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# Economic Value of East Africa's Transboundary Wildlife Landscape

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Environmental  
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environmental

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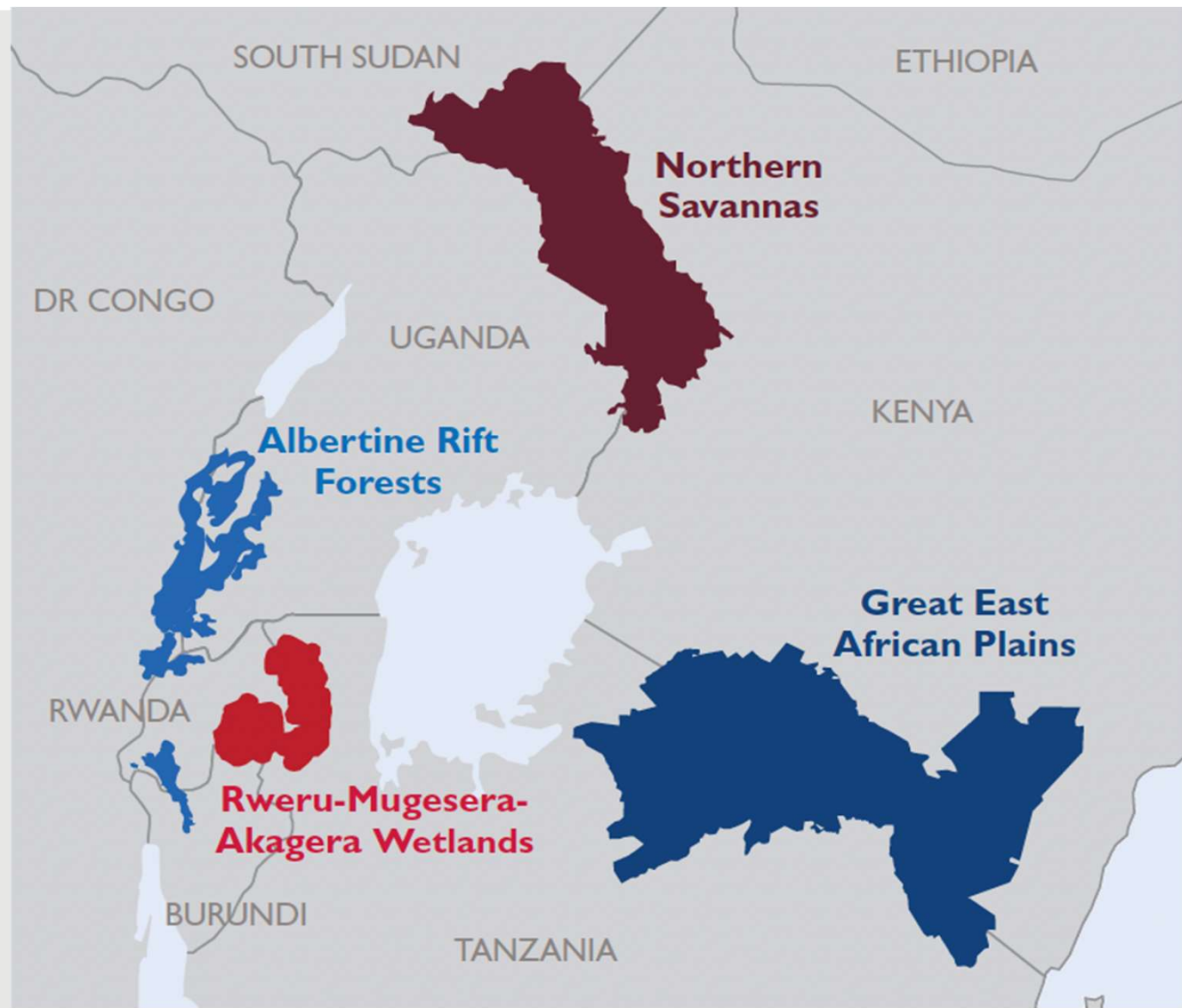
# ECONOMICS OF NATURAL CAPITAL IN EAST AFRICA

- Ecosystems throughout EA are important for maintaining wildlife populations and providing services essential for sustaining livelihoods, human health and economic development. e.g. Food production, raw material, nature-based tourism
- However, many of these uses are consumptive, depleting natural capital and future provision of services.
- As a result, policy and management choices affect the sustainability of natural capital and the provision of ecosystem services to human communities now and in the future.
- Policymakers lack the economic data to make the case for valuing ecosystem services in land use decisions.

# THE FOUR LANDSCAPES

These landscapes can be considered natural capital assets in that they provide significant economic benefits and contribute to human welfare.

(prioritized by the EAC and Partner States)



# VALUATION BASED ON NINE ECOSYSTEM SERVICES

## Provisioning services



Harvested wild resources



Livestock production

## Cultural services



Biodiversity existence



Nature-based tourism

## Regulating services



Water quality amelioration



Water flow regulation



Erosion control



Crop pollination



Carbon storage

# ECOSYSTEM SERVICES QUANTIFICATION

- Flow regulation
- Soil erosion control
- Water quality amelioration



## SOCIAL COST OF CARBON ESTIMATED

SCC estimates the damages that would be incurred under climate change.

- Socioeconomic predictions
- Climate projections
- Benefits and costs
- The discount rate

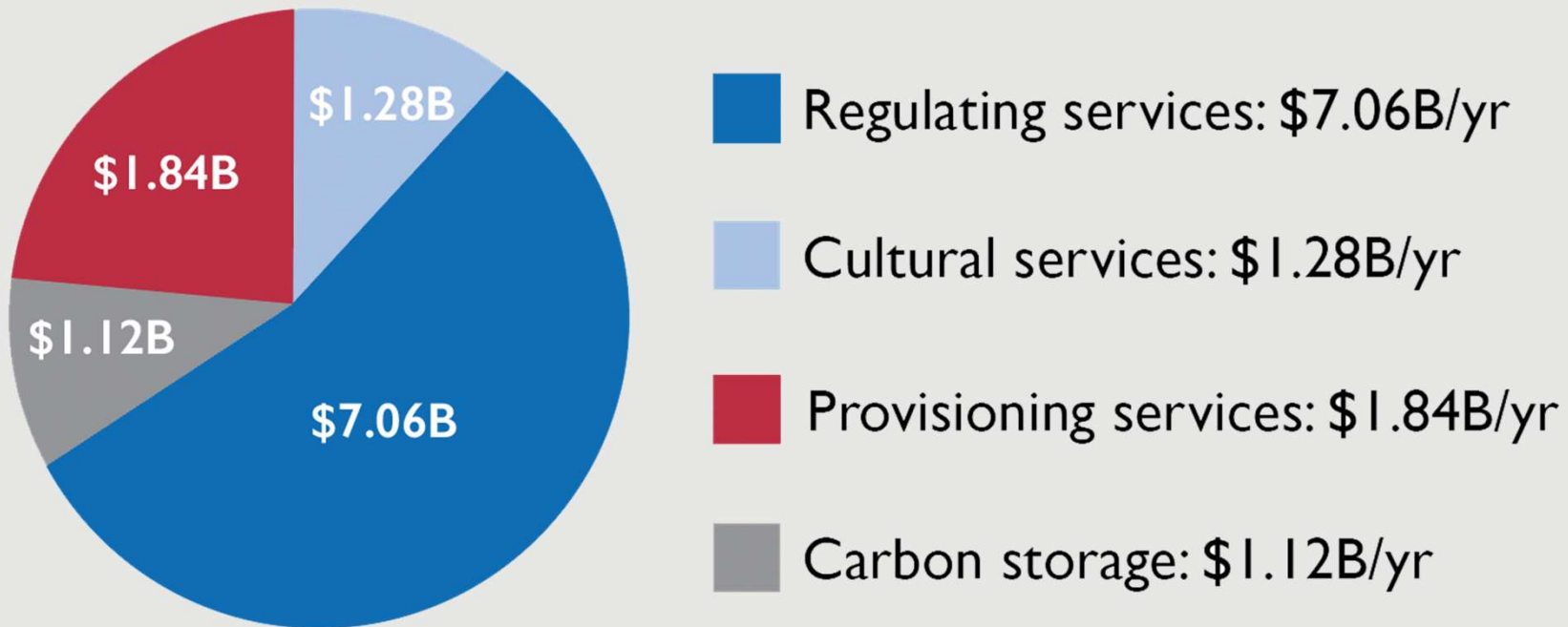


**“The social cost of carbon is the single most important number for thinking about climate change”** -Marshall Burke, associate professor in the Department of Earth System Science, Stanford University

## KEY FINDINGS

- Using conservative assumptions, the study estimates that within these relatively undeveloped landscapes that still offer significant and viable habitat for wildlife populations, ecosystems generate services of about:
  - \$300/ha/year for the wetland,
  - \$500/ha/year for the savanna,
  - \$700/ha/year for the plains, and
  - \$1,500/ha/year for the forest landscapes on average.
- Benefits to the different countries also vary, with the national portions of the different landscapes bringing benefits ranging from \$260/ha/year for wetlands in Rwanda to \$2,700/ha/year for forests in Burundi.
- The benefits at global scale are orders of magnitude greater than this, with the values ranging from \$32,000 to \$56,000/ha/year on average for the four landscapes.
- This difference is largely because of the significant benefit of carbon retention in avoiding increases in future climate change damages around the world.

# LANDSCAPES' TOTAL VALUE TO REGION: \$11.3 BILLION

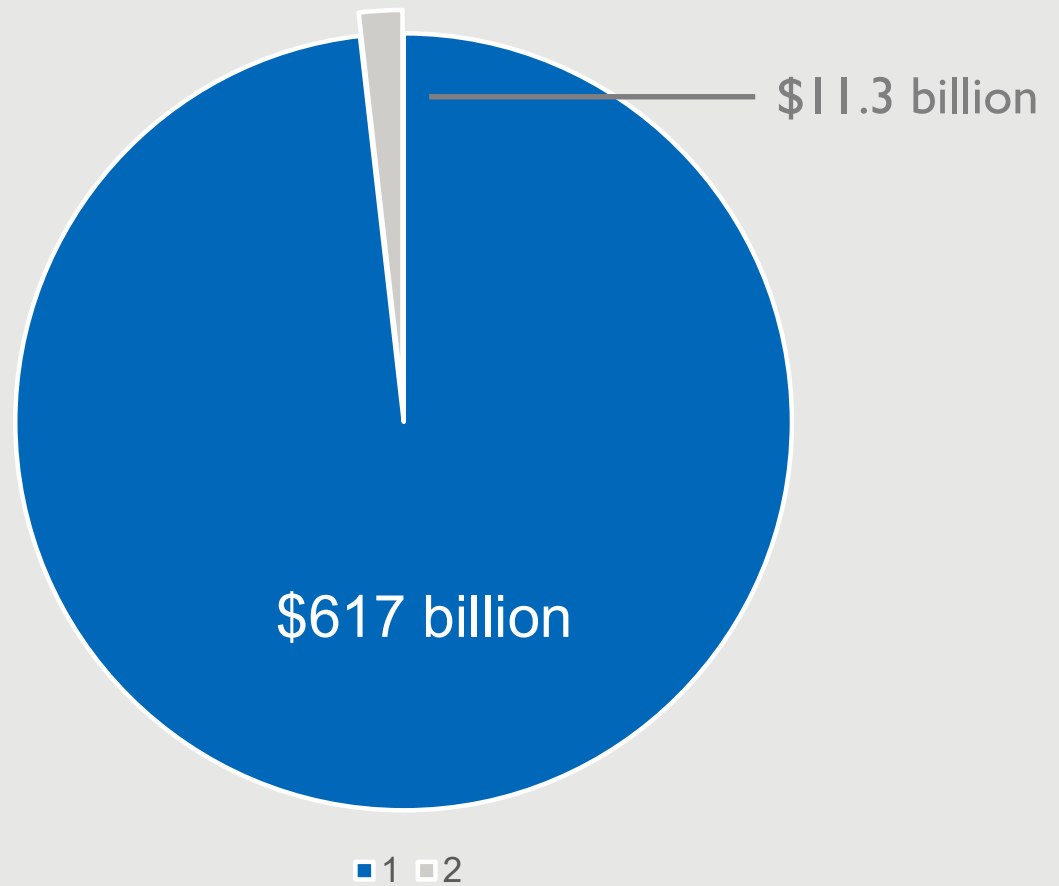


All values in U.S. dollars in 2018



# INSIGHTS

Global value is exponentially greater, offering potential funding opportunities for regional development



# SCALING UP NATURE-BASED SOLUTIONS

- Community conservancies afford various benefits to members:
- Economic – livelihood earnings (707, 460 HH), jobs (4,800), business, etc.,
- 142 tourism facilities, 2,397 bed capacity (2016)
- \$3.69 M in the Mara 2016 e.g., Olare-Orok Conservancy (Mara): \$2,272 per landowner/year (2006-2008) to \$2,714 (2009-2010) – payment for wildlife conservation
- Scale up and monitor investment, e.g., regenerative land uses such as afforestation *£1 (\$1.39) invested is projected to generate £2.79 (\$3.87) of economic and social benefits (through carbon sequestration, recreation, air pollution removal and timber and biofuel production, and biodiversity support).*

The economic costs and benefits of nature-based solutions : Nature-Based Solutions Initiative ([naturebasedsolutionsinitiative.org](http://naturebasedsolutionsinitiative.org))

## INVESTMENT IN PROTECTED AREAS: 1000% DEFICIENT IN AFRICA

- Inadequately protected parks suffer ecological degradation, losing valuable habitats and charismatic species – reducing ecosystem services (including potential to supply adequate water or generate tourism revenue).
- Adequate management of protected areas in Africa, will require investment up to **\$2,000/Km<sup>2</sup>** annually.
- Only **\$200/Km<sup>2</sup>** is availed.
- Private sector contribution only 14%.

Lindsey et al., 2018



Credit: Kathleen Flower

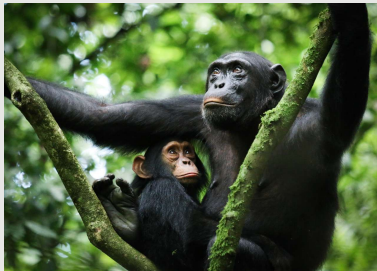
# How can EAC institutionalize natural capital in its strategies?

Theory of change



- **Regional/transboundary level**

Harmonize transboundary management plans to capture interests of different Partner States and sectors for sustainable use of natural resources



- **National/sub-national level**

Identify and enhance public-private partnerships that incentivize the integration of biodiversity conservation into sub-national development plans to conserve natural infrastructure.



- **Community level**

Empower communities to manage natural resources through sustainable enterprises and activities that are supported by innovative private sector financing models.

