PV CLIMATE

PROJECT IDEA NOTE

Lamu Blue Assets

Lamu County, Kenya

Version 3.0
08/12/2025

Developed by:

Enter details of project coordinator and other organisations involved in development of the project idea note including links to websites. Logos can also be included.

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Overview

Project Title:	**Lamu Blue Assets**
Location:	**Country** - Kenya **County** - Lamu **Sub County** - Lamu West
Project Coordinator:	Kenya Marine and Fisheries Research Institute **Contact person: Dr James Kairo** **Contact details**: jkairo@kmfri.go.ke
Project Area:	The project is located within the mangrove management area co-managed by Kenya Forest Service (KFS) and Lamu Mangrove Community Forest Association (LAMACOFA) of the Southern Swamps mangrove management block in Lamu County, Kenya. The KFS-LAMACOFA co-managed area comprises 8,645 ha of mangroves, out of which 4,904 ha has been set aside by the LAMACOFA community for the project.
Project Participants:	Approximately 46,802 local community members residing in 13 villages (indicated here in parenthesis) in ten sublocations comprising Langoni and Mkomani (Amu), Shela (Shela), Manda (Manda and Magogoni), Matondoni (Matondoni), Kipungani (Kipungani), Kilimani (Bandari Salama), Mokowe (Mokowe, Kililana-Mashundwani), Bargoni (Magumba, Ngiini and Ndununi) and Hindi (Kwa Sasi) sub-locations of Lamu West Sub County, Lamu County, Kenya. These are the forest adjacent communities (FACs) within the Lamu Mangrove Community Forest Association (LAMACOFA) mangrove management area.
Project Intervention(s):	i. Restoration will be carried out in 116 ha of severely degraded mangrove areas within the project area. To design appropriate restoration for each degraded area, detailed site assessment will be conducted. The restoration approaches that will be employed include reforestation and/or enrichment planting and restoration of hydrological condition, depending on the information gathered during site assessment. ii. Avoided deforestation: Areas experiencing low to moderate degradation (4,492 and 176 ha, respectively) will be conserved and protected through strengthening community monitoring and surveillance of mangrove forests and increasing public education and awareness campaigns. In addition, initiatives for alternative sources of wood and energy will be explored, including establishment of woodlots and use of improved/efficient cooking technologies

	iii. Improved forest management: protection will be enforced in approximately 120 ha of mangroves within the project area experiencing recovery from past degradation. These areas are recovering due to restoration efforts initiated by KFS, the Local community and other key actors. iv. The project will support promotion of nature-based enterprise/ income generating activities including establishment of ecotourism and recreational centres, beekeeping, aquaculture and mariculture within the project area
Expected Benefits:	i. The project interventions are expected to generate climate benefits through carbon removals and emission reductions/avoidance amounting to 63,222 tCO2e/year, after discounting for 20% and 5% permanence and leakage risks, respectively. ii. Community benefit: Some of the benefits arising from the project interventions include protection of cultural heritage sites, thereby promoting ecotourism, increased provision of traditional medicines, enhanced fisheries, job creation (project staff including project coordinator, scouts, restoration stewards) and coastal protection. Project interventions are expected to increase and/or provide sustainable income streams from fisheries, establishment of nature-based enterprises such as ecotourism, direct employment (project staff) iii. Biodiversity benefit: project interventions will enhance conservation and protection of mangrove habitats, feeding and breeding areas for a wide variety of fauna including fish, birds and other mangrove associated fauna (e.g., crabs, molluscs, etc.). This will enhance biodiversity conservation, fisheries production and ecosystem functionality services to adjacent ecosystems such as seagrass beds and coral reefs, which are important areas of high biodiversity
Methodology:	The project will apply Agriculture and Forestry Carbon Benefits Assessment Methodology (PM001) to assess and quantify its outcomes
PIN Version:	Version 1.2
Date Approved:	TBD

1 General Information

1.1 Project Interventions

Complete Table 1.1. To describe why each project intervention is expected to provide long-term increases in carbon storage or reductions in greenhouse gas emissions and have positive impacts on local livelihoods and ecosystems. Add a row for each project intervention.

Table 1.1 – Project Interventions

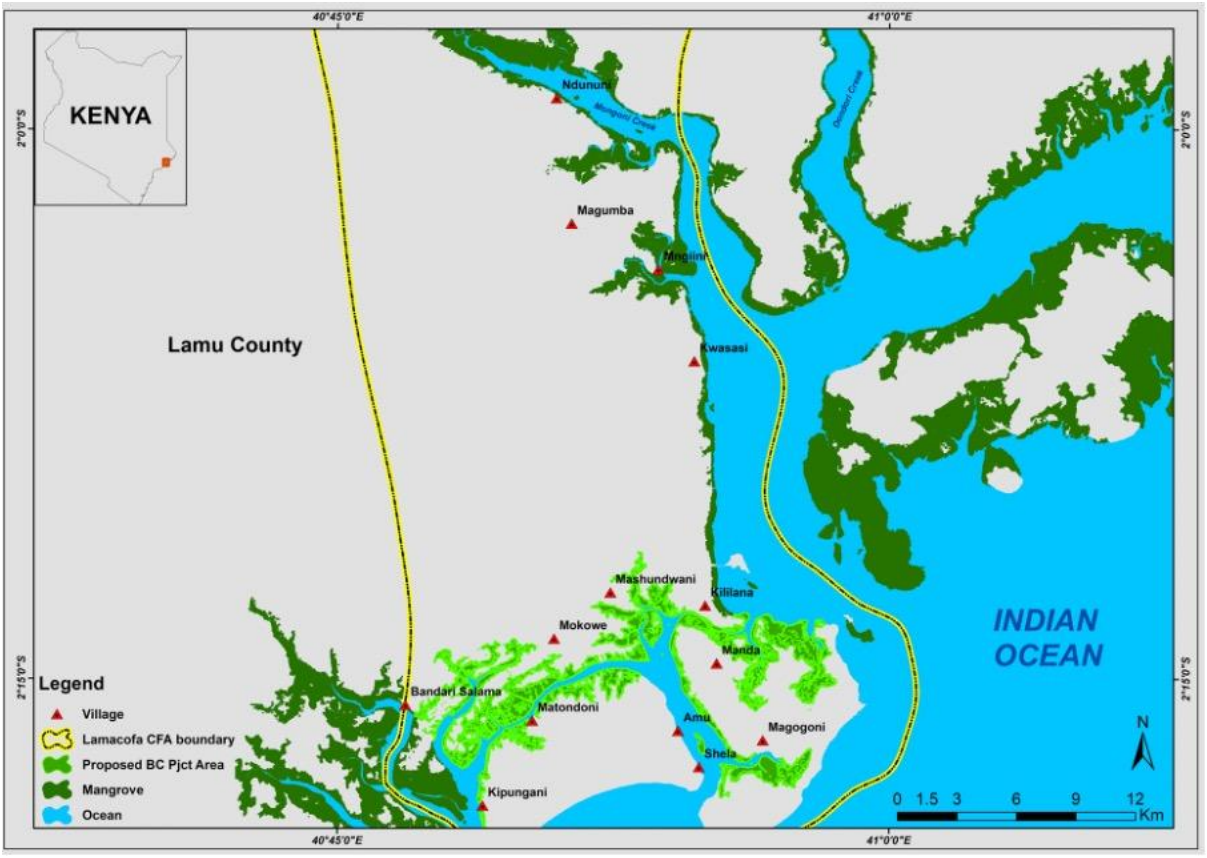
Intervention Type	Project Intervention	Expected Benefits
Restoration	Mangrove restoration will be carried out in 116 ha of degraded sites using appropriate approaches and species-site specific matching	i. Climate benefits: restoration of 116 ha degraded areas will yield 1,305 tCO2e/yr of carbon removals through sequestration and storage. ii. Community benefits: community members will be trained and equipped with restoration skills, thereby enhancing their participation as mangrove restoration stewards and champions iii. Biodiversity: restoration of degraded areas with enhance habitat provision for mangrove fauna, thereby improving biodiversity conservation
Avoided deforestation	This project will enhance community-based monitoring and surveillance within the 4,668-ha project area. To provide alternative sources of wood and energy, woodlots will be established in selected spaces within public land such as government school premises and public health facilities and where possible in community land selected by the project participants adjacent to the impacted sites. Additionally, local communities will receive training on diversifying their livelihoods.	i. Climate benefits: protection of 4,668 ha of mangrove areas from further degradation will result in 60,567 tCO2e/yr of avoided and/or reduced carbon emissions. it will also enhance coastal protection. ii. Community benefits: employment opportunities related to monitoring, surveillance, and woodlot management; increased food security due to enhance mangrove ecosystem functionality of supporting fisheries; training on income diversification can provide new income opportunities for local communities protecting livelihoods, which reduces reliance on mangrove resources and ensures sustainable practices. Some of the initiatives the community will be trained on include mariculture, ecotourism and fisheries value chain and post-harvest management.

		iv. Biodiversity benefits: enhancement of habitat functions for fisheries and other fauna. Establishing woodlots would be an alternative source of wood. Reduced human pressure will allow for recovery of the mangrove forests.
Improved forest management for Carbon enhancement	To support improved forest management for carbon enhancement in mangrove areas which are recovering from past degradation. These include 120 ha that have been restored by the local community and KFS with support from various stakeholders. These restoration activities were carried out in different periods for the different sites as from the last ten (10) years going forward. Further assessments is required to segregate the restoration activities into different age cohorts to claim retroactive credits. The effects of restoration become significance as from the 5th year after restoration. Therefore, the project may not consider claiming retroactive carbon credits at this stage. As the surrounding community heavily relies on mangrove resources, shifting resource use patterns could pose a threat to the recovery of these areas. To mitigate these risks, these areas will be safeguarded for natural regeneration and protected from future disturbances.	1. Climate benefits: The protection of restored mangrove areas from risk of degradation will yield about 1,350 tCO2e/yr carbon removals and reduced emissions. Healthy mangrove forests act as natural barriers, protecting coastal communities from erosion and storm surges. 2. Biodiversity benefits: Protecting the areas undergoing recovery from past degradation will allow for the natural recovery of mangrove ecosystems, providing critical habitat for various species. 3. Community benefits: local communities have access to mangrove co-benefits for future generations. It will also reduce the vulnerability of communities to the impacts of climate change, such as sea-level rise and extreme weather events.

1.2 Project Boundaries

Provide map(s) showing the boundaries of the proposed project region(s), project area(s), and protected areas within or adjacent to the project region(s). Include geospatial data files for project region and project area boundaries in Annex 1 (optional).

Complete Table 1.2 to provide a summary of the location and extent of the proposed project region(s) and project area(s).



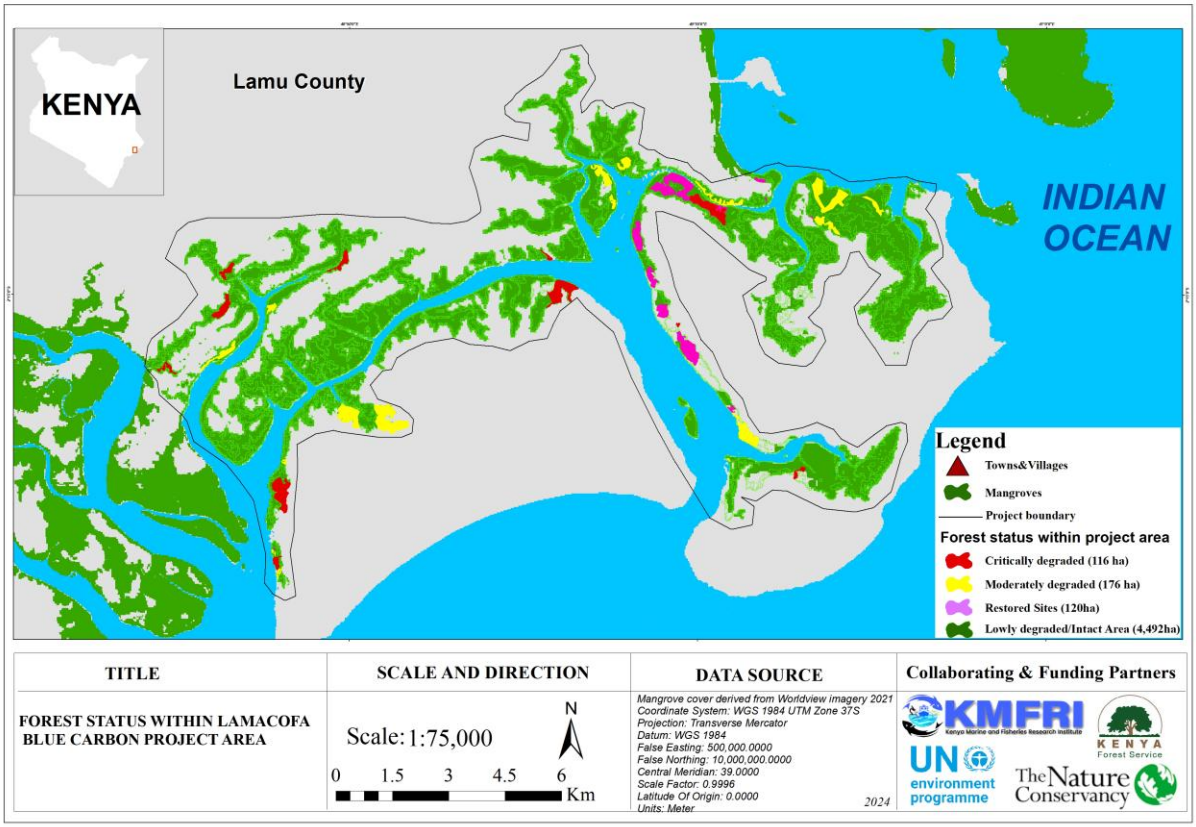


Figure 1: Maps showing project area including participating villages (top) and status of the mangrove ecosystem (bottom)

Table 1.2 Project Boundaries

Location:	Kenya, Lamu county, Lamu West Sub County.
Project Region(s):	Lamu County with mangrove cover of 37,350 ha has been recognised as an important hotspot for global biodiversity.
Project Area(s):	LAMACOFA mangrove management area (8,645ha), with the proposed Project area of 4,904 Ha, constituting; restoration area (116 ha), avoided deforestation (4,668 ha), and improvement of forest management for carbon enhancement (120 ha). There are no plans for the expansion of the project site at the moment, however, LAMACOFA will consult with, KFS and the key stakeholders should the need arise.
Protected Areas:	Mangroves in Kenya are protected through legislation and gazetted as public forests. The protected areas in proximity to the project area include: i) **Kiunga Marine National Reserve** (KMNR: 1.9777° S, 41.2891° E), which was established in 1979 and incorporates 51 offshore islands, coral reefs, mangroves and seagrasses. The reserve covers 250km² south of the Kenya-Somali border, in Lamu County. KMNR was designated as a UNESCO Man and Biosphere reserve in 1980. ii) **Kinyika Joint Co-Managed Marine Area** (JCMA; 2.429828°S, 40.841514° E), situated in the marine area around Kinyika, is a JCMA initiative comprising beach management units under a community-based organization (CBO), Lamu Marine Conservation Trust. Kinyika JCMA lies 4 km from coastline and is situated 17 km SouthWest from Shella Village in Lamu town. iii) **Shela Beach Sand Dunes** (2.300075°S, 40.913913°E) are gazetted water catchment areas in Lamu Island for local communities, which cover 12 Km^2 and serve as the only freshwater reserves on the island. iv) **Dodori National Reserve** (1.8253°S, 41.0797°E) was established in 1976. The reserve comprises Dodori 877 km^2, and Boni 1,339 km^2. It was designated as a UNESCO Man and Biosphere reserve in 1980. The reserve, which is also an Important Bird Area (IBA), comprises important woodland and forest areas supporting large and diverse wildlife as well as serving as a cultural heritage area.

1.3 Land and Carbon Rights

Describe the ownership, tenure, user rights or management rights of the project area(s), and how these relate to the carbon rights of project participants.

The project area is within the mangrove forests, which are gazetted in Kenya as public forests, managed by Kenya Forest Service (KFS). The Forest Conservation and Management Act (2016) provides for participation of local communities in the conservation and management of public forests through a participatory forest management (PFM) framework. The process involves establishment and registration of a community forest association (CFA) through which the local community signs a Forest Management Agreement (FMA) with KFS to co-manage a particular adjacent public forest. Kenya Forest Service works with communities through structured governance systems that include developing strategic Participatory Forest Management Plans (PFMPs) that define roles and responsibilities for every stakeholder, and feedback mechanisms. Activities in the management agreements may include, but are not limited to forest restorations and protection, and the establishment of nature-based enterprises within the designated forest area. LAMACOFA developed

a PFMP 2022-2027 and signed a FMA with KFS in 2022, granting the community user rights including participating in restoration and protection of mangrove forests, and development of livelihood and income generating activities such as ecotourism, beekeeping and other nature-based enterprises (NBEs) in the designated mangrove management area. The PMFP is reviewed every five years and the FMA is renewed based on the updated PFMP. Since LAMACOFA has secured KFS authorisation for the implementation of the blue carbon project, the access rights for project activities will be granted throughout the project period through periodic renewal of the FMA with KFS. Under this agreement, activities related to LAMACOFA aim to enhance local livelihoods so as to not compromise the integrity of the adjacent mangrove forests, sustainable conservation and management of the resource.

The Climate Change (Amendment) Act (2023) of the Laws of Kenya provides for mechanisms for trading of carbon credits through the existing carbon markets. Section 23A of the Act gives prescriptions to all carbon markets aimed to trade carbon for emission reduction including removal or sequestration credits to either use or store it through afforestation, reforestation or nature-based solutions.

2 Stakeholder Engagement

2.1 Stakeholder Identification

Identify and describe the main stakeholder groups that could influence or be affected by the project. Describe the relationship of each stakeholder group to the project and state whether they are considered local stakeholders or secondary stakeholders (see Plan Vivo Glossary for definitions).

Identify any Indigenous Peoples or local communities that have statutory or customary rights to land or resources in the project area(s).

Local stakeholders are groups or organisations that are not directly involved in the project activities but are directly impacted by the interventions implemented, these are project participants within LAMACOFA mangrove management area, the mangrove licensees and cutters, local Beach Management Units (BMUs). As per the 2019 national population census people residing within the LAMACOFA management area were 46,802, comprising 54.39% and 45.61% males and females respectively[1]. Based on the annual population growth rate of 2.64% reported for Lamu County[2], the population for LAMACOFA area is estimated as 54,215. Vulnerable groups in the project area include marginalised and minority ethnic communities comprising the Awer and the Sanye, with respective populations of approximately 2,500 and less than 500. Other local stakeholders include local communities in Lamu County who reside outside the LAMACOFA management area but utilize mangrove resources across the entire county for various activities including fisheries, harvesting of poles (mainly by licensees and cutters), landing sites for poles, offshore fisheries and other minor transport logistics. These include communities in Pate, Ndau, Awer CFA, and Mkunumbi CFA areas, Kiunga Community Wildlife Association (KICOWA), other community-based organizations (CBOs) as well as other communities who are not affiliated to any community-based association.

Secondary stakeholders are groups or organisations that have some level of oversight/management/influence within the project region and are not directly impacted by the project activities. This includes Kenya Forest Service (KFS) and its mangrove advisory bodies, National

[1] Kenya National Bureau of Statistics 2019. Kenya National Population and Housing Census. Volume II
[2] KNBS Population of Kenya 2024; Stats Kenya

Mangrove Management Committee (NMMC) and Lamu County Mangrove Management Committee (CMMC), which will influence as well as be positively impacted by the project interventions. KFS will provide support for coordination, capacity development as well as technical expertise to the project implementation. Likewise, KFS will be positively impacted by the project interventions through enhancement of community participation in mangrove conservation, protection and restoration. The National Environment Management Authority (NEMA), the designated national authority for registering and monitoring carbon projects will influence the project through ensuring carbon market regulations and environmental and social safeguards are adhered to, provision of information, education, awareness creation and capacity building. Other secondary stakeholders include marine resource management and research government agencies, Kenya Wildlife Service (KWS), Kenya Forestry Research Institute (KEFRI), Kenya Fisheries Service (KeFS), Kenya Marine and Fisheries Research Institute (KMFRI) which will influence the project by availing technical and governance support. The County Government of Lamu (CGL), which implements policies and plans related to the environment, is a key secondary stakeholder that will influence the project through facilitation of community participation and development.

Other secondary stakeholders are development partners including United Nations Agencies (e.g., UNEP) The Nature Conservancy (TNC), International Union for Conservation of Nature (IUCN), WorldWide Fund-Kenya (WWF-K), Wetlands International (WI), Northern Rangeland Trust (NRT) among others, which have been supporting mangrove conservation along the Kenyan coast, and in particular Lamu County. These stakeholders will influence the project through offering support including but not limited to technical and financial support and capacity development.

2.2 Project Coordination and Management

Identify the project coordinator organisation that will take overall responsibility for the project, and any other organisations that will play a role in project coordination and management. Identify the parties responsible for each of the project coordination and management functions listed in Table 2.2.

Provide a summary of relevant experience that demonstrates proficiency in the assigned function(s) for the project coordinator and any other organisations listed in Table 2.2. Include details of skills and experience to allow for appropriate engagement with any indigenous vulnerable or disadvantaged peoples in the project region.

Provide a copy of the project coordinator's registration certificate in Annex 2.

If the applicant organisation identifies another organisation to act as the project coordinator, include a statement signed by the project coordinator acknowledging that the PIN was submitted with their full consent in Annex 2.

Kenya Marine and Fisheries Research Institute (KMFRI) will serve as the project coordinator organization for the time being until LAMACOFA establishes or identifies an entity that will be the project coordinator. This is expected to be for at least a year after the project implementation commences once it is registered. With support from Kenya Forest Service, the County Government of Lamu (CGL) and other key stakeholders, KMFRI will build capacity for LAMACOFA to effectively implement the project activities. To enhance the project governance, a local secretariat will be established to manage the project. The secretariat will comprise LAMACOFA, KFS, KMFRI, KEFRI, and CGL and other key stakeholders will be co-opted when the need arise. The secretariat will establish a Project Office staffed by qualified technical experts, including a project manager/coordinator, technical, and administrative personnel who will coordinate implementation of project activities

including monitoring and reporting. For each participating institution, the engagement with LAMACOFA or its subsidiary entity that will be established will be formalised through a signed memorandum of understanding (MOU).

Already KMFRI supported the development of two blue carbon projects in Kenya; Mikoko Pamoja and Vanga Blue Forest. The Institution is recognised at national, regional and international levels as a centre for excellence in blue carbon research and conservation, and its team of blue carbon scientists have provided expertise regionally and globally in blue carbon innovative solutions and initiatives.

Association of Coastal Ecosystem Services (ACES), a charity registered in Scotland (SC043978), will be responsible for marketing and selling Plan Vivo Certificates, overseeing the transfer of funds to the LAMACOFA. ACES will hold an independent and transparent account from which payments for carbon credits can be transferred to LAMACOFA.

Kenya Forest Service (KFS), by virtue of its mandate, will be part of the local secretariat to support the project. The Lamu Forest Station Manager (FSM), under whose jurisdiction LAMACOFA management area is situated, will represent KFS in the Secretariat. The FSM is a member of the forest level management committee overseeing the activities of CFAs within the forest station. The KFS forest station managers are trained foresters with skills and experiences in forest governance and management.

Kenya Forestry Research Institute (KEFRI), which is mandated to conduct research and capacity development in forest ecosystems, will also be a key member of the local secretariat. KEFRI has an established station in Lamu county staffed with researchers with skills experience in mangrove forest as well as terrestrial forest ecosystems in Lamu County.

The County Government of Lamu (CGL), which is also mandated to implement national environmental policies, coordinate public participation and oversee community development, will be a key member of the local secretariat. The county sectors relevant to the project implementation include administration, environment, fisheries and blue economy, tourism and trade; all of which are staffed with technical officers with skills and experiences in their respective areas of expertise.

Lamu Mangrove Community Forest Association (LAMACOFA) is a community-based legal entity established and registered in 2015 under the Societies Act Cap 108 1968 (revised edition 2012) to facilitate participation of forest adjacent communities (FACs) in mangrove forest management as provided for by Article 48 of the Forest Conservation and Management Act, 2016. The CFA operates in thirteen (13) villages adjacent to mangrove ecosystem in ten sublocations in Lamu West Sub-County, Lamu County. The villages comprise, with the respective sub-locations in parenthesis, Amu (Langoni and Mkomani), Shela (Shela), Manda and Magogoni (Manda), Kwa Sasi (Hindi), Ngiini, Ndununi, and Magumba (Bargoni), Mashundwani and Mokowe (Mokowe), Bandari Salama (Kilimani), Kipungani (Kipungani), and Matondoni (Matondoni).

The LAMACOFA structure comprises of community members who must register themselves as CFA members, which as of 2022 comprised a total of 1,029 members: 526 and 503 males and females, respectively[3]. The CFA members formed five (5) forest user groups (FUGs) across the 13 villages including beekeeping, restoration, fisheries, ecotourism and seaweed farming. The FUGs formed the basis upon which the community members were granted the user-rights in the forest management agreement (FMA) the CFA signed for a period of five years with the Kenya Forest Service (KFS) in 2022. The signing of the FMA was informed by a participatory forest

[3] KFS 2022. Lamu Mangrove PFMP

management plan (PFMP) 2022-2026 by LAMACOFA with technical support from KFS, KMFRI, Kenya Fisheries Service (KeFS), Kenya Wildlife Service, Kenya Forestry Research Institute, and County Government of Lamu, and financial support from Northern Rangeland Trust (NRT) and The Nature Conservancy (TNC). The PFMP outline management programmes and actions through which the community implement in 8,645 ha designated as the LAMACOFA mangrove management area, which it co-manages with KFS. The PFMP will be periodically revised and updated as appropriate and will form the basis of renewable of FMA in subsequent years.

The governance structure of LAMACOFA has the executive committee comprising the chair, vice chair, secretary, vice secretary and the treasurer, the management committee, the leaders of the FUGs and the registered members as the general assembly. The heads of villagers and the sub-chiefs (national government administrative officers; NGAO, in charge of sublocations) sit as ex-officio in the executive and management committee meetings as well as ensuring security and order in the CFA functions during the general assembly or public meetings (village *barazas*).

LAMACOFA has received capacity development in governance, technical and financial management from key relevant government agencies in collaboration with development partners including TNC, UNEP, WWF Kenya, Wetlands International, and NRT among others. Therefore, LAMACOFA members have gained skills and experience to implement the management actions outlined in the PFMP through the respective FUGs.

Table 2.2 Responsibility for Project Coordination and Management Functions

Project Coordination and Management Function	Responsible Party/Parties
Stakeholder engagement during project development and implementation	KFS, LAMACOFA, Local secretariat
Ensuring conformance with the Plan Vivo Carbon Standard (PV Climate) and compliance with applicable policies, laws and regulations	ACES, LAMACOFA, Local secretariat
Developing technical specifications, land management plans and project agreements with project participants	Local secretariat, KFS ACES, LAMACOFA
Ensuring that the PDD is updated with any changes to the project	Local secretariat, LAMACOFA, ACES
Registration and recording of land management plans, project agreements, monitoring results, and sales agreements	KMFRI, KFS, Local secretariat, LAMACOFA, ACES
Managing project finances and dispersal of income to project participants as described by the benefit sharing mechanism	Local secretariat, LAMACOFA, ACES
Managing Plan Vivo Certificates in the Plan Vivo Registry	ACES
Preparing annual reports and coordinating validation and verification events	Local secretariat, LAMACOFA, ACES
Securing certificate sales and other means of funding the project	ACES, Local secretariat
Assisting Project Participants to secure any legal or regulatory permissions required to carry out the project	KFS, Local secretariat, LAMACOFA
Providing technical assistance and capacity building required for project participants to implement project interventions	KMFRI, Local secretariat, LAMACOFA
Monitoring progress indicators, livelihood indicators and ecosystem indicators and providing ongoing support to project participants	Local secretariat, LAMACOFA,
Measurement, reporting and verification of carbon benefits	Local secretariat, LAMACOFA, ACES

2.3 Project Participants

For each project intervention, identify the potential project participants and describe their location in relation to the project area(s) and project region.

Identify any potential project participants that are not resident within the project area, who do not manage land or natural resources within the project area for small-scale production, or who are structurally dependent on year-round hired labour for their land or natural resource management activities; and describe what measures are in place to ensure that the project areas they manage: i) Collectively make up less than 30% of the total Project Area at all times; ii) Were not acquired from smallholders or community groups for the purpose of inclusion in the Project; and iii) Have clear benefits to the Project, for example by increasing connectivity or benefits to local communities.

The project participants for this project are the mangrove forest adjacent communities (FACs) from 13 villages in 10 administrative sub-locations (indicated here in parenthesis) in Lamu County comprising Amu (Langoni and Mkomani), Matondoni (Matondoni), Kipungani (Kipungani), Manda and Magogoni (Manda), Shela (Shela), Bandari Salama (Kilimani), Mokowe, Kililana and Mashundwani (Mokowe), Magumba, Ngiini and Ndununi (Bargoni) and Kwa Sasi (Hindu). The project area is within the mangrove management unit, under the Lamu Forest Station of Kenya Forest Service. The Bajuni community is the predominant ethnic group withing LAMACOFA area, constituting 32% of the population, followed by Mijikenda (18%), Awer (12%), Kikuyu (5.7%), Somali (4.6%), Orma (3.4%), and other ethnic groups comprising Pokomo, Luo, Wardei, Sanye, Kamba, Swahili, Meru, Arab, Luhya and Taita[4]. The ethnic groups considered native to Lamu are the Bajunis, Awer, Swahili and Sanye, who, except for the Swahili, are mostly dominant in rural settings[5]. The Awer are Cushitic speaking indigenous community residing primarily within Boni and Dodori forests in northeastern Lamu and southern Tana River Counties. The Sanye, numerically the smallest (with a population estimate of approximately 500 in 2020) and most marginalised indigenous community in Lamu County, believed to be related to the Awer, live in scattered forest villages on the border of Tana River County. Both communities considered marginalised/minority groups, which are stipulated in Kenya's policy framework to be accorded affirmative action, special recognition and representation. The Swahili community emerged over centuries of interaction between African Bantu speaking coastal communities and the Arab, Persian and, later, South Asian traders. Most of the non-native ethnic groups are mainly in urban centres such as Amu (Langoni and MKomani sub-locations) and Mokowe.

Pate-Ndau-Awer Community Forest Association (PANDAWE CFA) and Mkunumbi Community Forest Association (MKUCOFA) managing adjacent mangrove areas in Lamu County will also benefit from the improved health of mangrove ecosystems in general due to the proposed project interventions. Other participants are research institutes, KMFRI and KEFRI, local NGOs and CSOs such as the Northern Rangeland Trust (NRT), Save Lamu, Lamu Marine Conservation Trust (LaMCoT), and Lamu Environment Foundation among others. Other potential participants outside the project area are the Nature Conservancy (TNC), Wetlands International, WWF-Kenya, Flora and Fauna International, Edinburgh Napier University and Association of Coastal Ecosystem Services (ACES).

[4] Kenya National Bureau of Statistics 2019. Kenya National Population and Housing Census. Volume II
[5] Strategic Environmental Impact Assessment for LAPSSET Infrastructure Development Corridor, Report, 2017

2.4 Participatory Design

Describe the participatory process that will be followed to develop project interventions and define the project logic involving representatives of potential project participants and other local stakeholders. Include details of any measures to ensure the inclusion of those that may normally be excluded or marginalized because of gender, age, ethnicity, religion, or social status and to ensure that their concerns and aspirations were consistently understood and considered.

The project interventions are built around the active participation of the forest adjacent communities (FACs) within the LAMACOFA mangrove management area which also is considered to be the pearl of Lamu as it holds some of the county's rich fishing grounds. The process for developing the participatory forest management (PFM) framework for the co-management mangrove area of LAMACOFA followed a comprehensive consultative approach which involved meetings with the local people across the 13 villages. The consultations also employed different categories of meetings, comprising village barazas (all the people within a village could attend), leaders of CFA user-groups, the CFA management and executive committee members and local/opinion leaders and the relevant government agencies.

The development of the blue carbon project follows the same approach. A series of meetings involving CFA executive and management committees, public forums (*barazas*) in the 13 villages have been conducted. An inclusive approach has also been employed to ensure the adequate representation of women, the youth and the vulnerable and marginalised groups. The Constitution of Kenya (CoK 2010) advocates for inclusive public participation including ensuring that there should be at least 30% of gender representation in decision making forums. The constitution also stipulates youth participation in social economic development of which the project will adhere to. Since the governance structure of LAMACOFA conforms to the constitutional obligations, this aspect was met during the consultations with the CFA leadership. The public forums (village *barazas*) that have been conducted so far have not segregated the meetings based on gender or age structure. However, where necessary due to the cultural norms in public and/or decision-making forums, separate meetings for women may be held where it may deem appropriate to ensure equal participation and contribution. Local staff employed under the project will be trained on cultural practices and norms that may hinder inclusion in regards to gender, ethnicity, disability and socio-economic status, and the steps to be undertaken to ensure equal opportunity for all demographic groups through the collaboration of the State Department of Social Protection and Senior Citizen Affairs.
With the support of technical teams from KFS, KMFRI, KEFRI, CGL and other key stakeholders, LAMACOFA will establish a strong and effective governance structure to implement the project activities. The establishment of the governance structure will ensure compliance with inclusive and equal representation of all groups of the local communities.

Thus far, these equal and inclusive participation principles have been applied in conducting community meetings on blue carbon project development. These meetings have succeeded in raising the profile of blue carbon ecosystems, challenges facing the local community and potential interventions including use of carbon financing mechanisms. These meetings provided forum for the local communities to provide inputs and built consensus on mitigation any issues that might affect their rights to resource use. Some of the issues emphasised by the community include continuous engagement while ensuring transparency and inclusivity, clear benefit sharing framework, enhance education awareness regarding carbon market aspects and promoting and expanding initiatives for diversification of alternative livelihood ventures such as ecotourism, mariculture and other feasible nature-based enterprises. The communities within and adjacent to the project areas are actively involved in mangrove conservation activities and perceive the proposed interventions such as restoration, fisheries management and the establishment of a blue carbon project as complementary to their current conservation efforts. The plates below show various engagement meetings with the key stakeholders including mangrove licensees and cutters, village barazas and stakeholder mapping






2.5 FPIC Process

Describe the FPIC process that will be followed to enable a collective decision by Indigenous Peoples and local communities with statutory or customary rights to land or resources in the initial project

area(s) to negotiate the conditions under which the project is designed, implemented, monitored and evaluated and grant or withhold consent to: i) consider the proposed project; ii) engage in the project design process; and iii) implement the project.

The Lamu Blue Project will adhere to a comprehensive Free, Prior, and Informed Consent (FPIC) process to ensure collective decision-making by local communities with statutory or customary rights to land and resources. Extensive community consultations will be conducted, both directly and indirectly, to engage local communities and relevant stakeholders, ensuring their perspectives are integrated into the project's decision-making framework.

These consultations will create platforms for open dialogue, allowing community members to express their concerns, aspirations, and priorities regarding the project. Efforts will be made to ensure robust consensus building to facilitate inclusive decision making. Meetings will bring together representatives from local communities, government agencies, key stakeholders, and the project developer to align project objectives with community interests. For community representation, the engagement and consultations will be done through existing CFA structures comprising the executive and the management committees, and the leaders of the forest user groups (local leaders termed as *Viongozi mashinani*). This collaborative approach will establish clear frameworks for the project's design, implementation, monitoring, and evaluation.

Information about the project's goals, potential impacts, and expected outcomes will be shared in accessible and understandable formats, including non-technical summaries and translations into local languages. Formal consent from stakeholders will be documented before initiating any project activities. This documentation will serve as a transparent record of community decisions and agreements, fostering accountability and trust.

To ensure inclusive and participatory decision-making, local communities will be empowered to:

Evaluate the Proposed Project: Assess whether the project aligns with their priorities, livelihoods, and long-term goals.

Participate in Project Design: Actively contribute their knowledge, needs, and concerns to shape the project framework through participatory mechanisms.

Grant or Withhold Consent: Make informed decisions about project implementation, ensuring agreed-upon conditions safeguard their rights, promote sustainable livelihoods, and mitigate potential risks.

3 Project Design

3.1 Baseline Scenario

Describe the expected future land use and land management of the project areas(s) in the absence of project intervention(s).

Lamu's mangrove forests are a lifeline for most of the communities adjacent to the area. They derive wood for construction from the mangrove ecosystems. In addition, they derive other livelihood activities including fisheries from the ecosystem and the adjacent areas. However, the mangroves have faced significant overexploitation due to high demand for wood for construction and fuel. Despite a ban on mangrove wood export in 1982 and a domestic logging ban in 2018, illegal logging and other stressors like livestock grazing and coastal development continue to threaten these vital ecosystems. The lifting of the logging ban in Lamu County in 2019 has further exacerbated these

challenges. In the absence of project interventions, the future land use and management of the Lamu mangrove ecosystem will likely follow a trajectory of increasing degradation driven by unsustainable practices. Current land use is characterized by reliance on mangrove resources for wood, fuel, and lime production, with significant illegal logging contributing to habitat loss. Livestock grazing, coastal development, and settlement expansion are also exerting pressure on the mangrove areas. Governance is fragmented, and enforcement of sustainable practices remains weak, allowing overexploitation and encroachment to persist.

The participation of the local communities in mangrove conservation and restoration has been largely on a voluntary basis with no framework for compensation or reward for the efforts of the community members. They rely heavily on donor support to conduct conservation and restoration activities within the mangrove areas. The sustainability of such activities is not assured since the support from the donors is sometimes intermittent, erratic and/or may be constrained by the interests and priorities of such donors. Project managers and local communities often face difficulties in securing continuous financial support, leading to interruptions and inefficiencies in conservation activities. In addition, mangrove restoration in Lamu tends to be resource intensive due to the logistical challenges imposed by the environmental and oceanographic settings of the Lamu Archipelago.

3.2 Livelihood Baseline

For each of the local stakeholder groups identified in Section 2.1, provide descriptions of livelihood status prior to the start of the project and how livelihood status is expected to change under the baseline scenario. Include details of access to and main uses of land and natural resources, typical assets, income levels and sources, livelihood activities, and other factors important in the context of the project region.

The LAMACOFA co-managed mangrove area supports a population of 46,802[6] people who heavily depend on natural resources for their livelihoods. Fishing is the dominant economic activity, supported by mangroves that provide critical breeding and nursery grounds for fish and crustaceans. Mangrove wood harvesting is widespread, with 79% of households relying on it for construction, energy, and trade within neighbouring counties. Livestock keeping and small-scale farming also supplement incomes, while food crop sales (18%), forest products (16%), and casual labour (15%) are key income sources. Access to land is primarily informal, with 69% of households owning 1 to 5 acres, which offers opportunities for farm forestry to alleviate pressure on mangroves. Housing is typically made from mud bricks (50%) and iron sheets (43%), reflecting resource reliance and adaptation to the hot climate, while water scarcity remains a major challenge, with 50% of households relying on wells. Only 45% of the population has completed primary education, limiting access to alternative livelihood opportunities[7][8]. Under the baseline scenario, continued mangrove degradation from illegal logging, overfishing, and encroachment will intensify resource scarcity, reducing fish stocks, increasing competition, and driving up costs for essential goods. Household incomes will decline as fishing and forest resources diminish, while asset erosion and reliance on unsustainable practices will perpetuate poverty and increase vulnerability to environmental shocks.

[6] Kenya National Bureau of Statistics 2019. Kenya National Population and Housing Census. Volume II
[7] KFS 2022. Lamu Mangrove PFMP
[8] Hamza et al 2020: Pa st and present utilization of mangrove resources in eastern Africa and drivers of change. *Journal of Coastal Research*, *95*(SI), 39–44. https://doi.org/10.2112/SI95-008.1

3.3 Ecosystem Baseline

For each project region, describe the ecological conditions prior to the start of the project and how ecological conditions are expected to change under the baseline scenario. Include details of the main ecosystems and habitat types present, and any species of conservation concern known or thought to be present.

The mangrove forest within the LAMACOFA management area is 8,645 ha out of which 1,686 ha is degraded. At least 7 of the 9 mangroves species in Kenya have been identified in the area[9], with *Rhizophora mucronata* and *Ceriops tagal*, comprising approximately 70% of the formation, which is consistent with mangrove ecosystems along the Kenyan coast[10]. Other mangrove species include *Avicennia marina* occurring as moderate to dwarf vegetation at the landward side or as large trees in association with *R. mucronata* flanking creeks and channels, *Bruguirra gymnorhiza* and *Xylocarpus granatum*. *Lumnitzera racemosa* occurs fringing the landward mangrove extent, while *Soneratia alba* occurs at the seaward side.

The proposed project area covers 4,904 ha of mangroves comprising 4,668 ha of low-medium degradation levels, 116 ha of highly degraded areas, and 120 ha restored sites recovering from past degradations. These mangroves provide critical habitats for species like fish, crustaceans, mollusks, migratory birds (e.g., herons, egrets, and osprey), and marine mammals, including dugongs and dolphins. They also offer vital ecosystem services, including coastal protection, carbon sequestration, and fish nurseries essential for artisanal fisheries. However, this ecosystem faces severe threats due to illegal logging, overharvesting, sedimentation, and coastal development. Therefore, the continued degradation and decline of mangrove ecosystems in Lamu may pose directly or indirectly a significant threat to species of special concern found in the Lamu Archipelago, e.g., five threatened species of sea turtles (Green, Hawksbill, Olive Ridley, Leatherback, and Loggerhead), the critically endangered Hirola and Ader's Duiker, along with various marine mammals like whales and dolphins, and birds such as the large breeding colonies of terns. Associated ecosystems such as seagrass beds and coral reefs, which host high marine biodiversity, are also adversely affected by mangrove decline and degradation.

Mangroves of Lamu have been shown to have declined at the rate of 0.16% per year between 1990 and 2020[11]. Current estimates indicate that 40% of the mangrove area is degraded[12], resulting in annual emissions of approximately 360,000 tCO_2e, with degradation projected to increase to 45% over the next 30 years. This would lead to a 16% reduction in carbon stocks and significantly diminish biodiversity and fishery productivity due to habitat loss and declining water quality. Consequently, the degradation of mangroves undermines their ability to mitigate climate change, protect shorelines, and support livelihoods.

[9] Mbatha et al 2022: How Sustainable is Mangrove Harvesting in Lamu? An Analysis of Forest Structure, Journal of Sustainable Forestry. https://doi.org/10.1080/10549811.2022.2123357
[10] GoK 2017: National Mangrove Ecosystem Management Plan 2017-2027
[11] Kairo et al., 2021. Total Ecosystem Carbon Stocks of Mangroves in Lamu, Kenya. https://doi.org/10.3389/ffgc.2021.709227
[12] GoK 2017. National Mangrove Ecosystem Management Plan (2017-2027)

3.4 Project Logic

Complete Table 3.4 to provide an initial summary of the expected project outputs and outcomes and identify key assumptions and risks. Add rows for additional outputs as required.

Table 3.4 Initial Project Logic

Aim *Describe the problems the project aims to address.* *Loss and degradation of mangrove forests due to overexploitation of resources, habitat conversion, pollution and poor governance*		
	Description	**Assumptions/Risks**
Outcomes – Intended overall project aim		
Climate Benefit	Based on conservative estimates using IPCC 2013 methodology[13] at least 63,222 tonnes CO2e/yr, discounting for permanence and leakage risk buffer of 25%, will be captured and stored as a result of restoration and avoided deforestation and forest degradation along with planting new trees and protection of recovering areas.	Describe any assumptions linking outputs to expected carbon benefits. ● Unforeseen disasters will neither negatively influence project work plan nor cause significant loss in mangroves
Livelihood Benefit	The restored habitats will result in additional income and enhanced food security to the communities that entirely depend on mangrove ecosystem	● Political environment remains conducive during project duration ● Carbon market will be non-volatile and carbon prices stable which will result to continuous generation of the carbon income

[13] IPCC 2014, 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands, Hiraishi, T., Krug, T., Tanabe, K., Srivastava, N., Baasansuren, J., Fukuda, M. and Troxler, T.G. (eds). Published: IPCC, Switzerland.

Ecosystem Benefit	Improved mangrove cover and biomass, increased fisheries, carbon sequestration and other beneficial services associated with the functional blue carbon ecosystem Increased knowledge & understanding of BC ecosystems which will result in their sustainable management	• Community's perception towards mangrove conservation remains positive • Ecosystem conditions of the currently degraded area will remain enabling for project interventions during the project duration • Unforeseen natural disasters will neither negatively influence project work plan nor cause significant loss in mangroves • Without project intervention, mangroves in the proposed project area will continue to be lost and natural regeneration will be impaired
Outputs		
Output 1 **Restoration**	Add description of a specific output that is expected to be achieved as a result of project activities. 116 ha of degraded area restored through improvement of conditions for natural regeneration and conducting assisted regeneration through enrichment planting and reforestation of denuded areas.	Describe any risks for successful achievement of the output and how they will be mitigated. Negative change in Community's perception towards restoration. • Awareness creation on the value of mangroves as well as engagement of community in all aspects of the project so that they have a sense of ownership to the project Adverse changes in ecosystem conditions of the currently degraded area due to further degradation. • Ecosystem conditions will be monitored and reported annually Extreme weather may damage mangroves • Restoration of degraded areas as intended in this project will help increase the capacity of mangroves to withstand natural disasters as well as increase their resilience to cope with the disturbances Unfavourable policy and legislative and competing economic pressures. - • The project is working closely with Kenya Forest Service, the government agency in charge of forest management • Building a strong advocacy for mangrove conservation due to their immense co-benefits to the people and nature

Output 2 **Avoided deforestation**	Avoided deforestation and degradation within the 4,668 ha project area evidenced by a decrease in incidences of illegal activities and an increase in canopy cover, establishment of woodlots in the buffer zone adjacent to the mangrove forests	Negative change in Community's perception towards mangrove conservation ● Stakeholder involvement coupled with public awareness on direct and indirect benefits of mangrove conservation will foster community understanding on the project and related activities Ecosystem conditions of the currently degraded area will remain the same during the project duration. ● The project will establish a robust monitoring system with regular ecological assessments to track and respond to any changes in environmental conditions Extreme weather may damage mangroves fringing the coastline ● protection of degraded areas as intended in this project will help increase the capacity of mangroves to withstand natural disasters as well as increase their resilience to cope with the disturbances ● The project will Implement a diverse species restoration and planting strategy which will withstand extreme weather conditions ● The project is working closely with Kenya Forest Service, the government agency in charge of forest management
Output 3 **Improved forest management for carbon enhancement and other co-benefits**	Enhancement of carbon storage and sequestration in 120 ha of protected forest evidenced by the absence or decrease of tree stumps and cuts, and an increase in biomass	● Negative change in Community's perception towards mangrove conservation ● Influence of the move towards commercialization on mangrove utilisation which will be mitigated through continuous community and stakeholder awareness and sensitization trainings, ● Changes in ecosystem conditions of the currently degraded area due to processes such as erosion or sedimentation of the coastline, mitigated through monitoring of ecosystem conditions and annual reporting ● Extreme weather may damage mangroves fringing the coastline however, restoration and protection of degraded areas as intended in this

		project will help increase the capacity of mangroves to withstand natural disasters as well as increase their resilience to cope with the disturbances area
Output 4 **Carbon sales**	Continuous revenue generation from the sale of carbon certificates	• Volatile market and unstable carbon prices • The demand for blue carbon has so far been higher than the supply, thus if the trend continues carbon market volatility may not likely occur in the near future • The co-benefits associated with blue carbon projects, and leveraging high integrity blue carbon validation and robust MRV approach may also help mitigate against market volatility
Output 5 **Mangrove community forest field school**	Mangrove forest community field school that will systematically capacitate community members to be mangrove forest conservation champions	• Lack of community buy-in for conservation mitigated through awareness creation on the value of mangroves • Negative community's perception towards mangrove conservation mitigated through awareness creation on the value of mangroves as well as engagement of community in all aspects of the project so that they have a sense of ownership to the project

3.5 Additionality

Complete Table 3.5 providing a description of the current barriers to implementing the proposed project (e.g. lack of finances, lack of technical expertise) and an explanation of how the project will overcome these barriers. Include Financial/Economic, Technical, Institutional, Social/Cultural, and Other barriers where relevant. Add a row for each project intervention.

Table 3.5 Initial Barrier Analysis

Project Intervention	Main Barriers	Activities to Overcome Barriers
Enter the name of the project intervention. This must correspond to the title of a technical specification to be included in the PDD.	Enter a summary of the main barriers project participants face to implementing the project intervention in the absence of the project.	Describe how the project will enable project participants to overcome the barriers identified.
Afforestation/reforestation	● Most of the restoration activities have been done by the project participants on voluntary basis with limited compensation and reward ● Limited knowledge in appropriate ecological restoration approaches ● Interference by human activities i.e., livestock grazing ● Inadequate incentives ● Cultural perception towards mangrove regeneration ● Inadequate tools for raising and planting seedlings ● Inadequate logistic support and facilitation ● cultural right of use ● Limited prioritisation of mangrove initiatives in the national and county plans	● Compensation and rewards for participation in restoration activities ● Hands-on training will be undertaken on appropriate reforestation approaches ● Increase forest patrols ● Awareness & sensitization through public meetings (barazas) ● Integrating mangrove activities into national and sub-national plans
Avoided deforestation	● Dependence on mangrove for wood fuel and house construction by surrounding communities ● Historical trade in mangrove timber ● **Financial Constraints**: Limited funding restricts communities from initiating and sustaining conservation and ecosystem service payment programs. ● **Technical Gaps**: A lack of skills in project management, carbon	● Promote establishment of woodlots as alternative sources of timber and wood fuel ● **Technical Capacity Building**: Institutions like KFS, KMFRI, KEFRI, universities, and NGOs provide ongoing training in mangrove conservation, carbon offsetting, and ecological monitoring. ● **Strengthening Governance**: Leveraging the Forest Act, the project will empower CFAs by establishing effective local governance systems that oversee

	monitoring, and mangrove conservation hampers implementation efforts. ● **Institutional Limitations**: As mangrove forests in Kenya are government-owned, communities have limited control over resource management. Although the Forest Act enables Community Forest Associations (CFAs) to participate, many CFAs lack the capacity to enforce rules or manage resources effectively. ● **Cultural and Knowledge Barriers**: Poor understanding of mangroves' ecological value and carbon storage potential weakens community buy-in.	forest protection and ensure fair benefit-sharing. ● **Community Awareness and Engagement**: Participatory planning and education initiatives emphasize mangroves' importance for fisheries, shoreline protection, and climate resilience, fostering community ownership of conservation efforts. ● **Promoting Alternative Livelihoods**: Carbon credit revenues will fund essential community projects like education and healthcare while alternative livelihoods, such as beekeeping and eco-tourism, reduce pressure on mangrove ecosystems.
Improved Forest Management	● Insufficient financial resources to initiate community-led patrol and surveillance activities ● High dependence on mangrove as a source of livelihood ● **Inadequate Technical Expertise**: Communities and local institutions often have inadequate necessary technical skills for effective mangrove restoration, and ecological assessment and monitoring and sustainable management of mangrove ecosystems ● **Weak Institutional Frameworks**: While mangrove forests are crucial for coastal protection and biodiversity, they are often under the governance of national authorities with limited local involvement in decision-making. Local community participation in	● **Securing Financial Support and Incentives**: Collaborating with development organizations, government agencies, and private sector partners can provide funding for initial project implementation and continuous restoration efforts. Establishing carbon credit sales through blue carbon markets can also generate sustainable income streams for ongoing mangrove protection. ● Continued sensitization on other benefits and involvement community in protection and management ● **Capacity Building and Technical Training**: Partnering with local institutions, universities, and research organizations (like KMFRI) to offer training in carbon accounting, mangrove restoration techniques, and ecological monitoring. This would empower local communities and institutions to manage the project effectively.

	managing these forests remains underdeveloped, impacting the effectiveness of conservation efforts. ● **Competing priorities for resource use**: competing resource uses (such as fishing or tourism) may limit the ability to implement effective forest management and conservation strategies.	● **Tailored Restoration and Protection Plans**: Addressing local environmental challenges, such as coastal erosion and saltwater intrusion, by using adaptive management strategies. Planting resilient mangrove species (e.g., *Sonneratia alba*) and other native species can help stabilize coastal areas and enhance carbon sequestration. ● **Strengthening Local Governance and Institutional Capacity**: Empowering local governance structures (such as Community Forest Associations) and aligning management plans with national policies can facilitate effective co-management. Legal frameworks like the Forest Act and other environmental regulations should be leveraged to ensure local community involvement and benefit-sharing in the project. ● **Awareness creation and Collaborating with local authorities** to resolve conflicts over resource use will enable clearer management responsibility and reduce competing interests. Promoting sustainable livelihood options (e.g., eco-tourism, sustainable fishing practices) can provide alternative incomes while reducing pressure on mangrove resources.

3.6 Exclusion List

Indicate whether the project could include any activities listed in the Plan Vivo Exclusion List (see Annex 3). Provide a complete Exclusion List in Annex 3.

The project does not include any activities listed in the Plan Vivo Exclusion List.

3.7 Environmental and Social Screening

Add project coordinator responses to the social screening report in Annex 4.

Complete Table 3.7 to provide a summary of potential environmental and social risks. For each risk area, add a brief summary of potential risks, or explain why there are no risks.

Table 3.7 Environmental and Social Risks

Risk Area	Potential Risks
Vulnerable Groups	There might be potential risks of access restrictions to particular areas and activities impacting on livelihoods of vulnerable groups. Some of these groups/individuals might lack the ability to respond to the impact through managing risk and impacts and devising new effective activities or strategies
Gender Equality	Religion could be limiting gender inclusions. The safeguards of these are the National Constitution that promotes one third gender rule where at least one third of project participants and beneficiaries are from either gender.
Human Rights	Rights of communities are enshrined in the Supreme Law and there is no likelihood of human rights violation including forced community displacement from the project area.
Community, Health, Safety & Security	The main means of transport in the project area is by sea which has potential travel risks due to waves and turbulence. Under the maritime security framework in Kenya, it is mandatory for boat operators to provide life jackets for travellers and have first aid equipment which can help save lives in case of accidents. Kenya Maritime Security personnel conduct regular surveillance and check on the compliance of maritime security measures. Compliance to these measures will ensure project staff and community members will not be exposed to health and safety risks during implementation of project activities.
Labour and Working Conditions	The project has no risks of violating labour laws such as involved in child labour during project activities such as tree planting. In situation which learning institutions wish to participate in project related activities within public spaces in their jurisdiction, the project will follow due process to seek consent from parents/guardians and education officials as is required by education regulations. Community scouts might be exposed to risks of violence from individuals or criminal groups in the course of their duties in the forest. Though there have been no reported cases of such incidents in mangrove ecosystems, the project will ensure to involve rangers from KFS and/or KWS during patrols and surveillance Project workers also risk being exposed to accidents or attacks from wildlife straying from areas such as Boni and Dodori Forest Reserves. The project workers will be trained on occupational safety measures including first aid in the field. Dangerous wildlife such as large animals and poisonous snakes are rarely found in mangrove ecosystems.
Resource Efficiency, Pollution, Wastes, Chemicals and GHG emissions	The project has no risks of releasing pollutants, generation of significant amounts of waste or use of chemicals or other hazardous materials. Furthermore, there will not be any project activities involving a significant consumption of energy, water, or other resources. Neither will the project activities lead to significant increases in greenhouse gas emissions nor to a substantial reduction of carbon pools.
Access Restrictions and Livelihoods	The project will result in access restrictions to particular areas and activities which might impact on people's livelihoods. The restrictions will be mainly on activities which may impact negatively on the project e.g., harvesting of

	mangrove wood and collection of fish baits using destructive approaches. Strategies have been put in place to enhance sustainable management of mangroves in Lamu; a harvest management plan has been developed with zonation of mangrove areas for different utilization and harvesting cycle[14].
Cultural Heritage	There are no potential risks to the cultural heritage situated within the project area
Indigenous Peoples	Indigenous and local groups such as the Awer and Wardei are experiencing land insecurity, have very low education levels and poor access to other basic services and facilities.
Biodiversity and Sustainable Use of Natural Resources	The project will not implement activities that: Risk significantly affecting biodiversity within protected/ conserved areas or areas with high biodiversity value, or impact the functioning of an ecosystem
Land Tenure Conflicts	Majority of the communities living in adjacent areas have not been issued with title deed for the ancestral land they occupy and thus this may precipitate land conflicts, and this may impact the local livelihoods. Cultural norms also safeguard land ownership, especially in communal or ancestral land. There have been no reported cases of land tenure conflict in adjacent areas affecting accessibility and use of resources in mangrove ecosystems which are gazetted as public land.
Risk of Not Accounting for Climate Change	Climate Change vulnerability Assessment (CCVA) has been undertaken with a quantification of sensitivity and exposure variables that determine risk levels
Other – e.g. Cumulative Impacts	Governance issues arising from multiple users Inter or intra community conflicts arising from inequitable sharing of benefits

3.8 Double Counting

Identify any greenhouse gas emission reduction projects, programmes or initiatives that overlap with the proposed project region(s) and explain why there is no potential for generating transferable emission reduction or removal credits from carbon pools or emission sources included in the project. Include any national, jurisdictional, or sub-national program or project that emission reductions or removals achieved by the project will contribute to (including Nationally Determined Contributions under the Paris Agreement) and explain why carbon benefits achieved by the project will not be included in any other form of greenhouse gas emissions trading.

There is no other programme for carbon emission reduction and removals in the proposed project area.

Table 3.8 National Level Legislation, Policies and Instruments

	Yes/No/Unsure	**Details**
Is there a national registry for land-based carbon projects?	Yes	A National Carbon Registry has been established by the Climate Change (Amendment) Act 2023 of the Laws of Kenya

[14] KFS 2025. Mangrove Harvest Management Plan for Lamu County

Are carbon rights defined in national legislation?	Yes	Carbon rights in mangrove areas is vested in the state, however, the law provides for access to carbon rights by the local community through establishment of participatory forest management framework to allow for granting of forest user-rights to the community
Are there any carbon pricing regulations existing or in development (e.g. emissions trading scheme or carbon tax)	No	The carbon market legislation does not prescribe carbon prices.
Does the country receive or plan to receive results-based climate finance through bilateral or multilateral programs?	No	The government has not announced any initiative relating to using mangrove forest for carbon trading related bilateral or multilateral programmes.
Are there any other relevant regulations, policies or instruments?	Yes	in Kenya mangroves are regulated by environment, fisheries and forest laws and policies

4 Governance and Administration

4.1 Governance Structure

Describe the project's governance structure and decision-making process with details of how input from project participants is managed and how project participants and other local stakeholder representatives will be selected. Where possible, provide an organigram to demonstrate how the project coordinator, project participants and other stakeholders will be involved in the project.

Fig 2: Lamu Blue Project organisation and Governance structure

Governance Composition

The governance structure of Lamu Blue Assets will be founded on principles of equity, inclusivity and gender representation, ensuring broader representation from all relevant members of the LAMACOFA community. They will receive technical and operational support from Kenya Forest Service (KFS), Kenya Marine and Fisheries Research Institute (KMFRI), Kenya Forestry Research Institute (KEFRI), County Government of Lamu (CGL) and other key stakeholders whenever need arises. To promote gender equity, the project will actively employ and ensure balanced representation of women, youths and marginalized groups in leadership, management, decision-making roles and project implementation. This will ensure that the project benefits from a wide range of expertise and perspectives, fostering a collaborative and holistic approach to mangrove conservation and the broader objectives of Lamu Blue Assets.

Governance Structure

Through the support of KFS, KMFRI and CGL, LAMACOFA will establish and register a community-based entity to be the project implementing agent. Community-based entities are register under the Community Groups Registration Act, 2022. The LAMACOFA community-based entity will be governed by a constitution developed during the registration process. The governance structure (Figure 2) will

comprise a central governing committee (CGC) and village level committees (VLCs), whose members will be elected by the local communities withing the LAMACOFA area, taking into consideration gender, youth, persons living with disabilities, marginalised/minority groups as well as other special considerations that may deem necessary. Subsidiary committees of the CGC may be established to oversee critical tasks such as financial management, project implementation and reporting, grievance redress mechanisms and any other task that may deem necessary. In addition, ad hoc committees may be established for short-term tasks on need basis. The local secretariat will provide technical and capacity support to this project governance structure. Through this structure, the entity will liaise with other frameworks related to the project including the CFA governance structure, the community development agreement committee (CDAC), and key stakeholders (KFS, KMFRI, CGL, KEFRI, ACES, among others). CDAC is an independent community body established under the Climate Change (Carbon Markets) Regulations, 2024, to oversee development projects funded by carbon revenues. The composition of CDAC is outlined in the Regulation and it include a representative of the project proponent.

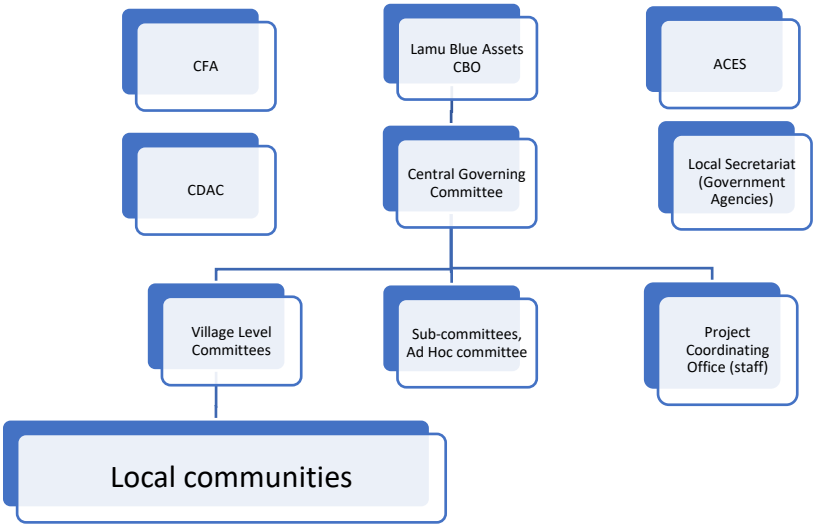


Figure 2: Generalised governance structure of the proposed Lamu Blue Assets entity

Decision-Making Process

The decision-making process within the Lamu Blue Assets governance framework will be participatory and consensus driven. It will be designed to balance the interest of all stakeholders while prioritizing sustainable outcomes. Key decisions will be made through structured consultations, where stakeholders shall contribute their insights and expertise. This approach will ensure transparency, accountability and alignment with both local needs and broader conservation objectives.

The general assembly comprising all participants, which is executed through village barazas, forms the highest decision-making body. The modes of decision involve consensus building, acclamations or majority vote. Similar approaches will be used for all the levels of the governance structure.

Benefit -Sharing Mechanism (BSM)

The project incorporates a well-defined benefit-sharing mechanism to ensure that the socio-economic and environmental benefits derived from the initiative are equitably distributed among the

stakeholders. Local communities are prioritized to ensure they receive tangible benefits such as livelihood support, community developments, capacity building and access to other social amenities and resources. The BSM framework will be developed through a wide consultative process to ensure inclusive participation across the project area.

The benefit sharing mechanism will include the stipulated 40% (less cost of doing business) social contribution to the community through the community development agreement entered into between Lamu Blue Assets project and Community Development Agreement Committee (CDAC)This on behalf of the community. It is mandatory under Article 29 of the Climate Change (Carbon Markets) Regulations, 2024[15], for carbon projects in public or community land to pay 40% of the revenues of carbon sales to the community as annual social contribution. The annual social contribution (40%) is calculated from the revenues after the deduction of the cost of doing business (operation and other project expenses). LAMACOFA (or its entity Lamu Blue Assets CBO, when registered) as the project proponent (the project implementer) will sign an agreement with a community development agreement committee (CDAC, which represents the community) and will disburse the annual social contribution through CDAC. This will ensure that all community members regardless of membership to LAMACOFA benefit from the carbon project. CDAC is an independent committee that is established purposely to receive and overseer the expenditure of annual social contribution remitted by the Lamu Blue Assets project. The membership of CDAC is stipulated in the Climate Change (Carbon Markets) regulations 2024 (item 9 of the Fourth Schedule), and it will include a representative of the Lamu Blue Asset Project.

Grievance Redress Mechanism

To address concerns and maintain trust among participants and stakeholders, the Lamu Blue Assets governance structure includes a robust grievance redress mechanism. This system provides a formal and transparent process for resolving conflict, addressing complaints and ensuring accountability. By offering a clear pathway for stakeholders to voice their concerns, the grievance mechanism will help mitigate disputes, uphold ethical standards and reinforce the project's integrity and sustainability.

4.2 Legal and Regulatory Compliance

Identify the authorities with overall responsibility for land management and greenhouse gas emissions assessment within the project region. Include evidence that they have been informed of the project in Annex 5 and explain how they will be engaged during project development.

Provide a statement that the project will operate in full compliance with all national and international policies, laws and regulations.

Kenya Forest Service (KFS)

Ensures sustainable use and conservation of mangrove ecosystems in Lamu and other coastal regions, through forest management plans and restoration initiatives. Kenya Forest Service is responsible for the management, conservation, and protection of forest resources in Kenya, including mangrove

[15] Climate Change (Carbon Markets) Regulations 2024; https://new.kenyalaw.org/akn/ke/act/ln/2024/84/eng@2024-06-07

forests. Mangroves are classified as public forests under the Forest Conservation and Management Act, 2016, and KFS plays a critical role in their governance.

National Environmental Management Authority (NEMA)

NEMA is the national body tasked with ensuring environmental compliance in Kenya, including the conservation of coastal ecosystems such as mangroves. Environmental Management and Coordination Act (EMCA), 1999: Confers responsibility to NEMA for overseeing the management and protection of the environment, including conducting environmental impact assessments (EIAs) for projects involving mangrove ecosystems. It enforces this act, which includes guidelines for environmental impact assessments (EIAs) and sustainable land use. NEMA oversees environmental standards, permitting processes, and reporting mechanisms related to mangrove conservation, as well as the regulation of carbon projects and emissions.

Lamu Blue Assets Project aligns with national priorities as guided by Kenya's environmental policies, which emphasize climate commitments, biodiversity conservation, environmental stewardship, ecosystem restoration, and sustainable development. These priorities are reinforced through a robust policy and legislative framework, as well as strategic and sectoral plans that promote environmental integrity, stakeholder engagement, and inclusive participation. Furthermore, the project supports socio-cultural and economic development objectives, including livelihoods enhancement and increased tree cover. Importantly, these national priorities are harmonized with Kenya's international commitments, as detailed in the table below:

Policies and legislations	**Project linkage**
National	
Constitution of Kenya 2010 *(Environmental rights, sustainable livelihoods, and public participation)*	Supports the right to a clean environment through mangrove restoration, promotes sustainable livelihoods, and enhances community involvement in environmental governance
Vision 2030 Medium-Term Plan IV (2023–2027) *(Economic growth, environmental sustainability, and community-based restoration)*	Addresses mangrove restoration, climate change mitigation, and sustainable utilization of mangrove resources, aligning with Vision 2030 goals Implements community-driven conservation strategies, sustainable forest management, and climate resilience through mangrove restoration
Bottom-Up Economic Transformation Agenda (BETA) *(Economic growth, inclusive development, and sustainable livelihoods)*	Protects mangroves to sustain fisheries, creates alternative income opportunities, fosters entrepreneurship, and generates carbon credits for community development projects
Environmental Policies, Legislations and Strategic/Sectoral Plans *(Forest Conservation and Management Act (2016), National Mangrove Ecosystem Management Plan (2017–2027).*	Restores mangroves, supports participatory forest management, and promotes sustainable mangrove utilization and conservation under legal frameworks

Climate Change Policies *(Climate Change (Amendment) Act, 2023; National Climate Change Action Plan (NCCAP); National Landscape Ecosystem Restoration Strategy (2022–2032)*	Enhances carbon sequestration, reduces emissions, and restores degraded ecosystems while promoting community resilience and sustainable livelihoods
Kenya's Nationally Determined Contributions (NDCs) *(Commitments to the Paris Agreement and GHG reduction targets)*	Contributes to GHG reduction, avoids deforestation, and enhances carbon stocks through mangrove restoration
Kenya's Biodiversity Strategy and Action Plan (NBSAP) *(conservation of biodiversity, equitable benefit-sharing, and sustainable practices)*	Restores mangrove ecosystems, supports biodiversity, and promotes sustainable enterprises like ecotourism and aquaculture, empowering local communities
Lamu County Integrated Development Plan (CIDP) *(Mangrove planting and environmental conservation priorities)*	Boosts forest cover, enhances food security, and improves livelihoods through mangrove restoration.
Lamu County Spatial Plan *(Mangrove protection, sustainable harvesting, and carbon revenue generation)*	Addresses mangrove conservation through sustainable use, fish habitat protection, and carbon trading initiatives
International Commitments	
Sustainable Development Goals (SDGs) *(SDG 1 (No Poverty), SDG 13 (Climate Action), SDG 14 (Life Below Water), and SDG 15 (Life on Land))*	Restores mangroves to enhance biodiversity, mitigate climate change, and diversify community income through nature-based enterprises
Convention on Biological Diversity (CBD) *(Conservation, sustainable use, and mitigation of biodiversity loss)*	Conserves mangrove ecosystems, enhances biodiversity, and promotes community-led conservation aligned with global biodiversity goals
Other international commitments include Human rights and labour laws: United Nations Declaration on Rights of Indigenous Peoples (UNDRIP) International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work and ILO Indigenous and Tribal Peoples Convention (ILO 169)	Save guard the rights of indigenous people and local communities, especially minorities and marginalised groups in relation to the identity, culture, rights to land and resources, as well as to socioeconomic development and livelihoods. Save guard rights of work including prevention of forced work, child labour among other violation of working conditions.

4.3 Financial Plan

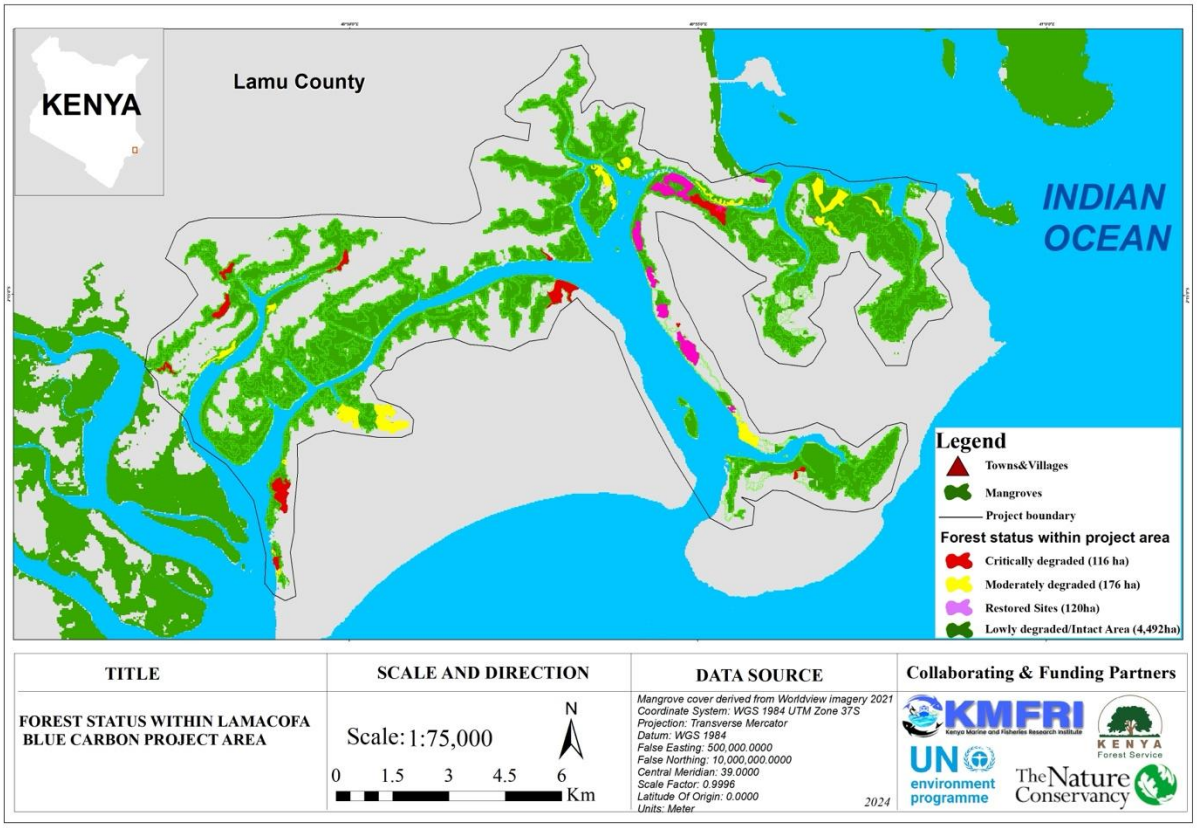
Describe how the finance required to fund project development will be obtained.

Financial resources to support project development, certification and registration have been secured from the development partners including United Nations Environment Programme (UNEP) and the Nature Conservancy (TNC). Thereafter, subsequent project operations would be financed from the proceeds from the sale of the project carbon certificates.

Annexes

Annex 1 – Project Boundaries

Provide geospatial data files for project region and project area boundaries.



Annex 2 –Registration Certificate

Provide a copy of the project coordinator registration certificate.

Kenya Marine and Fisheries Research Institute Registration Certificate

NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY AND INNOVATION

NACOSTI/2016/05/001

Certificate of Registration

This is to certify that

Kenya Marine and Fisheries Research Institute

Is registered as a Research Institution upon Satisfying the requirements of The Science, Technology and Innovation Act, 2013. Issued on 2nd April, 2024

Hon. Dr. Ezekiel Machogu, EGH
CABINET SECRETARY, MoE

Prof. Walter O. Oyawa, PhD
DIRECTOR GENERAL, NACOSTI

NACOSTI IS ISO 9001 : 2015 CERTIFIED

LAMACOFA (Project Implementer) Registration Certificate)

FORM C

REPUBLIC OF KENYA

THE SOCIETIES RULES, 19

(Rule 4)

CERTIFICATE OF REGISTRATION NO. 47826

I, **JOSEPH ONYANGO ,** **DEPUTY** .....Registrar of Societies, hereby certify that I have this day registered the ..... **LAMU MANGROVE COMMUNITY FOREST ASSOCIATION.** .....

under section 10 of the Societies Act.

Dated at **NAIROBI** this **31ST** day of **DECEMBER** 20.... **15**

DY. Registrar of Societies

THIS DOCUMENT IS IMPORTANT
PLEASE RETAIN IT FOR YOUR RECORDS
Please ensure all charity trustees are aware of this document

OSCR Office of the Scottish Charity Regulator

Professor Mark Huxham
The Association For Coastal Ecosystem Services
17 Bruntsfield Crescent
Dunbar
East Lothian
EH42 1QZ

Your ref:
Our ref: RS/STA/13-0060

02 May 2013

Dear Professor Huxham

Decision on your application for Incorporation as a Scottish Charitable Incorporated Organisation (SCIO)

I am pleased to tell you that your application for incorporation as a Scottish Charitable Incorporated Organisation (SCIO) has been successful. The Office of the Scottish Charity Regulator (OSCR) is satisfied that the organisation meets the charity test and the legal requirements for being a SCIO, and has entered it in the Scottish Charity Register. This means it is now is an incorporated body having charitable status under the Charities and Trustee Investment (Scotland) Act 2005.

The details of your charity's entry in the Register are set out below.
Please check these details and let us know of any errors.

Your SCIO's registered name is:	**The Association For Coastal Ecosystem Services**
Your charity number is:	**SC043978**
Your SCIO was registered on:	**30 April 2013**
Your SCIO's 'known as' name is:	
Your principal contact address is:	**17 Bruntsfield Crescent Dunbar East Lothian EH42 1QZ**
Your charitable purposes are:	**A - the prevention or relief of poverty B - the advancement of education G - the advancement of the arts, heritage, culture or science M - the advancement of**

2nd Floor, Quadrant House
9 Riverside Drive
Dundee DD1 4NY

tel: 01382 220446
fax: 01382 220314
web: www.oscr.org.uk

THIS DOCUMENT IS IMPORTANT
PLEASE RETAIN IT FOR YOUR RECORDS
Please ensure all charity trustees are aware of this document

Please distribute this letter and the enclosed introductory leaflet on 'Being a SCIO in Scotland' to all your charity trustees. You can contact us at info@oscr.org.uk or on 01382 220446 if you have any questions.

Yours sincerely

William Stevens
Registration Team Case Officer
Office of the Scottish Charities Regulator (OSCR)
2nd Floor Quadrant House
9 Riverside Drive
Dundee
DD1 4NY

Tel : 01382 346831
Fax: 01382 220314
william.stevens@oscr.org.uk

○ Annex 3 – Exclusion List

Complete the exclusion list by responding 'Yes' if the activity is included in the project and 'No' if the project does not include the activity.

Activities	**Included in Project ('Yes' or 'No')**
Any project activities leading to or requiring the destruction [1] of critical habitat [2] or any forestry project which does not implement a plan for improvement and/or sustainable management.	No
Any activity which could be associated with the significant impairment of areas particularly worthy of protection of cultural heritage (without adequate compensation in accordance with international standards).	No
Trade in animals, plants or any natural products not complying with the provisions of the CITES/Washington convention [3].	No
Illegal, harvesting or trading in any wildlife resources.	No
Destructive fishing methods or drift net fishing with a net more than 2.5 km in length, explosives and/or poison.	No
Large-scale commercial logging operations for use in primary tropical moist forest.	No
Production or trade in wood or other forestry products other than from sustainably managed forests [4].	No
Exploitation of diamond mines and marketing of diamonds where the host country has not adhered to the Kimberley Process, and exploitation of other conflict minerals [5]	No
Activities involving harmful or exploitative forms of forced labour, [6] harmful child labour [7], modern slavery and human trafficking [8].	No

Projects that include involuntary physical displacement and/or forced eviction.	No
Production or activities that encroach on lands owned, or claimed or occupied by Indigenous Peoples, without full documented Free, Prior and Informed Consent (FPIC) of such peoples [9].	No
Harmful and unsafe production, use, sale or trade of pharmaceuticals, ozone layer depleting substances [10], and other toxic [11] or dangerous materials such as asbestos or products containing PCB's [12], wildlife or products regulated under CITES, including all products that are banned or are being progressively phased out internationally	No
Production or trade of arms, ammunition, weaponry, controversial weapons, or components thereof (e.g., nuclear weapons and radioactive ammunition, biological and chemical weapons of mass destruction, cluster bombs, anti - personnel mines, enriched uranium).	No
Procurement and use of firearms.	No
Provision of finances to military institutions involved in conservation or security activities.	No
Production or trade of strong alcohol intended for human consumption or other alcoholic beverages (excluding beer and wine).	No
Production or trade of tobacco and other drugs	No
Gambling, gaming establishments, casinos or any equivalent enterprises and undertaking [13].	No
Any trade related to pornography, prostitution or sexual exploitation of any form.	No
Production or trade in radioactive material. This does not apply to the procurement of medical equipment, quality control equipment or other application for which the radioactive source is insignificant and/or adequately shielded	No
Production or trade in unbound asbestos. This does not apply to the purchase or use of cement linings with bound asbestos and an asbestos content of less than 20%.	No
Production, trade, storage, or transport of significant volumes of hazardous chemicals, or commercial scale usage of hazardous chemicals. Hazardous chemicals include gasoline, kerosene, and other petroleum products.	No
Transboundary trade in wastes, except for those accepted by the Basel Convention and its underlying regulations [14].	No
Any activity leading to an irreversible modification or significant displacement of an element of culturally critical heritage [15].	No
Production and distribution, or investment in, media that are racist, antidemocratic or that advocate discrimination against a part of the population.	No
Projects involving the planting or introduction of invasive species	No
Projects that increase the dependency of primary participants and other stakeholders on fossil fuels.	No

Notes:

[1] Destruction means (1) the elimination or severe reduction in the integrity of a habitat/area caused by a major and long-term/prolonged change in land-use or water resources or (2) the modification of a habitat such that this habitat's ability to fulfil its function/ role is lost.

[2] The term critical habitat encompasses natural and modified habitats that deserve particular attention. This term includes (1) spaces with high biodiversity value as defined in the IUCN's classification criteria, including, in particular, habitats required for the survival of endangered species as defined by the IUCN's red list of threatened species or by any national legislation; (2) spaces with a particular importance for endemic species or whose geographical range is limited; (3) critical sites for the survival of migratory species; (4) spaces welcoming a significant number of individuals from congregatory species; (5) spaces presenting unique assemblages of species or containing species which are associated according to key evolution processes or which fulfil key ecosystem services; (6) and territories with socially, economically or culturally significant biodiversity for local communities. Primary forests or high conservation value forests must also be considered as critical habitats

[3] https://cites.org/eng/disc/text.php

[4] Sustainably managed forests are forests managed in a way that balances ecological, economic and socio-cultural needs.

[5] Conflict minerals, including tin, tungsten, tantalum and gold, can be used to finance armed groups, fuel forced labour and other human rights abuses, and support corruption and money laundering. See the EU Regulation on conflict minerals: https://policy.trade.ec.europa.eu/development-and-sustainability/conflict-minerals-regulation/regulation-explained_en

[6] Forced labour means all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.

[7] Harmful child labour means the employment of children that is economically exploitive, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health, or physical, mental, spiritual, moral, or social development. Employees must be at least 14 years of age, as defined in the ILO's Declaration on the Fundamental Principles and Rights at Work (C138 – Minimum Age Convention, Article 2), unless local laws require compulsory school attendance or a minimum working age. In such circumstances, the highest age requirement must be used.

[8] Modern slavery is comprised two key components: forced labour and forced marriage. These refer to situations of exploitation that a person cannot leave or refuse due to threats, violence, deception or coercion. (https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---ipec/documents/publication/wcms_854733.pdf)

[9] https://www.fao.org/indigenous-peoples/our-pillars/fpic/en/

[10] Any chemical component which reacts with, and destroys, the stratospheric ozone layer leading to the formation of holes in this layer. The Montreal Protocol lists Ozone Depleting Substances (ODS), their reduction targets and deadlines for phasing them out.

[11] Including substances included under the Rotterdam Convention, Stockholm Convention and WHO "Pharmaceuticals: Restrictions in Use and Availability".

[12] PCBs (polychlorinated biphenyls) are a group of highly toxic chemical products that may be found in oil-filled electrical transformers, capacitors and switchgear dating from 1950 to 1985.

[13] Any direct financing of these projects or activities involving them (for example, a hotel including a casino). Urban improvement plans which could subsequently incorporate such projects are not affected.

[14] Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their disposal (1989).

[15] "Critical cultural heritage" is considered as any heritage element recognised internationally or nationally as being of historical, social and/or cultural interest.

Annex 4 - Environmental and Social Screening

Complete the table below by answering each risk question. Where relevant include details of any activities that will be carried out to better understand or mitigate potential risks.

Topic	**Risk Questions**	**Project Coordinator Response** Project coordinator includes responses here. In addition to answering the specific question, please include a description of any likely risks or impacts, and notes you think relevant.
Environmental and Social Risks		
Vulnerable Groups	Are there vulnerable or disadvantaged groups or individuals, including people with disabilities (consider also landless groups, lower income groups less able to cope with livelihood shocks/ stresses) in the project area, and are their livelihood conditions well understood by the project?	Yes, the project area includes vulnerable groups, including those often excluded from finance-related activities. The project has a clear understanding of their livelihood conditions and has implemented strategies, such as social screening and benefit-sharing mechanisms, to ensure equal opportunities for their participation in these activities.
	Is there a risk that project activities disproportionately affect vulnerable groups, due to their vulnerability status?	No, the project will thoroughly assess potential adverse impacts on vulnerable groups. It will also, together with the vulnerable groups, design mitigation measures that are differentiated and targeted to different groups to ensure that risks and impacts do not fall disproportionately on vulnerable individuals or groups
	Is there a risk that the project discriminates against vulnerable groups, for example regarding access to project services or benefits and decision-making?	No. The project promotes equitable access to services, benefits, and decision-making for vulnerable groups through stakeholder engagement and inclusion throughout the project cycle.
Gender equality	Is there a risk of adverse gender impacts due to the project/ project activities, including for example	Yes. Cultural norms may create inequalities, but these will be mitigated through gender-sensitive approaches,

	discrimination or creation/exacerbation or perpetuation of gender-related inequalities?	inclusive governance, and monitoring representation and participation of women in decision-making.
	Is there a risk that project activities will result in adverse impacts on the situation of women or girls, including their rights and livelihoods? Consider for example where access restrictions disproportionately affect women and girls due to their roles and positions in accessing environmental goods and services?	No, women will be involved in participatory and bottom-up planning that takes into account stakeholders rights and livelihoods and ensures a balance between development and conservation.
	Is there a risk that project activities could cause or contribute to gender-based violence, including risks of sexual exploitation, sexual abuse or sexual harassment (SEAH)? Consider partner and collaborating partner organizations and policies they have in place. Please describe.	No. Gender equity is a core principle of the project, which incorporates safeguards to eliminate risks of SEAH and foster a safe working environment.
Human Rights	Is there a risk that the project prevents peoples from fulfilling their economic or social rights, such as the right to life, the right to self-determination, cultural survival, health, work, water and adequate standard of living?	No. The project supports economic and social rights through community consultation, capacity building, and livelihood improvement initiatives, guided by the Constitution of Kenya 2010 that guarantees these rights for every citizen
	Is there a risk that the project prevents peoples from enjoying their procedural rights, for example through exclusion of individuals or groups from participating in decisions affecting them?	No. the project does not prevent people from enjoying their procedural rights, in anyway the project increases the rights to improved livelihood
	Are you aware of any severe human rights violations linked to project partners in the last 5 years?	No. There are no known human rights violations associated with project partners.
Community, Health, Safety & Security	Is there a risk of exacerbating existing social and stakeholder conflicts through the implementation of project activities? Consider for example existing conflicts over land or natural resources, between communities and the state.	No. There are no reported incidents of conflict between the government and the community regarding access to mangrove areas and resources. However, should there be a need, the project aims to reduce conflicts by fostering collaboration among

		stakeholders and promoting equitable benefit-sharing.
	Does the project provide support (technical, material, financial) to law enforcement activities? Consider support to government agencies and to Community Rangers or members conducting monitoring and patrolling. If so, is there a risk that these activities will harm communities or personnel involved in monitoring and patrolling?	Yes. The project supports co-surveillance with community scouts and rangers (KFS & KWS). Proper training and equipment to mitigate risks of harm to communities or personnel. The KFS and KWS rangers provide security, enforcement, joint patrols with community scouts and training to the project.
	Are there any other activities that could adversely affect community health and safety? Consider for example exacerbating human-wildlife conflict, affecting provisioning ecosystem services, and transmission of diseases.	Yes. There are risks associated with transport by sea, as well as attacks from wildlife in areas adjacent to wildlife areas such as Boni and Dodori forest reserves. The project emphasizes safety by training participants in safe practices, minimizing risks, and promoting awareness of potential hazards. The project will also comply with maritime security including provision of life jackets, first aid kits, involving security personnel such as KFS and KWS rangers and the Kenya Coast Guards in areas with insecurity risks, among other security and safety measures. In addition, the project staff and community members participating in project activities will be trained on work safety and first aid measures in the field.
Labour and working conditions	Is there a risk that the project, including project partners, would lead to working conditions for project workers[16] that are not aligned with national labour laws or the International Labor Organization's (ILO) Declaration on the Fundamental Principles and Rights at	No. The project ensures alignment with labour laws and ILO standards, providing fair working conditions, transparent processes, and a safe work environment.

[16] Project workers include project coordinator staff, staff of other project partners, third party groups fulfilling core functions of the project, and community volunteers or contracted workers.

	Work (discriminatory working conditions, lack of equal opportunity, lack of clear employment terms, failure to prevent harassment or exploitation, failure to ensure freedom of association etc.)?	
	Is there an occupational health and safety risk to project workers while completing project activities?	Yes. Risks exist while undertaking field activities in marine environment, but they are mitigated through compliance to Kenya maritime security measures, safety training, provision of safety tools and equipment, and leveraging indigenous knowledge of the local environment.
	Is there a risk that the project support or be linked to forced labour, harmful child labour, or any other damaging forms of labour?	No. The project strictly adheres to ethical labour practices and incorporates awareness campaigns to prevent forced or harmful labour.
Resource efficiency, pollution, wastes, chemicals and GHG emissions	Is there a risk that project activities might lead to releasing pollutants to the environment, cause significant amounts of waste or hazardous waste or materials?	No. The project will not produce toxic waste or emissions but rather the project prevents the production of toxic waste and emissions through prevention of further forest degradation. The project includes activities in sensitization on proper waste disposal including reduce, recycle and reuse principle.
	Is there a risk that the project will lead to significant consumption of energy, water or other resources, or lead to significant increases of greenhouse gases?	The project activities may require the use of boats due to the seascape within the conserved areas. This will be managed by localising MCS activities to optimise resource use.
Access restrictions and livelihoods	Will the project include activities that could restrict peoples' access to land or natural resources where they have recognised rights (customary, and legal). Consider projects that introduce new access restrictions (e.g. creation of a community forest), reinforce existing access restrictions (e.g. improve management effectiveness and patrolling of a community forest), or	Yes. Existing access restrictions, such as those outlined in the Forest Conservation and Management Act, will be reinforced, but sustainable use will be permitted in designated areas.

	alter the way that land and natural resource access restrictions are decided (e.g. through introducing formal management such as co-management).	
	Is there a risk that the access restrictions introduced /reinforced/altered by the project will negatively affect peoples' livelihoods?	No, any restrictions will adhere to existing regulations to prevent illegal use without impacting designated utilization zones. Kenya has launched a mangrove harvest management plan for Lamu County that outlines sustainable mangrove resource use in designated utilization areas[17].
	Have strategies to avoid, minimise and compensate for these negative impacts been identified and planned?	Yes, strategies include clear demarcation, mangrove harvesting plans, promotion of nature-based enterprises (e.g., mariculture, ecotourism), capacity building, and community involvement.
Cultural heritage	Is the Project Area officially designated or proposed as a cultural site, including international and national designations?	Part of the project area; Matondoni and Manda (refer to plate 1), are designated cultural sites under the national law. The National Museums of Kenya is the custodian of these sites. The sites are included as part of the project area as they have been subject to exploitation, are degraded and experience inadequate law enforcement. In addition, the adjacent town/ village of Amu (project participants) is a UNESCO World Heritage site. The project enhances mangrove conservation for community and cultural benefits
	Does the project site potentially include important physical cultural resources, including burial sites and monuments, or natural features or resources of cultural significance (eg. sacred sites and species, ceremonial areas) and is there risk that the project	Yes, mangroves are culturally significant resources and host various beautiful sites and monuments that contribute to Lamu's potential for nature-based and cultural tourism. Notable among these is the historical Takwa ruins on Manda Island, which

[17] KFS 2025. Mangrove Harvest Management Plan for Lamu County

	will negatively impact this cultural heritage?	hold great cultural value. The project presents NO RISK to these heritage sites and is expected to positively impact them by strengthening efforts toward their protection and conservation.
	Is there a risk that the project will negatively impact intangible cultural heritage? Consider for example cultural practices, social and cultural norms in relation to land and natural resources.	No. The project has community buy-in. The project upholds the existing socio-cultural norms and practices and further improves on livelihoods.
Indigenous Peoples	Are there marginalised, vulnerable and minorities Peoples living within the Project Area, using the land or natural resources within the project area, or with claims to land or territory within the Project Area?	Yes, there are marginalised, vulnerable and minorities people in the project area e.g. Aweer, and Wardei
	Is there a risk that the project negatively affects marginalised, vulnerable and minority Peoples through economic displacement, negatively affects their rights (including right to FPIC), their self-determination, or any other social or cultural impacts?	No. The project upholds inclusivity and cooperation with all stakeholders including all local communities through engagements throughout the process of project development and establishment, guided by legal and regulatory frameworks in place.
	Is there a risk that there is inadequate consultation of Indigenous Peoples, and/or that the project does not seek the FPIC of Indigenous Peoples, for example leading to lack of benefits or inappropriate activities?	No. The project employs a comprehensive and inclusive consultative process as well as using the FPIC approach. In addition, the project has been implementing measures to ensure meaningful consultation and consent processes through involving all stakeholders through inclusive engagements in all phases of the project processes following a bottom-up approach.
Biodiversity and sustainable use of natural resources	Is there a risk that project activities will cause adverse impacts on biodiversity (both in areas of high biodiversity value, and outside of these areas) or the functioning of ecosystems? Consider issues such as use of pesticides, construction, fencing, disturbance etc.	No. The project enhances biodiversity by conserving mangroves and promoting sustainable practices.

	Is there a risk that the project will introduce non-native species or invasive species?	No, project activities all follow best practices in ecological mangrove restoration and sustainable management guided by sound science
	Is there a risk that the project will lead to the unsustainable use of natural resources? Consider for example projects promoting value chains and natural resource-based livelihoods.	No. Sustainable resource use is ensured through proper frameworks and guidelines for nature-based enterprises.
Land tenure and conflicts	Has the land tenure and use rights in the project area been assessed and understood?	Yes. Land tenure and user rights are documented under existing legal frameworks.
	Is there a risk that project activities will exacerbate any existing land tenure conflicts, or lead to land tenure or use right conflicts?	Yes, the intervention areas for leakage may be susceptible to some risks that will be mitigated through stakeholder engagements and involvement in project activities.
Risk of not accounting for climate change	Have trends in climate variability in the project areas been assessed and understood?	Yes. Climate variability and its effects have been assessed and incorporated into project planning
	Has the climate vulnerability of communities and particular social groups been assessed and understood?	Yes, climate change vulnerability assessment has been undertaken with a quantification of sensitivity and exposure variables that determine risk levels.
	Is there a risk that climate variability and changes might influence the effectiveness of project activities (e.g. undermine project-supported livelihood activities) or increase community exposure to climate variation and hazards? Consider floods, droughts, wildfires, landslides, cyclones, etc.	No. the main influence to the project is mostly human based as the climate variability is not so prevalent in the area.
Other – e.g. cumulative impacts	Is there a risk that the project will contribute cumulatively to existing environmental or social risks or impacts, for example through introducing new access restrictions in a landscape with existing restrictions and limited land availability?	No. The project follows the frameworks, regulations and requirements needed to ensure it mitigates and helps the community adapt to the already existing risks.

	Are there any other environmental and social risks worthy of note that are not covered by the topics and questions above?	Governance issues arising from multiple users is a shifting social dynamic risk. However, the frameworks and safeguards in place reinforced by the constitution of Kenya are sufficient and efficient in addressing this dynamic.
Safeguard Provisions		
Stakeholder engagement	Has a stakeholder analysis been conducted that has identified all stakeholders that could influence or be affected by the project, or is this still to be completed? Please describe.	Yes. A stakeholder identification and mapping has been undertaken by the community to identify and analyse all stakeholders within their locales to ensure that any stakeholder relevant to the project and its activities is fully engaged in the process.
	Are the local community and indigenous peoples statutory or customary rights to land or resources within the project area already clear and documented, or is further assessment required? Please describe.	Yes. The constitution of Kenya 2010 upholds citizen's rights to land and resources. The project area being mangrove ecosystem is co-managed by LAMACOFA and KFS as provided for under the forest Act, with agreements such as Forest Management Agreement and Participatory Forest Management Plan in place to facilitate this.
	Are local governance structures and decision-making processes described and understood (including details of the involvement of women and marginalized or vulnerable groups), or is further assessment required? Please describe.	Yes. The project is formulating governance and benefit sharing structures and further assessments including stakeholder engagements is required
	Are past or ongoing disputes over land or resources in the project area known and documented, or is there need for further assessment? Please describe.	No, though most of the local people have not been issued with title deeds for the ancestral lands they occupy, there are no reported cases of escalated disputes and conflicts over land. However, the lack of recognition of the rights to land tenure through government formal process may pose a recipe for disputes over land resources. however there needs to be further assessments.

		In addition, these potential disputes may affect only project interventions outside the mangrove ecosystems, e.g., establishment of woodlots. To mitigate this, project interventions outside mangrove areas will be conducted in public land such as open spaces in public institutions (e.g., schools, health facilities, etc.,)
Stakeholder consultation	Does the project have a Stakeholder Engagement Plan with clear measures to engage Vulnerable Groups, or is this plan still to be developed? Please describe.	Yes. A preliminary stakeholder engagement plan has been developed, and it will be updated when further stakeholder consultations have been completed.
	Has the Project Coordinator informed all stakeholders of the project, through providing relevant project information in an accessible format, or does this still need to be completed? Please describe.	To be completed during the PDD stage.
Free, Prior and Informed Consent	Has the project analysed and understood national and international requirements for Free Prior and Informed Consent (FPIC)? Please describe.	The project has thoroughly reviewed and understood both national and international Free, Prior, and Informed Consent (FPIC) requirements.
	Has the project identified potential FPIC rightsholders and potential representatives in local communities and among indigenous peoples, or is this still to be completed? Please describe.	Yes. All rightsholders and representatives have been identified through the stakeholder identification process.
	Has the project worked with rightsholders and representatives of local communities and indigenous peoples to understand the local decision-making process and timeline (ensuring involvement of women and vulnerable groups), or is this still to be completed? Please describe.	Yes. The project has worked with all stakeholders and their leadership and are all aligned in timeframes and process of successfully establishing a blue carbon offset project within the mangrove ecosystem of Lamu.
	Has the project sought consent from communities to 'consider the proposed Project', and if so, where is this in principle consent documented? Please describe.	Yes. Since inception, the project has had community consent through LAMACOFA. The project has consistently engaged the local community throughout the process of establishing a blue carbon offset

		project within LAMACOFA-KFS co-managed forest area. A number of stakeholder engagement and consultation reports have been produced.
Grievance Mechanism	Does the project already have a Grievance Mechanism, or is this still to be established? Please describe.	Still to be established.
	For projects with a GRM, is this accessible to project affected people? Please describe.	The GRM will be made accessible to affected people in the project area once it is completed.

○ Annex 5 – Notification of Relevant Authorities

Provide a copy of any correspondence addressed to the authorities with overall responsibility for land management and greenhouse gas emissions assessment within the project region informing them of the project.

Notification of Kenya Forest Service, the agency mandated to manage public forests in Kenya, for approval and implementation of the project

Lamu Mangrove Community Forest Association
C/O P.O. BOX 49-80402,
Lamu, Kenya
Email: a.aboud72@gmail.com

18th February 2025

Chief Conservator of Forests
Kenya Forest Service
P.O. Box 30513-00100
NAIROBI, KENYA

Thro'

Regional Forest Conservator,
Coast Conservation Region,
MOMBASA.

Thro'

The County Forest Conservator,
Lamu County,
LAMU.

Thro'

The Forest Station Manager,
Lamu Forest Station,
LAMU.

Received
Forester
Lamu F. Station
20/02/25
KFS

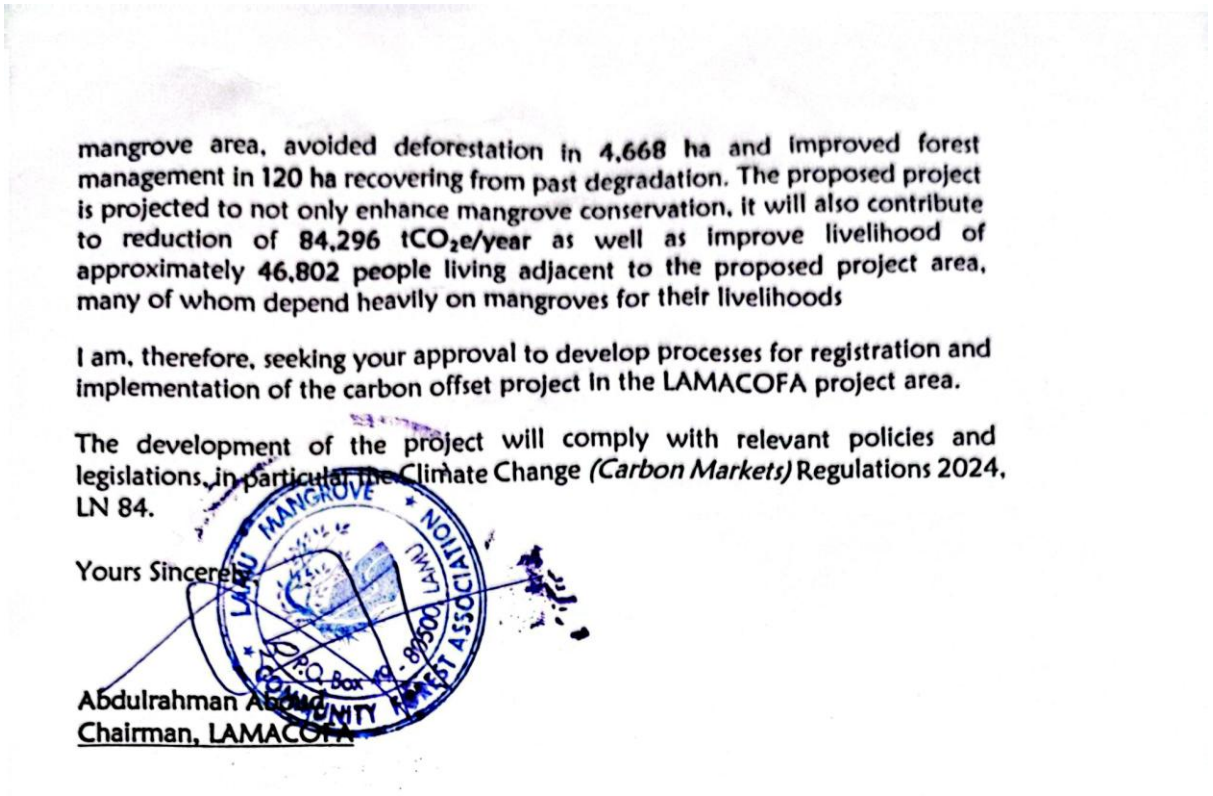
RE: REQUEST FOR APPROVAL TO IMPLEMENT A CARBON OFFSET PROJECT

Dear Sir,

LAMU Community Forest Association (LAMACOFA) was registered on 31st December 2015 and has an active Participatory Forest Management Plan (PFMP) which was approved in April 2022 by the Kenya Forest Service (KFS). The CFA also has signed a Forest Management Agreement (FMA) with KFS, granting user rights over the 8,645 ha of mangroves co-managed with Kenya Forest Service.

Kenya Marine and Fisheries Research Institute (KMFRI) is supporting LAMACOFA develop a community-based mangrove blue carbon project through funding from United Nations Environment Programme (UNEP) and The Nature Conservancy (TNC). The development of the Lamu carbon project has involved collaborative discussions among the CFA executive committee, KFS, KMFRI, Kenya Forest Research Institute (KEFRI), and the County Government of Lamu, alongside extensive public sensitization and consultations with the Forest adjacent communities within the project area.

The total project area for the proposed project is approximately 4,904 ha. The project interventions include restoration of approximately 116 ha degraded



mangrove area, avoided deforestation in 4,668 ha and improved forest management in 120 ha recovering from past degradation. The proposed project is projected to not only enhance mangrove conservation, it will also contribute to reduction of 84,296 tCO_2e/year as well as improve livelihood of approximately 46,802 people living adjacent to the proposed project area, many of whom depend heavily on mangroves for their livelihoods

I am, therefore, seeking your approval to develop processes for registration and implementation of the carbon offset project in the LAMACOFA project area.

The development of the project will comply with relevant policies and legislations, in particular the Climate Change *(Carbon Markets)* Regulations 2024, LN 84.

Yours Sincerely,

Abdulrahman Abdi
Chairman, LAMACOFA

Approval by the Chief Conservator of Forests, Kenya Forest Service of LAMACOFA request to implement a blue carbon project in its designated mangrove management area

KENYA
Forest Service

Kenya Forest Service Hqs
Karura, Off Kiambu Rd
P.O. Box 30513 - 00100
Nairobi, Kenya

LIC/1/KFS/VOL. XXXI/
Ref: No.....

2nd May 2025
Date:.....

Mr. Abdulrahman Aboud
Chairman
Lamu Mangrove CFA
P O BOX 49 - 80502
LAMU

RE: REQUEST FOR APPROVAL TO IMPLEMENT A CARBON OFFSET PROJECT IN LAMU MANGROVE FOREST, LAMU COUNTY

Reference is made to your letter dated 18th February 2025 regarding the proposed implementation of a carbon offset project within the Lamu mangrove forest.

We commend your continued dedication to the co-management of mangrove forests in collaboration with the Kenya Forest Service (KFS), and your proactive efforts toward mangrove restoration in Lamu Forest Station. Your initiative reflects a commendable commitment to environmental sustainability and community-led conservation.

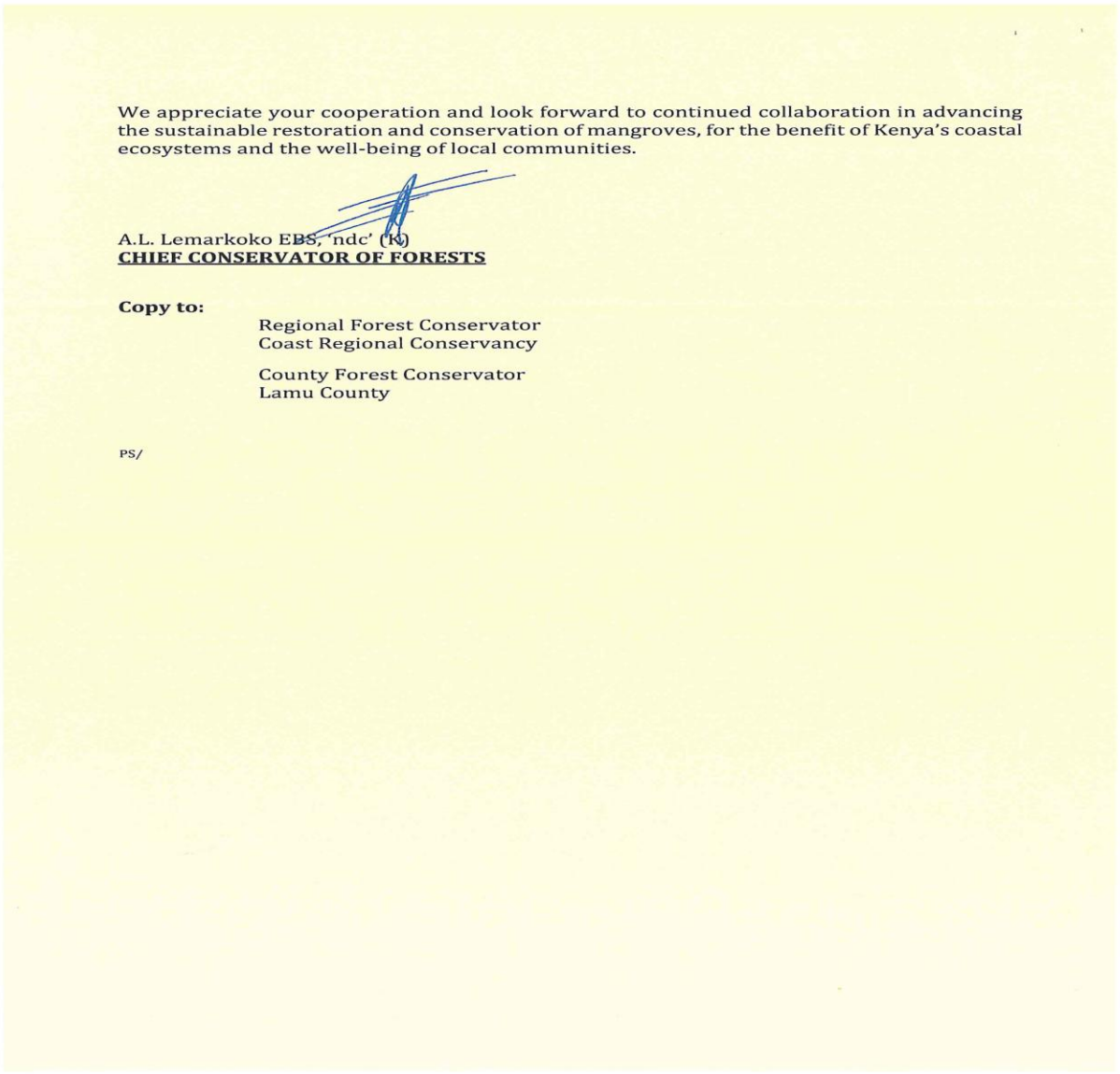
While KFS supports community participation in forest conservation and climate action, we would like to emphasize the need for prior and continuous engagement with the Service when exploring the development of carbon credit projects, especially within mangrove areas, which are designated public forests under the management of KFS. These engagements are essential to assess the technical feasibility, ensure policy alignment, and define the roles and responsibilities of all stakeholders involved.

We note with no objection your intention to explore the development of a blue carbon project, provided that all applicable legal and policy requirements are fully adhered to. Specifically, any carbon market activity must comply with the Climate Change Act, 2016 (and its 2023 amendments), and the Carbon Markets Regulations, 2024, as well as other relevant subsidiary legislation and guidelines.

Additionally, we advise that the CFA establish a separate legal entity, such as a company, which will be eligible to engage in commercial ventures including carbon credit trading. This is necessary as the current CFA framework does not permit engagement in business activities. The newly registered entity will be required to engage with KFS to establish a benefit-sharing arrangement prior to the formal registration of the carbon offset project.

Trees for better lives

Tel: (254)020-3754904/5/6, (254)020-2014663, (254)020-2020285, Fax: (254)020-2385374
Email: info@kenyaforestservice.org. Web: www.kenyaforestservice.org



We appreciate your cooperation and look forward to continued collaboration in advancing the sustainable restoration and conservation of mangroves, for the benefit of Kenya's coastal ecosystems and the well-being of local communities.

A.L. Lemarkoko EBS, 'ndc' (K)
CHIEF CONSERVATOR OF FORESTS

Copy to:

Regional Forest Conservator
Coast Regional Conservancy

County Forest Conservator
Lamu County

PS/

Notification of the National Environment Management Authority, the Designated National Authority to regulate carbon markets and host the national carbon registry in Kenya.

Government of Kenya Email System 13/03/2025, 11:52

Subject Re: Submission of copy of Project Concept Note

From Jusper Omwenga <jomwenga75@gmail.com>

To Kipkorir Sigi Langat <jlangat@kmfri.go.ke>

Date Wednesday March 12, 2025 1:41:48 PM

Hello Dr Langat
This is to confirm that the Designated National National Authority (DNA) for Carbon Markets and other market mechanisms under the Paris Agreement has received Project Concept Notes from LAMACOFA CFA. The application will be processed as per the guidelines outlined in the Carbon Market Regulations 2024.

Thank you

Jusper M. Omwenga, PhD
Principal Environmental Planning and Climate Change Scientist
National Environment Management Authority
P.O. Box 67839 00200
Nairobi, Kenya
Email: jomwenga75@gmail.com;jomwenga@nema.go.ke
Tel: +254 721473901; +254 735396670

On Tue, 11 Mar 2025 at 15:47, Kipkorir Sigi Langat <jlangat@kmfri.go.ke> wrote:

> Dear,
>
> Kenya Marine and Fisheries Research Institute is supporting Lamu Mangrove Community Forest Association (LAMACOFA) to develop a blue carbon project with aim of conservation and restoration of mangroves through the sale of carbon credits. The development of the project follows the processes prescribed in the Climate Change (Carbon Markets) regulations and will seek accreditation from the Plan Vivo Standard.
>
> Please find attached a copy of the Project Concept Note for the project.
>
> Attached herewith the PCN are the minutes and request letter to KFS for approval.
>
> Hard copy of the PCN is being sent along with the supporting documents comprising i) minutes of the LAMACOFA approval to develop the project, ii) approval from KFS, iii) Forest Management Agreement (FMA) between KFS and iv) ESIA report.
>
> kindly acknowledge receipt of the doucments
>
> regards
>
> *Kipkorir araap Sigi Lang'at (PhD)*
> *Blue Carbon Ecology and Conservation*
> *Alternative email: kisigilang@yahoo.com; kisigilang@gmail.com*
> *+254 723 404156*

https://mail.govmail.ke/modern/email/message/2466/print?full=true Page 1 of 2

LAMACOFA Authorization to KMFRI to submit PIN on its behalf

Lamu Mangrove Community Forest Association
C/O P.O.BOX 49-80402,
Lamu, Kenya
Email:a.aboud72@gmail.com

28th August 2025

To:
The Director General
Kenya Marine and Fisheries Research Institute (KMFRI)
P.O. Box 81651-80100
Mombasa, Kenya

RE: CONFIRMATION OF AUTHORISATION TO DELIVER THE CARBON PROJECT PIN

Dear Sir/Madam,

We, the Lamu Mangrove Community Forest Association (LAMACOFA), wish to confirm that we had duly authorised the Kenya Marine and Fisheries Research Institute (KMFRI) to deliver the LAMU BLUE ASSETS Carbon Credit Project Idea Note (PIN) on our behalf.

This authorisation was given prior to the submission of the PIN, and we hereby affirm that the delivery was undertaken with our full knowledge, consent, and approval. KMFRI acted as our mandated partner in this process, and we acknowledge and fully support the submission already made on behalf of LAMACOFA.

Kindly take note of this confirmation and accord the necessary recognition to the submission made by KMFRI under our authorisation.

Yours faithfully,

Abdulrahman Aboud
Chairperson
Lamu Mangrove Community Forest Association (LAMACOFA)