating took place in the Ore Estuary, and huge quantities of human excrement have been left in the Lake District as visitors avoided public toilets due to COVID-19 fears.¹⁹⁴

The opening of UK national parks and associated crowding has led to some visitors being turned away, even after travelling for hundreds of miles.¹⁹⁵ In October 2020, Wales introduced a ban on people travelling to the region from hotspots in England, Scotland and Northern Ireland.¹⁹⁶ Despite this, private landowners such as farmers and cottage owners in the UK are benefiting from allowing camping and accommodation on their properties.¹⁹⁷ Following months of travel restrictions and lockdowns in China, the government offered

free entry to a three-day Qing Ming Festival coupled with reopening of a UNESCO World Heritage site, Mount Huangshan, which led to people flocking to the site.¹⁹⁸ On 4 April 2020, after visitors exceeded the 20,000 per day limit, authorities announced that they would not allow any more to enter.¹⁹⁹ Similarly, the May Day holiday in China saw 31 million trips to national parks and other recreational areas, generating US\$ 5 billion in three days, according to TravelMole.²⁰⁰ The partial reopening of Yellowstone National Park in the US in May saw thousands of domestic visitors descend on the park after lockdown.²⁰¹ Observations at the Rinjani Geopark in Indonesia showed that the pre-COVID-19 challenges of overcrowding have re-emerged as parks reopened, despite the continued presence of the virus.²⁰²

With these reopenings and resurgence of crowds, there are concerns about the potential to spread COVID-19 in protected areas and gateway communities, particularly where social distancing is not observed and face coverings are not worn.²⁰³ There is a clear need to prevent the trend of going from undertourism back to overtourism (not least because of the health threat), and to find better ways to disperse tourists within and between destinations.²⁰⁴

Innovation and resilience

Tourism companies have been forced to become innovative rapidly to survive. Enterprises have diversified the types of visitor they expect, their products and services, and their source markets to adjust to changes in demand.²⁰⁵ Those that already had diverse products and services to offer have been more resilient as they have alternative income sources (see **Table 7**). With the disappearance of international travellers, safari operators are providing packages and experiences for domestic clients, and stimulating new interest in conservation and nature-based tourism locally. Where tourism operations have farms or gardens on their properties, innovations have included expanding or diversifying production, and using produce to feed staff and their families. Tourist accommodation is being offered to local people to safeguard or quarantine vulnerable members of society. Donations are being sought to support organisations and staff

that relied on tourism income. Artisans have supplemented their product range by creating face masks to protect people from COVID-19.

Virtual tours set up by protected areas and nature-based operators have gained considerable traction and interest globally.²⁰⁶ While some of these are free for users, others are fee-based and can help offset losses in visitor

revenue. Such virtual tours provide a way for people to experience natural attractions from their homes while inspiring future travel plans once restrictions are lifted. There is considerable growth in the virtual touring space. WildEarth, for example, had a fivefold increase in viewers of its virtual safaris in the first two weeks of March 2020. There are also online courses to help people become certified virtual tour guides.²⁰⁷

Table 7: Examples of innovative, nature-based tourism product resilience and diversification amid COVID-19

CATEGORY	EXAMPLES
Agriculture and food products	<p>Gibbs Farm offers a luxury lodge on an organic farm and coffee estate on the edge of the Ngorongoro Crater in Tanzania. Despite a drop in tourism, the coffee harvest continues and produce from the farm is feeding staff and their families.²⁰⁸</p> <p>Tutka Bay Lodge on the edge of Kachemak Bay State Park in Alaska grows most of the produce used in the kitchen in greenhouses and gardens on site. While rooms are empty, staff have been making sausages, pickling and shrimping, learning new skills and developing new offerings.²⁰⁹</p> <p>A drop in customers for community-based tourism, such as homestays, in the Spiti Valley in India has been offset by a focus on agriculture as a main source of income for local communities.²¹⁰</p>
Community support	<p>Bulungula Lodge on South Africa's Wild Coast has been using its premises as a place for local community members to quarantine, particularly the elderly and those with pre-existing conditions that are at most risk from the virus.²¹¹</p> <p>Tourism in Need is collecting donations to support organisations that rely on income from tourism. They include social businesses that help youth, community development and wildlife conservation.²¹²</p>
Competitions	<p>The OI Pejeta Conservancy in Kenya, through its Art of Survival fund, has organised an art competition that people pay to enter and can win a fully paid trip to the conservancy once the pandemic is over.²¹³</p>
Craft products	<p>The Ku-Humelala Craft Group in South Africa has pivoted from making crafts to sell to tourists to making fabric face masks to protect people from COVID-19.²¹⁴</p> <p>The Vukukhanye Development Project is supporting women's groups around iSimangaliso Wetland Park and Tembe Elephant Park in South Africa, where they are making masks for community members and planting vegetable gardens for food security.²¹⁵</p>

CATEGORY	EXAMPLES
Partnerships	Airlines and cruise ships are co-marketing travel destinations where visitors can land at a private island or resort where they can safely, and comfortably, quarantine before mixing with members of the community. ²¹⁶
Source markets	<p>Mbazi Safaris is finding innovative ways to tap into the South African diaspora and previous visitors to the Greater Kruger National Park. They are invited to sponsor a game drive experience for neighbouring communities as soon as the lockdown is lifted. In line with social-distancing guidelines, there is also support for an early recovery for open-vehicle safaris, led by domestic tourism.²¹⁷</p> <p>Camping Khapela is creating packages and payment terms for the hugely untapped township tourism market to Transfrontier Conservation Areas and other conservation landscapes in southern Africa.²¹⁸</p>
Virtual tours	<p>Virtual 'visits' are being promoted to the Grand Canyon, Yosemite and Zion national parks in the US, Mount Everest in Nepal, Phong Nha-Ke Bang National Park in Vietnam, the Perito Moreno Glacier in Argentina, and Giant's Causeway in Northern Ireland.²¹⁹</p> <p>Rwanda is considering how to use virtual tours to view its gorilla population.²²⁰</p> <p>Virtual underwater experiences have been created by dive and snorkel tour operators in New Zealand.²²¹</p> <p>In Namibia, Na-Beat has hosted a virtual festival from local Nama communities near the Richtersveld World Heritage Site.²²²</p> <p>An increase in remote access to Mexico's forests has expanded access to nature-based tourism experiences to new audiences, providing immersive conservation experiences.²²³</p>

Financial and technical support

Early on in the pandemic, the UNWTO called for financial support for tourism recovery in affected economies. Small and medium-sized enterprises make up around 80% of the global tourism sector and are particularly exposed, with millions of people's livelihoods at risk, including within vulnerable communities.²²⁴ Financial support vehicles have been established in response to the pandemic's impacts on nature-based tourism. They fall into four broad categories: grants, crowdsourcing, investment and facilitation platforms, and technical support.

Grants

Grants were disbursed to provide support during the initial crisis period to help tourism operators survive without tourism revenue (see **Table 8**). For example, the European Union-funded BIOPAMA Rapid Response Grants responded to risks and difficulties arising from the pandemic. Applications are made to improve conservation management and resilience to shocks and recovery, maintain livelihoods and enhance the resilience of local communities.²²⁵

Table 8: Examples of financial support for tourism recovery

SOURCE	INITIATIVE	VALUE
Government	Kenya and Kenya Wildlife Service ²²⁶	KSh 53 billion (US\$ 490.8 million equivalent) economic rescue package, including KSh 2 billion (US\$ 18.5 million) as grants to 160 community conservancies and for 5,500 community scouts by the Kenya Wildlife Service
	PENJANA package, Malaysia ²²⁷	MYR 1 billion (US\$ 240.4 million) including tax incentives and deferrals
	COVID-19 Tourism Relief Fund, South Africa ²²⁸	One-off capped grant of ZAR 50,000 per entity to subsidise expenses towards fixed costs, operational costs and other cost items; 6,000 applications
	Bono Proteger programme, Costa Rica ²²⁹	£177 each month (for three months) to people who lost income due to the pandemic
	Hong Kong's country parks ²³⁰	Reduced rentals required from refreshment kiosks, cafeteria and souvenir shops by 50% for 6 months with retrospective effect from 1 October 2019
	Emergency funding for conservancies in Namibia ²³¹	Raised from donors and the Ministry of Environment, Forestry and Tourism to create a fund to bridge 18 to 24 months, allowing conservancies and the private sector to pay at least 50% of their costs
	Domestic travel incentives, Thailand ²³²	US\$ 700 million package, including US\$ 579 million package to give travellers a 40% discount on hotel stays for up to five nights. They will also get THB 600 (US\$ 19) per day to spend on food and shopping Funding THB 2 billion (\$64 million) for up to 2 million Thais to travel by air, regional buses and car rentals, with a subsidy of THB 1,000
Donors	Beyond Tourism Innovation Challenge, Inter-American Development Bank ²³³	Grants of US\$ 250,000–500,000; loans of US\$ 500,000–2 million 214 applications from 28 countries; 8 winning proposals
	UNDP's Lion's Share ²³⁴	US\$ 100 million in total (each grant for US\$ 20,000–50,000) 1,630 applications from 106 countries; 9 awards to date, valued at US\$ 400,000
NGOs	IUCN Save Our Species Rapid Response ²³⁵	€4 million in total (each grant of up to €100,000)
	BIOPAMA Rapid Response Grants ²³⁶	€2 million in total (each grant of up to €50,000)

Crowdsourcing

Crowdsourcing platforms are being used in conjunction with stand-alone appeals to raise money to support the salaries of hospitality and

conservation staff; for example, those doing anti-poaching and wildlife monitoring. The success of these has varied greatly, between a few hundred to several thousand dollars (see **Table 9**).

Table 9: Example of crowdsourcing campaigns for tourism, conservation and livelihoods (September/October 2020)

INITIATIVE	VALUE RAISED
Africa Foundation COVID-19 Campaign ²³⁷	US\$ 406,431
Victoria Falls Anti-Poaching Unit ²³⁸	US\$ 11,520
Conflict Islands Turtle Season Crisis Appeal ²³⁹	US\$ 9,565
Biosphere Expeditions ²⁴⁰	€35,194
Coming Together for Mara Naboisho COVID-19 Appeal ²⁴¹	£46,067
Help Protect Chumbe Reef ²⁴²	£6179
Ride 4 Rangers Challenge for Mahenye Charitable Trust, Zimbabwe ²⁴³	£1,980
Randilen Wildlife Management Area Team, Tanzania ²⁴⁴	£1,369
Kasanka National Park COVID-19 appeal, Zambia ²⁴⁵	£425
COVID-19 SOS Benguerra and community resilience to COVID-19 – Africa Foundation, &Beyond ²⁴⁶	ZAR 233,684
TFPD – !Xaus Lodge Relief Fund ²⁴⁷	ZAR 128,583
TFPD – Witsieshoek Mountain Lodge Relief Fund ²⁴⁸	ZAR 40,650
Mara Conservancy, Kenya ²⁴⁹	Not specified
Great Plains Foundation Project Ranger ²⁵⁰	Not specified
Conservation Heroes: COVID Relief Project ²⁵¹	Not specified
Wildlife Ranger Challenge ²⁵²	Not specified

Investment and facilitation platforms

Responses to the pandemic may include financial stimulus packages, policy adjustments and technical support, and with a bit of foresight these can integrate sustainability criteria. This may mean giving preferential support to those that are implementing, or plan to implement, more sustainable practices for people and the planet,²⁵³ and encouraging investment in environmental

and social governance systems.²⁵⁴ There have been calls to provide short-term support for local communities engaged in wildlife tourism in globally important sites to ensure that their enterprises are sustained while securing wildlife populations and local livelihoods.²⁵⁵ There have even been calls for a Marshall Plan Fund for sustainable tourism: platforms are being planned to match those that need funding support with those that can provide it.²⁵⁶

Tourists and park guards observing a mountain gorilla, Virunga National Park, Democratic Republic of the Congo



The investment platform for conservation economies and landscapes in Africa is led by the International Finance Corporation. It aims to inject short-term liquidity into the tourism economy, and build longer-term viable investment across different sectors in biodiversity landscapes. It proposes to facilitate deals between finance providers and the pipeline of projects, as well as directly operate a fund to aggregate smaller investors and projects.²⁵⁷

An African collaborative platform, incubated by the Luc Hoffmann Institute in 2020, is being developed by WWF to match funding opportunities and qualifying beneficiaries.²⁵⁸ Proposed activities include a data clearinghouse for the impacts of the pandemic, building resilience for the future and knowledge management.²⁵⁹

Technical support

To complement financial measures, UNWTO has established a technical support programme to help marketing and promotional efforts. These include: a COVID-19 Tourism Recovery Technical Assistance Package,²⁶⁰ structured around economic recovery, marketing and promotion, and institutional strengthening and resilience; the Healing Solutions for Tourism Challenge for ready-to-implement solutions to

mitigate COVID-19 impacts;²⁶¹ and an Africa Branding Challenge.²⁶² There are also technical tools such as the Adventure Travel Trade Association's financial strategies and tactics for adventure travel businesses during economic uncertainty.²⁶³ This provides guidance on financial scenario planning and approaches to conserving, borrowing and generating cash. It also explains how tourism enterprises can become more economically resilient by adjusting their financial planning and reporting procedures, reducing costs, and establishing or updating crisis and risk management plans.

Long-term thinking

Most of the abovementioned support measures have been short-term emergency relief measures. Economists have been analysing the long-term costs of protected and conservation areas and considering the implications of COVID-19 on their reliance on nature-based tourism. For example, the "30 by 30 report" maps out a series of financial and economic analyses showing the value of expanding protected areas and its sizable beneficial impact, making it clear that a longer-term and more strategic approach is needed for conservation financing.²⁶⁴ The report's analysis shows that for the protected area and nature sector, the main flows projected for 2050 were from recreation and nature tourism

(US\$ 330 billion to US\$ 484 billion in direct tourist expenditure).²⁶⁵ The highest combined revenues (and the highest net multi-sector benefits) were projected in scenarios that place protected areas where visitors can access them easily.

Paths to a sustainable future

The pause in tourism has given many tourism and conservation professionals an opportunity to reflect on whether they want to go back to the way things were,²⁶⁶ or to 'build back better' and greener and recover in a more responsible, sustainable and regenerative way.²⁶⁷

International policy driving sustainable recovery

The United Nations and international development agencies have been increasingly vocal in their support for sustainable recovery. In August 2020, UN Secretary-General António Guterres released a policy brief on COVID-19 and transforming tourism, stating that the tourism sector should be rebuilt in a way that is "safe, equitable and climate friendly [and as a] provider of decent jobs, stable incomes and the protection of our cultural and natural heritage."²⁶⁸ For travel and tourism to be truly sustainable, broad standards and protocols are needed to

address climate change, conservation and social justice.²⁶⁹ It is also important to conserve nature in protected areas to avoid future zoonoses.²⁷⁰

UNWTO's One Planet Vision for a Responsible Recovery of the Tourism Sector indicates how a recovery for tourism might help achieve a more resilient and sustainable future that works for people and the planet.²⁷¹ The UN's roadmap advocates five priority areas to transform tourism:

- mitigate socio-economic impacts of the crisis;
- build resilience across the tourism sector;
- maximise technology, with innovation and digital skills;
- promote sustainability and green growth; carbon-neutral tourism sector; and
- foster partnerships to responsibly ease or lift travel restrictions and work to achieve the Sustainable Development Goals.

The One Planet Vision calls for the tourism sector to integrate sustainability and resilience into recovery efforts (see **Table 10**).²⁷² This can be achieved by ensuring that tourism is for the benefit and wellbeing of rural communities; is fair, inclusive, resilient and sustainable; creates new opportunities including innovation, technologies and digitisation; includes product development and value chain integration; and has sustainable policies and practices in rural destinations.



Tourists on Livingstone Island,
Victoria Falls, Zimbabwe

Table 10: Overview of actions to support sustainable and resilient recovery in the tourism sector

THEME	SECTOR	ACTION TO SUPPORT RESPONSIBLE RECOVERY TO BUILD BACK BETTER TOURISM
Recovery for people	Public health	<ul style="list-style-type: none"> • Integrate epidemiological indicators in tourism • Connect hygiene with sustainability • Restore trust through communication
	Social inclusion	<ul style="list-style-type: none"> • Channel targeted support towards vulnerable groups • Channel long-term support to small and medium-sized enterprises • Repurpose tourism as a supporter for the community
Recovery for the planet	Biodiversity conservation	<ul style="list-style-type: none"> • Capture the value of conservation through tourism • Support conservation efforts through tourism • Invest in nature-based solutions for sustainable tourism
	Climate	<ul style="list-style-type: none"> • Monitor and report CO₂ emissions from tourism operations • Accelerate the decarbonisation of tourism operations • Engage the tourism sector in carbon removal
Recovery for prosperity	Circular economy	<ul style="list-style-type: none"> • Invest in transforming tourism value chains • Prioritise sustainable food approaches for circularity • Shift towards a circularity of plastics in tourism
	Governance and finance	<ul style="list-style-type: none"> • Measure beyond economic impacts • Steer recovery funds towards better tourism • Consolidate partnerships for implementation

Source: UNWTO (2020) 'One Planet vision for a responsible recovery of the tourism sector'.

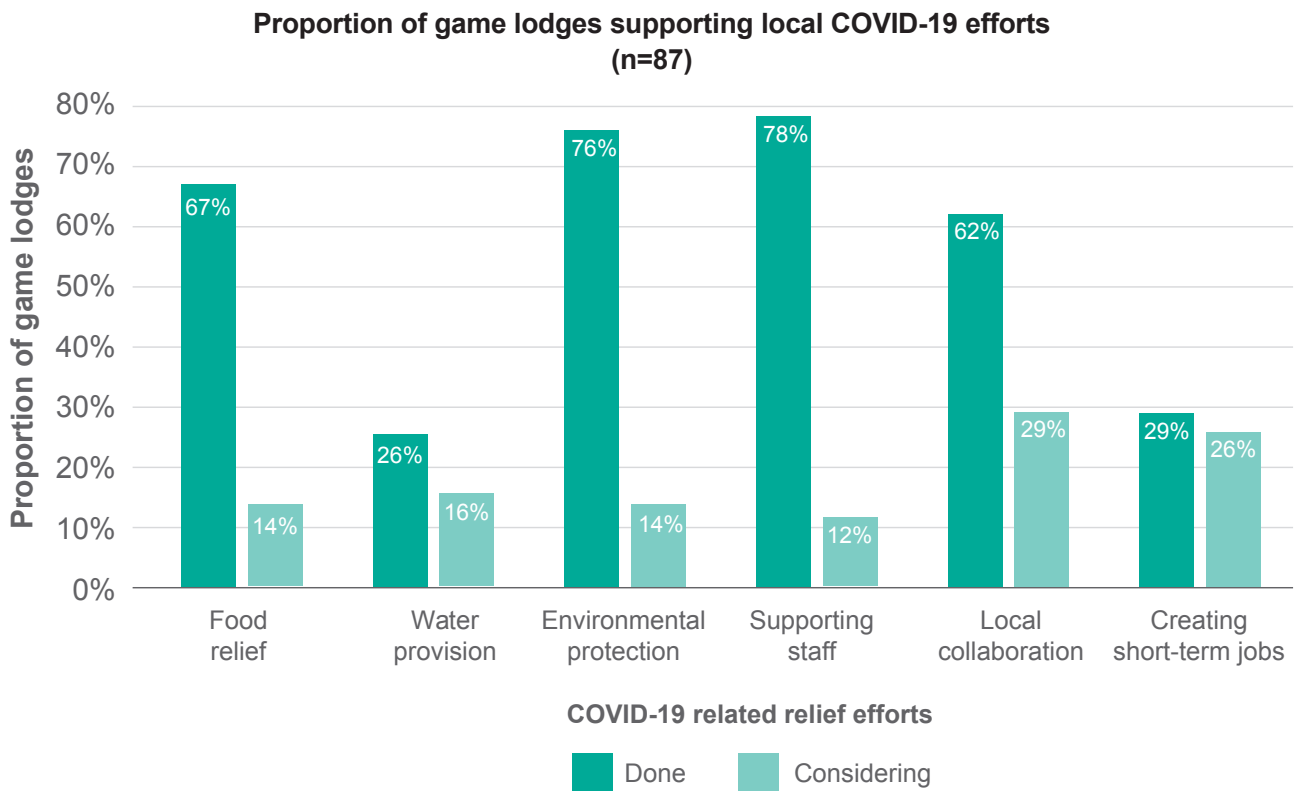
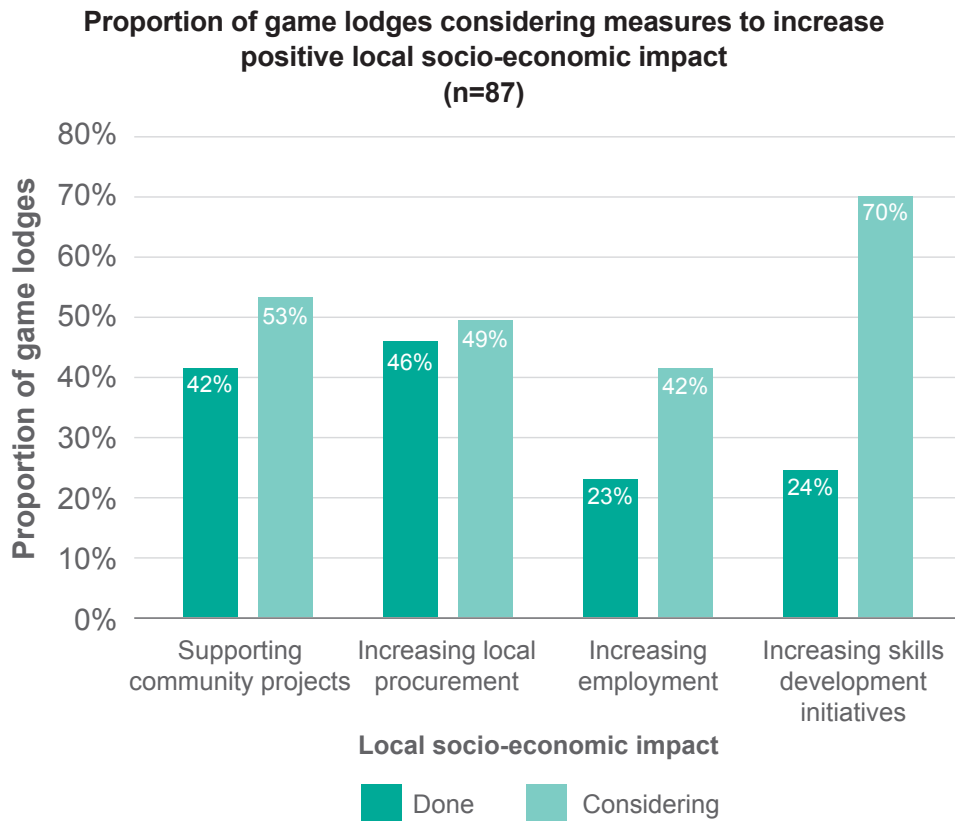
Driving towards sustainability

This is the time for the tourism sector to seize the moment and enact meaningful changes that will transform the world and make a lasting difference for future generations.²⁷³ COVID-19 has accelerated the sustainability agenda, and, amid the pause, companies are concentrating efforts on their commercial survival, although there is still resistance by around half of operators to the need for urgent change.²⁷⁴ Many tourism operators see becoming sustainable as too hard to do, but in reality it is not difficult.

One of the implications of changes in demand is that destinations that have suffered tourism-related job losses can partner with local communities to design types of authentic, immersive experiences with public-private-

community partnerships; this will become increasingly important.²⁷⁵ In building back better from COVID-19, it is important for landowners (such as protected areas authorities) offering concessions or licences for wildlife tourism to actively select the 'good actors' and then provide an enabling environment in which they can thrive.²⁷⁶ In some of these partnerships, the communities or conservation authorities may be paid based on percentage of tourism turnover. In cases where tourism turnover is zero, and there is no additional minimum fee payable, there is no income. So this needs a more resilient financial framework in the future.²⁷⁷ Market research shows that the proportion of game lodges considering measures to improve local socio-economic impacts, and also supporting local COVID-19 efforts, is considerable (see **Figure 4**).²⁷⁸

Figure 4: South African game lodges increasing positive socio-economic impacts



Source: Saunders, G. (2020) 'South Africa's safari and game lodge industry'; Scott, D. (2020) 'How to reboot the tourism sector in TFCAs in a post (with) COVID-19 world'. In 'Building a resilient tourism sector in SADC TFCAs'.

Matching sustainable products with traveller demand

Market research shows the growth in interest in sustainable tourism. However, travellers need to take responsibility and make better decisions; they need help in identifying the good actors before they purchase their trip.²⁷⁹ The Travalyst Coalition is working with online travel agencies including Booking.com, Tripadvisor, Trip.com and Skyscanner to develop sustainability frameworks. These frameworks will establish a system that highlights sustainability practices when people are booking trips across all platforms.²⁸⁰

In September 2020, Booking.com began an experiment where they shared sustainability information on accommodation on 50% of page views. By comparing travellers that see this

information with those that do not, they can test whether people are more likely to book accommodation with these credentials. This is expected to boost demand for facilities with sustainability information, and it may become easier to persuade the tourism industry to pursue sustainability efforts.²⁸¹

Among mainstream operators and major hotel groups, sustainability issues that are driven by consumer pressure, such as plastic pollution, are most likely to be addressed.²⁸² But regenerative travel, which supports communities and biodiversity, is about making destinations better off through tourism and not making local situations worse.²⁸³ Global consumer behaviour is expected to change permanently in response to the way companies treat people and decrease their carbon emissions.²⁸⁴



A tourist takes a boat ride on Inle Lake, Myanmar

FUTURE OUTLOOK

The devastating impact of COVID-19 on nature-based tourism has had system-wide implications for biodiversity and society, and for nature-based tourism as an ecosystem service. Recovery must take account of the interdependencies and ensure more resilience in the future. Predictions suggest that tourism may rebound strongly in 2021 and recover within four years, but many ponder what it will look like when it does.

There is a growth in demand for sustainable tourism products. Market research during the pandemic has emphasised this growing interest among travellers and their desire to see better benefits for local people. The research also indicates that nature-based tourism, including adventure and wildlife tourism, will be among the earliest to recover, as travellers seek open spaces as they escape from lockdowns.

Domestic trips are booming in many countries, particularly as people emerge from these restrictive lockdowns. Many destinations have established protocols to operate visits amid COVID-19 and international guidance and standards have been created to facilitate this. Visits to some protected areas have actually been higher than prior to the pandemic, as parks reopen and people seek fresh air and open spaces close to home. However, in developing countries, revenue from domestic travellers tends to be lower than from international tourists, and there are concerns that domestic recovery will not be sufficient to sustain the sector.

Nature-based operators have received a broad range of technical and financial assistance to support their continued expenses during this difficult period. Available financial support has included grants, crowdsourcing, and investment and facilitation platforms. Technical support has been available too, including for financing strategies, marketing and promotion,

and institutional strengthening. However, most of these packages are short-term emergency measures that are limited in their overall value and number of available awards. More systemic and strategic systems are needed to strengthen resilience in the future.

The pause in tourism during 2020 gave many tourism and conservation professionals an opportunity to reflect on whether the sector will inevitably go back to the way it was, or if it will build back in a more responsible, sustainable and regenerative way. Numerous international policies, guidance documents and online discussions push for a more sustainable future. Leaders within the tourism sector play an active role in this drive towards a better future, and active partnerships have arisen or been strengthened as stakeholders seek to galvanise and mainstream increased demand for sustainable travel.

The net impact of the COVID-19 pandemic on protected areas, local communities and wildlife is not yet established in terms of the balance of negative impacts, including loss of income for conservation projects, damage and poaching in the absence of a management presence, and such positive impacts as promising ecological recovery and restoration.

However, there is a unique opportunity to establish a more resilient nature-based tourism sector, one where communities participate and benefit meaningfully, where accommodation and tours are better for the environment, society and their clients, and where a diversified and more robust sector can establish improved biodiversity conservation. The rapid recovery of this sector will help to alleviate financial pressures on conservation areas, nature-based tourism operators and their workforce and help them survive.

AFTERWORD

While any transition towards new futures must consider how livelihoods are ensured, global goals for nature conservation and human wellbeing cannot be met by current societal trajectories. COVID-19 has opened a window of opportunity for transformative economic and social change, for change in how nature is conserved, what economic models it depends on, and how funders choose to invest for resilience and regeneration. In a 2020 *Financial Times* article, Arundhati Roy reminds us that, historically, pandemics have forced people to lay the past to rest and reimagine the world. She describes COVID-19 as “a portal between one world and the next.”²⁸⁵

COVID-19 has forced the world to face its own fragility, stop and reflect, and begin to innovate and accelerate sustainable futures. What kinds of ideas and ways of thinking can be pursued to help understand what comes next and help people imagine a fundamentally different future? One scenario might be to take this opportunity to restructure existing systems to be more inclusive and equitable. Seeds of a wildlife economy less reliant on tourism, such as platforms that link donors directly to local communities, payments for ecosystem services, or investments in measures that strengthen local sovereignty, may even begin to take root and evolve beyond initial small-scale experiments and pilot projects.

This report intended to shed light on some of the many challenges facing the nature-based tourism sector due to the near-collapse of tourism in the wake of COVID-19. Indeed, understanding the system is one of the first steps to systemic change, and this report seeks to contribute to that understanding. Systems analyses based on evidence, such as this report, play a key role in directing discussion, bridging perspectives and allowing systemic change to be imagined and created.

And systemic change is imperative. The pre-COVID-19 economic model was deeply unsustainable at a global scale. Might this report serve to guide the construction of multiple future scenarios? Could it be used to spark a discussion around new economies within which communities and nature conservation can thrive in a post-growth and potentially post-carbon world?

Albert Einstein is attributed with saying, “The significant problems we face cannot be solved at the same level of thinking we were at when we created them.”²⁸⁶ The social and environmental challenges of today’s world are extremely complex and systemic. Such systemic problems are those that humanity is currently least equipped to deal with. However, with the right tools – one of which is an overview of the situation as described in this report – understanding them begins to be possible.

The hope is that this research will provide a bridge to bring important groups – local communities, nature conservation organisations, tourism operators, funders and investors, policymakers and others – on the journey to imagining a future in which nature and people can thrive together.

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