The Global Biodiversity Standard

TGBS Site Certification Registry

Kasenene – Uganda

Project title:

Restoring the chimpanzee corridor between Budongo and Bugoma forest reserve in Uganda – Kasenene

Site name:

Kasenene

Final Score:

7.93

Criterion	Score
Criterion 1: Select appropriate sites to enhance native biodiversity	7.08
Criterion 2: Enhance protection of existing habitats and biodiversity	10.00
Criterion 3: Protect, restore and manage biodiversity in consultation and partnership with local communities and other stakeholders	9.00
Criterion 4: Aim to maximise biodiversity recovery through ecosystem restoration	7.33
Criterion 5: Avoid and reduce invasive or potentially invasive species	8.00
Criterion 6: Prioritise the use of native, threatened and rare species	6.00
Criterion 7: Promote biodiversity and adaptive capacity	6.00
Criterion 8: Implement robust monitoring, evaluation and adaptive management of biodiversity	10.00

Project details:

Name of applicant organization/s, agency/es or institution/s: The Jane Goodall Institute, Uganda

Name of project: Restoring the chimpanzee corridor between Budongo and Bugoma forest reserve in Uganda

Site location: Kasenene village, Uganda

Area: 19.5 hectares

Number of zones of different restoration types: 1

Restoration type: Protected area under restoration

Restoration approach: Assisted natural recovery with planting

Biome: Tropical-subtropical forests biome

Ecosystem type: Tropical subtropical lowland rainforest

Assessor details:

Names of assessors: Mutegeki Alislam Said Musa, Walaita Sebastian Javan, Bulafu Edward Collins, Rajab Kakaire, Tumusiime Stephen

Affiliated institution: Tooro Botanical Gardens

Dates of visit: 10/2024

Project Objectives:

- Biodiversity: Connectivity
- Biodiversity: Protection
- Biodiversity: Quality
- Climate: Adaptation
- Climate: Mitigation
- Community: Equity
- Community: Income
- Community: Practices
- Ecosystem: Extent
- Ecosystem: Functionality
- Ecosystem: Integrity
- Energy: Management
- Water: Quality
- Water: Quantity

Restoration Activities:

- Soil erosion control and reversal with almost complete planting and growth of trees on-site
- Reduced or no-tillage
- No fertilizer and/or agrochemical use
- Enforcement of restrictions or prohibitions on ecosystem conversion or destruction
- Implementation of sustainable ecosystem management practices in productive landscapes
- Elimination of sources of degradation (e.g., protection from overhunting, overharvesting, overfishing or poaching; reestablishment of characteristic hydrology including dam removal and streambank repair; protection from uncharacteristic fire)
- Fire management, including site preparation (Maintenance of some parts of the restoration site)
- Grazing management (e.g., control of native grazer populations; reduction, removal, or exclusion of non-native grazers)
- Weeding or pruning
- Tree planting

Project description:

For over a decade, the Jane Goodall Institute (JGI) Uganda has been working to conserve private and communal forests in the Budongo-Bugoma Corridor of Western Uganda. These forests face severe threats from deforestation because of agricultural expansion, driven by a growing population and rising demand for crops like sugarcane, as well as demand for firewood. Climate change exacerbates these challenges, with hotter, drier conditions, more frequent wildfires, and unpredictable rainfall threatening both biodiversity and local livelihoods.

This corridor is a critical habitat for chimpanzees and other wildlife and faces significant deforestation threats, agricultural expansion, and climate change. The initiative integrates biodiversity restoration with climate adaptation strategies, focusing on protecting community livelihoods and fostering social and ecological resilience. It adopts a multi-stakeholder approach and promotes collaboration among local communities, conservation organisations, and government bodies to restore and sustainably manage this vital ecosystem.

The primary goal is to enhance social and ecological resilience in Uganda's Albertine Rift, particularly in the Budongo-Bugoma wildlife corridor. Specific objectives include:

- **Integrated Forest and Land Management:** Promoting forest restoration and catchment area management
- **Climate Adaptation and Mitigation:** Building resilience against climate-induced risks such as erratic rainfall, wildfires, and crop productivity loss.
- **Sustainable Livelihoods:** Introducing income-generating activities like apiculture, goat rearing, and banana farming.

In 2017, the Jane Goodall Institute (JGI) Austria partnered with Ecosia to support restoration within the Budongo-Bugoma wildlife corridor. The project is implemented by the Jane Goodall Institute (JGI) Uganda. Ecosia is a Berlin-based search engine that dedicates its ad-revenue to funding environmental initiatives. JGI Uganda promotes conservation, sustainable development, and environmental education while empowering local communities to coexist harmoniously with wildlife and protect natural ecosystems for future generations.

This partnership aims to plant trees within the Budongo-Bugoma Corridor via community-led restoration, addressing the underlying causes of deforestation while focusing on livelihood diversification. Local communities play a central role in implementing these initiatives, which aim to build resilience against environmental and socio-economic challenges. The project receives co-financing from the Austrian Development Agency.

So far, the Ecosia-JGI partnership has planted over 2.4 million trees along the corridor. Of this total, 36,690 were planted between 2021 and 2023 in collaboration with the Nyakase Environmental Conservation and Development Association (NECODA), a collaborative forest management group (CFM) that unites the adjacent Budongo forest communities of Nyantonzi and Kasenene.

The Kasenene restoration site (19.5 hectares), located in Kasenene village, is part of the Budongo Central Forest Reserve of the Budongo systems range. Before the project's inception in 2017, the area had been heavily degraded, with most native trees illegally harvested by communities adjacent to the forest. The most harvested species included *Khaya* species, *Melicia excelsa, Entandrophragma species, Mitragyna stipulosa* for timber, *Cynometra alexandrii* and *Combretum molle* for charcoal, and *Cordia mellinii* for making boats and canoes. Other species were harvested for building logs and fuelwood, contributing to the decline of forest cover of the site. This was worsened by the agricultural expansion apportioning the degraded land into blocks for individual community members to establish agricultural croplands. The largest part of the degraded Kasenene restoration site was converted into *Saccharum officinarum* (Sugarcane) gardens, with other small crop gardens of *Phaseolus* spp. (Beans), *Arachis hypogaea* (Groundnuts), and *Zea mays* (Maize). The agricultural expansion was pronounced along the forest’s boundary.

The degradation of the Kasenene part of the Budongo Central Forest Reserve had significant negative consequences for both biodiversity and local communities. The loss of native vegetation cover led to habitat destruction, affecting the forest's rich wildlife, particularly primate species like the *Pan troglodytes* (chimpanzees), which depend on a dense forest canopy for food and shelter, and the decline in forest generalist bird species, impacting the biodiversity of the area.

Ecosystem Integrity:

Key attribute	Sub-attribute	Baseline		Current Conditions		Trajectory	Score
		Description	Star Rating	Description	Star Rating		
Absence of Threats	Contamination	The site was highly degraded, with most areas used for crop cultivation such as cassava, sugarcane, and sweet potatoes. Farmers employed pesticides, insecticides, and synthetic fertilizers, which may have contributed to soil contamination.	0 stars	Only 3.35 hectares are cultivated, with minimal use of fertilizers and agrochemicals, as farming practices are primarily subsistence-based.	3 stars	Improving	10
	Invasive species	The site previously faced high direct invasive species pressures with medium management practices implemented on the agricultural fields.	2 stars	There are three invasive species per hectare, including *Lantana camara*, *Chromoleana odorata*, and *Senna spectabilis*, which are present in low numbers but with no active management.	3 stars	Improving	6
	Over-utilisation	The area was previously over-harvested with most forest species removed.	1 star	Some species are naturally regenerating, and others like *Khaya anthotheca* and *Cordia mellenii* have been replanted. Management practices in place to support the survival of these trees	4 stars	Improving	10

				and other regenerating species.			
	Other degradation drivers	The site was converted into a sugarcane plantation, which poses a high risk of uncharacteristic fires.	0 stars	Although other degradation drivers are currently low, the plant hierarchical complexity remains low, making the site vulnerable to unnatural disturbances such as fires, flooding, and invasive species.	3 stars	Improving	10
Physical conditions	Water chemo-physical conditions	Unable to assess	N/A	Unable to assess	N/A	N/A	N/A
	Substrate chemical conditions	Unable to assess	N/A	Unable to assess	N/A	N/A	N/A
	Substrate physical conditions (both abiotic and biotic components)	There was heavy tillage of the soil, significantly affecting its physical properties like structure, density, and porosity, making it less suitable for ground and native below-ground biodiversity, including beetles.	3 stars	The physical soil structure and biota were slightly similar to the reference ecosystem, with below-ground biodiversity such as dung beetles like *Onthophagus australis* present at both the	4 stars	Improving	6

				restoration and reference sites.			
	Desirable plants, fungi and lichens	Some native species were present onsite at the onset of restoration, including *Combretum molle*, *Ficus capensis*, and *Alstonia boonei*.	1 star	Native plant species have been planted on-site, with notable species such as *Khaya anthoceca*, *Khaya grandfoliola*, and *Maesopsis eminii*. Native species are also regenerating on-site.	2 stars	Improving	6
Species composition	Desirable animals	At the beginning of the project, some native birds and beetle species were present on-site.	1 star	Key native forest specialist bird and beetle species are now found on the restoration site, with more than 25% species richness and evenness compared to the reference site.	2 stars	Improving	6
	Rare and threatened species	At the onset of restoration activities, there were no rare or threatened species present on-site.	0 stars	Some threatened plant species have been planted and are regenerating, covering a small area of the restoration site. These include naturally occurring threatened species like *Melicia excelsa*, *Mondia whitei*, and *Prunus africana*.	2 stars	Improving	10

	No undesirable species	The site had a high presence of non-native and undesirable plant species, including sugarcane plantations and crops like sweet potatoes, beans, and cassava.	1 star	The site has some native species planted and regenerating although it is dominated by *Terminalia superba*, a non-native species and has invasives.	2 stars	Improving	6
	Provenance, genetic diversity and genetic resilience	At the onset of the restoration project, there was a low proportion of native species and inadequate genetic diversity on-site, as the entire area had been converted into a sugarcane plantation and other crop fields.	0 stars	The planted and regenerating species had some provenance material, appropriate to the site from local seed sources with exception of non-native tree species planted on site.	1 star	Improving	6
Structural Diversity	All vegetation strata	At the onset of the restoration project, no stratum of the reference site was present, as the site was characterized by sugarcane plantations and crop gardens.	0 stars	Two vegetation strata—understory and sub-canopy—were observed on the site, with low similarity levels relative to the reference, but they are capable of supporting some biota from the reference site.	2 stars	Improving	10
	All trophic level	The site had very low levels of ecological interactions, which were highly dissimilar from the reference.	0 stars	The soil microbiome is slightly similar to the reference, but community trophic complexity remains low, with mostly seed-	1 star	Improving	6

				eating bird species and few secondary consumers.			
	Spatial mosaic	The site was farmland with scattered native tree clusters, shrubs, and herbaceous plants.	0 stars	It is now covered by trees and grasses, creating mixed forest and woodland habitats and improving spatial patterning.	1 star	Improving	6
	Productivity/ cycling	Some physical and biological functions at foundational stage with keystone and framework species as well as birds facilitating seed transfers.	1 star	According to remote sensing surveys, Gross Primary Productivity (GPP) values have increased, but not consistently as expected. The GPP values show only a slight increase in productivity compared to the baseline.	2 stars	Improving	6
Ecosystem Function	Habitat & interactions	Habitat provision at foundation stage with low regeneration and recruitment.	1 star	The restoration site exhibits limited habitat provision for forest specialist species, characterized by open vegetation cover, low diversity and abundance of framework forest specialist species, and minimal facilitation of seed transfer by birds. The occurrence of	2 stars	Improving	6

				no forest specialist species on site reflects early-stage restoration trends, including insufficient structural complexity and weak ecological interactions to support natural regeneration processes.			
	Resilience & recruitment	Little to no resilience or recruitment compared to the reference. The ecosystem is not able to recover from natural disturbances or maintain species population through reproduction.	0 stars	Resilience and recruitment are at a very foundational stage compared to the reference site. Species such as *Sapium ellipticum*, *Combretum molle*, and *Cola gigantea* that are regenerating on-site indicate the early stages of recovery.	1 star	Improving	6
External Exchanges	Landscape flows	Limited positive exchanges with the surrounding environment owing to the site being converted into sugarcane and crop fields (e.g. physical barrier to the movement of species in the landscape).	1 star	There is evidence of positive exchange with the surrounding environment for a few characteristic species and processes, representing over 25% of the reference. This exchange facilitates the movement of species between landscapes.	2 stars	Improving	6

	Intraspecific gene flows	Positive genetic flow with the surrounding environment exists for a few characteristic species, representing over 25% of the reference. There are some pollinator and seed disperser species on-site, contributing to notable regeneration due to seed dispersal by birds.	1 star	Positive genetic flow with the surrounding environment in place for a few characteristic species (e.g., >25% of the reference with some pollinator and seed disperser species on site with notable regeneration owing to seed brought in by birds).	2 stars	Improving	6
	Habitat links	No to very limited positive habitat links with the surrounding environment in place for any species, indicating the site is highly isolated from its surroundings (i.e. the area had been converted into a sugarcane plantation).	0 stars	Positive habitat links with the surrounding environment have been established for some characteristic species, representing over 25% of the reference. This is evident in the presence of forest specialist bird and beetle species observed on-site.	2 stars	Improving	10

Level of Protection:

Baseline: Paper park (1 star)

Management activity	Sufficient level	Insufficient level
Soil erosion control		X
Watershed management		X
Management of wetland hydrology		X
Enforcement of restrictions or prohibitions on ecosystem conversion or destruction		X
Implementation of sustainable ecosystem management practices in productive landscapes (e.g., organic farming; agroforestry; Farmer Managed Regeneration)		X
Protection from overhunting, overharvesting, overfishing, or poaching		X
Protection from uncharacteristic fire		
Maintenance of natural or semi-natural disturbance regimes (e.g., fire; flooding; grazing; haymaking)		X
Fire management, including site preparation (e.g., thinning, hardwood reduction, establishment of fire breaks)		X
Prescribed burning		
Grazing management (e.g., control of native grazer populations; reductions, removal, or exclusion of non-native grazers)		
Species control measures, physical or mechanical (e.g., cutting, pulling, burning, covering, digging up, ploughing, scalping, mowing, capturing, hunting)		X

Species control measures, biological (release of biological control agents, grazing, predation)		
Species control measures, organic or non-synthetic chemicals (e.g., organic herbicides)		
Species control measures, synthetic chemical		
Post-control measures		
Re-invasion monitoring and prevention measures		X
Management of secondary invasives		X
Other control of invasive species		

Current: Area with partial sustainable use of natural resources (3 stars)

Management activity	Sufficient level	Insufficient level
Soil erosion control	X	
Watershed management		X
Management of wetland hydrology	X	
Enforcement of restrictions or prohibitions on ecosystem conversion or destruction	X	
Implementation of sustainable ecosystem management practices in productive landscapes (e.g., organic farming; agroforestry; Farmer Managed Regeneration)	X	
Protection from overhunting, overharvesting, overfishing, or poaching	X	
Protection from uncharacteristic fire		

Maintenance of natural or semi-natural disturbance regimes (e.g., fire; flooding; grazing; haymaking)	X	
Fire management, including site preparation (e.g., thinning, hardwood reduction, establishment of fire breaks)	X	
Prescribed burning		
Grazing management (e.g., control of native grazer populations; reductions, removal, or exclusion of non-native grazers)		
Species control measures, physical or mechanical (e.g., cutting, pulling, burning, covering, digging up, ploughing, scalping, mowing, capturing, hunting)		X
Species control measures, biological (release of biological control agents, grazing, predation)		
Species control measures, organic or non-synthetic chemical (e.g., organic herbicides)		
Species control measures, synthetic chemical		
Post-control measures		
Re-invasion monitoring and prevention measures		X
Management of secondary invasives		X
Other control of invasive species		

Stakeholder Engagement and Social Benefits:

Attribute		Score	Description
Stakeholder engagement	Stakeholders identified	1	JGI identified and involved stakeholders in the implementation of the project.
	Grievance mechanism	1	There is a grievance mechanism through which concerns are submitted, shared, and addressed through the project management team, NEKODA-CFM, and other secondary stakeholders such as NFA.
	Primary stakeholders involved	1	CFM members are involved, forest monitors are selected from the community to coordinate and strengthen the coordination, and monitoring of the project implementation activities.
	Secondary stakeholders involved	1	Engagement with secondary stakeholders the National Forestry Authority, (NFA), Uganda National Meteorological Authority (UNMA), and the Ministry of Water and Environment (MWE), in implementation of project activities.
Benefits distribution	Capacity increased/building	1	JGI delivered capacity-building training on tree planting, plant nursery establishment, and management and monitoring activities done.

	Benefits/opportunities equitably distributed	1	The project distributed free seedlings to CFM members and conducted Capacity-building training for all categories of distributed energy-saving stoves, provided agro-inputs to farmers such as planting materials of beans, maize, and Ground nuts to CFM eligible members reference to the scope of the project.
	Improved community wellbeing	1	Food security is achieved through providing agro-inputs, supporting community tree nurseries, and providing equal employment opportunities in tree planting and management.
Knowledge Enrichment	Inclusion of local or Indigenous knowledge in project development	0.5	Use of Farmer Managed Natural Regeneration (FMNR) integrated into the Taungya system in the early years of project implementation.
	Inclusion of scientific / conservation best practice in project development	0.5	Planting of repellent crops such as Jatropha spps to manage wildlife crop raids, catchment-based planning to guide project implementation, supporting native seedling regeneration on site.
	Project contributes to the scientific community / wider knowledge	0.5	Capacity building training, Household planting, Erosion control, Food security, and Income diversification for sustainable livelihood.

Sustainable Economies	Increased employment	0.5	Increased employment in community tree nurseries, contractual labour provision by CFM members benefiting from the project, employment of community forest monitors.
	Improvement to local supply chains/local economy	0.5	Supply of native tree seedlings from community tree nurseries, seed production for food security, Goats, and Beekeeping for honey production to diversify domestic incomes among the CFM members.
	Inclusion of sustainable business and employment models	0.5	Plant nursery operations and agriculture.

Monitoring, Evaluation and Adaptive Management:

Ongoing Management Planning:

- The management plan is co-developed with stakeholders and rights and knowledge holders, including local restoration practitioners and implementers.
- The plan builds as far as possible on effective practices, including traditional and Indigenous Peoples' management practices.
- The management plan involves subject matter experts, including local restoration practitioners and other stakeholders and rights and knowledge holders, who can help develop innovative management methods based on lessons learned from other projects.
- The management plan identifies the ongoing management team and clearly communicates roles and responsibilities of members of the team.

Long-term Resourcing:

- If not fully secured, appropriate long-term sources of funding for ongoing management are determined. There is coordination with other restoration projects to reduce costs and duplication of effort. These synergies can include, for example, alignment of schedules to facilitate sourcing of plant materials, sharing equipment and monitoring.
- The project conducts periodic monitoring of the site to check for recurrence of degradation and to protect the investment in restoration, involving local stakeholders and rights and knowledge holders, including indigenous peoples and key groups living in and adjacent to the project sites as much as possible.
- The project conducts site protection measures needed to prevent deleterious external or internal impacts (e.g. protection from unsustainable grazing, prevention of inappropriate fire, prevention of unsustainable harvesting, control of infestations by invasive species, management of weeds and other vegetative competitors).
- The project ensures essential ecosystem functions and processes are operating as appropriate and required to maintain ecosystem integrity and provide ecosystem resilience to degradation stressors (e.g., management of hydrological

regimes, ensuring natural disturbance regimes such as periodic fire in fire-adapted ecosystems or flooding of riparian zones).

- The project facilitates beneficial external exchanges with the broader landscape, including the exchange of genetic material in fragmented landscapes (e.g., through hand pollination or movement of propagules), or for depleted populations suffering from inbreeding depression or other genetic deficiencies.
- The project develops or supports training and stewardship programs for local communities and practitioners, to improve ongoing management of the site and prevent harm from inappropriate management.
- The project provides a governance structure to oversee ongoing management and stewardship of the site, and ensure legal protections for the investments made in restoration.

Adaptive Management:

- The project invests in knowledge sharing, acquisition and training to incorporate updated best practices when designing and implementing responses to unexpected or unforeseen events that threaten the integrity of the restoration site.
- The project consults the monitoring and evaluation plan before conducting implementation and ongoing management, to avoid activities in a manner that reduces the ability to learn about treatment outcomes.

Continuous Improvement:

- The project adopts a policy of continuous improvement informed by reliable monitoring. Such a policy can allow managers to continually upgrade and build on project goals to advance initial recovery towards progressively higher outcomes, seeking the highest level of recovery possible over the long term.
- The project seeks opportunities for the implementation of additional restoration activities or projects at the project site or in the broader landscape or seascape through replication or scaling up.
- The project conducts additional restoration activities that take advantage of the improved condition of the site (e.g., infill planting, reintroduction or augmentation of rare species, reinstatement of natural disturbance regimes).

- The project promotes engagement and buy-in from local stakeholders and rights and knowledge holders, including indigenous peoples and key groups, so that they can foster and be part of continuous improvement.
- The project explores further funding mechanisms and capital investment to extend restoration to adjacent or nearby sites, including the development of partnerships with local agencies and other organisations.

Monitoring and Evaluation:

- The monitoring programme/activities is adequately resourced.
- The monitoring programme/activities has the proper timing, frequency and duration so that lessons learned can be applied to adaptive management.
- Monitoring questions are directly linked with restoration objectives.
- Monitoring questions are clearly described in planning documents, with specific measurable indicators that include the amount of change desired and a specified time frame.
- The monitoring programme/activities includes collecting, managing (including cleaning and meta-data documentation) and archiving data.
- The monitoring programme/activities includes statistical analyses (if appropriate).
- The monitoring programme includes a plan for interpreting results and sharing findings.
- The monitoring programme/activities is being used to apply lessons learned to adaptive management within and across programmes.
- The monitoring plan includes an evaluation of the efficacy of the monitoring programme itself.

Certification issued to:

Jane Goodall Institute Uganda

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Social Safeguarding:

This project has not undergone a social safeguards assessment by The Global Biodiversity Standard. Responsibility for identifying and managing environmental and social risks lies with the implementing organisation and associated funders.