Sustainable Development Verified Impact Standard

THE KASIGAU CORRIDOR REDD+ PROJECT PHASE I – RUKINGA SANCTUARY – MONITORING AND IMPLEMENTATION REPORT SUMMARY

Document Prepared by Wildlife Works



Photo credit: Filip C. Agoo

The Kasigau Corridor REDD+ Phase I-Rukinga Sanctuary project is located in Southeastern Kenya; in the Coast Province about 2 hours' drive from the port town of Mombasa along the Nairobi-Mombasa highway. The Project's Eco-Region is typified by a dryland forest ecosystem, dominated by acacia and commiphora drought-resistant species. The majority of people in the area descend from the Taita tribe, with significant populations of Duruma, Kamba and other less-prevalent tribes.

The Project Area covers all the land known as Rukinga Sanctuary, with a total of 30,168.66 ha (74,516 acres). The land was originally known as LR 12263, which had historically been reduced by subdivisions 12263/1 and 12263/2 at dates prior to the start date of this project.

Rukinga is part of that land that forms a corridor (the Kasigau Wildlife Corridor) between the Tsavo East National Park and the Tsavo West National Parks to the East of the Marungu range. The Project Area and Reference Area are clearly delineated in Figure 3 in the MR in section 2.1, and the shapefiles representing the boundaries have been made available to the project validator. Lands within the Project boundary are classified as tropical dryland forest1 for at least 20 years and has been primary forest throughout recorded history2.

A primary focus of the Project Activities is to provide improved livelihoods either through direct employment with the Project or introduction of new or improved income-generating activities. On average, Wildlife Works retains a workforce of between 50-53 across the Project Area. In addition to the core project operations, revenue from carbon credit sales is also provided to the Wildlife Works Carbon Trust (WWCT) and is used to fund self-determined community projects.

The KCRPI provides many benefits that will help achieve Kenya's stated Sustainable Development Goals (SDGs). In 2015, Kenya joined the global community in adopting its SDGs, a set of 17 universal goals covering the thematic areas of environmental, economic and social development. They are structured to help drive national funding and policy decisions. In 2016, Kenya implemented the Vision 2030 plan, a long-term development plan with the goal of transforming Kenya into a newly industrializing, middle-income country that provides a high quality of life to all its citizens by 2030, within a clean and secure environment. These two sustainable development plans are coordinated in their goals and thematic areas. The climate, community and biodiversity benefits provided by KCRPI, and detailed in sections 3, 4 and 5, all contribute to achieving the global and national sustainable development goals detailed in these two plans. These contributing benefits are monitored through KCRPI's climate, community and biodiversity monitoring plans. SDGs that KCRPI will directly contribute to include:

- Goal 1: No Poverty
- Goal 2: Zero Hunger
- Goal 3: Good Health and Well-being
- Goal 4: Quality Education
- Goal 5: Gender Equality
- Goal 6: Clean Water and Sanitation
- Goal 8: Decent Work and Economic Growth

[1] UN IPCC, Good Practice Guidance for LULUCF, Table 3A.1.8;
[2] The earliest record that has been located is dated 1895 which identifies the area as forested [Hobley 1895 – Upon a Visit to Tsavo and the Taita Highlands – The Geographical Journal 1895 Vol 5 No 6 pp 545-561]

- Goal 10: Reduced Inequalities
- Goal 12: Responsible Consumption and Production
- Goal 13: Climate Action
- Goal 15: Life on Land
- Goal 16: Peace Justice and Institutions
- Goal 17: Partnerships for the Goals

The Project's climate benefits include the total avoided emission of 195,918 tCO_2e during this second monitoring period. The Project will generate substantial community and biodiversity co-benefits. New and sustainable livelihood opportunities, such as direct employment, alternative income generating activities (IGAs) and initiatives to stimulate investment in businesses will be designed to reduce pressure on the environment while significantly increasing community well-being. Additional programs will address food security, improve health and education facilities, as well as raise environmental awareness. Biodiversity co-benefits will be achieved through greater protection of the ecosystem predominantly by means of increased security and improved monitoring. The Project will also be protecting critical habitat for significant populations of many IUCN red-listed species, including African elephant, Grevy's zebra, Lion, African Wild Dog, Leopard, Cheetah, Secretary bird, Martial Eagle, Bateleur and several vulture species.

Impacts on Stakeholders

Impact #1	The project has maintained 63 employees for KCRP-Phase I with about 85% being from the local area and almost 28% female.
Type of Impact	This is a positive impact, that is actual and direct.
Affected Stakeholder Group(s)	Local communities-Present and future
Resulting Change in Well-being	Increased employment opportunities

Impact #2	Households earnings above (KES): <1,500 3% 1,500-5000 18% 5,000-10,000 40% 10,000-20,000 11% 20,000-50,000 4% >50,000 0%
Type of Impact	This is a positive impact, that is actual and direct.

Affected Stakeholder Group(s)	Local communities-Present and future
Resulting Change in Well-being	Increased household income

Impact #3	99% of households with on farm production for home use and 29% of households sold produce for cash
Type of Impact	This is a positive impact, that is actual and direct.
Affected Stakeholder Group(s)	Local communities-Present and future
Resulting Change in Well-being	Increased household income and food security

Impact #4	The number of patients had been steadily growing before the COVID-19 disruption, due to growing referrals across the County and neighboring counties. It has grown from handling about 75 patients per month since opening in March 2014 to nearly 250 patients monthly currently, each undergoing between 1-8 tests depending on the procedure.
Type of Impact	This is a positive impact, that is actual and direct.
Affected Stakeholder Group(s)	Local communities-Present and future
Resulting Change in Well-being	Improved access to quality healthcare services

Impact #5	There were 3,000 patients who undertook approximately 8,000 tests in improved health facilities
Type of Impact	This is a positive impact, that is actual and direct.
Affected Stakeholder Group(s)	Local communities-Present and future
Resulting Change in Well-being	Improved access to quality healthcare services

Impact #6	784 (bursary recipients) people for whom access to, or quality of, education was improved
Type of Impact	This is a positive impact, that is actual and direct.
Affected Stakeholder Group(s)	Local communities-Present and future
Resulting Change in Well-being	Increase in education opportunities for youth and local community members, leading to the increased capacity of individuals in project communities

Impact #7	4 training workshops (with a total of 65 staff members in attendance) held for skills/personal development
Type of Impact	This is a positive impact, that is actual and direct.
Affected Stakeholder Group(s)	Local communities-Present and future
Resulting Change in Well-being	Increase in education opportunities for local community members, leading to the increased capacity of individuals in project communities

Impact #8	5 classroom construction projects and 3 classroom renovations projects
Type of Impact	This is a positive impact, that is actual and direct.
Affected Stakeholder Group(s)	Local communities-Present and future
Resulting Change in Well-being	Increase in education opportunities for local community members, leading to the increased capacity of individuals in project communities

Impact #9	25% of those in managerial positions are women
Type of Impact	This is a positive impact, that is actual and direct.
Affected Stakeholder Group(s)	Local communities-Present and future

Resulting Change in Well-being	Increase in female employment opportunities in the project and reduced inequality for women in employment and leadership opportunities.

Impact #10	3,426 people accessing 10 project-built water sources
Type of Impact	This is a positive impact, that is actual and direct.
Affected Stakeholder Group(s)	Local communities-Present and future
Resulting Change in Well-being	Increase access to safe drinking water

Impact #11	Approximately <1% of primary level-aged children; 2% of secondary-aged children; and 1% of tertiary-aged children in the project communities are not in education due to lack of fees
Type of Impact	This is a positive impact, that is actual and direct.
Affected Stakeholder Group(s)	Local communities-Present and future
Resulting Change in Well-being	Increased access to education

Impact #12	50% of our respondents from the household survey reported improved livelihoods or income generated
Type of Impact	This is a positive impact, that is actual and direct.
Affected Stakeholder Group(s)	Local communities-Present and future
Resulting Change in Well-being	Increased access to education, employment, and social amenities

Impact #13	50% of our respondents from the household survey who reported improved livelihoods or income generated were women
Type of Impact	This is a positive impact, that is actual and direct.
Affected Stakeholder Group(s)	Local communities-Present and future

Resulting Change in Well-being	Increased access to education, employment, and social amenities for women

Impact #14	93 awareness meetings/events/ activities on REDD+ and 2 held in schools
Type of Impact	This is a positive impact, that is actual and direct.
Affected Stakeholder Group(s)	Local communities-Present and future
Resulting Change in Well-being	Increase in the project area communities awareness of sustainable development, environmentalism and protection of wildlife.

Impact #15	66% community members understand the link between environmental protection, REDD & livelihoods
Type of Impact	This is a positive impact, that is actual and direct.
Affected Stakeholder Group(s)	Local communities-Present and future
Resulting Change in Well-being	Improve the awareness of climate change and conservation and increase capacity on climate change mitigation.

Impact #16	3 local institutions strengthened to improve efficiency and accountability
Type of Impact	This is a positive impact, that is actual and direct.
Affected Stakeholder Group(s)	Local communities-Present and future
Resulting Change in Well-being	Promotes a stronger sense of self-determination within the community

Impact #17	8 agriculture-related training and courses for extension events
Type of Impact	This is a positive impact, that is actual and direct.
Affected Stakeholder Group(s)	Local communities-Present and future

Resulting Change in Well-being	Through trainings in improved agricultural methods there will be an increase in resource-use efficiency and greater adoption of clean and environmentally sound technologies in agriculture in the project area communities.

Impact #18	The Project has produced 195,918 tCO_2e of net emission reductions from avoided deforestation compared to the reference level.
Type of Impact	This is a positive impact, that is actual and direct.
Affected Stakeholder Group(s)	Forest ecosystems, biodiversity, endangered species, air quality, carbon sequestration
Resulting Change in Well-being	The project is taking urgent action to combat climate change by avoiding significant emissions of CO_2e by stopping deforestation

Impact #19	30,168.66 ha of the Project Area under conservation management
Type of Impact	This is a positive impact, that is actual and direct.
Affected Stakeholder Group(s)	Forest ecosystems, biodiversity, endangered species, air quality, carbon sequestration
Resulting Change in Well-being	Through the protection of the project area the area will have increased levels of resilience and adaptive capacity to climate related hazards and natural disasters.

Impact #20	17 snares recovered; 18 animal carcasses recorded
Type of Impact	This is a positive impact, that is actual and direct.
Affected Stakeholder Group(s)	biodiversity, endangered species
Resulting Change in Well-being	Reduce the amount of poaching and trafficked wildlife within the Project Area.

Impact #21	7 poachers and illegal charcoal producers arrested.
Type of Impact	This is a positive impact, that is actual and direct.
Affected Stakeholder Group(s)	biodiversity, endangered species

Resulting Change in Well-being	Reduce the amount of poaching, trafficked wildlife, and illegal charcoal production within the Project Area.

Impact #22	9 IUCN RED list species present in Project area
Type of Impact	This is a positive impact, that is actual and direct.
Affected Stakeholder Group(s)	biodiversity, endangered species
Resulting Change in Well-being	Increased protection of biodiversity and preserving and protecting threatened species from extinction.

Wildlife Works has been engaged in this project since 1998 and unlike NGOs that set up projects then leave and pay infrequent visits to see how things are going, Wildlife Works has had a hands-on approach since the very beginning. We employ over 100 local people in a range of activities that have continued and have been expand upon as a result of carbon financing generated by the project. Wildlife Works has implemented a wide range of sustainable development initiates at Rukinga since the start of the project. These initiatives collectively form the basis of our carbon offset leakage avoidance strategy. The major project activities include:

- **Wildlife Works Eco-Factory**: At the onset, our core project, was the construction of the Eco-factory, where we employed over 150 people from the community in the construction phase. Women from the community were then trained and employed in the sewing and production of organic cotton clothing which was exported to the US and Europe for sale on the internet and in fashion boutiques.

  The Eco-factory has continued to show stable growth in recent years towards breaking even. However, growth was adversely impacted by the COVID-19 pandemic. Supported by the international marketing and design team based in California, production was able to remain steady during the pandemic, with the number of employees maintained at 8. Wildlife Works maintained its relationship with the SOKO eco-factory from Mombasa including running of the Stitching Academy in Maungu Town, where potential seamstresses continue to receive specialized skills and training that enable them to directly work in any eco-factory at Wildlife Works' Export Processing Zone (EPZ), or elsewhere. Besides training as seamstresses, these women also acquired new skills for several printing and other support positions, like sales and marketing.

  To support production in the EPZ, a printing arm has been established and has grown to nine employees. In addition, the printing arm acts as a local production factory outside of the EPZ and is able to supply local demand, further growing production and local jobs. Wildlife Works established several shop outlets in the big cities and key tourist destinations of Kenya (Nairobi, Mombasa and Lamu) to grow local sales and develop employment opportunities.

  In addition, a small Wildlife Works soap factory was established and is still ongoing, with diversified production and maintained the three staff members. Different soaps are produced using locally sourced additives and extracts like jojoba oil, coconut milk and lime and sold to

niche markets in Nairobi and Mombasa, mainly consisting of lodges and hotels. While sales were severely disrupted by the COVID-19 restrictions on local and international travel to destinations that serve as key clients, production remains constrained by seasonality and availability of the required additives like jojoba oil.

- **Project Product Sales and Marketing**: Wildlife Works' core mission is to harness the strengths of the marketplace for conservation. Thus, improving access to markets through use of technology remains a critical component of our enterprise development model. Wildlife Works continues to build and improve access to markets for various products in KCRPI using technology, such as through the Wildlife Works' Export Processing Zone (EPZ) for apparel and Hadithi umbrella CBO for community handicrafts. As of December 2022, local community members (75% women) were trained or employed in Wildlife Works' eco-factory at the EPZ, mainly as seamstresses but also in several printing and other support positions like sales and marketing. The local community-based umbrella organisation, Hadithi, under KCRPI now provides marketing and sales support to 10 craft groups, comprising over 273 members, mostly women. Through Hadithi, a substantial amount of revenue from salaries or sales accrues to these local communities, especially directed to women, which greatly empowers them and their societies in general. In 2017 for instance, under KCRPI, Hadithi spent KES 735,000 on crafts made by women's group, paid cash in hand to the individual women. This figure rose to KES 1,575,000 in 2018, again paid cash in hand to the individual women. In 2019, KES 2,237,000 was spent on crafts cash in hand to the women (approximately $USD 22,500), growing to KES 2,589,000 (USD 25,800) in 2020 and KES 4,581,811 (USD 40,191) in 2021. In the 2022 reporting period, Hadithi sales under KCRPI were KES 2,489,255 (USD 20,043). Besides sales, Hadithi continues to provide training to its members on basketweaving especially on quality and design. In 2022, Hadithi opened a fully equipped leather workshop Buguta in a bit to add leather value to baskets and went live on three online marketplaces; maison et objet (as part of the NEST offer), powered by people, and Etikora, thereby expanding its online presence in four places

- **Organic Greenhouses:** The greenhouse project contains two components: (i) the tree nursery and selling point, and (ii) agricultural greenhouses. The greenhouse team responsible for implementing and managing both components was maintained at 3 staff members at the end of the 2022 reporting period. Production has grown and diversified beyond the sale of grafted fruit tree seedlings (like citrus, mango and avocado) to include sale of organically produced vegetables and ornamental plants for landscaping purposes. The selling point established along the main Nairobi-Mombasa Highway continues to grow sales. Lastly, throughout the year, the Lusario Women Group community greenhouse was provided with follow-up support from the Wildlife Works' Greenhouse and Community Outreach Departments on a broad range of their activities, including installation of an underground water storage tank.

  Wildlife Works runs a Greenhouse tree planting program under which there is a seedling purchase program. The objective is to stock the indigenous tree nursery, buying seedlings of specified trees from the community members, nurturing them to the point they can be out planted, and providing them for free back to the community, mainly through schools and community groups for reforesting the landscape.

  Of the indigenous trees bought from the community and nurtured at the Wildlife Works' greenhouse, the common species were *Melia volkensii, Gardenia volkensii, Acacia robusta, Terminalia prunoides, Lannea schweinfurthii, Balanites aegyptiaca, Cassia abbreviate,*

Berchemia discolor, Sclerocarya birrea and Acacia nilotica. On average, there were around 6,140 indigenous trees in the Greenhouse nursery every month, though this varied based on out-planting seasons and purchasing times.

- **Dryland farming scheme:** Another project activity is working with the Kenyan Agricultural Research Institute (KARI) to cultivate a climate appropriate plant called jojoba that provides a cash crop through its seeds and is extremely drought tolerant. We are studying the impact of various levels of plant maintenance and irrigation on plant seed and oil productivity, with the idea that we can provide local farmers root stock to establish their own plants, and they can know how much they can likely make if they are willing to put a certain level of effort into the plant maintenance.

- **School Construction and Bursary Scheme:** When we started working in the area, there were almost no schoolrooms, and no books, no desks, none of the infrastructure needed for children to have a hope of a decent education. We began with a school building program, and over the years we have partnered with the community and various donors we have identified, to build several classrooms throughout the district. We also have built desks and our original Kenyan manager Alice Ndiga launched a school bursary program, that has sent dozens of local children through private high school, and several on to college.

- **Ecotourism:** Wildlife Works continues to support management of Kivuli Camp within Rukinga Sanctuary. During the reporting period 2022, a total of 560 guests were booked at Kivuli Camp, spending a total of 716 nights and 2294 bed-nights. Kivuli Camp remains fully operational and hosts a mix of foreign and local guests including tourists and educational visitors.

- **Wildlife Works Carbon Project Monitoring:** We conduct annual monitoring of our carbon inventory by revisiting a statistical sample (20% annually, 100% every five years) of our permanent fixed plots each year to check for degradation or changes in existing stocks, and by acquiring remote sensed imagery to support the absence of large scale deforestation or boundary changes.

  We began our project on the 74,490 acre Rukinga Sanctuary as the ownership of the land is clear and clean. We trained some of our staff to perform the tree inventory, and recruited local tree experts from the surrounding communities, who could tell the difference between all the Commiphora and Acacia species present on the sanctuary. Our statistically valid tree sampling protocol determined that there are over 6 million trees on Rukinga Sanctuary, at a canopy cover of >30%, more than enough to qualify as forest under the UN IPCC AFOLU guidelines. *T*he soil carbon plots were resampled during the current monitoring period (M9 VCS/CCB). The teams have also worked on the Leakage and Quality Control plots.

- **Forest and Biodiversity Monitoring:** The Monitoring Department has six permanent staff for undertaking social and biodiversity surveys and assessments or collating data on various project impacts collected by other departments; additional staff/volunteers/interns are engaged during survey periods. The Wildlife Works' Research Camp has been maintained since 2012 and was expanded between 2014-2016 with the establishment of camping grounds, which was furnished and equipped into a fully functional and independent camping facility able to house short-term guests and visiting researchers. In 2022, three additional staff houses were built to house the resident research scientists.

- **Wildlife Works Rangers:** Wildlife Works has instituted several permanent initiatives to enhance security, especially around poaching including increasing our ranger force to about 25 (with about 10% being women) who undertake daily foot and driving patrols from 3 outposts distributed across KCRPI. All ranger outposts (bases) are maintained to ensure they remain under good state of repair, especially in terms of reliable solar power and water supply. Because Wildlife Works rangers remain an unarmed force, a working relationship with the KWS Special Operations Teams initiated in 2012 has been maintained and mainstreamed. Currently, KWS has several permanent mobile teams based in the ranches along the Kasigau Corridor (most of which are within the REDD+ Project). The project still operates two gyrocopters to enable aerial surveys almost on a daily basis collecting vital information for security and biodiversity monitoring purposes. This has resulted in both improved monitoring of High Conservation Value species as well as enhanced detection of incidents; over ¼ (25%) of all incidents recorded during the reporting period were originally detected from an aerial patrol. Lastly, Wildlife Works has engaged Sensing Clues (https://sensingclues.org/), to develop and adopt their Cluey App which helps capture and relay ground and aerial patrol data near real-time. This makes it safer for the ranger teams working on the ground and more effective in responding to incidents, especially those detected from the air.

- **Eco-Charcoal Production Facility**: Wildlife Works still maintains the eco-charcoal facility that was moved to a larger production area near McKinnon Road township at an area reserved for this production by Taita Ranch. Nine staff members run all the current operations spanning harvesting, carbonation, briquetting and sales. At present, the team can press 1,000-1,500 0.5 kg briquettes every week. The business plan was further supported by the Kenya National Research Fund towards scaling up through mechanization of production and improving sales and marketing. During the reporting period 2022, the mechanized briquette press, a grinder, and mixer were sourced for producing smaller pillow-shaped briquettes, in addition to an improved kiln which was fabricated and tested on-site. Full mechanization of the production process will enable scaling up to semi-commercial status.

- **Support in establishing the Tsavo and Rukinga Conservancies:** Progress towards establishing and formal registration of the Tsavo Conservancy has slowed down since 2018-2019 due to bureaucratic uncertainties around the registration process under Kenya's devolved governance structure. The Kenya Wildlife Conservancy Association has since ironed out the process with KWS and County Governments so it can be picked up again. Nonetheless, Wildlife Works remains committed to supporting the process once it is back on track, and in the meantime is actively laying the groundwork, including raising the profile and building the reputation of the area through its involvement with developing Kivuli and Satao Camps which are likely to be the Conservancy's hub. Additionally, Wildlife Works has now started the process of supporting Rukinga Wildlife Sanctuary apply for formal conservancy status, too.

- **Wildlife Works Health Projects**: Residents of Taita-Taveta County now have access to diagnostic laboratory services in their proximity. In July 2013 Wildlife Works signed a Private Public Partnership (PPP) with Moi District Hospital, a Kenyan Government district-level district hospital, and Lancet Kenya, a private pathology laboratory company based in Nairobi. It had been noted that while healthcare services in the Taita-Taveta county facilities were generally available to the residents of the region, the laboratory diagnostic facilities and services available to healthcare delivery personnel had deteriorated to near non-existence. This had for some time

caused great inconvenience as well as difficult morbidity and mortality rates, as reliable services were then only available in Mombasa or Nairobi, often dangerously far away.

Construction of the laboratory began in August and was completed in January 2014. The Ksh 14,190,000 (US$ 165,000) expenditure for full physical renovation and re-equipping with state of the art health instrumentation and diagnostic equipment was provided by Wildlife Works. The 130 square meter, air-conditioned laboratory now features state-of-the-art equipment from Germany, and provides computerized laboratory information system, automated analytical platforms, remote pathology supervision and standardized laboratory reporting. With this in place, it is not only the communities surrounding the Kasigau Corridor REDD+ Project, but all residents of Taita Taveta County.

Wildlife Works is committed to supporting community projects as we feel these can be the most important tools to developing self-sufficient and self-governing communities. One of our main focuses is on education, especially for women and girls, but also for male students. During the reporting period-2022, health education through our boy and girl-child programme that targets boys and girls from vulnerable families held 2 sexual health and sanitation training sessions for 273 girls and boys on sexual health, sanitation and drug abuse in various schools within KCRPI. Additionally, 121 re-usable sanitary pads were distributed to the girls.

- **Community Wildlife Scouts**: Wildlife Works maintains a community-based wildlife monitoring scheme, currently expanded to 3 areas within KCRPI: Makwasinyi; Buguta; and Kale-Birikani. In each of these sites, a community member records all incidences of key wildlife (High Conservation Value) sightings and human-wildlife conflict. In addition to collecting information that can feed into the national compensation scheme (run by KWS), these data show trends and patterns of crop-raiding and livestock predation, which Wildlife Works uses plan for swift response actions (e.g., deploying deterrents) and other mitigation measures. In the 2022 reporting period, a total of 125 incidents were recorded mainly involving seven species: Elephant, Spotted Hyaena, Lion, Baboon, Hyena, Eland and Mongoose. About 77% did not do any damage, 16% and 9%, respectively, damaged crops (including fruit trees) and other property and infrastructure; the rest damaged livestock.