MAYA FOREST CORRIDOR REDD PROJECT DESCRIPTION SUMMARY

Project title	Maya Forest Corridor REDD Project
Project lifetime	1 January 2022 – 31 December 2041; 20-year lifetime.
Project location	Belize, Belize and Cayo Districts
Project proponent(s)	Maya Forest Corridor Trust (MFCT) Nicole Auil Gomez, MFCT Secretary/ Wildlife Conservation Society Belize Director +501 223-3005; nauilgomez@wcs.org
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Expected verification schedule	Verification planned for 2025 and 2026.
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1 INITIALS AND ACRONYMS

BMFT – Belize Maya Forest Trust

CAPA - Climate Adaptation and Protected Areas initiative

CCB – Climate, Community, and Biodiversity Standard

FWC – Foundation for Wildlife Conservation

GHG – Greenhouse gas

GRM – Grievance Redress Mechanism

HCV – High Conservation Value

MFC – Maya Forest Corridor

MFCT – Maya Forest Corridor Trust

PD – Project Description

RDEDCL - Rancho Dolores Environmental & Development Co. Ltd.

REDD – Reducing Emissions from Deforestation and Forest Degradation

TBZTEC – the Belize Zoo and Tropical Education Center

t CO_2e – tonnes of carbon dioxide equivalent

UB-ERI – University of Belize Environmental Research Institute

VCS – Verified Carbon Standard

VCU – Verified Carbon Unit

WCS – Wildlife Conservation Society

2 INTRODUCTION

This document provides a summary of the Maya Forest Corridor (MFC) REDD project which aims to become registered in the Verified Carbon Standard (VCS) and the Climate, Community, and Biodiversity (CCB) Standard programs both run by Verra. It complements the longer, more detailed Project Description (PD). The results presented in this summary are preliminary.

2.1 Project start date, crediting period, and lifetime

The project start date was January 1, 2022. Its crediting period is for 20 years (January 1. 2022 through December 31, 2041). The crediting period is when greenhouse gas (GHG) emission reductions generated by the project are eligible for issuance as VCUs (Verified Carbon Units). This will also be the period during which community and biodiversity benefits will be monitored.

After the crediting period is completed, the MFC project area will continue to be managed for conservation beyond the 20 years. The MFCT executed a Deed and Declaration of Trust confirming that the MFC REDD project area and other properties that the MFCT owns are to be held in trust in perpetuity for the benefit of the people of Belize for conservation and protection of natural resources.

3 SUMMARY OF PROJECT BENEFITS

The project has five objectives:

1. Prevent the agricultural conversion of the project area to preserve its ecological role in the larger Maya Forest Corridor.
2. Conserve the project area forests to avoid GHG emissions, maintain carbon stocks, and carbon sequestration.
3. Preserve the project area to maintain its native biodiversity.
4. Empower local communities to lead conservation and climate resilience efforts by enhancing their awareness and understanding of critical environmental and climate adaptation issues.
5. Enhance community capacity for sustainable, diverse livelihoods and nature-based solutions for climate adaptation

By meeting these objectives, the project expects to produce several benefits. Table 1 presents the expected benefits of the project expressed through standardized metrics required by Verra for any project expected to be validated under both the CCB Program and VCS Program. Table 2 presents the unique benefits that the project expects to generate that are not captured through the standardized benefit metrics.

Table 1. Standardized benefit metrics for the Maya Forest Corridor REDD project

Category	Metric	Estimated by the end of project lifetime
GHG emission reductions	*Net estimated reductions in the project area, measured against the without-project scenario*	1,172,124 t CO_2e
Forest[1] cover	*Estimated number of hectares of reduced forest loss in the project area measured against the without-project scenario*	10,977 ha
Training	*Total number of community members who are expected to have improved skills and/or knowledge resulting from training provided as part of project activities*	131 persons *Includes 86 in fire safety and management, 20 in environmental enforcement, and 25 in sustainable livelihoods*
	Number of female community members who are expected to have improved skills and/or knowledge resulting from training as part of project activities	34 females *Includes 21 in fire safety and management, 3 in environmental enforcement, and 10 in sustainable livelihoods (These estimates were developed considering strict gender norms in the country.)*
Employment	*Total number of people expected to be employed in project activities[2], expressed as number of full-time employees[3]*	16 persons *A total of 14 unique individuals expected to be hired for protected area management over the course of the project. An additional 2 people will be hired each year for restoration work.*
	Number of women expected to be employed as a result of project activities, expressed as number of full-time employees	5 women *(This estimate was developed considering strict gender norms in the country.)*
Livelihoods	*Total number of people expected to have improved livelihoods[4] or*	15 persons

[1] Land with woody vegetation that meets an internationally accepted definition (e.g., UNFCCC, FAO, or IPCC) of what constitutes a forest, which includes threshold parameters, such as minimum forest area, tree height and level of crown cover, and may include mature, secondary, degraded and wetland forests (VCS Program Definitions)
[2] Employed in project activities means people directly working on project activities in return for compensation (financial or otherwise), including employees, contracted workers, sub-contracted workers and community members that are paid to carry out project-related work.
[3] Full time equivalency is calculated as the total number of hours worked (by full-time, part-time, temporary and/or seasonal staff) divided by the average number of hours worked in full-time jobs within the country, region or economic territory (adapted from the UN System of National Accounts (1993) paragraphs 17.14[15.102];[17.28])
[4] Livelihoods are the capabilities, assets (including material and social resources) and activities required for a means of living (Krantz, Lasse, 2001. The Sustainable Livelihood Approach to Poverty Reduction. SIDA). Livelihood benefits may include benefits reported in the Employment metrics of this table.

Category	Metric	Estimated by the end of project lifetime
	income generated as a result of project activities	
	Number of women expected to have improved livelihoods or income generated as a result of project activities	6 women
Well-being	*Total number of community members whose well-being[5] is expected to improve as a result of project activities*	15 persons
	Number of women whose well-being is expected to improve as a result of project activities	6 women
Biodiversity conservation	*Expected change in the number of hectares managed significantly better by the project for biodiversity conservation[6], measured against the without-project scenario*	10,977 ha of forests conserved and managed for conservation that would have otherwise been cleared in the without-project scenario.
	Expected number of globally Critically Endangered or Endangered species[7] benefiting from reduced threats as a result of project activities[8], measured against the without-project scenario	2 species in total: • 1 globally Critically Endangered species, the Central American river turtle (*Dermatemys mawii*) • 1 globally Endangered species, the Baird's tapir (*Tapirus bairdii*)

Table 2. Unique benefits of the Maya Forest Corridor REDD project

Outcome or impact estimated by the end of project lifetime
1) Protects and encourages the dispersal of wildlife through connecting the Selva Maya of Belize, Guatemala, and Mexico, and the Maya Mountains of southern Belize which are the largest tracts of intact forest in the Mesoamerica Biodiversity Hotspot.

[5] Well-being is people's experience of the quality of their lives. Well-being benefits may include benefits reported in other metrics of this table (e.g. Training, Employment, Livelihoods, Health, Education and Water), and may also include other benefits such as strengthened legal rights to resources, increased food security, conservation of access to areas of cultural significance, etc.
[6] Managed for biodiversity conservation in this context means areas where specific management measures are being implemented as a part of project activities with an objective of enhancing biodiversity conservation, e.g. enhancing the status of endangered species
[7] Per IUCN's Red List of Threatened Species
[8] In the absence of direct population or occupancy measures, measurement of reduced threats may be used as evidence of benefit

Outcome or impact estimated by the end of project lifetime
2) Protects wildlife and wildlife habitat through patrols that limit poaching, control, and mitigation of wildfire, monitoring of wildlife occurrence, and habitat use.
3) Improves communities' resilience by improving local fire management systems, supporting sustainable livelihoods, and supporting climate change adaptation.

4 OVERVIEW OF THE PROJECT

The goal for the Maya Forest Corridor REDD Project (MFC REDD project), located approximately 37 km west of Belize City in the Belize and Cayo districts (Figure 1), is to protect and conserve tropical lowland forest for long-term carbon storage, biodiversity preservation, and the promotion of community resilience.

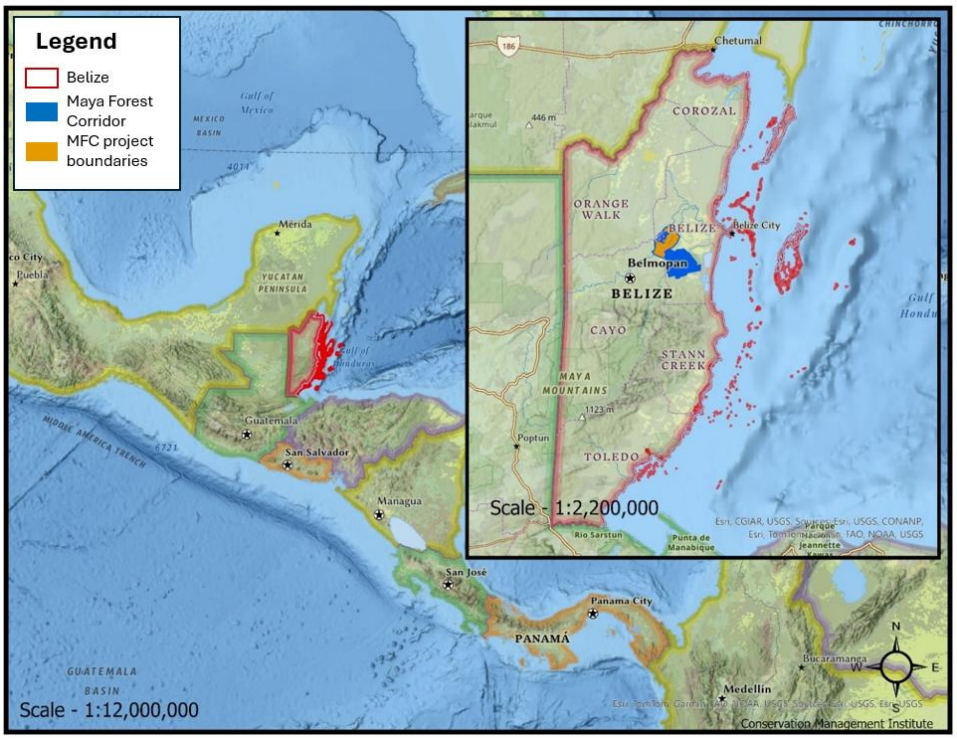


Figure 1. Maya Forest Corridor REDD project location at a regional scale.

The 10,977-ha MFC REDD project area is part of a larger 11,856-ha property (referred to as the MFC property) privately held in trust for people and Government of Belize by the Maya Forest Corridor Trust (MFCT) and is embedded within the larger Maya Forest Corridor (MFC) in Belize (Figure 2). The project zone includes the project area where the greenhouse gas emission reductions are being generated, as well as the area surrounding the project area in which the communities are impacted by the project.

The REDD project is included in a landscape-wide initiative to protect the MFC, being spearheaded by the MFCT.

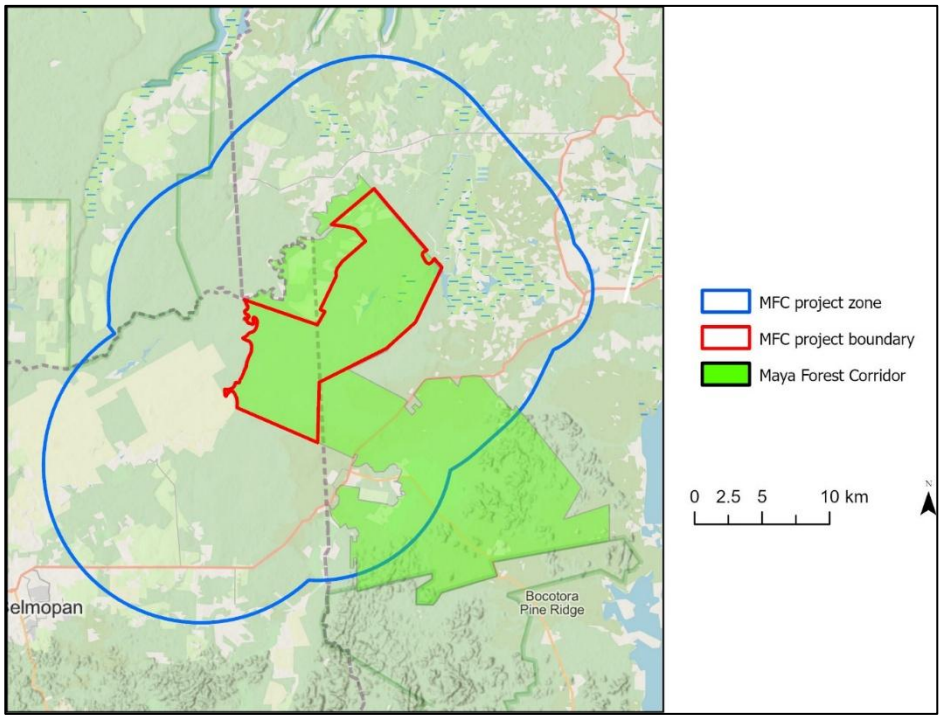


Figure 2. Maya Forest Corridor REDD project location within the Maya Forest Corridor.

The MFC, formerly part of what was known as the Central Belize Corridor, is comprised of approximately 37,858-ha of privately-owned lowland forests and savannas in central Belize. The MFC provides the last critical link to Belize's two largest intact forest blocks: the privately owned northern forest block managed under Trust for the people and government of Belize[9] and the largely publicly owned Maya Mountain Massif in southern Belize (Briggs et al., 2013; Mitchell et al., 2017) (Figure 3). The MFC is part of the larger Mesoamerican corridor, which connects forests across three central American countries (Belize, Mexico, and Guatemala known as the Selva Maya forest) (Hilty et al., 2012). Together, these represent the single largest forest block in Central America (Hofman et al., 2018). The MFC provides essential ecosystem services to Belize including climate mitigation, maintenance of biodiversity, forest products, pollination services, land for subsistence agriculture, and livelihoods through tourism and commercial agriculture.

[9] These privately managed lands include the Rio Bravo Conservation and Management Area, Gallon Jug, and the Belize Maya Forest lands - formerly known as Yalbac and Laguna Seca

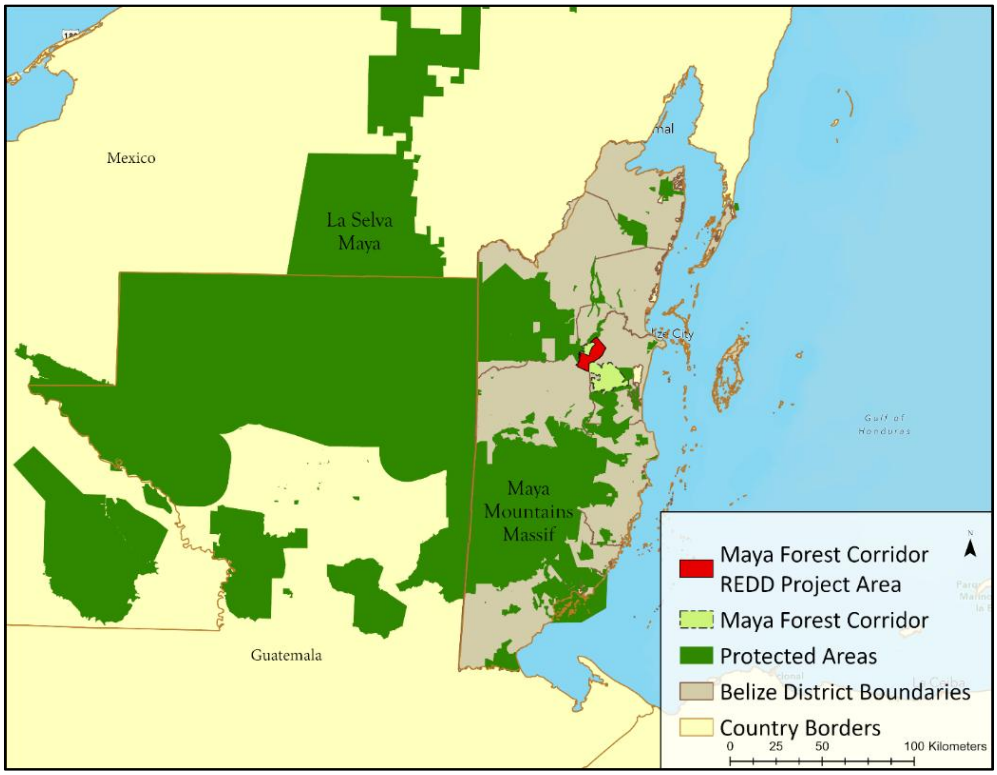


Figure 3. MFC and MFC REDD project area with the larger Selva Maya

The property was previously owned in multiple parcels: Darling Hall and Coquericot Logging Works combined and Big Falls/Monkey Run and Erindale Logging Works. As the names indicate, these parcels had been selectively logged over time. The previous owner was looking to sell the property and had received multiple offers from entities hoping to convert the property to agriculture. Several other nearby forests in the vicinity had recently been cleared for agriculture. Thus, the property was under threat of conversion from forest to agriculture.

The property was purchased and transferred to the MFCT at the end of 2021 with the intention that it would become a REDD project. In a small pocket in the northeast of the property, a local family has been cattle ranching and harvesting fruit trees since prior to the transfer of the property to the MFCT. Because this area was already mostly cleared of forest at the start of the project and because the focus of the project is on avoiding planned deforestation as opposed to unplanned deforestation, for GHG accounting purposes, this area and a surrounding buffer area were removed from the REDD project area. The rest of the property that includes the project area (forest) and other non-forested ecosystems is referred to as the project boundary.

The objectives for the project are to: 1) avoid the agricultural conversion of the property to preserve its role in the larger Maya Forest Corridor; 2) conserve the project area to avoid GHG emissions, maintain carbon stocks, and carbon sequestration; 3) preserve the project area to maintain the native floral and faunal biodiversity; 4) Empower local communities to lead conservation and climate resilience efforts by enhancing their awareness and understanding of critical environmental and climate adaptation

issues; and 5) Enhance community capacity for sustainable diverse livelihoods and nature-based solutions for climate adaptation

An estimated 1,172,124 tonnes of carbon dioxide equivalent (t CO_2e) emission reductions will be due to the conservation of the project area forests over 20 years, or an average annual amount of 58,606 t CO_2e. The project is not located within a jurisdiction covered by a jurisdictional REDD+ program.

Table 3 presents the expected outputs, outcomes, and impacts of these activities, using a theory of change.

Table 3. MFC REDD Project Theory of Change

Activity description	Expected climate, community, and/or biodiversity		
	Outputs (short term)	Outcomes (medium term)	Impacts (long term)
1. Purchase parcel(s) under threat of conversion to agriculture (i.e. Sugarcane) to maintain current carbon stocks, avoid GHG emissions associated with conversion.	• Protects project area from conversion to agriculture.	• Avoids greenhouse gas emissions that would have resulted from the conversion to agriculture	• Contributes to the mitigation of climate change • Increases the resilience to climate change of the local and regional landscape through maintenance of native forest cover, native species, and water quality.
2. Maintain natural ecosystems and current forest cover through the implementation of management strategies, such as detection, mitigation, and control of wildfires and surveillance and patrolling, to conserve and protect native biodiversity and ecosystem services supplied by the project area.	• Maintains current habitat for a wide array of native flora and fauna including rare, threatened, and endangered species. • Improves wildlife habitat protection and suitability through patrols that limit poaching, control, and mitigation of wildfire, monitoring of wildlife occurrence and habitat use.	• Protects and encourages the dispersal of wildlife through connecting the Selva Maya of Belize, Guatemala, and Mexico and the Maya Mountains of southern Belize which are the largest tracts of intact forest in the Mesoamerica Biodiversity Hotspot. • Maintains and allows for the improvement of array of native flora and fauna habitat.	• Maintains and enhances the structure and function of native ecosystems. • Maintains and enhances the resilience of wildlife populations by promoting gene exchange and allowing migration through the corridor. • Maintains and enhances community resilience to natural disasters and climate change.

Activity description	Expected climate, community, and/or biodiversity		
	Outputs (short term)	Outcomes (medium term)	Impacts (long term)
	• Park rangers and community members trained and equipped for wildfire management. • Fire Early Warning systems implemented in communities. • Fire brigades established to serve MFC communities. • Community members employed in surveillance and patrolling for conservation. • Park rangers trained in environmental laws and enforcement. • Park rangers certified as special constables. • Community members employed in forest restoration activities.	• Enhances local capacity to detect, mitigate, and control wildfires. • Enhances success in controlling wildfires. • Reduces harmful impacts of wildfires on community property and human health. • Decreases illegal encroachments on project area. • Increases employment for community members in conservation management. • Increases community support for conservation of the project area and the wider MFC.	• Enhances community support for conservation of the project area and the wider MFC. • Maintains and enhances ecosystem services, directly benefiting local communities.

Activity description	Expected climate, community, and/or biodiversity		
	Outputs (short term)	Outcomes (medium term)	Impacts (long term)
3. Conduct ongoing community outreach and environmental education to foster support for MFC conservation and to create awareness of critical environmental and climate adaptation issues	• Ongoing community and school-based outreach activities conducted. • Community climate smart plans implemented. • Community conservation agreements adopted.	• Communities well-versed in environmental and climate adaptation topics. • Increases community support for conservation of the project area and the wider MFC. • Strengthens communities' adaptive capacity to climate impacts.	• Enhances community-based environmental stewardship of the MFC and community lands. • Maintains and enhances community resilience to natural disasters and climate change.
4. Provide training, material and technical support for community-owned sustainable livelihoods and nature-based solutions for climate adaptation.	• Training, technical support and materials provided to households and community agencies in sustainable livelihoods (e.g., climate smart agriculture, production of sustainable products like coconut oil, cohune oil, honey, etc.). • Training, technical support, and materials provided to farmers in climate-smart agriculture.	• Self-sufficiency in food production increased. •	• Adoption of climate smart livelihood practices within communities increased. • Participation of women in sustainable livelihoods increased. • Community resilience to climate change strengthened.

Activity description	Expected climate, community, and/or biodiversity		
	Outputs (short term)	Outcomes (medium term)	Impacts (long term)
	• Climate smart farms established by community members. • Community-owned nature-based solutions for sustainable livelihoods implemented.		

5 PROJECT DETAILS

5.1 Project Governance

The MFCT is the entity that is responsible for the project. The MFCT's Board of Directors is the ultimate decision- and policy-making body of the MFCT, and as such has the final say on matters related to project development and implementation. The Board of Directors includes representatives from the Belize Maya Forest Trust (BMFT), WCS, the Belize Zoo and Tropical Education Center (TBZTEC), Foundation for Wildlife Conservation (FWC), the University of Belize – Environmental Research Institute (UB-ERI), and Re:wild. The responsibilities of the board includes delegating certain responsibilities to members of its board. For this project, the MFCT board has delegated the following roles and responsibilities to WCS including 1) the day-to-day management of the project site; 2) engagement with nearby communities and other stakeholders related to the project; 3) conducting all the field work and preparing all the required project documentation to register the project with the VCS and CCB; and 4) ensuring that the monitoring and verification events occur. In addition, WCS, TBZTEC, FWC, and UB-ERI will contribute to carrying out project activities benefiting local communities.

5.2 Implementation Schedule

Table 4. MFC REDD project implementation schedule

Date	Milestone(s) in the project's development and implementation
October 2020	Agreement signed between the Government of Belize and Re:wild (formerly Global Wildlife Conservation) in which Re:wild agreed to finance the acquisition of lands located in the Maya Forest Corridor for conservation and to establish the Maya Forest Corridor Trust to hold title to the properties.
December 2020	The MFCT is registered as a not-for-profit company limited by guarantee pursuant to the provisions of the Companies Act of Belize.
2021	MFCT members gather data in MFC communities and engage MFC stakeholders to develop the MFC Conservation Action Plan and the MFC Compliance Plan to support conservation efforts in the MFC and to guide all future project interventions
September 2021	A motion was passed in the Belize House of Representatives formally authorizing the transfer of carbon rights and credits generated in lands held by the MFCT, including the MFC REDD project area, to the MFCT.
October 2021	WCS begins conducting forest protection patrols in the project area based on good faith understanding that a management agreement will be signed with the MFCT.

Date	Milestone(s) in the project's development and implementation
December 2021	The parcels making up the property area are legally transferred from the previous owner to the MFCT as indicated in the Transfer Certificates of Title.
January 2022	Project start date
February 2022	Construction of ranger station completed. Constant presence of WCS rangers and daily patrols in the project area begins. WCS's management of the site will continue for 50 years as stipulated in the management agreement described below.
March 2022	Initiation of biological monitoring activities in the project area, Central American river turtle population survey conducted.
June 2022	MFCT members initiate fire management training and awareness raising with local community members and the MFC Fire Working Group. This work is expected to continue for at least 50 years as part of the community engagement work stipulated in the management agreement.
July 2022	MFCT members initiate engagement in community outreach and environmental education activities in local communities. This work is expected to continue for at least 50 years as part of the community engagement work stipulated in the management agreement.
August 2022	Management agreement signed between the MFCT and WCS in which the MFCT assigns the management of Trust Properties, including the MFC REDD project area, to WCS for a term of 50 years commencing on October 11, 2021, with the option to extend the agreement beyond this period.
February – June 2023	Forest carbon field measurements conducted.
As needed	During the fire season, MFCT members in collaboration with the broader Maya Forest Corridor Fire Working Group (MFCFWG) will conduct firefighting activities when fires are identified.
May 2024	MFCT members initiate work with local communities to support the development of sustainable livelihoods in communities (e.g., climate-smart agriculture, production of sustainable products like coconut oil, cohune oil, honey, etc.). This work is expected to continue for at least 50 years as part of the community engagement work stipulated in the management agreement.
May-June 2024	Project team conducts introductory meetings with leaders and councils of the 12 communities in the project zone to introduce them to the concept of REDD and the goal of the MFC REDD project.

Date	Milestone(s) in the project's development and implementation
June-August 2024	Socioeconomic survey and community monitoring event takes place, and community meetings conducted to present the results of the survey, event, and social impact assessment.
October, 2025	Project Description document and Monitoring Report for first two years (January 2022 – December 2023) submitted for public comment and validation and verification.
Every 2-5 years	Monitoring events for climate, community, and biodiversity benefits followed by verification.
December 31, 2041	Project crediting period ends
In perpetuity	As stated in the MFCT's Executed Declaration of Trust, the MFC property will be managed in perpetuity for conservation and protection of natural ecosystems.

5.3 Physical Parameters

WCS has managed the MFC REDD project area since the property in which it is located was purchased in late 2021 with the goal of promoting native biodiversity, maintaining carbon stocks, and other ecosystem services. The two forest types within the project area include lowland broadleaf moist forest and lowland broadleaf moist scrub forest (Meerman & Clabaugh, 2017). The remainder of the area within the project boundary consists of shrub/scrub, herbaceous vegetation, emergent herbaceous wetlands, open water, and developed/open space (Figure 4).

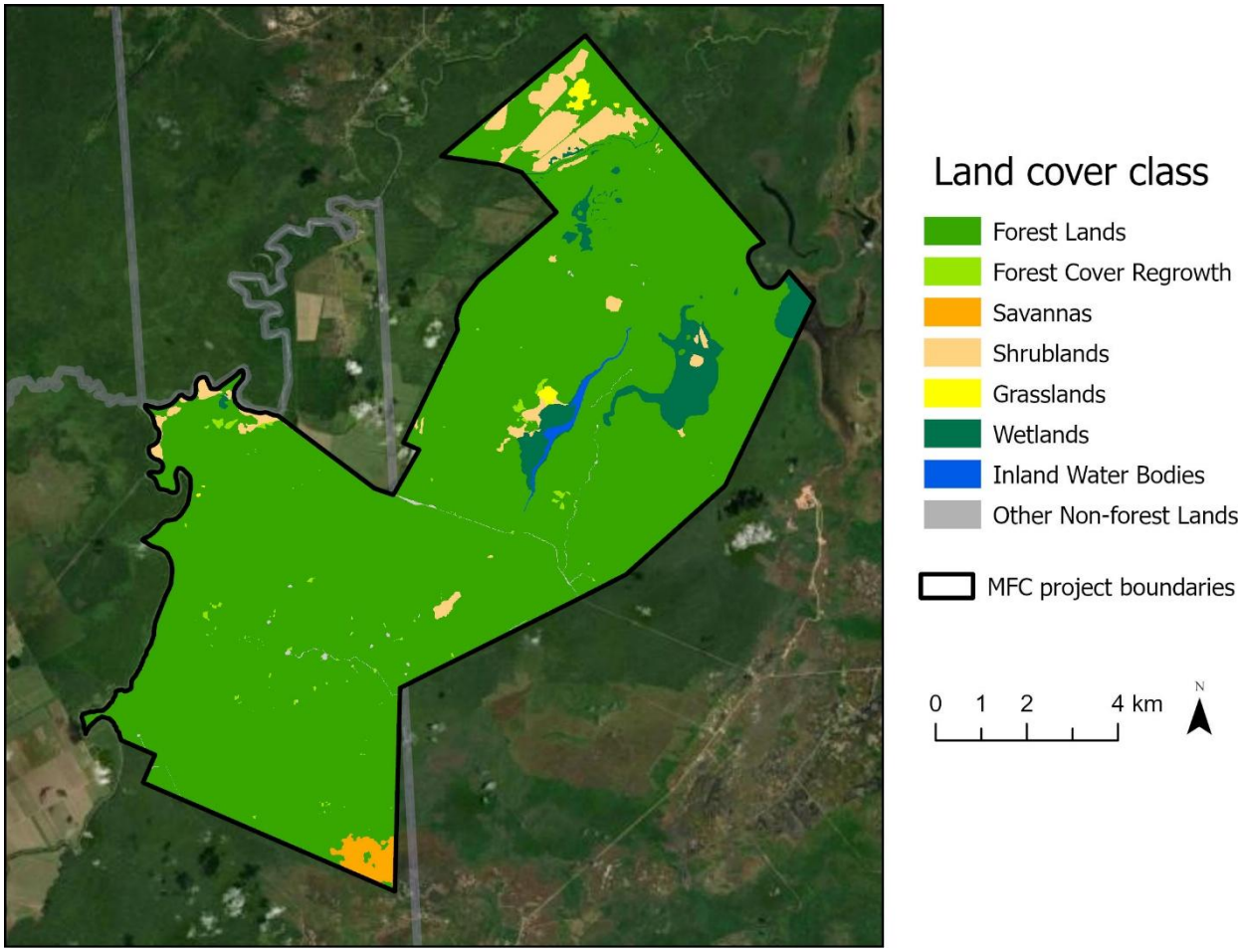


Figure 4. Forest cover/land use benchmark map

Hydrologically, the project area is subject to frequent flooding during the wet season and periods of high rainfall associated with periodic tropical storms and hurricanes. Within the project area, the most important hydrological feature is Cox's Lagoon, an approximately 550 ha emergent wetland/open water lagoon in the northeast portion of the property. Cox's Lagoon has many small, intermittent creeks, waterways, and wetlands throughout the property that feed into the lagoon. The Belize River forms the southwestern border of the project area.

The project area is bordered by mostly undeveloped Caribbean pine savannas to the east and tropical seasonal evergreen broadleaf lowland forests to the west, beyond the Belize River (Meerman & Sabido, 2001). Immediately adjacent to the west of the project area is a large sugarcane plantation. Approximately 1.5 km southwest of the project area lies a large area of agricultural fields, where a variety of products, including sugarcane and corn, are grown.

Because of the frequency of hurricanes and tropical storms, the forested ecosystems of Belize, including the project area, have adapted to periodic disturbances. The project will monitor the impacts of hurricanes and tropical storms on the project area and its carbon stocks. Additionally, potential impacts to the project's forest carbon stocks from hurricanes and tropical storms are accounted for in the non-permanence risk assessment, and appropriate buffer contributions are applied.

5.4 Social Parameters

There are no human settlements within the project area, nor were there any prior to the project's commencement. Twelve MFC target communities within the project zone were identified as priority areas for community-based project activities: Cotton Tree, Franks Eddy, Mahogany Heights, La Democracia, Gracie Rock, Hattieville, Scotland Halfmoon, Bermudian Landing, Double Head Cabbage, Willows Bank, St. Paul's Bank, and Rancho Dolores. All 12 target communities in the REDD project zone are governed by village councils.

In the 12 communities within the project zone, the total population is 7,621, with a balanced gender distribution, comprising 50.3% males and 49.7% females. There are a total of 4,319 households.

Creole is the dominant ethnicity in the 10 MFC target communities located in the Belize District. These include the Belize River Valley communities of Bermudian Landing, Double Head Cabbage, Willows Bank, St. Paul's Bank, Scotland Half Moon, and Rancho Dolores, where the Creole comprise 94% of the population, as well as four communities along the Western Highway. Mestizo/Hispanic/Latino is the dominant ethnicity in the two target communities in the Cayo District – Franks Eddy and Cotton Tree. The 2022 Census reported significant population increases in both Franks Eddy and Cotton Tree since 2010, with increases of 40% and 24%, respectively. This growth is primarily attributed to a steady influx of Central American migrants.

The 2023 Multidimensional Poverty Index (MPI) (Statistical Institute of Belize, 2024) reports that 26.4% of the country's population is multidimensionally poor. Notably, the incidence of poverty was higher in male-headed households (29.6%), compared to female-headed households (19.7%). The MPI rate is significantly higher in rural areas (39.9%) compared to urban areas (8.3%). Ten of the MFC target communities are located within the Belize District, which has the lowest MPI rate (8.6%), while the other two are situated in the Cayo District, which has the second-lowest MPI rate (23.3%).

As of April 2024, the unemployment rate stood at a low 3%, with 165,808 individuals actively engaged in the workforce, translating to a labor force participation rate of 57.4%. Two of the project's target communities lie in the Cayo District, which had the highest unemployment rate (3.7%). Ten target communities are located in the Belize District, which had the second highest (3.5%) unemployment rate. The average annual income for employed individuals was reported at US$8,562 (BZ$17,124).

In the 12 communities in the project zone, the majority of the heads of household work in a profession or are employed in the private or public sector. Few heads of households depend directly on natural resources as their primary source of income (agriculture, livestock rearing, or hunting and fishing).

5.5 Safeguards and Social Engagement

Stakeholder Identification

As part of a larger effort to guide conservation interventions in the entire Maya Forest Corridor, WCS and the University of Belize Environmental Research Institute (UB ERI) carried out a feasibility study

that was completed in 2021 to build information to guide viable actions by both communities and managers for ensuring the persistence and ecological integrity of the MFC over the long term.

In this feasibility study, a scoping exercise was initially completed to identify the communities with the most impact on the corridor. The exercise identified 13 priority communities: Camalote, Cotton Tree, Franks Eddy, Mahogany Heights, La Democracia, Gracie Rock, Hattieville, Scotland Halfmoon, Bermudian Landing, Double Head Cabbage, Willows Bank, St, Paul's Bank, and Rancho Dolores. Given the fact that the REDD project area only makes up a portion of the MFC, the WCS team conducted further analysis to determine which of these 13 communities did not impact the project area. Based on this analysis, WCS removed Camalote because the hunting grounds of its community members are only in the southern section of the MFC landscape and, therefore, do not include the REDD project area.

Further information gleaned from consultations and focus group discussions conducted as part of a Climate Adaptation and Protected Areas (CAPA) Initiative supported the identification of community subgroups, vulnerable groups, and stakeholders of interest and relevance to the MFC REDD project. Data for each community was sourced from the 2022 Census, which provided some information on education, household assets and characteristics, home ownership, and gender balance relevant to the heads of households.

Finally, the list of stakeholders was finalized through consultations with community leaders in all 12 communities. Consultations with the community leaders allowed for validation of the information from the census and 2021 household survey, as well as identification of specific subgroups or community-based organizations and vulnerabilities specific to each community.

The interests of the community and community groups varied based on their proximity to the MFC and reliance on forest and other natural resource assets for livelihoods. Other stakeholder groups identified were from academia, non-government organizations, community-based organizations, the private sector, and government ministries and departments. Since the MFC REDD project area is privately owned, these stakeholders do not have rights in it; however, they are integral to management, planning, policies, and legislation relevant to the area as well as to national conservation efforts. Consequently, these stakeholders are important to the success of the project.

Monitoring actions will include monitoring stakeholder participation as well as identification of any new stakeholders and stakeholder groups relevant to the project to ensure the effective participation of all groups, including underrepresented groups.

Table 5 shows the communities, community groups, and other stakeholders identified using the stakeholder identification process.

Table 5. Communities, community groups and other stakeholders identified

Communities	Community-based organizations	Protected area management groups/bodies/academia	Government organizations
1. Bermudian Landing 2. Double Head Cabbage 3. Scotland Halfmoon 4. Willow's Bank 5. St. Paul's Bank 6. Rancho Dolores 7. Hattieville 8. Mahogany Heights 9. La Democracia 10. Gracie Rock 11. Franks Eddy 12. Cotton Tree	1. Community Baboon Sanctuary Women's Conservation Group (CBSWCG) 2. Rancho Dolores Environmental Development Company Limited	1. Maya Forest Corridor Trust (MFCT) 2. Belize Zoo Tropical Education and Wildlife Center (TBZTEC) 3. Monkey Bay Wildlife Sanctuary 4. Labouring Creek Jaguar Corridor Wildlife Sanctuary 5. Spanish Creek Wildlife Sanctuary 6. Association of Protected Areas Management Organizations (APAMO) 7. Foundation for Wildlife Conservation (FWC) 8. University of Belize - Environmental Research Institute (UB-ERI)	1. Ministry of Sustainable Development, Climate Change, and Disaster Risk Management (prior to March 2024, named Ministry of Sustainable Development, Climate Change & Solid Waste Management) 2. Ministry of Agriculture 1. Government of Belize

Risks from the Project and No Net Harm

Below is a summary of different risks resulting from project activities during the project lifetime, as well as commensurate mitigation or preventative measures in place to prevent or mitigate these risks. The full list of all potential risks evaluated can be found in the full PD.

Risks to stakeholder participation

- Community and Stakeholder Support: There is a risk that the project may not gain or maintain the necessary level of engagement and support from target communities and key stakeholders; for example, if it is perceived that the project is "locking away" resources which would otherwise be used for economic development or that benefits to communities are not being delivered equitably
- Limited engagement of Franks Eddy and Cotton Tree due to a language barrier.

Working conditions

- Traffic accidents
- Fire
- Attack by persons intruding on MFC REDD project area
- Attack by wildlife

Community Costs, Risks, and Benefits

WCS began the process of identifying and addressing the costs, risks, and benefits to communities in 2020 through activities described in phase 1 and engaged in more focused project development engagements through the Stakeholder Engagement Plan 2024-2030. This plan is designed to enhance stakeholder participation and facilitate continuous communication between the project and target communities. This plan includes strategies for active collaboration, information sharing, and empowerment, ensuring that communities are well-informed about the potential impacts of project activities

Specifically, community engagement work conducted in 2022 focused on community sustainability goals for the MFC, engaging community members in a participatory manner to identify and document community cost risks and benefits. Additionally, the MFC Compliance Plan, which was developed through a consultative process with stakeholders, identified costs, benefits, and risks to communities. In 2024, presentations to communities on the monitoring report included information on community impact, and presentations on the draft PD and draft MR to communities in 2025 specifically addressed community cost, benefits, and risks.

Table 6 summarizes the main costs, risks, and benefits to communities and other stakeholders.

Table 6. Costs, risks, and benefits to communities and other stakeholders

COSTS	RISKS	BENEFITS
• Time investment by community leaders and members in participating in project activities. • Reduced future opportunities for land purchase or agricultural	• Hurricanes and tropical storms threaten climate benefits through forest damage, defoliation, and tree mortality	• Decreased vulnerability to wildfires for all 12 target communities through fire management training,

COSTS	RISKS	BENEFITS
expansion within the project area boundaries. • Adjustments required for community members previously practicing unsustainable resource extraction (illegal hunting, logging, or timber harvest) within the project area. • Cost of staff time, technical resources, and coordination for stakeholder organizations • Costs related to enforcement activities, monitoring, fire management infrastructure, and community capacity building covered by MFC partners • Communities forgo short-term income from forest conversion or extractive uses in favor of long-term conservation outcomes.	(identified as the biggest natural risk). • Wildfires from agricultural burning, hunting, and infrastructure activities spreading to nearby communities and protected areas. • Increased human-wildlife conflict in the short term as wildlife adjusts to land-use changes around forest edges. • Insufficient community and stakeholder support potentially undermining project effectiveness and voluntary compliance. • Non-compliance by 'non-residents' or outsiders identified as major contributors of illegal and unsustainable resource extraction. • Limited continuity of activities, funding constraints, and weak enforcement capacity threatening sustained outcomes. • Poaching of flora and fauna posing risk to biodiversity benefits, particularly for hicatee, jaguar, peccary, tapir, and other threatened species. • Perceived inequity if some communities receive less attention or benefits than others. • Risk of community concerns going unaddressed if the Grievance Redress Mechanism	community fire brigades, and improved containment • Increased economic security through livelihood diversification including climate-smart agriculture, coconut oil, cohune oil, and honey production. • Direct employment opportunities. • Strengthened capacity through training in fire safety, environmental laws, surveillance and patrolling, SMART tool use, and special constable certification. • Protection of watershed integrity for the Belize and Sibun River systems, safeguarding water supply, flood mitigation, and ecosystem services for communities and industries. • Increased community knowledge of MFC conservation and climate adaptation. • Improved community cohesion and organizational capacity for proactive conservation action and climate resilience. • Reduced risk of community land being purchased by large commercial agricultural interests, preserving the rural character and ecosystem services of the area. • Enhanced support for stakeholder organizations including alignment with national

COSTS	RISKS	BENEFITS
	is not effectively communicated and accessible.	low-emissions development, biodiversity protection, and sustainable development commitments. • Benefits to the broader agriculture and ecotourism sectors through maintained ecosystem services and watershed health across the Maya Forest Corridor. • Establishment of an accessible Grievance Redress Mechanism enabling communities and stakeholders to report and resolve concerns transparently. • Long-term protection of cultural and community values associated with broadleaf forests and savannas of the MFC.

Summary of Stakeholder Engagement to Date

The stakeholder engagements related to the project, including informational meetings with communities, can be categorized into two (2) distinct phases: Phase 1 (2020-2023) and Phase 2 (2024-2025).

The focus of Phase 1 was on community sensitization on the MFC and data gathering to inform the development of interventions in the MFC and ultimately the project description. These were led by MFCT members.

Phase 2 constituted stakeholder engagement specific to the project description development, guided by a Stakeholder Engagement Plan. Activities included engagement of community leaders, data collection, and sustained community engagement geared towards ensuring community and stakeholders' understanding of and engagement in project development activities. These were led by WCS.

Phase 1

In 2020, the UB-ERI/WCS team met with 15 chairpersons from the 21 MFC communities to conduct a scoping exercise to define priority buffer MFC communities and to engage community leaders in planning for the MFC Household Survey. In 2020, the MFC Household Survey was implemented in 13 buffer communities, based on the prioritization exercise conducted with community leaders. 421 Households participated in the Survey. The results of the Household Survey were presented to communities in 2021. The presentation served to raise awareness, provide information on the MFC, share results from the Household Survey, and solicit community feedback. Consistent with WCS Institutional Review Board for Research with Human Subjects protocol, all participants of the household survey were provided contact information for WCS to raise any questions or concerns about the project and to provide feedback[10]. A research permit from the government of Belize was also acquired.

In 2021, MFC stakeholders, including representatives from villages in the Maya Forest Corridor, neighboring farms, agricultural and tourism enterprises, and the Forest Department, Fisheries Department, Lands Department, and Office of National Biodiversity, participated in a process to update the Conservation Action Plan for the MFC. Three online workshops took place. Due to the COVID-19 restrictions, in-person meetings were not possible.

In 2022, UBI-ERI engaged in awareness raising and information on the local and regional importance of the MFC. This included sessions to identify, discuss, and prioritize environmental threats and impacts with communities. Additionally, in 2022, 18 community outreach activities were conducted. This included 5 school presentations, 11 community outreach activities, and 2 training activities. Community outreach activities were aimed at raising awareness on conservation, wildlife protection, and environmental stewardship.

In 2023, 26 activities were conducted to provide information, engage, and sensitize communities and stakeholders through school presentations, community outreach, and social media engagement.

Phase 2

In 2024, informational meetings with communities and local stakeholders have been organized primarily through community leaders in each community and the CBSWCG, as the focal point for key communities. In June 2024 informational meetings were held with key leaders in all 12 communities to provide some background information on the project, present the community monitoring plan, and the household survey plan and seek community support to identify key stakeholders and stakeholder groups. Community leaders provided valuable information on stakeholders and stakeholder groups, assisted with mapping communities, and also provided insight into community dynamics and how to approach the household survey implementation in each community.

Community notices in English and Spanish were channeled through the community leaders, informing community members of the household survey, to secure maximum community participation. All 12 communities participated in the socioeconomic survey and community monitoring event, which provided valuable information to establish starting conditions for the project and to identify key interventions to be implemented in communities based on current knowledge, attitudes, and practices

[10] WCS IRB #2020-38

regarding the use of forest resources, livelihoods, and other key project indicators. The outcome of these studies also informed the Theory of Change and the project implementation plan.

Findings from the socioeconomic survey and community monitoring report, along with the Social Impact Assessment, inclusive of the Theory of Change and project activities, were presented to the community for their feedback and input.

Consultations were also conducted with representatives from stakeholder organizations within the MFC. At least 6 in-depth interviews were held with WCS staff and members of the MFCT to secure information on activities being implemented and planned within the MFC, project risks and benefits to communities, and other information relevant to the project. The details of these engagements are described in more detail in the monitoring report summary.

In 2025, the draft PD and Monitoring Report were presented to the communities for feedback. Telephone calls were made to all 12 community leaders to arrange a suitable date for the meetings. This was followed by formal invitation letters in English and Spanish, disseminated through WhatsApp and in person. Leaders were encouraged to extend the invitation to members of the village councils or any other community leaders they felt would be able to contribute to the process.

All 12 community leaders were successfully engaged. Five face-to-face meetings were held with 27 community leaders or their representative/s from 10 communities, and discussions were held via telephone with 2 community leaders who were unable to meet in person. Based on the meeting, a database of community leaders was developed to inform future engagements. The meeting covered background information on the MFC REDD Project, discussed the project timeline, provided an overview of the PD and Monitoring Report, discussed stakeholder engagement specific to communities, and provided information on the verification and validation process. The meeting also discussed upcoming community engagements, seeking the support of community leaders for these meetings. Community leaders were receptive to the information and provided overall positive feedback on the information received.

Following the community leaders' engagement, seven (7) community sessions were held targeting community members from 12 communities. Community mobilization commenced immediately following the engagement of community leaders. Hard copies of invitations in English and Spanish were distributed to community members through primary school students who took home the invitations at the end of the school day. In several communities, school principals offered to disseminate the invitation letters through the school WhatsApp chat. Electronic copies of the letters were shared with community leaders, who disseminated them via WhatsApp groups in their communities. A mobilizer also supported the dissemination of invitations for CBS communities and engaged in follow-up calls with invitees. A total of 90 community members participated in the 7 sessions.

The Community engagement sessions were guided by communication products developed before the session. These included PowerPoint presentations in English and Spanish on the project description, PowerPoint presentations in English and Spanish on the Monitoring Report, and flyers providing information on access to project documents during the 30-day comment period in English and Spanish.

After presentations were delivered, all attendees received a summary of the PD and Monitoring Report. A full version of the PD and Monitoring reports was left with community leaders for each community.

The information on the PD, Monitoring Report, and access to the project document and the 30-day comment period were also disseminated to key NGO and Government stakeholders. One face-to-face presentation was held with the Association of Protected Areas Management, and an online presentation was done with the Director of Monkey Bay Wildlife Sanctuary.

The head of the Rancho Dolores Environmental and Development Group, who co-manages Spanish Creek Wildlife Sanctuary, was present at the community meeting in Rancho Dolores. Additionally, the MFCT board was updated on the progress of the stakeholder engagement activities and provided some feedback on how to address some of the challenges encountered. Finally, a formal letter was disseminated, via email, to the heads of key government departments, including the National Climate Change Office, National Biodiversity Office, Forest Department, and the Department of the Environment, to share the completed project document and monitoring report, inform them about the 30-day comment period, and invite their comments on the documents.

Stakeholder Access to Project Documents

Full project documentation will be made available to all communities and stakeholders through a variety of channels. Community meetings with key community leaders and community groups have been the preferred channel for sharing project information with communities. In addition to interpersonal channels utilized, the Stakeholder Engagement Plan for the Project outlines a variety of channels that will be used during the various project phases to ensure access to project documents.

Project documents and monitoring reports will be posted on the WCS website and will also be available on the project page on the Verra Registry, as per VCS standards. Links will also be provided through WCS's active Facebook and other social media pages. WhatsApp will also be utilized to provide updates on available reports and documents, providing links to the documents. The stakeholder database developed during ongoing consultations with communities, to develop the project, will be utilized to communicate with communities via WhatsApp. Documents will also be shared via emails to stakeholders in government and civil society who utilize emails as a main form of communication and information sharing. For communities and stakeholders with limited access to the internet, hard copies of documentation will be made available through key channels such as village chairpersons and other community leaders, the Community Baboon Sanctuary, high school libraries in the Belize River Valley, other sanctuaries in the area.

Information to Stakeholders on Validation and Verification Process

Community members will be informed of the validation process through the steps outlined in the Stakeholder Engagement Plan. Meetings will be held with community leaders in all 12 communities to provide information on the validation and verification process. Following meetings with community leaders, reader-friendly information in both English and Spanish on the validation and verification

process will be developed and widely disseminated to community members in the 12 target communities.

Site Visit Information and Opportunities to Communicate with Auditor

Communities and other stakeholders will be informed of the auditor's site visit through established and ongoing channels of communication with community leaders and key stakeholders within the MFC. Community leaders will be informed in advance and WCS's staff will coordinate with community leaders to ensure timely communication with community members. WCS's staff will also utilize established WhatsApp groups to ensure widespread dissemination of notice to community members. Stakeholders such as NGOs and government entities will be informed via emails followed by phone calls to confirm receipt of information. WCS will work with community leaders to organize suitable venues and other logistics, including transportation and translation services where relevant.

Continued Consultation and Adaptive Management

Continued communication and consultation between the communities and other stakeholders will be sustained through the implementation of the stakeholder engagement plan, which outlines strategic moments for engagement, who needs to be engaged, key messages to be communicated, community and stakeholder inputs required for each engagement, and how these inputs will be utilized. The WCS team will be the lead persons engaged in communication with communities and stakeholders. Results from the implementation of the monitoring plan along with community and stakeholder inputs will provide information for continuous updates of the work plan.

Stakeholder Participation in Decision-Making and Implementation

The process employed to engage stakeholders has increased stakeholder participation and provided stakeholders with adequate information to enable decision-making and participation in the implementation of the project.

Utilizing established channels of communication in each community and engaging community leaders, ensuring that all community leaders receive the information and are supported to mobilize community members is a strategy that enables effective community participation. In Spanish-speaking communities, engagement of Community Health Workers also proved to be effective in securing community participation and understanding of the information.

The provision of transportation for community members within the Belize River Valley is also key to ensuring effective participation as access to public transportation is limited. For all communities, ensuring that meetings are planned during the evening and on weekends is also an important consideration in securing community participation. The participation of women and youth is also encouraged, and all mobilization efforts emphasize a gender balance. Notably, within the Belize River Valley Communities, more women were participating in information sessions than men.

Anti-Discrimination Assurance

The design of the project is rooted in WCS's anti-discrimination policies as well as its policies on diversity and inclusion which state that WCS values diversity and prohibits discrimination based on race, national origin, color, sex, sexual orientation, age, disability, veteran status, and other protected classifications. The WCS community is committed to ensuring that no one, including our valued employees, diverse suppliers, interested job applicants, and guests to our facilities, is excluded or discriminated against in WCS's programs and activities.

WCS will ensure that staff and key project stakeholders are continuously sensitized and trained in adherence to its anti-discrimination policies and that channels are available and publicized for reporting any violations. WCS also promotes a zero-tolerance policy on sexual harassment.

Feedback and Grievance Redress Procedure

A functioning grievance redress mechanism (GRM) is required for all WCS and WCS-sponsored programs. As the implementing partner, the project will adhere to WCS's Global GRM, which is already established (https://grievance.wcs.org/en-us/). The GRM has been modified for this project, taking into consideration accessibility, and culturally appropriate conflict resolution methods for the 12 communities involved.

The objectives of the GRM are to:

- Provide a mechanism for affected individuals or communities, and others with knowledge of the circumstances, to raise good faith grievances about the impacts or perceived impacts of projects or activities undertaken or sponsored by WCS; and
- Provide a structure to ensure that human rights and safeguarding grievances are handled, provided with a resolution, and documented in a fair and timely manner.

The GRM will be available to any "stakeholder" affected by the project, such as (i) donors; (ii) partner organizations; (iii) individual members or representatives of a community, and (iv) third parties with knowledge of the circumstances. The person or entity filing the grievance is referred to as the "complainant".

The GRM will have three components: Public Notice and Submitting a Grievance, Internal Management of the Grievance, and Resolution of the Grievance.

The flow chart in Figure 5 depicts the process for submission and management of all grievances.

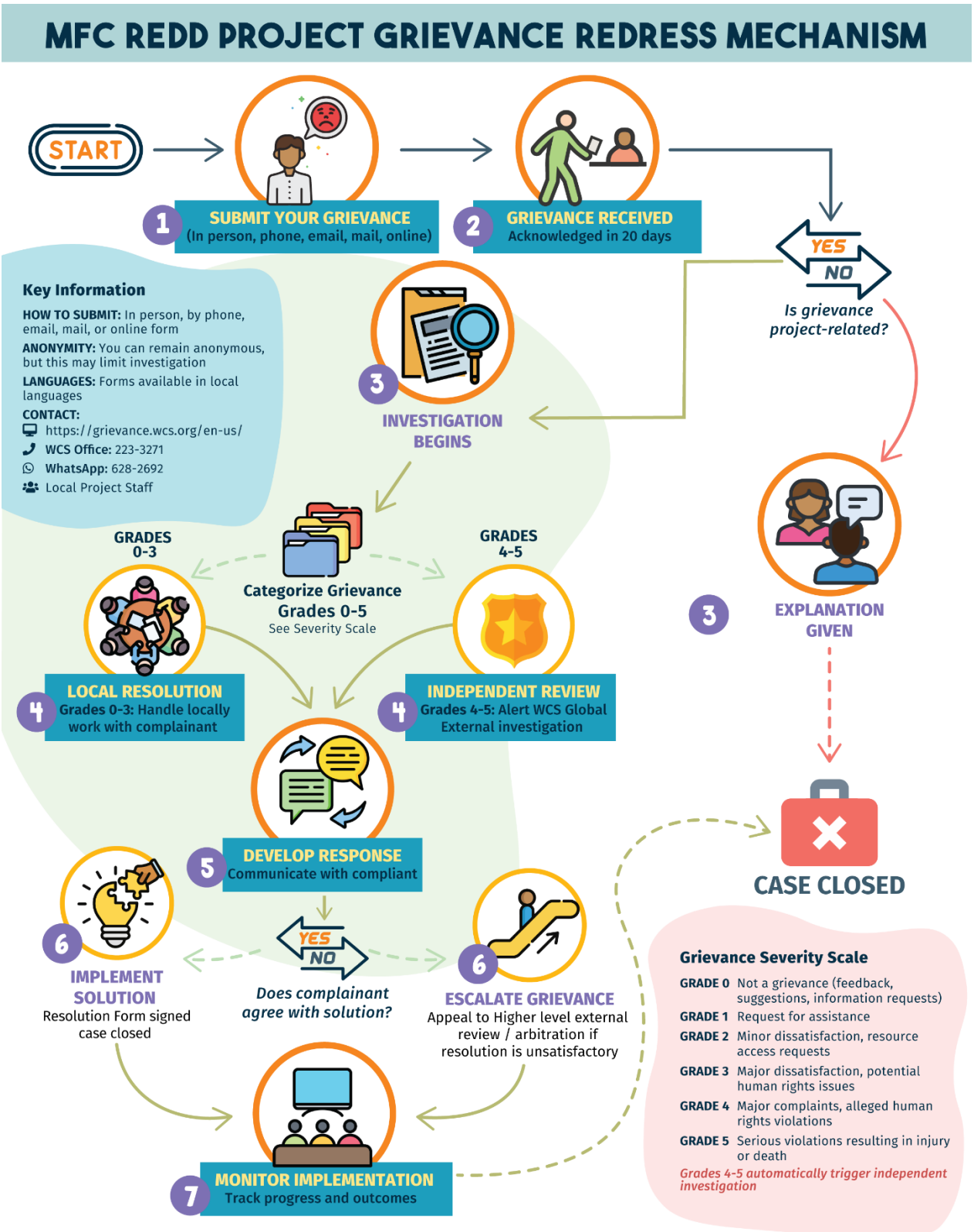


Figure 5. Flow chart of the MFC REDD project GRM

Accessibility of the Feedback and Grievance Redress Procedure

Information about the GRM will be disseminated to all stakeholders including target communities during project implementation. Contact names and phone numbers, mailing addresses, email addresses, and website information to access the online form will be included in the information disseminated.

The information will be shared via WhatsApp groups established for stakeholder engagement. Posters will also be prominently placed in strategic locations in project communities, providing details on the mechanism and how to access it. Communities will also be provided with information on the mechanism during community meetings and engagements as a constant reminder of the availability of the mechanism. Information will be shared in English and Spanish.

A Grievance Focal Person (GFP) will be designated who receives, collects, or coordinates the collection of grievances from all submission points. The GFP will report the following indicators every quarter:

a) Number of conflict and complaint cases reported to the project's Grievance Redress Mechanism

b) Percentage of conflict and complaint cases reported to the project's Grievance Redress Mechanism that have been resolved.

In addition, the Programme Grievance Officer will produce an annual grievance report that includes data on the number of grievances received, compliance with time frames for acknowledgment and resolution of grievances, issues raised in grievances, and trends over time, remedial actions, what redress was provided, and recommendations to prevent or limit future recurrences. All personal identifiers will be removed, as well as any additional case materials that could inadvertently enable identification of involved persons. This annual report will be publicly available.

6 CLIMATE

6.1 Climate Benefits

The project's climate benefits are the greenhouse gas (GHG) emission reductions resulting from the project activities, specifically the conservation of the forest area that would have otherwise been cleared for agricultural production. Forests are important carbon sinks, and when they are cleared, the carbon that is stored in these forests gets released in the form of carbon dioxide, one type of GHG. The common practice in Belize of burning downed trees and other forest debris after bulldozing also leads to the emissions of methane and nitrous oxide, two other GHGs.

The quantification of these climate benefits is the basis for the number of VCUs the project can generate. As mentioned previously, each VCU represents the reduction of one tonne of carbon dioxide equivalent (t CO_2e). The issuance of these VCUs will enable the MFCT to generate revenue from the sale of these VCUs to help cover project costs.

In order to quantify the avoided GHG emissions that the project is expected to produce, field measurements were conducted within the project area in early 2023 to estimate the carbon stocks in trees, palms, dead wood, and soil. The project team also examined deforestation rates of nearby properties that had recently been cleared for agricultural production ten years prior to the project start to estimate how much annual deforestation would have happened in the MFC REDD project area without the project. Avoided emissions from the burning of forest debris (downed trees, etc.) that would have occurred without the project as part of the process to clear the forest and prepare the land for agricultural production is also quantified.

To ensure that the VCUs generated from the project are conservative (i.e., not overestimating the total amount of GHG reductions that the project actually produces), following VCS requirements, deductions from the total VCUs were taken to account for the potential activity-shifting leakage risks, non-permanence risks, and uncertainty associated with the GHG emission reduction calculations. In the case of this project, activity-shifting leakage is the risk that the agricultural production that would have otherwise taken place in the project area was displaced to another forested area in Belize. Non-permanence risk is the risk that the carbon stored in the project area is released back into the atmosphere due to a variety of reasons. In the case of the MFC REDD project, the primary non-permanence risk is the potential damage to the forests caused by hurricanes, tropical storms, and wildfires. The emission reductions that the project is required to deduct to account for non-permanence risks is deposited into a pooled buffer account that Verra (the organization in charge of the VCS) manages.

Table 7 shows the VCUs that the project is expected to generate per year after deducting for leakage risks and non-permanence buffer pool allocation.

Table 7. VCUs per year expected to be generated by the project

Period of time in which the VCU is generated	Estimated baseline emissions (tCO2e)	Estimated project emissions (tCO2e)	Estimated leakage emissions (tCO2e)	Estimated buffer pool allocation (tCO2e)	Estimated reduction VCUs (tCO2e)
01-Jan-2022 to 31-Dec-2022	105,418	0	-12,650	62,633	62,633
01-Jan-2023 to 31-Dec-2023	114,200	0	-13,704	67,851	67,851
01-Jan-2024 to 31-Dec-2024	122,982	0	-14,758	73,068	73,068
01-Jan-2025 to 31-Dec-2025	131,764	0	-15,812	78,286	78,286
01-Jan-2026 to 31-Dec-2026	140,545	0	-16,865	83,503	83,503

Period of time in which the VCU is generated	Estimated baseline emissions (tCO2e)	Estimated project emissions (tCO2e)	Estimated leakage emissions (tCO2e)	Estimated buffer pool allocation (tCO2e)	Estimated reduction VCUs (tCO2e)
01-Jan-2027 to 31-Dec-2027	149,327	0	-17,919	88,721	88,721
01-Jan-2028 to 31-Dec-2028	158,109	0	-18,973	93,938	93,938
01-Jan-2029 to 31-Dec-2029	166,891	0	-20,027	99,156	99,156
01-Jan-2030 to 31-Dec-2030	175,672	0	-21,081	104,373	104,373
01-Jan-2031 to 31-Dec-2031	87,719	0	-10,526	52,117	52,117
01-Jan-2032 to 31-Dec-2032	76,479	0	-9,177	45,439	45,439
01-Jan-2033 to 31-Dec-2033	73,199	0	-8,784	43,490	43,490
01-Jan-2034 to 31-Dec-2034	69,918	0	-8,390	41,541	41,541
01-Jan-2035 to 31-Dec-2035	66,638	0	-7,997	39,592	39,592
01-Jan-2036 to 31-Dec-2036	63,358	0	-7,603	37,643	37,643
01-Jan-2037 to 31-Dec-2037	60,078	0	-7,209	35,695	35,695
01-Jan-2038 to 31-Dec-2038	56,798	0	-6,816	33,746	33,746
01-Jan-2039 to 31-Dec-2039	53,518	0	-6,422	31,797	31,797
01-Jan-2040 to 31-Dec-2040	50,237	0	-6,028	29,848	29,848
01-Jan-2041 to 31-Dec-2041	49,967	0	-5,996	29,687	29,687

6.2 Monitoring of Climate Benefits

The monitoring of these benefits will occur over 40 years, including 20 years after the project crediting period ends. These tasks by WCS will be conducted before each verification event that will happen at a maximum of every 5 years. Data will be collected through analysis of satellite imagery and on-the-ground ranger patrols in the project area. The following indicators are monitored:

- Forest area and forest loss in the project area;
- Areas within the project area undergoing natural disturbances such as wildfires, hurricanes, and tropical storms;
- Reduction of carbon stocks within the areas impacted by natural disturbances. In the case of wildfires, methane and nitrous oxide emissions are also monitored.
- Forest degradation due to the illegal extraction of trees for timber.
- Reduction of carbon stocks due to the illegal extraction of trees for timber.

Based on these evaluations of the carbon stocks and GHG emission sources, the project's ex post GHG reductions will be calculated for the given monitoring period.

7 COMMUNITY

7.1 Net Positive Community Impacts

Expected Community Impacts

The 12 target communities being engaged through project activities were identified as those most likely to be impacted.

Table 8. Community impact: Decreased vulnerability to wildfires

Community group	**Cotton Tree, Franks Eddy, Mahogany Heights, La Democracia, Hattieville, Gracie Rock, Scotland Halfmoon, Bermudian Landing, Double Head Cabbage, Rancho Dolores, Willows Bank, and St. Paul's Bank**
Impact(s)	**Decreased vulnerability to wildfires.** The Maya Forest Corridor Conservation Action Plan, which was developed through stakeholder consultation with MFC Communities, government, and NGO stakeholders, identified fire as a medium level threat and defined the following objective: Maintain collective action toward decreasing fire frequency in the MFC. Specifically, the plan calls

	for the development and implementation of a fire management plan, capacity building of communities, and awareness raising. Aligned with the CAP, the project will pursue a multi-pronged strategy for wildfire management, including building capacity for fighting wildfires; preventing fires through controlled burns and creating fire breaks; public education to reduce fires caused by human activities; and supporting the community fire management efforts.
Type of benefit/cost/risk	This is a predicted, direct benefit.
Change in well-being	• Reduced health hazards and property damage from wildfires.

Table 9. Community impact: Increased economic security through livelihood diversification and employment

Community group	**Mahogany Heights, La Democracia, Scotland Halfmoon, Bermudian Landing, Double Head Cabbage, Willows Bank, and St. Paul's Bank**
Impact(s)	**Increased economic security through livelihood diversification.** In 2022, an exercise was conducted to support the identification and analysis of sustainable and economically feasible productive alternatives in MFC Communities. Focus Group discussions were conducted with representatives from the Central Belize River Valley Communities along with semi-structured online interviews with key informants from the government, private sector, and NGOs. Guided by the findings of the Prioritization Exercise and aligned with the MFC CAP Objective 3: Maintain and develop sustainable enterprises and livelihoods in tourism and agriculture in communities of the MFC that are compatible with maintaining a functioning MFC, the project will support the adoption of sustainable livelihoods and nature-based solutions for climate adaptation. Examples of these include climate-smart agriculture and the production of sustainable products such as coconut oil, cohune oil, and honey. The project will also offer select permanent, temporary, and seasonal employment opportunities through an open selection process.
Type of benefit/cost/risk	This is a predicted, direct benefit.
Change in well-being	• Increased economic security

Table 10. Community impact: Increased knowledge of critical environmental conservation and climate adaptation issues relevant to their communities

Community group	**Cotton Tree, Franks Eddy, Mahogany Heights, La Democracia, Hattieville, Gracie Rock, Scotland Halfmoon, Bermudian Landing, Double Head Cabbage, Rancho Dolores, Willows Bank, and St. Paul's Bank**
Impact	**Increased knowledge of critical environmental conservation and climate change issues relevant to their communities.** Based on findings from the MFC Household Survey 2021, which included 421 MFC households, the Socio-economic Assessment 2024, which included 453 MFC Households, the majority of community members in the Project Zone perceive that the protection of the MFC is very important (65.7%) or essential (13.7%), which suggests a strong collective commitment to conservation. Further, communities in the project zone have reported experiencing several impacts of climate change (WCS, 2024), primarily increased temperatures, drought, and changes in rainfall patterns. Increased knowledge of environmental conservation and climate change issues enables community members to make informed decisions about managing natural resources and adapting to climate change, which directly contributes to sustainable development and improved quality of life. Informed communities can better advocate for policies and practices that ensure long-term environmental health and economic stability.
Type of benefit/cost/risk	This impact is a predicted, direct benefit.
Change in well-being	• Increased knowledge of the importance of environmental conservation and its benefits to community well-being. • Increased capacity to address environmental issues that are negatively impacting their communities. • Increased capacity to access the community benefits of conserving the MFC. • Reduced vulnerability to the negative impacts of climate change such as fires and drought. • Improved community cohesion and mutual support in addressing negative impacts of climate change at the community level.

Negative Community Impact Mitigation

The MFC REDD project's strategy for avoiding deforestation involves the acquisition of private land. Minimal negative community impacts are expected. There is one family from one of the local communities currently using a small area (approximately 12 hectares) for cattle ranching and fruit harvesting outside of the MFC REDD project area but within the property that the MFCT purchased for conservation. The MFCT is engaging with the family with the goal of understanding their perspective and circumstances, while working collaboratively toward a voluntary and dignified resolution to the situation. Emphasis is being placed on minimizing conflict, upholding the family's rights and well-being throughout the process, and informing them of the MFCT's legal rights to the land.

Aside from this one case, since the communities in the project zone neither owned, occupied, nor utilized the land prior to the project, they have not experienced a loss of access to natural resources.

Furthermore, communities did not lose opportunities for land purchase or agricultural expansion since, in the most likely without-project scenario, the lands would have been purchased by large commercial agricultural interests outside of the target communities.

The project poses no threat to existing livelihoods or lifestyles, since community participation in project activities will be entirely voluntary. Where sustainable livelihood opportunities are offered, orientation sessions and field visits will be organized for interested community members before they embark on the activity. This ensures that participants are well-informed before commencing any project-related activities.

The project exclusively promotes environmentally sustainable livelihood activities, thereby reducing the risk of negative environmental impacts, such as pollution or damage to areas of high conservation value.

In compliance with the precautionary principle, the project conducts ongoing community outreach and education activities to maintain community awareness about project activities and outcomes, and to proactively address any concerns regarding potential negative impacts.

Furthermore, the project's stakeholder engagement strategy includes detailed principles and methodologies for effective information sharing and features an accessible grievance redress mechanism to ensure all stakeholder concerns are appropriately managed.

Net Positive Community Well-Being

Given the significant positive community impacts and the minimal negative community impacts described above, the project is expected to have a net positive impact on community well-being. Specific improvements are expected in the following well-being dimensions:

- Decreased vulnerability to wildfires;
- Economic resiliency increased through livelihood diversification and increased food self-sufficiency.

- Increased knowledge of critical environmental conservation and climate adaptation issues relevant to their communities

High Conservation Values Protected

High Conservation Values (HCVs) are defined as biological, ecological, social, or cultural values of outstanding significance or critical importance. Based on the results of the household surveys conducted (WCS, 2024), the following areas in the project zone were identified as having HCVs related to community well-being. By placing the project area under conservation management, the project will contribute to the conservation of these HCVs.

- The project area is in close proximity to both the Community Baboon Sanctuary and the Spanish Creek Wildlife Sanctuary, areas identified as contributing to the following community HCVs: community needs and cultural values. The wildlife within these areas is a key component to these HCVs as a main attraction for ecotourism and, in the case of the black howler monkey, as an emblem of Kriol culture in the Belize river valley. The conservation of the nearby MFC REDD project area forests will maintain nearby wildlife habitat space that would have been otherwise been lost, thereby enabling migration between the areas and preventing genetic isolation. Further, the project efforts to detect, mitigate, and control wildfires in and around the MFC help reduce wildfire risks in these sanctuaries.
- The broadleaf forests and savannas of the MFC property including the MFC REDD project area also contribute to community needs and cultural values. As such, the project's conservation of these ecosystems also protects these HCVs that would have otherwise been lost when the property was converted to agriculture.
- The conservation of the MFC REDD project area will contribute to maintaining the integrity of the Belize and Sibun River watersheds which provide critical ecosystem services including protecting water supply and providing recreational opportunities. Standing forests such as those being protected in the project area contribute to the overall health of watersheds in a number of ways such as controlling water flow and filtering out pollutants (Ellison et al., 2017).

Net Impacts on Other Stakeholders

Due to its critical role in consolidating the Maya Forest Corridor and protecting natural ecosystems, project activities are expected to have a net positive impact on other stakeholders which include government partners and protected area managers across Belize. Project activities will support national commitments and strategies for low emissions development, biodiversity protection, climate resilience, and sustainable development.

7.2 Monitoring of Community Benefits

The monitoring of community benefits will occur prior to each verification event that will happen at a maximum of every 5 years during the 20-year project crediting period. WCS will be responsible for the monitoring. A variety of data collection methods will be used. These methods include activity records

(e.g., attendance sheets and agendas for training courses, proof of purchase and receipts of items procured), administrative documents (e.g., minutes and proceedings from meetings with stakeholders), project-generated documents (e.g., community climate smart plans), Spatial Monitoring and Reporting Tool (SMART), and periodic surveys of project participants and beneficiaries.

The following community impact indicators - broken down by project activity - will be monitored and assessed.

Table 11. Indicators for Project Activity 2: Maintain natural ecosystems and current forest cover for the conservation of native biodiversity.

Activity Area: Detection, mitigation, and control of wildfires in and around the MFC
1. # of persons trained in fire safety and management by community and organization
2. # of communities with Fire Hazard Alert System
3. # of MFC communities served by fire brigades
4. Annual % of fires contained by persons trained
Activity Area: Protected area management
5. # of persons trained in environmental enforcement by community and organization
6. # of special constables certified for enforcement by community and organization
7. # of persons employed in protected area management by community and organization
8. # of persons employed in forest restoration activities
9. % change in number of human encounters in the project boundary

Table 12. Indicators for Project Activity 3: Conduct ongoing community outreach and environmental education to foster support for MFC conservation and to create awareness of critical environmental and climate adaptation issues.

Activity Area: Community outreach to foster support for MFC conservation and climate adaptation
10. # of community outreach and education activities, including social media activities, conducted
11. Level of knowledge and support for the MFC
12. # of young participants from target communities participating in continuous engagement sessions to strengthen conservation stewardship as well as introduce a variety of STEM oriented themes and professional and career building skills
13. Community perception of ecosystem benefits from conservation
14. # of communities that have adopted Climate Smart Plans
15. # of communities that have adopted Community Conservation Agreements

Table 13. Indicators for Project Activity 4: Provide training, material and technical support for community-owned sustainable livelihoods and nature-based solutions for climate adaptation.

Activity Area: Provide training, material and technical support for community-owned sustainable livelihoods and nature-based solutions for climate adaptation
16. # of persons who receive training in sustainable livelihoods in the communities (e.g., climate smart agriculture, production of sustainable products like coconut oil, cohune oil, honey, etc)

Activity Area: Provide training, material and technical support for community-owned sustainable livelihoods and nature-based solutions for climate adaptation
17. # of households or community agencies that establish sustainable livelihoods initiatives (e.g., climate-smart agriculture, production of sustainable products like coconut oil, cohune oil, honey, etc.)
18. # of extension service visits per household/agency per quarter
19. # of farms improved through climate-smart practices
20. # of acres of agricultural land converted to climate-smart management
21. # of community-owned nature-based livelihood solutions in MFC communities
22. Holistic Well-being Index (composite of physical, social and economic factors)

8 BIODIVERSITY

8.1 Biodiversity Benefits

The goal of the project is to avoid deforestation, and a primary project activity is to maintain current forest cover. Through the protection of existing forests and other ecosystems in the project area, the project will actively be conserving and protecting habitat for flora and fauna.

The project zone supports the following High Conservation Values (HCV) related to biodiversity: Species Diversity, which is defined as: "Concentrations of biological diversity, including endemic species, and rare, threatened, or endangered species, that are significant at global, regional, or national levels." The confirmed presence of populations in the project area of the endangered Baird's tapir (*Tapirus bairdii*) and the critically endangered Central American river turtle, also known as the hicatee (*Dermatemys mawii*) meets the criteria since each is significant on a global, regional, and national level.

The protection of habitat resulting from the maintenance of forest cover within the project area includes critical terrestrial and aquatic habitat for the Baird's tapir and the Central American river turtle.

Furthermore, the MFC REDD project area is part of the larger MFC, which provides the last critical link to Belize's two largest intact forest blocks: the privately owned northern forest block managed under Trust for the people and government of Belize and the largely publicly owned Maya Mountain Massif in southern Belize. The conservation of this area in turn protects and encourages the dispersal of wildlife between these two intact forest blocks.

8.2 Monitoring of Biodiversity Benefits

The monitoring of community benefits will occur prior to each verification event that will happen at a maximum of every 5 years during the 20-year project crediting period. WCS will be responsible for the monitoring. Efforts will be focused on the following indicators:

1. **Total area of forest, in hectares, in the project area.** The broadleaf forests in the project area are habitat for a huge array of flora and fauna and provide critical wildlife corridor functions

within the larger MFC landscape. The area of forest also serves as an indicator of the effectiveness of the project's measures to maintain the following HCV area related to biodiversity: the natural ecosystems within the project zone that support populations of species classified as endangered and threatened, in particular the project's trigger species[11]: the Baird's tapirs and the hicatee. These measures to maintain this HCV consist of the purchase of the property for conservation that would have otherwise been cleared for agriculture as well as the implementation of management strategies including wildfire detection, mitigation, and control as well as surveillance and patrolling by rangers. The conservation of these forests not only maintains habitat for the Baird's tapir and other threatened and endangered terrestrial species, but it also helps to maintain the water quality of Cox Lagoon and hence the local hicatee population found within the lagoon.

2. **Continued occurrence of medium-large mammals and terrestrial birds in the project zone**. These communities play a variety of roles in the forest ecosystem including maintaining balance in the food chain, controlling the growth and density of forest plants, and dispersing seeds. As such, they are indicators of functioning forest ecosystems (Falconi-Briones et al., 2025; Mora, 2017; Pérez-Irineo & Santos-Moreno, 2017; Thornton et al., 2012). Overhunting of many of these species has also led to their population declines, and as such, monitoring will also help ensure that the efforts to control poaching are effective.

   The monitoring of these communities will occur within the MFC REDD project area as well as in nearby areas in the project zone.

3. **Population trends of the Baird's tapir**. In conjunction with the monitoring of continued occurrence of medium-large mammals and terrestrial birds in the project zone, population trends of the endangered Baird's tapir, which will demonstrate the project's exceptional biodiversity benefits.

4. **Continued occurrence and population trends of the Central American river turtle in Cox Lagoon in the project area**. The Central American river turtle was selected as an indicator of the health of the project's freshwater system, Cox Lagoon, due to its sensitivity to changes in water quality, including increased sedimentation from the clearing of the land and agricultural runoff (Briggs-Gonzalez et al., 2019).

   The monitoring of this critically endangered species will also demonstrate the project's exceptional biodiversity benefits and as such, the population trends of this trigger species will be monitored.

5. **Effectiveness of patrol efforts at deterring illegal hunting in the MFC project boundary.** This will be monitored to ensure that the ongoing patrol work maintains and enhances the HCV area related to biodiversity: the natural ecosystems within the project zone that support populations of species classified as endangered and threatened, in particular the project's trigger species,

[11] CCB Standard v3.1 defines trigger species as any species that causes a site to meet the Key Biodiversity Area qualifying conditions such as the regular occurrence of a globally threatened species.

the Baird's tapirs and the Central American river turtle. Illegal hunting threatens the local populations of these species and, as such, it is critical that the effectiveness of patrol efforts at reducing hunting incidences is monitored.

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