



USAID
FROM THE AMERICAN PEOPLE



Credit: Kamweti Mutu

2021 REPORT: PROTECTING EAST AFRICA'S NATURAL CAPITAL: THE COST OF INACTION

MEDIA BRIEF

What is natural capital?

Nature underpins every aspect of economic and human well-being. When nature is thriving, communities have access to food, clean water, energy, and medicine, and industries have a sustainable supply of resources on which to thrive. When nature is lost or degraded, its services are costly to replace.

That's why, when measuring our region's prosperity, we must look beyond gross national product – including what we harvest from nature, such as fish, livestock, honey, and timber. We must measure stocks of capital assets – the produced, human, and natural capital that sustain us over time. Ultimately, conserving nature can provide as much economic value as extracting it.

What is this report and why does it matter?

“Protecting Natural Capital in East Africa: The Cost of Inaction” presents one of the most comprehensive assessments to date of the economic value of East Africa's natural capital – to the region, the continent, and the globe. This includes its stocks of soil, air, water, and all living things, which underpin the region's economy and human well-being.

The report also demonstrates how **failing to protect this natural capital in four key transboundary landscapes**

will cost the region more than \$11.3 billion per year over the next few decades.

By outlining how the region's most important natural assets cross national boundaries, it also makes an urgent plea to Partner States to increase collaboration on conservation and sustainable development.

What did the study assess?

The study assessed the value of nine different ecosystem services in four priority landscapes across East Africa (see Figure 1) in order to gauge not only what humans currently gain from the natural environment, but what will be lost if conservation efforts are not prioritized. The ecosystem services range from regulating water quality and availability to supporting livestock production and crop pollination to attracting nature-based tourism to the region. The study also included an extensive literature review and data synthesis, which informed the projected impact by 2050 if the status quo is maintained.

Who conducted this study?

Environmental Incentives, LLC and Anchor Environmental Consultants (Pty) Ltd. conducted this study with funding from USAID's Kenya and East Africa Mission (USAID/KEA) and guidance from the East African Community (EAC).



KEY FINDINGS



Tourism represents only 11% of the total economic value of these landscapes. The largest value? Regulating water, soil, crop pollination, and carbon.

The four landscapes prioritized for valuation are globally recognized for their biodiversity and nature-based tourism. However, their value to the economic and human well-being of the East Africa region is far greater.

While revenue from tourism for 2018 was \$1.2 billion, the “regulating services” these ecosystems provide were far more valuable at an estimated \$7.06 billion per year. Regulating services include ensuring a reliable and steady flow of water to businesses and communities, filtering out pollutants to keep water clean, pollinating crops, and preventing soil erosion.

The landscapes also store 7.5 billion tons of carbon. How? Trees, other plants, and soils absorb and keep carbon dioxide from the atmosphere where it would otherwise contribute to climate change. The landscapes continue to accumulate carbon in plants and soils over time thereby sequestering it every year. Disturbing these systems with vegetation conversion, e.g., from land use/land cover

Together, regulating water, soil, and carbon saves the region more than \$8.18 billion – 72% of the total economic value of these four landscapes.



While regulating services represent the majority of these landscapes’ value, tourism still plays an important role in the regional economy and perceived value globally.

Nature-based tourism contributed \$1.2 billion to regional gross domestic product (GDP) in 2018, including supporting a significant number of jobs. In 2018, conservation, tourism, and related services – including hospitality, handicrafts, and travel infrastructure – provided 786,663 jobs (34,703 in Burundi, 325,034 in Kenya, 76,980 in Rwanda, 315,260 in Tanzania, and 34,686 in Uganda).

The iconic wildlife in these landscapes are also ambassadors for the region, attracting tourists from across the globe. In fact, an assessment of consumers’ willingness to pay for tourism experiences and services vs. current income from this sector revealed an additional \$1.5 billion in untapped revenue were the sector to adjust prices and offerings.

at 3.8% for Burundi, 3% for Kenya, 4% for Rwanda, 9% for South Sudan, 7% for Tanzania, and 9% for Uganda.



Natural capital is declining as a percentage of wealth in these landscapes, which impacts the sustainability of the regional economy.

While many studies focus on GDP (the sum of the goods and services produced by a nation in a given year) as a key indicator of economic health, it is a country’s wealth – i.e., the value of all of its assets, including produced, human, and natural capital – that determines its ability to sustain social and economic well-being over the long term. This report shows that, under a business as usual scenario, per capita natural capital will continue to decline as a percentage of regional wealth, leaving these countries unable to sustain nature-dependent businesses, provide food security and clean water, and remain resilient to climate change and extreme weather events like flooding.

While an increase in other forms of capital, including human and produced, holds benefits for any given country’s economic well-being, the loss of natural capital in certain landscapes – such as those chosen for this assessment – is particularly problematic. That is because these wildlife- and habitat-rich landscapes are providing ecosystem services on which large populations in downstream rural – and increasingly urban – areas rely. The loss of regulating services in these landscapes will significantly impact the health, quality of life, and socio-economic development of this region as a whole.



Global value is exponentially greater, offering potential sources of revenue to fund regional development.

The carbon stored by these ecosystems provides the global community an estimated \$600 billion per year in value. This value is based on the avoided costs of mitigating climate change damages that would result if the landscapes’ capacity to capture carbon from the atmosphere declines and the 7.5 billion tons of carbon stored were released into the atmosphere. (Termed the “social cost of carbon,” these damages are typically estimated in terms of changes in GDP, which is a directly compatible measure for ecosystem accounting.)

An alternative way to value carbon storage is using its value in markets that have developed as a result of

Figure 1. The four transboundary landscapes assessed

The following landscapes were chosen in partnership with the East African Community and a range of public/private sector and community stakeholders from Partner States, representing Burundi, Kenya, Rwanda, S. Sudan, Tanzania, and Uganda.



Great East African Plains

Annual regional value: \$6.58 billion – More than half comes from nature’s regulation of soil, water, and carbon. Another \$1.2 billion comes from nature-based tourism.

Northern Savannas

Annual regional value: \$3.46 billion – At \$2.36 billion, water and sediment regulation are the most valuable services, underpinning livelihoods for millions. Water quality amelioration is also key to livelihoods, including fisheries.

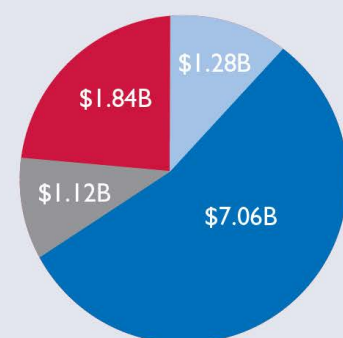
Albertine Rift Forests

Annual regional value: \$1.18 billion – Erosion control (\$685.5 million) and materials harvested from nature (\$352.1 million) for building, sale, or energy represent the majority of value. Landscape is also a global conservation priority.

Ruweru-Mugesera-Akagera Wetlands

Annual regional value: \$64.4 million – Majority comes from provision of natural material for food, building, and other resources. At \$50.2 million, these services are 10 times more valuable than nature tourism at \$5.3 million.

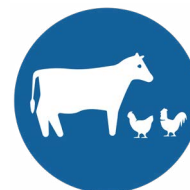
LANDSCAPES’ TOTAL VALUE TO REGION: \$11.3 BILLION



- Cultural services: \$1.28 billion/yr**
Nature-based tourism and biodiversity existence (as measured by revenue and willingness to pay to preserve)
- Regulating services: \$7.06 billion/yr**
Water flow regulation, water quality amelioration, crop pollination, and preventing soil erosion (as measured by avoided costs to address negative impacts of pollution, scarcity, etc.)
- Carbon storage: \$1.12 billion/yr**
(as measured by avoided costs to address negative impacts of climate change)
- Provisioning services: \$1.84 billion/yr**
Livestock production (as measured by agricultural productivity) and harvested resources (for food, fuel, small-scale income, pharmaceutical use)

All values are in U.S. dollars, based on 2018 data

changes, can release large amounts of carbon dioxide. Too much CO₂ being released into the atmosphere means too much change to our global climate, which brings negative impacts such as extreme temperature fluctuations, drought, and flooding. That’s why keeping forests, wetlands, and other nature-rich ecosystems intact is so important. In fact, the study estimates that, without these landscapes, it would cost the region an additional \$1.12 billion a year to address the negative impacts of climate change on social, economic, and human well-being.



Keeping landscapes intact is key to the sustainability of pastoral and agricultural livelihoods.

In addition to tourism, livestock production and resource harvesting for subsistence contribute significantly to the national economies. Together, the contribution to GDP of these three sectors’ (within the landscapes) in 2018 was valued

government and private efforts to “neutralize” carbon emissions. Some studies calculate both values. In this study, the social cost of carbon was preferred, because the marginal price of carbon in markets is not realistic at scale. However, policymakers should consider carbon markets as one possible avenue for East Africa to pursue for potential funding for conservation and development in the region.

THE PROJECTED COST OF INACTION

The study looked ahead to 2050 and projected the increase in costs that will accompany the decrease in nature-based services if we fail to halt wildlife and habitat degradation. For example, the Great East African Plains will not only lose \$161 million in tourism revenue per year but will require annually an additional \$352 million to replace water shortages. And the biggest cost is likely to be addressing the increasingly high toll climate change is taking on our communities and economy. Currently, forests, other vegetation, and soils in these landscapes capture and store 7.5 billion tons of carbon from the atmosphere. If these systems are lost, large amounts of CO₂ will be released into the atmosphere, exacerbating climate change, causing extreme temperatures, drought, and flooding, and exacting an estimated \$1.1 billion per year in remediation costs at the regional level (and more than \$600 billion at the global level).

The projected impact on human well-being is even more concerning. Significant job and livelihood losses across multiple industries, including agriculture, livestock, tourism, charcoal production, floriculture, hydropower generation, and freshwater fishing is likely if we fail to protect natural systems. For example, a decreased ability to regulate water, sanitation, and hygiene in the Lakes Edward and Albert basins will impact quality of life for approximately 12 million people. We can expect a rise across the region in both “zoonotic diseases” transferred to humans from compromised wildlife and conflict due to increased competition for limited resources.

A CALL FOR ACTION

Transboundary problems require transboundary leadership, which is why the EAC and Partner States are best positioned to lead efforts to counter regional threats.

Countries that share these vital landscapes must work together or will ultimately share negative outcomes. If leaders don’t act now and act together across nations, the harm will impact entire communities, industries, and countries while placing enormous burdens on economies.

Recommendations for policy action

Hundreds of stakeholders at the landscape, national, and regional levels collaborated on this “Cost of Inaction” report, as well as on an action plan based on the findings. They found that, while wildlife and habitat differ across the four landscapes, overall threats to nature are the same. Thus, they have recommended a common strategic approach: **Invest in nature-based solutions that align the interests of people, business, and the environment.** What this looks like at each level:

- **Regional level:** Harmonize transboundary management plans to capture interests of partner states and sectors for sustainable use of natural resources.
- **National/sub-national level:** Identify and enhance public-private partnerships that incentivize bringing biodiversity conservation into development plans.
- **Community level:** Empower communities to manage natural resources through sustainable enterprises and activities that are supported by innovative private sector financing models.

Call for private sector support

Nature-based solutions have the potential to transform business as usual. The private sector can invest in efforts to reduce pressure on ecosystems, and policymakers can incentivize those business models. Examples:

- Improve productivity through eco-friendly practices, such as sustainable silvo-pasture (a combination of trees and livestock), along with intermediate agriculture businesses, such as bee-keeping and honey and wax production.
- Scale up ecotourism with support for community hospitality infrastructures.
- Fund sustainable aquaculture as a low-carbon and climate resilient development strategy.

Ultimately, if the private and public sectors work together to invest in healthy ecosystems, they will find that conserving nature can provide as much economic value as extracting it.

Download the report – [Protecting East Africa’s Natural Capital: The Cost of Inaction](#)

For more information:

Environmental Incentives, LLC , 725 15th Street NW, Floor 10, Washington, D.C. 20005

www.enviroincentives.com