



United Nations Development Program

Project title: Conserving biodiversity and reducing land degradation using an integrated approach		
Country: Jamaica	Implementing Partner: National Environment and Planning Agency	Management Arrangements: National Implementation Modality (NIM)
UNDAF/Country Program Outcome: Outcome 4 Inclusive and sustainable solutions adapted for the conservation, restoration and use of eco-systems and natural resources. Output 4.1, indicator 4.1.1, 4.2.1.		
UNDP Strategic Plan Output: Output IRRF 2.4.1.1 Country has gender-responsive measures in place for conservation, sustainable use, and equitable access to and benefit sharing of natural resources, biodiversity and ecosystems:		
UNDP Social and Environmental Screening Category:	UNDP Gender Marker:	
High Risk	2	
Atlas Project ID (formerly Award ID): 00128896	Atlas Output ID (formerly Project ID): 00122739	
UNDP-GEF PIMS ID number: 6109	GEF ID number: 9862	
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Brief project description: Jamaica is a Small Island Developing State (SIDS) with very rich biodiversity and natural resources, both terrestrial and marine that are attributed to its diverse physical environment and wide range of microclimates. Despite the great ecological diversity of the country and high level of endemism, economic development has accelerated in recent years in Jamaica through new infrastructure developments, expanding transportation networks, tourism and socio-economic growth that is rapidly changing the landscape with consequential threats to biodiversity and ecosystem services. This project is thus aimed at addressing these multiple threats by harmonizing socio-economic development, sustainable management of forests and other natural resources and biodiversity conservation through an integrated ecosystem management approach in biological landscapes in Jamaica. To achieve this, action will be taken to strengthen capacity and coordinated planning at the national, parish and local levels on socio-economic development on the one hand as well as demonstrate sustainable natural resources management, biodiversity conservation and forest restoration, and alternative livelihood initiatives on the other.		
The project objective will be achieved through the implementation of three inter-related and mutually complementary Components that are focussed at addressing existing barriers. The three components of the project are: Component 1: Systemic and institutional capacity for integrated landscape management at national level; Component 2: Application of Integrated landscape planning and management in key biodiversity areas; and Component 3: Knowledge management, gender mainstreaming and monitoring and evaluation		
FINANCING PLAN (only cash transferred to UNDP bank account and budgeted under the same GEF project should be included under this section (1), all others should be included under section (2).		
GEF Trust Fund	USD 6,210,046	
UNDP TRAC resources		

...		
(1) Total GEF Budget		USD 6,210,046
PARALLEL CO-FINANCING <i>(all other co-financing that is not cash co-financing administered by UNDP)</i>		
UNDP		USD 120,000
Government		USD 43,055,770
(2) Total co-financing		USD 43,175,770
(3) Grand-Total Project Financing (1)+(2)		USD 49,385,816
SIGNATURES		
Signature:	Agreed by Government	25/September/2020:
Signature:	Agreed by Implementing Partner	25/September/2020:
Signature: Denise Antonio 	Agreed by UNDP	25/September/2020:

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Acronyms and Abbreviations

ACP-EU	African- Caribbean-Pacific –European Union project
AD	Agricultural Development
AMANDA	Application Management and Data Automation
ANR	Assisted Natural Regeneration
APO	Annual Plan of Operation
AWP	Annual Work Plan
BWA	Bureau of Women’s Affairs
CBO	Community-based Organization
CC	Cockpit Country
CCPA	Cockpit Country Protected Area
CSO	Civil Society Organization
CVSS	Council for Voluntary Social Services
EbA	Ecosystem-based Adaptation
EIA	Environmental Impact Assessment
FC	Field Coordinator
FCT	Field Coordination Team
FD	Forestry Department
FPIC	Free Prior and Informed Consent
FSP	Full Sized Project
GEF	Global Environment Facility
GEFSEC	Global Environment Facility Secretariat
GI	Geographical Indication
GIS	Geographic Information System
GOJ	Government of Jamaica
GRM	Grievance Redressal Mechanism
IANs	Inter-Agency Networks
IAS	Invasive Alien Species
ICT	Information and Communication Technology
ILM	Integrated Landscape Management
IOJ	Institute of Jamaica
IPM	Integrated Pest Management
IUCN	International Union for the Conservation of Nature
JAS	Jamaican Agriculture Society
JCDT	Jamaica Conservation and Development Trust
JNHT	Jamaica National Heritage Trust
KBA	Key Biodiversity Area
LFMC	Local Forest Management Committee
M&E	Monitoring and Evaluation
MEGJC	Ministry of Economic Growth and Job Creation
MICAF	Ministry of Industry, Commerce, Agriculture and Fisheries
MSP	Medium Sized Project
MTR	Mid-Term Review
NBSAP	National Biodiversity Strategy and Action Plan

NCTFJ	National Conservation Trust Fund of Jamaica
NEPA	National Environment and Planning Agency
NIC	National Irrigation Commission
NGO	Non Governmental Organization
NPD	National Project Director
NPAS	National Protected Areas System
NRCA	National Resources Conservation Authority
NRV	Natural Resources Evaluation
PA	Protected Area
PAP	Project Affected Person
PDC	Parish Development Committee
PIF	Project Identification Form
PIOJ	Planning Institute of Jamaica
PIR	GEF Project Implementation Report
PD	Project Director
PM	Project Manager
PMO	Producer Marketing Organization
PMU	Project Management Unit
POPP	Program and Operations Policies and Procedures
PPCR	Pilot Program for Climate Resilience
PPG	Project Preparation Grant
PSC	Project Steering Committee
RADA	Rural Agricultural Development Authority
SALT	Sloping Agricultural Land Technology
SDC	Social Development Commission
SDG	Sustainable Development Goal
SEA	Sectoral Environmental Assessment
SESP	Social and Environmental Screening Procedures
SFM	Sustainable Forest Management
SIDS	Small Islands Development States
SIP	Stakeholder Implementation Plan
SLM	Sustainable Land Management
STAP	GEF Scientific Technical Advisory Panel
TE	Terminal Evaluation
TPDCo	Tourism Product Development Company
TWG	Technical Working Group
UNDP-CO	UNDP Country Office
UNDP-GEF	UNDP Global Environmental Finance Unit
UNDP-RTA	UNDP Regional Technical Advisor
UNDP-GEF	UNDP Global Environmental Finance Unit
UNESCO	United Nations Educational Scientific and Cultural Organization

II. DEVELOPMENT CHALLENGE

1. Jamaica is a Small Island Developing state (SIDS) with a diverse physical environment, a wide range of microclimates, soils, and physical features that supports a great variety of ecosystems. Its terrestrial biodiversity is characterized by over 3,304 vascular plant species, 579 species of ferns, 136 species of butterflies (with 38% endemism and new genera and species continuing to be discovered) and 106 known bird species¹. It is also an important refuge for long-distance migratory birds from North and Central America. Jamaica has 417 International Union for the Conservation of Nature (IUCN) Red Listed species and very high levels of endemism in plants (27% of its flowering plants), vertebrates (100 per cent for native amphibians) and invertebrate taxa (there are over 500 endemic species of snails). It has also a number of bird species that have restricted ranges with four endemic genera and 48 species that are endemic to the island at the genus, species or subspecies level.
2. Despite, the high levels of biodiversity, unsustainable development practices are leading to land degradation, and forest and biodiversity loss. While Jamaica's remaining forests cover around 440,000 ha (40% of total land area), the remaining undisturbed natural forest or "closed broadleaf forest" accounts for only around 84,600 ha (or 7.7% of the land area), decreasing from 8 % in 1998². Along with a decline in Closed Broadleaf forests (-4.1%) and Open Dry Forests (-25.7%) between 1998 and 2013, there is also an increase in the number of hectares of secondary forests³. Interspersed within the forested landscape are intensive agriculture, bauxite mining, small farming and informal and formal settlements. The discovery of commercial deposits of bauxite in the 1950s triggered a major change in the pattern of resource exploitation. While, there is no precise information on the extent of forest and agricultural areas that have been cleared or fragmented to allow ore extraction and construction of the necessary physical infrastructure, it is believed that open cast mining has resulted in removal of surface vegetation and soil and increased surface runoff.⁴
- 3 Much of the islands biodiversity and endemism is centered round the Cockpit Country located in the northwest central part of the island, which is the focus of the proposed project. The wet limestone forest of Cockpit Country is Jamaica's largest remaining primary forest and a refuge for rare Jamaican species such as the Black-billed Parrot (*Amazona agilis*) and the Giant Swallowtail butterfly (*Pterourus homerus*) . At least 66 plants are known to be endemic to the Cockpit Country.⁵ Its landscape of steep-sided hills and deep closed valleys eroded from the limestone bedrock is an outstanding example of *karst* topography. A majority of the endemic plants in the Cockpit Country are known from single localities or have been collected only a few times and considered threatened or rare.⁶ Many of Jamaica's threatened birds are found here, including the critically endangered Jamaican Blackbird (*Nesoposar nigerrimus*) and both species of Jamaica's endemic parrots. Almost the entire population of the Black-billed Parrot (95 percent) is found in Cockpit Country.⁷ Cockpit Country is also home to the endangered and endemic Giant Swallowtail butterfly, the largest butterfly in the Americas, with a wingspan of up to 8 inches (20 cm). New species of butterflies endemic to the Cockpit County are still being found.⁸ Four of Jamaica's 14 endemic frogs occur only in the forests and caves of the Cockpit Country, by far the most important area of habitat for Jamaica's amphibians and reptiles.⁹ One of the many unique species is an endemic crab that inhabits the water at the base of bromeliad leaves in wet limestone forests such as those of the Cockpit Country.
- 4 Cockpit Country shelters endemic flora and fauna that are threatened by a range of human activities, including illegal hunting of birds for food and for the pet trade, unregulated collecting of rare species of plants, extensive

¹ National Strategy and Action Plan on Biological Diversity in Jamaica 2016-2021

² Forest Policy for Jamaica (2017)

³ National Forest Management and Conservation Plan (2016-2026)

⁴ http://www.jamaicancaves.org/Save_Cockpit_Country_Fact_Sheet_2007.pdf

⁵ *ibid*

⁶ <https://www.cockpitcountry.com/Forestnative.html>

⁷ *ibid*

⁸ Turner, T. & Turland V. 2017. Discovering Jamaican butterflies and their relationships around the Caribbean. Caribbean Wildlife Publications. Manitoba, Canada.

⁹ <https://www.cockpitcountry.com/Forestnative.html>

logging for yam sticks and timber, and the conversion of forest to agriculture.¹⁰ Clearing of the forest, are mostly along its edges and made accessible by roads, trails and paths and is among one of the greatest threats to the area's ecosystems. Recognizing the challenge in managing the diverse threats to conservation of forests and their biodiversity in the biologically diverse Cockpit Country, the Government of Jamaica in November 2017 declared a ban on mining in the area to be protected within the Cockpit Country.

- 5 The project thus comes at a time when increasing degradation of natural habitats from deforestation and conversion to agriculture and expanding infrastructure and housing development, mining, tourism, and the increase in invasive alien species are becoming increasing threats to critical habitats and ecosystems and their attendant biodiversity. The project aims to address the negative impacts of unsustainable development practices by trying to establish and operationalize a comprehensive landscape approach in the Cockpit Country that harmonizes socio-economic development, sustainable management of natural resources and conservation of biodiversity in this mixed-use landscape of Jamaica. The project's interventions are aimed at addressing the linkages between the factors leading to land degradation and biodiversity loss in order to successfully reduce these threats and thereby support viable populations of globally threatened species and allow for the movement of wildlife, facilitate pollination and reproduction, and other processes that support improved natural resiliency to external development and climatic shocks. The experiences and learning from the Cockpit Country are expected to help facilitate replication of sustainable management approaches in other key biodiversity areas in the country.

Key Threats to natural resources management and biodiversity

- 6 The primary threats to biodiversity and ecosystem degradation in Jamaica are:
- 7 ***Conversion of Natural Habitat and Ecosystems:*** Jamaica's remaining large tracts of forest ecosystems are subject to major threats of forest fragmentation, deforestation and degradation. This can be attributed to a number of factors. Poor agricultural practices such as slash and burn, hillside farming, and improper and overuse of fertilizers and pesticides lead to the degradation and loss of forests. Hillsides that once were dominated with structurally complex and high biodiversity primary forests that would have included endemic species (plants and animals), are now primarily secondary structurally simplified regrowth.¹¹ These changes in structure have likely resulted in the probable extinction of at least two bird species.¹² In addition, other threats to natural habitats include expanding agriculture, charcoal production, harvest of timber and yam-sticks, human settlement (planned and informal, including squatting), infrastructure development, invasive alien species and forest fires mainly a result of slash and burn agriculture. This is further exacerbated by the development of trails and roads for extraction of natural resources. Bauxite mining continues to result in the reduction of forest cover, scarification of the landscape, increased sediment loads to surface and coastal waters, fragmentation and loss of habitats/biodiversity, destruction of agricultural land, relocation and dislocation of communities and overall conversion of rich forested areas and productive agriculture to unproductive, scarred landscapes. Bauxite mining and limestone quarrying also threatens aquifer recharge and water quality. Burning of agricultural waste, and setting of fires to clear land also pose a threat to forest ecosystems, including on lands in and around protected areas.
- 8 ***Degradation of Land and Water Resources and Ecosystem Services:*** Terrestrial ecosystems in Jamaica are subject to numerous sources of degradation. Forest loss and degradation is linked to agricultural expansion (including coffee cultivation in the uplands), small farming, ganja cultivation, unsustainable/illegal harvesting of trees for yam sticks (prevalent in Cockpit Country and surrounding areas), charcoal production and timber harvesting, illegal or excessive grazing by livestock, fires, and non-forest uses of land with forest cover, such as mining and illegal settlement. The use of chemical fertilizers; "slash and burn" clearing, monoculture farming and unsustainable methods of harvest of non-timber products such as thatch and pimento also contribute to

¹⁰ ibid

¹¹ National Biodiversity Strategy and Action Plan (2016-2021)

¹² Haynes-Sutton, A., Downer, A., & Sutton, R, 2009. A photographic guide to the birds of Jamaica. Christopher Helm, London

degradation of land and water sources. The loss of forests also results in loss of ecosystem services to local communities provided by birds, bats and insects for pollination and seed dispersal. The effects of chemical fertilizers and pesticides used in crop production have also implications for non-target species including crop pollinators and also have negative impacts on surface and ground water and downstream marine ecosystems. Unsustainable bauxite mining and its processing can result in forest loss and degradation, with negative environmental impacts that include dust and noise pollution, deforestation, land and groundwater pollution from red mud disposal, and scarification of the landscape that also negatively impact biodiversity and human health.¹³ Degradation from forest loss is particularly evident in the mountains and coastal hills where the limestone formations provide little surface water, and removal of vegetation exposes a thin red soil. The range of negative impacts of unsustainable land management on land resources in Jamaica include: (i) sedimentation from clearing of steep slopes for agriculture and consequent sedimentation of watercourses, reducing hydraulic capacities resulting in heightened flood risk downstream; (ii) removal of riparian buffers for farming close to riverbanks; (iii) fertilizer use contributing to pollutant loading in runoff following rains; (iv) use of harmful chemicals and pesticides that negatively impact fresh and coastal waters; (v) burning of agricultural waste and setting of fires to clear land threaten forest ecosystems; (vi) nutrient loss and reduced soil fertility; (vii) alternation of soil chemical and physical characteristics; and (viii) dumping of domestic and commercial garbage on roadsides in remote forested areas and wetlands. These activities also result in damage to coastal ecosystems including reefs and sea grass beds, contributing to damage to mangroves, loss of coral reefs, declining sea grass beds and consequent damage to the economy from declining fisheries and increased climate vulnerability.

- 9 **Climate Change:** As a small island developing state (SIDS), Jamaica is highly vulnerable to the impacts of climate change. Future climate change forecasts for the Caribbean is characterized by shorter rainy seasons, longer dry seasons, increased and more intense flooding events and more intense hurricanes. The temperature is projected to rise between 0.82° to 3.09 ° C by the end of the 21st century and climate models predict changes in annual precipitation from -4% by 2030 to -20% by 2100 for the most severe scenario.¹⁴ Jamaica is already experiencing the impacts of climate change. Between 2001 and 2012 damages and losses cost approximately US\$1 billion, of which damages to the production sector was estimated at US\$214 million¹⁵. A subsequent drought in 2014 also resulted in crop losses totaling nearly US\$1 million.¹⁶ With 80% of small-scale farms located on slopes of which half exceed 20°, farmers in Jamaica are particularly vulnerable to impacts of increased storm intensity and periods of intense rainfall. Target populations likely most vulnerable to climate change are poor female-headed households likely to have their homes completely destroyed or severely damaged in a storm. Indirect impacts on communities from climate change include loss of natural resources that they depend on, loss of biodiversity and declining ecosystem services. Biodiversity is threatened as habitat conditions become too warm or too dry for species to survive.
- 10 **Invasive Alien Species:** In Jamaica, there are over 120 recorded Invasive Alien Species (IAS), several of which have significantly impacted Jamaica's native biodiversity and local livelihoods.¹⁷ These include the White-tailed Deer, (*Odocoileus virginianus*) which has severely affected farming communities in the hills of Portland. The Cockpit Country is also increasingly being affected by the spread of invasive ferns such as *Neprolepis multiflora*, grasses such as *Brachiaria decumbens*, Bamboo (*Bambusa vulgaris*), and shrubby trees such as Logwood (*Haematoxylum campechianum*) and *Calliandra calothyrsus*, that could spread island wide if not controlled. The Indian Mongoose (*Herpestes javanicus*) is believed to be responsible for the decline and possible extinction of five endemic vertebrate species such as the Jamaican Petrel and is also a major threat to several indigenous and endemic species including the critically endangered Jamaican Iguana (*Cyclura collei*). Increasing numbers of invasive plant species are also listed as being of particular concern, including the Wild Ginger (and the Australian Paper bark) which have the potential to destroy the ecology of the Black River Morass, the Mock Orange (*Pittosporum undulatum*) and Wynne Grass (*Melinis minutiflora*) which have taken over large areas on the disturbed periphery

¹³ Lamare R. And Singh O.P., Degradation in water quality due to limestone mining in east Jaintia Hills, Meghalaya, India, *International Research Journal of Environment Sciences*, 3(5), 13-20, (2014)

¹⁴ The State of Jamaican Climate 2015, PIOJ.

¹⁵ State of the Jamaican Climate Report, 2012

¹⁶ Jamaica Information Service. Statement on Drought Conditions and Impact on Agricultural Sector

¹⁷ National Strategy and Action Plan on Biological Diversity in Jamaica 2016-2021

of the Blue and John Crow Mountains National Park. In particular, IAS can cause the extinction of native species through competition and predation, changes in ecological community structure, and impacts on human activity including economical activities.¹⁸

- 11 The above-mentioned threats can be traced to many causes including poor land use and socio-economic planning, weak enforcement, limited political awareness, limited inter-agency collaboration and budget allocation for conservation-related work.¹⁹ Other constraints include limited scientific information, limited expertise in taxonomy and related fields, unwillingness to share information across institutions and limited public awareness on biodiversity and threats.²⁰ Other contributory factors noted include population growth and agricultural, industrial and commercial expansion that result in intense competition for land, leading to encroachment and fragmentation of natural habitat.²¹ Natural processes such as erosion and hurricanes often exacerbated by human activities and climate change further increase the negative impacts of these natural events.²²
- 12 **Project conceptual model:** The complex web of interacting factors that threaten the globally significant biodiversity of Jamaica is illustrated in a conceptual model in **Figure 1**. This model indicates the key indirect and direct factors affecting the biodiversity and the points where project intervention can reduce the level of threats and contribute towards the conservation of these ecosystems, globally threatened species and ecological integrity. The main project intervention strategies are shown as yellow hexagons in Figure 1, and the main elements of these strategies are summarized in the Theory of Change diagram in the following section (**Figure 2**).

Root Causes and barriers that need to be addressed

Barrier 1: Insufficient coordinated policy, regulations and capacity for mainstreaming biodiversity into national and sectoral planning.

- 13 Jamaica has policies that govern sectors that directly or indirectly affect conservation of its natural resources. In recent times, the government has focused on developing overarching plans to achieve sustainable development, including in particular the Vision 2030 Jamaica, the country's first long-term national development plan. This plan envisages a major transformation from a middle-income developing country to one that affords its citizens a high quality of life. The plan recognizes the need to move towards a more sustainable society which integrates and balances the economic, social, environmental, and governance components of its national development - a development that also "meets the needs of the of the present, without compromising the ability of future generations to meet their own needs." In addition, the National Biodiversity Strategy and Action Plan (2016-2021), National Forest Management and Conservation Plan (2016-2026), National Ecological Gap Assessment (2009), Protected Area System Master Plan (2013-2017), South Coast Sustainable Development Plan (2007) and Master Plan for Sustainable Tourism Development (2002) recognizes the importance of protection of the country's biodiversity and natural resources for its economic well-being. Development Orders have also been used as instruments to govern the management of natural resources in the country. Despite, these developments, there is currently a need to improve policy, coordination and capacity for mainstreaming of biodiversity and ecosystem services considerations into sectoral planning, particularly in the tourism, industry, agriculture and mining sectors that can be a threat to Jamaica's remaining forests and natural resources. Some other advances are in progress, including development of a new Land Use Policy and the development of a new National Spatial Plan. Notwithstanding all of these efforts, challenges remain. Such challenges include the absence of policy and legislation to set aside public or private land in perpetuity so that it cannot be mined. There is also no overarching Environment Policy to guide environmentally sound decision-making, although there are

¹⁸ National Strategy and Action Plan on Biological Diversity in Jamaica 2016-2021

¹⁹ National Biodiversity Strategy and Action Plan (2016-2021)

²⁰ *ibid*

²¹ *ibid*

²² *ibid*

several pieces of legislation that oversee environment practice, but these remain insufficient to address the full range of threats outlined above.

- 14 The main instruments for land use planning in the country are the Town and Country Planning Act (1947, and currently under amendment), the Natural Resources Conservation Authority Act (1993) and several other related acts. These provide for a development approval process, development orders and permits for certain types of land use. The 1996 Land Use Policy adequately supports the use of Environmental Impact Assessments (EIAs), a key tool for land use decision making, but it does not sufficiently address the potential loss of flora and fauna, cumulative impacts on ecological services nor does it have a system in place that would allow for the identification of critical habitats that could consequently result in the modification of development plans to address such impacts. New improved EIA regulations have been drafted and guidelines for assessing/ensuring quality of completed EIAs have been submitted to the National Environment and Planning Protection Agency (NEPA's) for review and application. Importantly, the national policy on Strategic Environmental Assessment for policies, programs and plans remain in draft and there are no guidelines or regulations for its application. Other gaps include the lack of legislation to support conservation on private lands and micro-reserves. Additionally, while some limited training was undertaken through a past project, there is a need to enhance capacity and experiences in undertaking economic valuation of natural resources and ecosystem services in support of informed decision-making.
- 15 While in recent years efforts have been made to enhance capacities to carry out biological assessments, many information gaps still remain. Guidelines and capacity for undertaking ecological assessments need to be strengthened so as to provide baseline information in an usable form to support development planning. In addition, Jamaica does not have its own Red List of species, and the current IUCN Red Lists for Jamaica are not complete. As result many range-restricted endemic species have not been fully assessed in ecological assessments.

Barrier 2. *Limited capacity to develop and apply landscape level, protected area, biodiversity action and species management plans and to implement actions to avoid threats from productive sectors and mitigate other threats.*

- 16 While there is capacity at the parish and local levels in developing local sustainable development plans that incorporate concepts of biological and ecological services, there is a need to further strengthen capacity to promote a broader integrated multi-sectoral and multi-stakeholder planning and management approach that recognizes biological processes at a landscape level. This is further compounded by availability of limited information and tools to facilitate integrated development planning. While Development Orders are legal documents that have been used to guide development in the area covered by these orders, there is a need to further ensure that these Orders take into consideration long-term biodiversity conservation and ecosystem outcomes, particularly in biodiversity rich forested parishes. The Trelawny Development Order, where much of the biodiversity of the Cockpit Country is found, addresses some aspects of the conservation of the Cockpit Country, but it needs to also address restoration of forest connectivity and long-term biodiversity conservation outcomes. Parish Municipal Corporations and Local Forest Management Committees (LFMCs) need additional capacity, information and knowledge of the importance of biodiversity and ecosystem services; and tried and tested sustainable land management (SLM), sustainable forest management (SFM) and alternative agricultural improvement practices to incorporate into their respective planning efforts. There is also a need to make the preparation of Development Orders participatory at the grass-roots level. While there is some recognition of the importance of GIS and biodiversity conservation in development planning, there is a need to make existing information more accessible and help improve capacity of Municipal Corporations to incorporate such information into their planning systems. The National Spatial Data Management Division needs more support to improve the availability of information and its information coordination efforts. A recent examination (as part of the GEF Project Preparation work) of the treatment of gender in the biodiversity policy landscape showed that while there were a few areas of sensitivity, the capacity to address gender issues in development planning in the environmental related sector, remained low. Gender mainstreaming know-how was limited among staff involved with project development and implementation.

Barrier 3. Community level livelihoods rely on short-term unsustainable land use practices.

- 17 It is recognized that livelihood opportunities for rural communities often do not provide long-term and adequate or sustainable sources of income. This is further compounded by limited capacity, opportunity and resources to implement livelihood and land management measures that are biodiversity-friendly and provide sustainable economic benefits as well. Other challenges for promotion of sustainable livelihood measures include high levels of praedial larceny, lack of permanent arrangements for access to land (exacerbated by a shortage of suitable land for agriculture in the Cockpit Country), attitudes to government land as an open access resource, limited political support to control activities on private land combined with legislation on land utilization that does not fully recognize conservation as a land use. There is also limited support for promotion of community-based marketing and access to business planning and credit. Maroon communities in addition face special issues because land is held in common. There is also a need for financial and technical support for development of alternative livelihoods such as ecotourism, biodiversity compatible agriculture and agroforestry systems. Development of ecotourism is limited by low level of recognition of natural assets, poor infrastructure and marketing. Currently, the Ministry of Tourism provides business development support for small-scale ecotourism businesses, but this needs to be further expanded and upscaled to make a larger beneficial impact for local communities. Benefits associated with alternative sustainable livelihoods (i.e. climate smart agriculture, sustainable production of yam-sticks, biodiversity friendly horticulture, agriculture and agroforestry) are not sufficiently demonstrated and technology made readily available, limiting knowledge for successful application. Profitable and demonstrated biodiversity compatible and sustainable activities, such as apiculture in Jamaica, need to be also promoted. While some farmers receive training and access to small-scale financial loans for business development (national mechanisms addressed in Component 1), an increase in extension support and community capacity, combined with collaborative arrangements with both the private and public sector, as well as knowledge of the regulatory framework are needed to further develop and promote these sustainable productive practices. The opportunities for inclusion of women and young people, males and females in sustainable livelihood generating activities are influenced by a number of factors, including availability, access and control of resources, cultural norms, including household and familial responsibilities and time availability. These factors, among others require specific considerations in working with community members, including the Maroons, in sustainable livelihood generation enterprises.

Barrier 4: Limited awareness among the sector agencies, public and key industrial sectors on how to integrate landscape planning and lack of awareness amongst communities, public and tourists of risks posed by biodiversity and ecosystem losses.

- 18 Despite widespread awareness among sectors of the need for integrated planning and elements of which are recognized in Vision 2030 Jamaica, there is need for further attention to cross-sector integrated planning. This is further compounded by limited awareness and capacity among the key sector institutions on how to integrate planning and management of land and coastal, seascape and marine areas, so as to take into active consideration the biodiversity, natural resources and environmental factors that underpin sustainable management. Major sector agencies, including forestry, agriculture, extractive industries and tourism plan and manage the use of resources within their individual sectoral interests and operations, but with little cross-sector integration. While, there are efforts to improve integration, such as at the National Government level with multi-agency strategic planning through NEPA (e.g. through the on-going preparation of the National Spatial Plan) and identification of biodiversity priorities, which is articulated in the National Biodiversity Strategy and Action Plan (NBSAP), this is constrained by limited baseline data on the extent, location, condition and threats for many important ecosystems and species. There is thus a need for acquiring and distributing data, and building the institutional, technical, human, and infrastructural capacity to support on-going biodiversity assessment, monitoring and informed decision-making. Consequently, the country's knowledge base on biodiversity and natural resources, and capacity for stewardship needs to be strengthened. Assessments are also needed to better understand the drivers of, and vulnerabilities to, climate change. Local communities also need to be get a better understanding of the importance of biodiversity and natural systems in providing critical ecosystem services so that they can make informed decisions on land use and livelihood options. Extractive industry, tourism and other sectors

require improved information and assessments on the how sound environmental management practices can enhance and sustain their activities, while conserving biodiversity and ecological services. Local communities require sufficient incentives and encouragement for environmental stewardship and improved sex-disaggregated data and appreciation for gender issues that would make it easier to plan and evaluate for gender-based improvements.

- 19 The direct threats affecting the project target (Jamaica's biodiversity) and their relationships with a range of indirect factors (root causes) are illustrated in **Figure 1**, with entry points for project intervention strategies indicated. The relationship between the barriers and the project intervention logic is further illustrated in the theory of change diagram in **Figure 2**.

Baseline scenario or any associated baseline projects.

20. There are a number of recent Government implemented initiatives that support upscaling the level of biodiversity planning and management, as well as those focusing on mainstreaming biodiversity into sectoral frameworks. The project will build on the following baseline scenario. The Protected Area System Master Plan (2013-2017), and outputs of the GEF-4 Strengthening the Operational and Financial Sustainability of the National Protected Area System (NPAS) project (2012-2017), provides an essential protected area framework and foundation upon which this GEF-6 project builds connectivity in the mixed-use landscape between these protected sites. These documents and the National Biodiversity Strategy and Action Plan and the National Ecological Gap Assessment all identified Cockpit Country as a high priority for further protection and conservation management. Previous initiatives to implement this recommendation have included a previous GEF proposal sponsored by the World Bank and the Cockpit Country Parks in Peril project (2003-2008) sponsored by The Nature Conservancy. The NPAS project also developed and operationalized sustainable finance mechanisms, including the National Conservation Trust Fund of Jamaica (NCTFJ), upon which financing mechanisms for biodiversity in the integrated landscape can build and made recommendations for implementing conservation easements. Interventions are also needed to make the analyses, plans and activities responsive to gender and social equity issues in light of the observation of the October 2017 Terminal Evaluation of the NPAS project that revealed that sustainable human development and women's empowerment were not part of the outcomes. Corrective measures to be undertaken include robust implementation of gender considerations in Protected Areas Management as recommended by the NBSAP. Interventions are however needed to make the analyses, plans and activities responsive to gender and social equity issues in light of the observation of the October 2017 Terminal Evaluation of the National Protected Area System (NPAS) project that revealed that sustainable human development and women's empowerment were not part of the outcomes. Corrective measures to be undertaken include robust implementation of gender considerations in Protected Areas Management as recommended by the NBSAP.
21. The Adaptation Program and Financing Mechanism for the Pilot Program for Climate Resilience (PPCR, 2015-2020, US\$7.9M) Jamaica initiative, through its Investment Project 1: Climate Data and Information Management, will assist the Government of Jamaica in improving information management systems to integrate climate change data into decision-making, providing useful synergies for this GEF-6 biodiversity and ecosystem data management initiatives. The PPCR Component II: Creation of Financial Mechanisms can provide lessons learned in financing climate resilience that can provide synergies with GEF-6 initiative. The Government of Jamaica has also initiated the National Spatial Plan initiative in 2011 (US\$1.2M), being implemented by the Office of the Prime Minister, to support prioritization of land dependent decision-making with the goal of balancing national development and environmental protection. Though this initiative is prioritized by NEPA and Jamaica's Vision 2030 Jamaica: National Development Plan, its implementation has been limited to discrete areas, but it potentially provides a key baseline framework within which this project's spatial mapping activities provide prioritized contributions. The Building Climate Resilience of Urban Systems through Ecosystem-based Adaptation (EbA) in Latin America and the Caribbean (2017-2021, US\$6M), through the Special Climate Change Trust Fund, will also support restoration and rehabilitation of forest reserve degraded lands, further supporting capacity within the Forestry Department for forest restoration. The European Union's current Budget Support Program for the Forest Sector supporting the Forestry Department "Improved Forest Management for Jamaica" includes many complementary activities to the GEF project. In addition, Government of Jamaica is in the process of policy

and regulatory changes to support the mainstreaming of environmental concerns and safeguards into planning, for which the conservative estimate for the current Government of Jamaica's budget for the GEF-6 program of 6 years is USD1.5M.

22. Key baseline changes include the development of a new Tourism and Environment Policy that incorporates safeguards for areas of biological significance, such as Cockpit Country as well as new Sustainable Tourism Guidelines. Development of the Forest Policy of Jamaica (2017) has led to the need for an amended Forest Act (in progress), which are supporting the integration of biodiversity and ecosystem consideration. The January 2018 National Minerals Policy which significantly addresses gender considerations, establishes monitoring and evaluation criteria that include the quality of biodiversity in mining areas and speaks as well of seeking technical assistance for pre-mining biodiversity surveys in known reserve areas. The mining sector is also in the process of developing a new National Minerals Policy and, recognizing its impact on the environment, environmental considerations will be addressed to some extent, although mining will take precedence over other land uses, including conservation. This project can provide key information to ensure appropriate safeguards and guidelines are developed for integration into these governance frameworks. This will be further supported by current African-Caribbean-Pacific (ACP-EU) Development Minerals Program (2015-2018, US\$842,438, UNDP implemented) which has components that support development of the new National Minerals Policy as well as mainstreaming environmental considerations into mining and quarrying operations and post-mining restoration, which so far has focused on "restoration" to housing or pasture. Another area in which it can assist is in developing strategies to minimize impacts of mining and enhance post-mining restoration. Restoration of mined out lands to forest or forestry and developing and testing effective approaches to recreating forests on mined out lands.

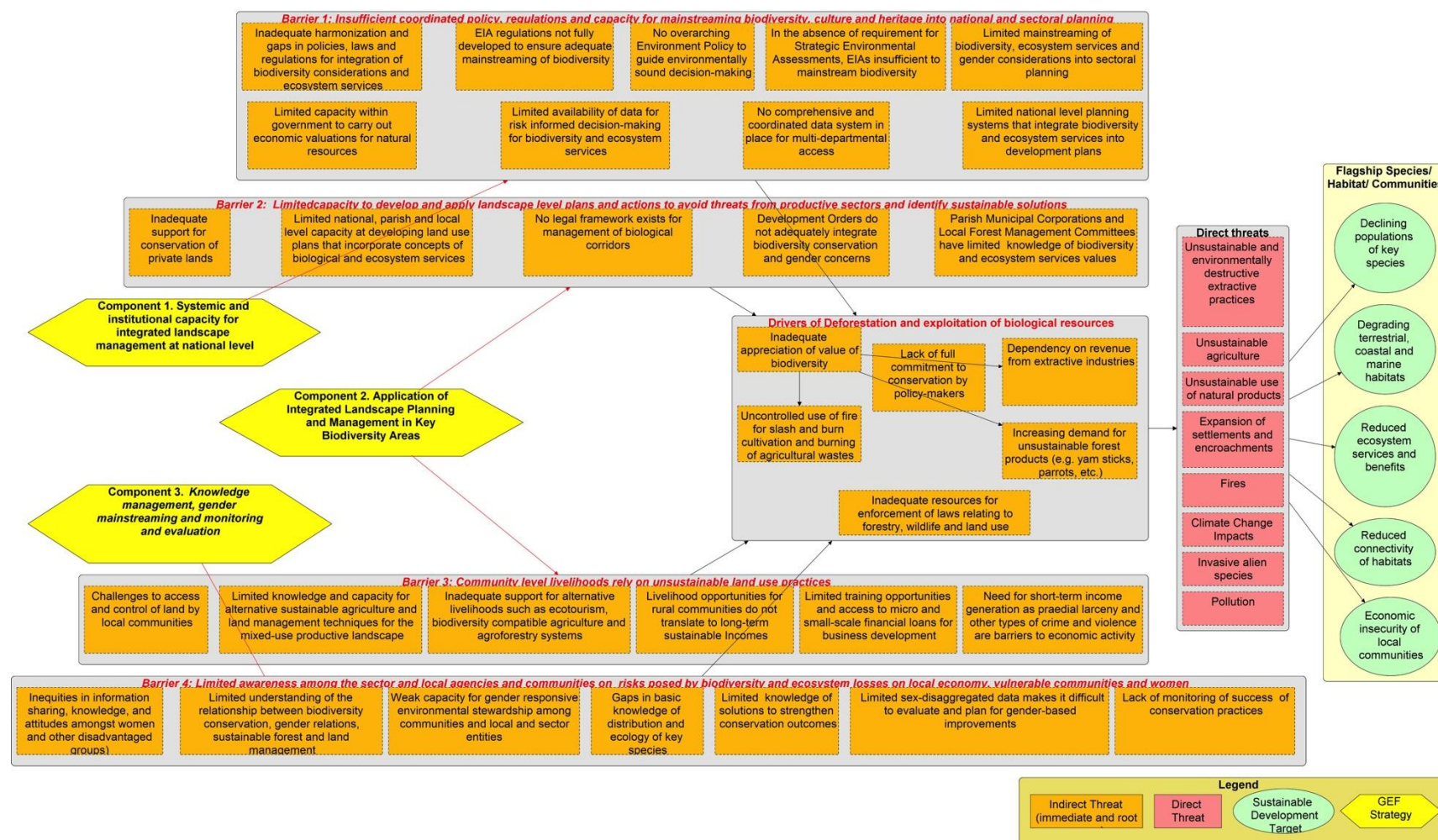
Alignment with national and global priorities

23. National Biodiversity Strategy and Action Plan (2016-2021): The GEF project aims to support the improved management of the Cockpit Country and to promote an integrated multi-sector and multi-stakeholder approach to management of its rich biological landscapes that is aligned to Jamaica's NBSAP (2016-2021). The project is compatible with the guiding principles enshrined in the NBSAP, namely as follows: *Principle 1*: Affirms commitment to open and transparent decision-making processes and opportunities for the participation of citizens in the development of strategies, plans and programs for addressing biodiversity issues; *Principle iii*: Respecting local and traditional knowledge when developing and implementing policies, programs and plans related to biodiversity; *Principle IV*: Protect habitats, ecosystems, species and genetic resources; *Principle V*: Encourage NGOs and community groups to manage protected areas and implement species management plans; *Principle VI*: Avoid or minimize environmental degradation and loss of biodiversity; *Principle VII*: Invest in resource management tools, enforcement, education and other activities; and *Principle VIII*: Ensure the economic, social and environmental objectives are integrated and policies, strategies, plans and programs are coordinated effectively to ensure greatest positive impact. The NBSAP makes specific recommendations for the integration of gender into biodiversity management from the institutional to the level of projects and programs.
24. Vision 2030 National Development Plan: The key underlying objective of Vision 2030 Jamaica is to secure sustained and broad-based improvement in the quality of life of the people that will transform Jamaica into "the place of choice to live, work, raise families and do business". In order to achieve this objective, the National Development Plan articulates a comprehensive and integrated strategy around four fundamental goals: *Goal 1*: Jamaicans are empowered to achieve their full potential; *Goal 2*: The Jamaican society is secure, cohesive and just; *Goal 3*: Jamaica's economy is prosperous; and *Goal 4*: Jamaica has a healthy natural environment. Goal 4 outlines that the quality of life depends on the quality of the natural environment. This goal recognizes the importance of the natural environment and ensures harmony among development activities, environmental sustainability and conservation of the country's natural resources. It further recognizes that healthy, productive and protective environments, social systems and economies are the bases of development, sustainability and human welfare. Ecosystems such as forests, mangroves and coral reefs, provide essential services such as flood control, recharging ground water, and waste assimilation that underpin economic development and sustain human health. Jamaica's main industries, including agriculture, tourism, manufacturing, and mining and

quarrying, rely heavily on the country's rich natural resource base. These economic activities are not always practiced in a manner that is sensitive to the environment, partly due to unsustainable consumption and production patterns which result in these natural resources deteriorating faster than they can replenish themselves. Under this goal, Vision 2030 Jamaica focuses on the effective management of the country's natural resources to ensure the continued provision of essential environmental services. It also focuses on the design of environmental policies that internalize the cost of pollution and environmental damage into the production costs of all economic activities. The strategies recognize that successful environmental management is increasingly becoming the basis for the success or failure of economies and social well-being. The Gender Sector Plan of Vision 2030 made proposals to create an integrated, gendered and sustainable approach to environmental planning and conservation that have key implications for biodiversity conservation.

25. Sustainable Development Goals and Aichi Targets: The proposed project will support the achievement of the Sustainable Development Goals (SDGs) in Jamaica, most notably SDG15 to *Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss, in particular Target 15.2: By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally; Target 15.5: Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species; and Target 15.9: integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts. The proposed project will contribute to the following Aichi Targets: Target 11: By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes; and Target 14: By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.*

Figure 1: Threats, root causes and barriers to the long-term solution and GEF strategies to address them



III. STRATEGY

26 The project's objective is **to enhance conservation of biodiversity and ecosystem services through mainstreaming of biodiversity into policies and practices into Jamaica's productive landscapes and key sectors**²³. The intent is to operationalize integrated management of productive landscapes to generate multiple benefits including effective conservation of globally threatened species and high conservation forests, reduce deforestation and degradation, conserve and enhance ecosystem services and local livelihoods. The project recognizes that these productive landscapes, which are important for conservation of species and ecosystems, underpin the lives and livelihoods of local communities and that implementation of such an integrated strategy is an integral part of achieving a balanced approach to development and community resource use that conserves biodiversity. To achieve this objective, the GEF alternative aims to (i) take into account the interconnectivity of various ecosystems in the productive landscapes and their impacts on biodiversity, ecological processes and functions of sector development and local community activities; (ii) ensure that relevant agencies and actors have adequate capacities to promote integrated approaches and tackle the threat to biodiversity and effective natural resources management; and (iii) advocate science based approaches and use of traditional and good practice knowledge systems to restore degraded areas while promoting sustainable forestry, agricultural and livelihood practices. The project will be implemented over a 6-year period based on the following principles:

- Promoting a holistic, multi-sectoral and integrated biodiversity management approach to resource governance as compared to the existing planning framework that tends to compartmentalize planning and undervalue biodiversity and to enhance ecosystem services and maintain ecological integrity of the biological landscapes and its constituent parts;
- Supporting and implementing a participatory/consultative bottom-up planning and implementation approach that focuses on national, parish and local community priorities and decisions that integrate conservation, sustainable resource use, climate risk management and livelihood outcomes;
- Strengthening the role of communities (including Maroon communities), local parish institutions, community based organizations and non-governmental organizations and increasing their potential for becoming agents of change in promoting sustainable natural resource management, climate risk management and biodiversity conservation;
- Ensuring free prior and informed consent (FPIC) as the basis for negotiating investments for local communities, including the Maroon communities, and ensuring that any displacement of incomes or access to resources are adequately compensated through alternative livelihood improvement plans;
- Enhancing capacities of communities, private landowners and private sector for implementing effective biodiversity-friendly agriculture, forestry, tourism and income generation and livelihood activities;
- Strengthening the capacity of national management, planning and research agencies to support the proposed local initiatives with technical expertise, pilot projects, improved interagency coordination, information system, enforcement capacity, support networks for participatory planning, and stronger mechanisms for implementation of plans;
- Ensuring that in its development and implementation, gender is mainstreamed so that the project contributes to equality and equity, through the creation of equitable opportunities and benefits for both women and men;
- Developing, promoting and ensuring an adaptive management approach for the proposed project landscape²⁴ that progressively identifies threats to biodiversity and natural resources and its associated challenges, including those related to ecological, demographical, climatic, market, technological and

²³ The project landscape includes almost exclusively the proposed Cockpit Country PA (IUCN category "Protected Landscape") and Stepheny John's Vale FR. The project landscape can be considered as a productive landscape with extensive areas of production forests (hardwood and pine), agriculture and tree crops, agro-forestry, slash and burn agriculture, NTFP collection, etc, with various development sectors (agriculture, environment, forestry, water resources, tourism, etc.) and parish and local governments operating within the landscape.

²⁴ The project landscape includes the area proposed for protection within the Cockpit Country and its immediate surroundings

economic factors and develops and implements iterative strategies to address them, through monitoring key environmental indicators and assessing the effectiveness of conservation measures and proposing new approaches as necessary; and

- Being selective in terms of identification of locations and nature of interventions to serve as demonstration models in the biological landscapes and in addressing the nature of challenges that operate therein taking into considerations the existing institutional capacity and resource constraints.

27 In order to ensure a clear, practical and cohesive implementation strategy, the proposed project will introduce a structured planning and integrated framework for managing the biological landscape in Jamaica. This framework will engender a two-pronged, mutually enforcing approach of (i) strengthening management structures for conservation of biodiversity in a large biological landscape, and (ii) demonstrating sustainable economic and livelihood initiatives for tackling the reduction of pressures and threats to biodiversity while strengthening direct and indirect economic benefits. Targeted activities under both approaches will be implemented under a linked national and sub-national level coordinated planning and management umbrella platform, supported by updated legal-regulatory documents and planning guidelines as well as the strengthened landscape-level planning and management mechanisms. Through this approach, on-the-ground initiatives in the landscape will both be guided by, and provide feedback loops into, enabling policy, legal, institutional and regulatory initiatives at the national level, while linking conservation-oriented actions with socio-economic, sectoral and livelihood-focused actions at the landscape level.

28 In order to ensure that investment activities (Component 2) in the project biological landscape are strategically located to demonstrate tangible impacts and outcomes and avoid the ineffective spread of activities, the project will attempt to locate a suitable mix of project investments (refer Annex 18) in the selected high biodiversity cluster areas within the biological landscape, where tangible impacts on biodiversity conservation and threat reduction can be demonstrated. The selection of cluster areas is based on specific criteria that helped determine areas that are most biologically significant for conservation and threat reduction and thus serve to ensure the long-term maintenance of the biological and ecological integrity of the biological landscape itself. Each cluster will adjoin areas of rich biodiversity and connectivity corridors. This will enable establishment of critical conservation linkages necessary to maintain ecological integrity and species dispersal within the forests system. The strategy of using target clusters as the basis for confining project on-the-ground investments is based on the premise that conservation of biodiversity within the clusters and maintenance of critical species and ecosystem linkages will ensure that the results and best practices can be translated to other parts of the landscape. Using this strategy as the basis for project interventions will necessitate that all PA-related, SLM, SFM, sustainable livelihood and community and private sector related bio-friendly business solutions are developed and implemented in an integrated fashion within the target clusters themselves rather than be diffused throughout the biological landscape (and/or implemented independent of each other) given the constraints of GEF resources, institutional capacity and timeframe of the project.

29 A three-tiered evaluation process was employed to facilitate the identification of the biodiversity rich clusters within the biological landscapes, ensure connectivity between fragmented habitats and improve the viability of species, by enlarging habitats, ensuring dispersal and daily and seasonal migration of animals and the re-establishment of natural forests in “disturbed” habitats. The first tier entailed the use of biological criteria to identify the best “umbrella” sites, namely those sites that are representation of a suite of vulnerable species and habitats (based on species irreplaceability, habitat connectivity and ecological permanence and having representative bio-indicators). Once these important biological sites were identified, these were subjected to a second tier evaluation in terms of threats (where there is clear and present dangers related to land-use changes and land use conflicts) and drivers of degradation. The third tier included the assessment of the demonstration potential and socio-economic aspects of the proposed sites in terms of resource use conflict reduction, enabling policy environment and potential trade-offs.

30 The project strategy was endorsed by stakeholders at well-attended national inception (July 9, 2018) and at a validation workshop (December 6, 2018) in Kingston, as well as during extensive discussions at the Parish and

community levels (see Annexes 4 and 15). The project objective will be achieved via three inter-related and complementary strategies (Project Components comprising Outcomes and Outputs) that focus on removing/reducing the four key barriers to accomplish the long-term solution (**Figure 1**) by means of intervention pathways shown in the theory of change diagram (**Figure 2**). Indicators and assumptions for the accomplishment of expected Outcomes under the respective Components are given in the Project Results Framework.

- 31 The project's target clusters have been chosen mainly because of their critical importance as centers of endemism and biodiversity hotspot and economic significance. Other criteria include poverty incidence, vulnerability, extent of land use conversion and infrastructure development and land degradation. A series of technical discussions were held during the PPG stage to confirm the selection of the target cluster candidate sites to be included in the Project. Figure 3 is a map of the project landscape.
- 32 Noteworthy is that Jamaica is in the process of establishing its Land Degradation Neutrality (LDN) targets and the project will work closely with the Land Degradation Neutrality (LDN) Focal Point of the Ministry of Local Government and Community Development who is already a partner in the implementation of the project. Using LDN as a framework, the project will bring together multi-level, multi-sectoral (national and subnational) stakeholders to address LD issues in the Cockpit Country. These stakeholders/institutions are likely to be the same ones that will participate in the LDN target setting for Jamaica. Hence, methodologies, knowledge and lessons learnt from this interaction in the project can inform the LDN target setting process. Collaboration with the Focal Point will therefore ensure that the project will contribute to Jamaica's LDN processes. As part of the effort to work towards achieving LDN in the project site (Cockpit Country), project preparation undertook a situation analysis of land degradation and assessment of root causes and drivers of LD. The findings obtained from the analysis formed the basis for the identification of strategic options for reducing LD and ensuring improved and effective land and forest management, and sustainable agricultural systems in the project sites. These strategic options are considered critical elements in ensuring that an LDN agenda is incorporated in the project design and strategy as well as for supporting the implementation of an integrated approach for improved biodiversity outcomes and increased community benefits. The strategic options are considered integral to conserving biodiversity and reducing land degradation using an integrated landscape approach, and therefore, in contributing to Jamaica's ongoing effort to establish and accomplish its LDN targets. The LD priority areas included in the project design, underpinned by a developing national LDN agenda, includes strengthening the policy, legislative, institutional and governance framework for improved SLM; ecological restoration of degraded and fragmented areas; enhancing community-based sustainable land and forest management, sustainable agriculture, sustainable livelihoods, responsible tourism and business enterprise solutions.

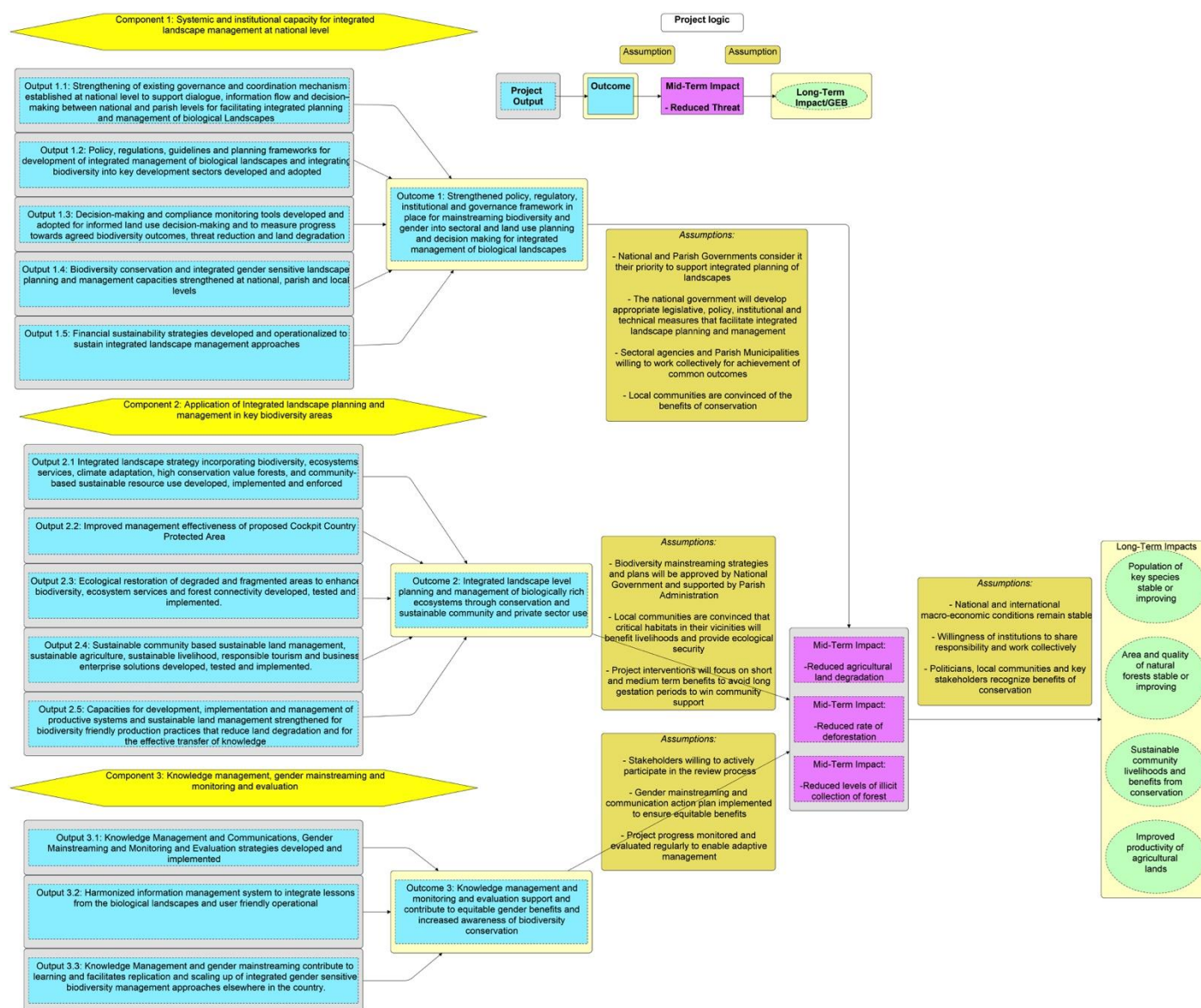


Figure 2: Theory of Change

Figure 3: Map of Cockpit Country and environs plus Stephney John's Vale Forest Reserve

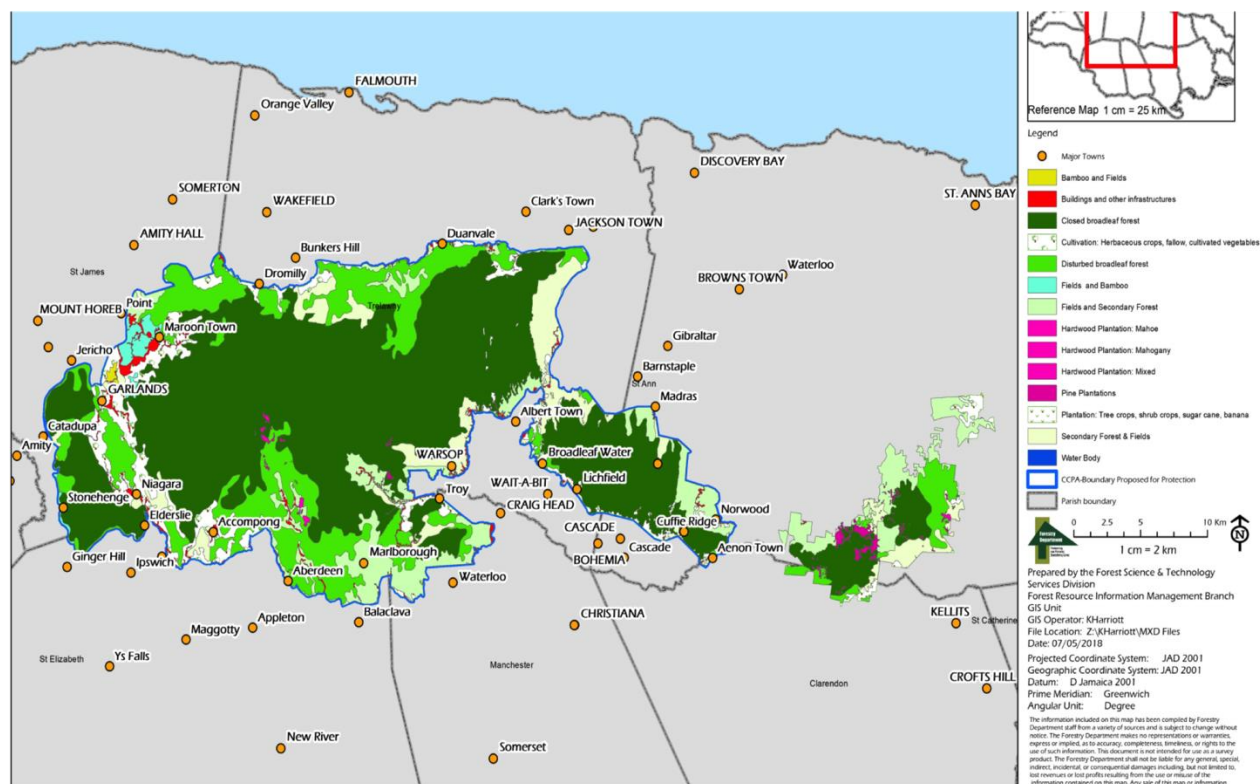


Table 1: Geographical, Biological and Socio-economic Features of Pilot Biological landscape²⁵

Criteria applied	Responsiveness of Target Area
Area proposed to be protected as the Cockpit Country	
Area of the proposed landscape	The project target landscape includes the area proposed to be protected in the Cockpit Country (approximately 75,000 ha), the Stephney John's Vale Forest Reserve (6,712 ha) and its immediate environments (approximately 4,300 ha) covering a total of around 86,000 ha.
Richness and variety of ecosystems, habitats, biological communities and species	The Cockpit Country is one of the largest remaining large intact areas of closed broadleaf (possibly primary) forest in Jamaica. In the broadest sense its forest types have been described as closed and disturbed broadleaf forest. More specifically they have been classified as <i>inter alia</i> as wet forest on limestone, sub-montane tropical and subtropical rain forest over limestone. There are observable differences in the structure and composition of forest types from the core to the periphery (reflecting rainfall and disturbance), north to south and east to west, but these have never been described. The rarest community type is probably the <i>Podocarpus purdianus</i> forest, which is known only from a few trees near Troy. Each of the more than 5,000 hillocks comprises three distinct habitat types, the acidic peat of the dry summits, the alkaline tallus slopes of the sides and the sinks, with deep soils and high humidity. Each of these habitats supports a distinct biological community, which makes each hillock effectively an island. This contributes to outstanding levels of speciation, especially of plants (of 856 vascular plants listed from the area 67 are endemic to it), herpetofauna (37 species) and invertebrates. There are significant populations of endemic and rare bats and a remnant population of the Jamaican Hutia (<i>Geocapromys brownei</i>). Relative to its area, there are more species of fern in the Cockpit Country than any other tropical forest in the world. ²⁶ Other habitat types include caves, springs and rivers all of which support endemic species.
Naturalness of area proposed to be protected in the Cockpit Country	The closed broadleaf forest of CCPA is largely protected by its inaccessibility caused by very difficult terrain, inhospitable conditions and the absence of roads and trails. It probably includes the largest intact area of forest in Jamaica.
Dependency: Degree to which species depends on an area, or the degree to which an ecosystem depends on ecological processes occurring in the area.	Many of the species of the Cockpit Country (CC) are range restricted; many endemic plants are known only from a single hillock. Only the most accessible areas have been visited by scientists; knowledge of species distribution, ecological requirements and life cycles are incomplete or absent, even for vertebrates. Two species of reptiles and two <i>Eleutherodactylus</i> frogs are entirely restricted to the CC. All except one of Jamaica's species of endemic birds are present. The populations of parrots, Jamaican Blackbird and Ringtailed Pigeons are especially important. Invertebrates are less well known. The CC is the best stronghold for the Jamaican Giant Swallowtail Butterfly (or Homerus Swallowtail), the largest butterfly in the hemisphere and the center of the population of the Jamaican Patch butterfly. New species of CC endemic butterflies are still being described. Auchtembeddie has one of the highest densities of endemic land snails in the world. The CC is the center of diversity of crabs of the sub-family Sesarinae. ²⁷
Representativeness of habitat types, ecological processes, biological community, physiographical features and other natural characteristics	While the forests and the ecological processes of the CC are broadly representative of other similar forest types and communities in Jamaica, high levels of local endemism mean that specific areas are unique, not only in comparison to other areas but also in comparison to other parts of the CC. Similarly, while other parts of Jamaica are dominated by karst limestone formations, these are most pronounced in the CC.
Uniqueness	The area is unique and irreplaceable in its levels of endemism, numbers of species, lack of disturbance and its provision of ecological services, especially water to western Jamaica.
Integrity: the degree to which the area is a functional unit—	The CC is a large ecologically functional unit, which in many ways is self-sustaining. However it is not completely self-sustaining, as many of its attributes depend on what

²⁵ Annex 14 describes the biology of the Cockpit Country and Stephney John's Vale Forest Reserve in more detail²⁶ Koenig, S. Cockpit Country Conservation Project: Biodiversity Assessment. 2000. Natural Resources Conservation Authority, Kingston, Jamaica.²⁷ *ibid*

an effective, self-sustaining ecological entity.

Productivity in terms of contributing to biological and economic well being
Key socio-economic features

happens outside. For example, Plain Pigeons that maintain the forest structure, through spreading seeds also migrate outside its borders migrate outside the borders to the mangroves during the winter. Some bats also migrate to coastal areas to feed. Evaporation in the coastal wetlands contributes to orographic rain in the core of the CC.

An appropriate ecosystem valuation has not been carried out to estimate the value of the CC in its natural state. More than 33,000 people live in the vicinity of the CCPA and probably derive some direct (12,000 people) or indirect (21,000 people) benefits from it. The geology and geography of the Cockpit Country have helped it to remain the repository of important underground natural resources and medicinal plants that is yet to be explored and economically evaluated (UWI 2013). Cockpit Country aquifer is the source of 40% of the freshwater used by Jamaicans (WRA 2004). The area to be protected in the Cockpit Country includes 33,085 ha of gazetted Forest Reserves. Its boundary is defined by geological, geomorphological, hydrological, historical, archaeological and cultural features. Most of the land in the Cockpit Country is vested in the Commissioner of Lands. The Socio-economic Survey of the Cockpit Country using the ring road boundary [note this SES was not done for the entire area recently identified for protection] conducted by Forestry Department, indicated that the majority of residents have lived within the area from birth, with over 84.3% having residency of over 15 years. The majority of occupants are private owners rent-free tenants on family lands or Government-owned lands. Formal ownership is reported at 49.2% with the aggregate holding between one and five acres. Agriculture accounts for 70% of the household income and occupation. The remaining residents sought employment outside of the CC area or pursued other small commercial activities. Individual monthly income is estimated at USD 225 based on the average of USD 150 in the 2013 Forestry Department study.

In terms of education and training, persons had access to early childhood, primary and secondary education opportunities within the CC. Vocational and tertiary education has to be sought outside which proves economically challenging for some. The quality of life is mixed. Most of the residents do not have access to potable water but some could afford to construct large catchment tanks for distribution throughout their houses. Others used drums or the nearby river. There was a mix of flushed and pit toilets. The majority has access to electricity.

Maroon communities are located within the environs of the Cockpit Country, mainly around Accompong, Quickstep and Flagstaff. They are engaged in territorial and land ownership disputes with the Government of Jamaica based on their treaties with the former colonial authorities.

Vulnerability to degradation, either through natural or human induced processes

All accessible areas are vulnerable to a wide range of human activities of which the most permanently destructive are mining, quarrying and the creation of roads and trails. Deforestation and forest fragmentation for crops and pasture, selective harvest of timber and yam sticks, fire, poaching and scientific collecting also lead to declines and extinction of species and permanent forest loss especially when followed by colonization by invasive alien species, whose influence is rapidly increasing. Loss of keystone species can lead to cascades of other losses. Climate change is expected to increase temperatures, increase the frequency and intensity of drought, and increase the intensity of storms. The impacts of these changes, combined with human activities will place additional stress on the CC forests and their species, including in particular severely range-restricted endemic plants and other species (e.g. land snails) that are found on single hilltops. These species are particularly vulnerable to habitat change and loss but even highly mobile species such as birds and butterflies are also likely to be vulnerable.

Fortunately in some areas there is a decline in most human activities in the forest (except harvest of yam sticks), but the threat of bauxite mining on the periphery is increasing and is likely to impact the CCPA directly (if people displaced from mining areas move into adjacent areas) and indirectly from loss of connectivity, feeding and migration habitats, changes in hydrology and other impacts. Increasing costs of cooking gas as a result of current devaluation could result in a resurgence of demand for charcoal. Slash and burn farming continues in some area. Caves are vulnerable to impacts from unregulated tourism and guano mining, which can introduce invasive species, and cause abandonment by bats. Rivers, streams and blue holes can be affected by ground water pollution from untreated sewage. Silt and debris from inappropriate agricultural practices can block sinkholes and

Opportunity for supporting Jamaica's conservation corridors in conservation management and the system of protected areas	lead to damaging floods. International and local demand for some CC endemic species, including orchids, cacti, parrots and butterflies drives continuing poaching. Large scale land use changes in the periphery, the north coast forests, and the wetlands to the north and south threaten the natural processes that sustain the area.
Regional significance	The Cockpit Country forms the core of the North Coast Forest-Cockpit Country-Black River-central spinal forest conservation corridor, which link all Jamaica's main conservation areas in the west of the island. From N-S It joins the dry forests on limestone on the north coast to the wetlands on the south coast. From E-W it links the Dolphin Head continuum to the rest of the central range. As a small island with a relatively narrow coastal plain and high central mountains, the whole island is a coastal zone, and a 'ridge to reef' approach is essential, for the conservation of a wide range of ecological functions, as well as for species conservation. Many Cockpit Country endemic species, including bats, parrots and columbids depend on both forest and lowland habitats and exhibit daily or seasonal migrations. More than 40% of water supplies for western Jamaica originate in the Cockpit Country. ²⁸
Sub-regional significance	Cockpit Country is the highest ranked Key Biodiversity Area (KBA) in Jamaica based on the presence of at least 70 IUCN Red List species, ²⁹ and is one of the most important areas in the insular Caribbean. It has been ranked 307 in the world for irreplaceability. ³⁰ It is an Important Bird Area ³¹ and an Alliance for Zero Extinction ³² site.
	Landscape level planning for the CC would provide an important precedent for Jamaica, where development planning has traditionally been carried out in a sectoral fashion and has given precedence to mining and development at the expense of biodiversity and ecosystem services. This is increasingly important because of the increasing impacts of climate change that is already impacting rural communities in the area.

Stephney John's Vale Forest Reserve

Richness and variety of ecosystems, habitats, biological communities and species	The biodiversity of Stephney-John's Vale has only partially been assessed and data are incomplete for most species. It includes a central core of closed and disturbed broadleaf forest, surrounded by secondary forest, plantation forest, pasture and agriculture much of which is due to the activities of squatters. The geology is dominated by limestone karst formations, but they are less well-developed than those of the Cockpit Country. There are several cave systems in the area, some of which may be of importance as habitat for cave bats and other species. There have been few biological studies of the area but the presence of 2 endemic species of frog has been confirmed. The Jamaican Hutia (<i>Geocapromys browniei</i>) was present at least until 2008.
Naturalness of proposed CCPA site	The center core is relatively well protected by its inaccessibility. In 2014, 53% of the total area was classed as closed broadleaf forest and a further 24% as disturbed broadleaf forest. ³³ However the periphery is very disturbed.
Dependency: Degree to which species depends on an area, or an ecosystem depends on ecological processes occurring in the area.	Not assessed, but this is an important link in the central spinal forest of Jamaica. If the Jamaican Hutia still persists in the area, it is likely that the area forms an important link between east and west populations for this species and many others.
Representativeness of habitat types, ecological processes, biological community, physiographical features and other natural characteristics	Like the CC, while the forests and the ecological processes of the CC are broadly representative of other similar forest types and communities in Jamaica, high levels of local endemism can be inferred and if present mean that specific areas may be unique.
Uniqueness	Not assessed.
Integrity: the degree to which the area is a functional unit—	Not assessed.

²⁸ Water Resources Authority. 2004. Hydrological Assessment of the Cockpit Country. Report prepared for The Nature Conservancy.

²⁹ <https://www.iucn.org/tags/work-area/red-list>

³⁰ <http://irreplaceability.cefe.cnrs.fr/sites/28941>

³¹ Wege, D. & Anodon-Izarry, V. 2008. Important Bird Areas of the Caribbean. BirdLife International, Cambridge, UK.

³² Zeroextinction.org

³³ Forestry Department. 2014. Forest Management Plan Stephney-John's Vale Forest Reserve. Forestry Department, Kingston, Jamaica.

an effective, self-sustaining ecological entity.

Productivity in terms of contributing to biological and economic well being

Key socio-economic features

An Ecosystem Service Valuation study is urgently needed in this area. Values are likely to be qualitatively similar to the Cockpit Country and to include gas and climate regulation, water quality and quantity, soil formation and stability, pollination, habitat/refugia, timber and forest product production, recreation and aesthetic, cultural and passive use.

Stephney John's Vale Forest Reserve covers over 6,675 hectares in the Rio Bueno Watershed Management Unit. Residents in the area surrounding the Forest reserve (Stephney, Grants Mountain, Essen and Tinglies depend on farming as their main source of income that results in encroachment on forest areas. Forty-one percent are self-employed, 47% unemployed and the remaining seek employment in small establishments such as food and entertainment facilities. Low skill levels and limited opportunities for higher education keeps income on the lower end. Approximately 90% of the residents owned or rented the land they occupied with a minority occupying lands informally. Just over 72% of the residents report completing either primary or secondary education but literacy levels remain low and only eight percent went on to vocational or tertiary education. These education institutions are located away from settlements and attendance proves costly for the majority of the residents.

Individual monthly income is estimated at an average of USD 185. Over 90% of the residents have access to electricity with only 8.6% having access to piped water. Almost 85% collected rainwater for household use, others purchased from trucks while some had no access to water for weeks. Fifty eight percent used pit toilets and two percent reported having no toilet facilities. The majority of the houses were in fair condition with less than 10% showing extreme damages to structure, roof and doors³⁴.

Vulnerability to degradation, either through natural or human induced processes

The periphery of the SJV Forest reserve is vulnerable to human activities and climate change. Major impacts include clearance of forests by squatters, mainly to plant cabbages and other vegetables, and bauxite mining in adjacent areas. The Forest Policy for Jamaica 2017 states that no mining shall take place in forest reserves. While the areas under bauxite mining adjacent to the Forest Reserves are relatively small the impact would be disproportionate, as new areas would be opened to squatters following the construction of haul roads.

Opportunity for supporting Jamaica's conservation corridors in conservation management and the system of protected areas
Regional significance

This is an important link in Jamaica's spinal forest. Although the recognition by the Government of Jamaica that there should be no bauxite mining in the proposed Cockpit Country protected area, there is a risk that this may increase pressure on areas outside it. Setting aside Stephney-John's Vale as another forested area in which mining will not be permitted would be an important precedent.

The Cockpit Country and Stephney-John's Vale are internationally recognized as Key Biodiversity Areas³⁵

³⁴ Forestry Department, 2013. Socioeconomic survey of Stephney-John's Vale. Forestry Department, Kingston, Jamaica.

³⁵ IUCN World Commission on Protected Areas (refer <http://www.keybiodiversityareas.org/site/search>)

IV. RESULTS AND PARTNERSHIPS

i. Expected Results:

32 The project is designed to achieve a variety of long-term environmental impacts including establishing the following institutional and regulatory measures for integrating biodiversity conservation and sustainable natural resource use into sector specific and Parish and local socio-economic development planning and community resource management of biological corridors:

- *A national policy, regulatory and governance framework that enables the mainstreaming of biodiversity and gender into landscape level land use decision-making and into key sectors in mixed-use landscapes of Jamaica;*
- *Improved site-level planning, regulatory, monitoring and implementation framework for demonstration of integrated gender sensitive biodiversity planning and management of pilot biological landscape; and*
- *Improved site-level sustainable use and management systems for ecologically rich ecosystems (and their species and functions) and sustainable community and private sector use through biodiversity friendly, sustainable land and forest management, and sustainable community investments and business ventures that promote equitable opportunities for both women and men.*

33 The Long-Term Impact of the project is the reduction of direct threats on critical species, ecosystems, ecosystem services and other biodiversity through the promotion of sustainable agriculture, forestry, tourism and other economic practices in and around the biological landscape; improved planning, regulatory, enforcement and monitoring for enhancing biological outcomes in the biological landscape; and the effective management of and reduced threats to globally significant biodiversity, including globally significant ecosystems and species in Jamaica's biological landscape. To achieve the Project Objective of enhancing conservation of biodiversity and ecosystem services through mainstreaming of biodiversity and gender into policies and practices into Jamaica's productive landscape and key sectors, the project is designed to test a holistic and well-integrated multi-sectoral and multi-stakeholder approach to planning and management within the pilot biological landscape. This is underpinned by mechanism(s) that address current limitations in multi-stakeholder and sub-national integrated development planning and coordination between key stakeholders within the landscape, and improved local community access and control of resource use and management within the biological landscape to generate improved livelihoods, incomes and benefits.

34 The project's incremental value lies in demonstrating, using the selected biological landscape, the development of participatory natural resources management, enterprise based sustainable natural resource practices and sustainable livelihoods for local communities while concurrently strengthening the conservation of biodiversity, maintaining the connectivity and ecosystem values of the biological landscape, and ameliorating climate change impacts. A biological landscape Information Management System and maps will be developed for the target biological landscape (initially using existing information, but complemented by development and implementation of a strategy to fill information gaps and sustain long-term monitoring of key indicators), listing areas of high biodiversity conservation significance, contribution to provision of ecosystem services, mapping established degradation and Invasive Alien Species (IAS) areas in support of planning for sustainable agriculture, sustainable tourism development, forest and land rehabilitation and improvement, climate change adaptation, and community sustainable resource use. The information system will allow for defining which ecosystems can be sustainably used and which should be conserved in order to retain critical biodiversity, habitat and ecosystem integrity and ensure productivity of agriculture, forestry, tourism and other economic activities in the long term. It will also help develop capacities and required enabling frameworks through "learning-by-doing" approaches in the selected biological landscape. Sustainable biological landscape management approaches will be based on assessments of key biodiversity and ecosystem services and will build on capacities and concepts established during the interventions of the past GEF and donor projects in Jamaica, as well as similar initiatives in the Caribbean and elsewhere. The project will be able to develop and demonstrate a matrix of best practices for

Jamaica's ecosystems and biodiversity conservation for scaling up and replication in other landscapes nationally and regionally and for the recognition of the importance of gender mainstreaming in such actions. A series of guidelines, knowledge management publications and awareness events will support the achievement of these targets.

Component 1: Systemic and institutional capacity for integrated landscape management at national level

Total Cost: US\$14,518,897; GEF project grant requested: US\$1,768,697; Co-financing: US\$12,750,200

Outcome 1: Strengthened policy, regulatory, institutional and governance framework in place for mainstreaming biodiversity and gender into sectoral and land use planning and decision making for integrated management of biological landscapes

Baseline conditions for this outcome (without GEF project):

- 35 At the systematic level, Jamaica's Wild Life Protection Act of 1945 (and subsequent amendments), the Forest Act of 1996, the Endangered Species Act of 2000, the Water Resources Act of 1996 and the Natural Resources Conservation Authority Act of 1991, which provide regulations on biodiversity conservation and natural resources management will continue to provide limited guidance for identifying important/essential ecosystems (e.g. biologically rich sites and key ecosystems to be recognized within biological landscapes), for applying integrated management approaches into production sectors, for financing mechanism to ensure biodiversity conservation and for sustainable use of ecosystem services, and other aspects of conservation of natural resources. The Town and Country Planning Act (1947), Natural Resources Conservation Authority Act (1993), Watershed Protection Act (1963), Local Improvements Act (1987), Building Act (2017), Land Development and Utilization Act (1966) and Local Governance Act (2016), and subsequent amendment therein, will continue to provide a less than adequate framework for effective management of integrated land use and participatory planning.
- 36 Without the GEF project, the biological landscape approach will remain less formally recognized as an effective tool for management of Jamaica's productive landscapes. Decision-making about development plans will continue to be made on a case-by-case basis and will not adequately take into account the cumulative impacts of a variety of land use changes across the landscape. Institutionally, the National Environmental and Planning Agency (NEPA) is the focal agency for overall biodiversity conservation, but its staff will continue to need additional capacity for implementation of comprehensive integrated biodiversity management approaches at a biological landscape level. Their responsibilities, and the institutional arrangements at national and parish levels for planning and management of biological landscapes will remain unclear and uncertain. The Forestry Department that is responsible for managing Forest Reserves will continue to need additional capacity for enhancing biodiversity conservation and improving community participation through its local forest management committees. The national policy from gender equity that promotes gender focal points in key ministries will not be fully represented in all sector entities. Without the GEF, the key agencies in natural resources management will not be able to fully guarantee: (i) an effective multi-level integration between national, parish and local levels in terms of biological landscape planning and management, (ii) an effective consultation between different institutional levels and sectors at the national and parish levels in support of biodiversity conservation, (iii) an enhanced integration of biodiversity conservation outcomes in national and parish level social and economic development planning; (vi) an enhanced means to integrate local people's knowledge and traditional resource management systems into biodiversity landscape management, and (v) an expanded national-level coordination mechanism and procedures to include parish and sector representation. Consequently, without the GEF Project, there will continue to be an incomplete institutional framework for integrated biological landscape management. The potential of an integrated system of protected areas, with increased facilitation of conservation on private lands, combined with sustainable land use practices and improvements to the quality of life of residents, may not be fully realized without the GEF project. As a consequence the trend of degradation of natural systems might not be controlled or reversed, which might further deplete the quality and quantity of ecosystem services and increase rural poverty.

Alternative for this outcome (with GEF project):

- 37 Under this Outcome, the GEF increment will support strengthening coordination, governance and regulatory arrangements for mainstreaming natural resource management and biodiversity conservation objectives into national and parish level development planning and management of biological landscapes, their attendant species (many of which are endemic and/or threatened) and representative ecosystems (many of which are also under threat) in Jamaica. This will include establishing an institutional coordination framework for integrated biological landscape management in the country to facilitate routine, standardized data collection using updated methods of capture and storage, information sharing, engagement, community consultation, planning and mobilization of the strategies and decision making tools developed through the project. The proposed national coordination mechanism will provide leadership as mandated by various existing laws and agreements. Policies, regulations, guidelines, plans and best practices for mainstreaming biodiversity concerns in development planning will be supported for relevant key sectors, including a set of minimum standards, to guide responsible practices in these sectors while providing a practical strategy and financing plan for their sustainable development to enhance economic sectors in Jamaica. These plans will build on and integrate relevant and existing tools, strategies and lessons gained through the baseline work. At the same time the project will strengthen the capacity of environmental authorities to develop new regulations and practices, improve and existing ones. Examples include the Environment Impact Assessment (EIA) and Strategic Environment Assessment (SEA) guidelines to be specifically adopted for management of impacts on biodiversity and ecosystems in development activities within and outside of the biological landscapes. The outcome would be a national coordination and governance structure (supported by improved policies, legislation, best practices and other relevant tools) that promotes an integrated biological landscape management approach that takes into cognizance sustainable resource management, biodiversity conservation and biodiversity-friendly socio-economic planning and enforcement. It will also take into consideration climate change as well as strengthened capacity and skills within NEPA and national, sectoral, parish institutions, civil society and local communities to facilitate and support their ability to balance development and environmental needs at the biological landscape level.
- 38 This Outcome would be achieved through five outputs, building on strong community consultations, which will contribute to achieving the overall goal of developing national frameworks for integrated landscape planning and its management and enforcement in Jamaica to conserve biodiversity and in establishing capacity for planning, implementation and monitoring of conservation outcomes and threats. Annex 7 provides a discussion of the objectives and outcomes, and step-by-step guide to the design and implementation of an integrated landscape management framework for Jamaica.

Output 1.1: Strengthening of existing governance and coordination mechanism established at national level to support dialogue, information flow and decision-making between national and parish levels for facilitating integrated planning and management of biological Landscapes

- 39 Under this output, the Project will support the strengthening of an appropriate existing national coordination and multi-sector planning platform for biological landscapes. The intent is to create a coordination mechanism is to facilitate engagement, transparency and coordination among key decision-makers, different sector institutions, parish administrations, Civil Society Organizations (CSOs) and other stakeholders towards strengthening integrated planning and management of biological landscapes. This might include, extending existing mandates and membership of an existing coordination structure to cover planning and management of biological landscapes. The coordination mechanism will provide guidance in relation to the following:

- 1.1.1 Conduct assessments on gaps and opportunities for strengthening existing policy, regulatory and institutional arrangements** for planning and management within the biological landscapes with the intent of improving and enhancing the mainstreaming of gender responsive biodiversity conservation into national, sectoral and parish planning;

- 1.1.2 **Develop recommendations on roles and responsibilities** of different stakeholders in management of biological landscape;
- 1.1.3 **Facilitate a Government decision** on a National Coordination and Governance Mechanism for biological landscapes in Jamaica;
- 1.1.4 **Facilitate and support the assessment of the effectiveness of policy, planning and decision-making process at all levels (including cabinet level)** including the integration of National Spatial Plan, Settlement Strategy Strategic Environmental Assessments, (SEAs), Strategic Environmental Impact Assessments (SEIAs) and Development Orders in relation to decision-making by National Resources Conservation Authority (NRCA) and Municipal Corporations in supporting enhanced and gender-neutral biodiversity conservation and sustainable developments and put in place measures to address issues, including how Local Sustainable Development Plans and protected area plans can be coordinated with Development Orders and protected area management plans;
- 1.1.5 **Support programs for strengthening capacity of National Environment and Planning Agency (NEPA), Forestry Department, and all entities that manage protected areas – Fisheries Division and Jamaica National Heritage Trust, and the IOJ, and the Rural Agriculture Development Authority (RADA) and other relevant agencies and institutions (including NGOs)** for integrated gender responsive planning and adaptive management, protected area management and monitoring of biological landscapes;
- 1.1.6 **Support the existing national technical working group on biological landscapes** to provide guidance and technical advice on policy analysis, dialogue and consultation, technical aspects, monitoring and biodiversity integration in sector, national and local level policies and planning during and after the implementation of the project;
- 1.1.7 Build on the proposals developed under the NPAS project³⁶ **to provide guidance and support for a financial sustainable strategy for management of biological landscapes in the country;**
- 1.1.8 **Support design of biological landscape communication/advocacy strategy** for creation of awareness and support for integrated biodiversity management;
- 1.1.9 **Support the development of interagency protocols** for data management and information on biodiversity; and
- 1.1.10 Define annual/biannual **meeting protocols** for dissemination of outcomes and best practices from pilot landscape program.

40 The existing multi-sectoral and multi-stakeholder Technical Working Group (TWG) that has been established to guide the preparation of the project will continue to serve its technical function throughout the implementation phase of the project. In addition, NEPA will be strengthened to support the national coordination and governance mechanism, including gender mainstreaming with capacity development and operating support.

Output 1.2: Policy, regulations, guidelines and planning frameworks for development of integrated management of biological landscapes and integrating biodiversity into key development sectors developed and adopted

41 In Output 1.2, the Project will work towards facilitating the development of policy, regulations and planning guidelines for promoting integrated biodiversity management approaches and the mainstreaming of biodiversity, ecosystem services and gender in development and sector planning within biological landscapes in Jamaica. The GEF increment will support the following activities under this Output:

- 1.2.1 **Review of existing policies and legislation** relating to sectoral and sub-national development planning to identify key gaps in promoting biodiversity friendly development with special emphasis on enhancing biodiversity conservation and habitat connectivity;

³⁶ Protected Area System Financial Plan – document developed under NPAS project.

- 1.2.2 **Consultation workshops with sector, parish, civil society and local communities** to ascertain exactly where the integration of biodiversity considerations is feasible within existing policies³⁷;
- 1.2.3 **Technical support and workshops for facilitating development/update of policies, namely** to (i) develop an overarching environment policy; (ii) facilitate the strengthening of the integration of biodiversity and ecosystem services considerations into mining policy; and (iii) support analysis and update of relevant sector policies to ensure ecologically sensitive development and practices;
- 1.2.4 **Technical support and workshops to support development of guidelines** for mainstreaming biodiversity and gender considerations in proposed draft EIA regulations³⁸ and procedures and in the SEA process;
- 1.2.5 **Preparation of guidelines, protocols and best practices** for strengthening the integration of biodiversity, stakeholder engagement and gender considerations in national and parish development planning and management systems and local or community-level resource planning and conservation of private lands; and
- 1.2.6 **Facilitating the development of strategic plan for sustainable community-based tourism development** in biological landscapes (in particular for Cockpit County), including identification of **alternative financial and revenue and benefit sharing** (including evaluation of viability of using various financial instruments that can support conservation related tourism products and services) by provision of new and attractive incentives.

Output 1.3: Decision-making and compliance monitoring tools developed and adopted for informed land use decision-making and to measure progress towards agreed biodiversity outcomes, threat reduction and land degradation

42 The project will support cross-agency training, technical assistance and capacity and skills improvements to enhance information and decision-making for achieving biodiversity outcomes. This will entail support for improved spatial planning data, capacity and skills development, improved information management and compliance monitoring for assessment of changes in land use, land degradation and threats to biodiversity and ecosystems. In addition, particular importance would be placed on the economic valuation of biodiversity and ecosystem goods and services (including social and cultural values) as well as economic implications of mining and other disturbances in Stephney John's Vale Forest Reserve as a means to support informed land use decision-making. As part of this exercise, the capacity and skills of the Forestry Department will be enhanced to undertake economic evaluations within the forest reserves. The project will provide international technical assistance, skills and capacity training in economic valuation methodology and approaches and support inculcating such expertise within an existing university or research institution within the country to adapt existing curriculum on NRV to provide in depth training to prospective practitioners and introduction to the application of NRV to decision-makers.

43 In particular, under this Output, the GEF increment will support the following key activities:

- 1.3.1 **Review adequacy, availability, standardization and use (usability and capacity to use) of spatial information for informed decision-making and adaptive management;**
- 1.3.2 **Review of existing biodiversity, land degradation, invasive species and threat monitoring methods, information use and capacities** across the relevant entities to assess usefulness of data and information collection methods. The review will also address constraints and weaknesses in data collection, sharing and management and opportunities for filling gaps in baseline information and measures for improving the quality of data collection. The review will also seek to identify means for verification, reporting and

³⁷ Note that the Forestry Policy is currently under review

³⁸ New EIA regulations are currently in draft.

analysis of information to enhance protocols for data management and protection of sensitive biological information;

- 1.3.3 **Based on the review above, support the improvement of Information and Communication Technology (ICT) capacities** in NEPA, Forestry Department, Institute of Jamaica and other relevant agencies for improved information collection and management;
- 1.3.4 **Development of guidelines and standards for information collection on biodiversity, threats, species, species and ecosystem change detection and surveillance and monitoring;**
- 1.3.5 **Training and skills development** of staff of relevant agencies at national and parish levels, e.g. Municipal Corporations, Parish Development Committees and Local Forest Management Committees) for effective data collection, verification, monitoring and management, and benefits of landscape planning; and
- 1.3.6 **Supporting economic evaluation of biodiversity and ecosystem goods and services (including assessment of economic losses from mining and other environmental destructive practices) in Stephney John's Vale Forest Reserve as a pilot and model for decision-making** and the integration of such economic evaluation capacity and skills within the Forestry Department and potentially a local research institution or university. This will include a baseline assessment of the ecology of Stephney-John's Vale, development of a suitable approach to Natural Resource Valuation (NRV) that can be applied to Forest Reserves, basic training for at least six Forestry Department staff in application of the method, development of an NRV for Stephney-John's Vale and training for planning staff in the agencies and Municipal Corporations in the principles and application of NRV.

Output 1.4: Biodiversity conservation and integrated gender sensitive landscape planning and management capacities strengthened at national, parish and local levels

44 Output 1.4 will help build capacity of the key stakeholders, including staff of the respective forestry, environment, agriculture, parish and other relevant agencies, CSOs and local communities to implement existing and new environmental regulations, land use and spatial planning tools, environmental guidelines and practices to mainstream biodiversity and ecosystem services into decision making tools and planning processes. For protected area and Forestry Department staff, training would focus on tools and methods for identification of biodiversity and ecological sensitive sites, zoning considerations, economic evaluation methodology and tools, and evaluation of effectiveness of sustainable forest and land management approaches. Such training will also focus on interpretation and application of laws related to protected area and forest management, surveillance and monitoring techniques, environmental (or biodiversity) impact assessments, techniques for monitoring land and forest degradation, etc. Training programs and curricula will be developed with, and integrated into regular training programs of key agencies and institutions. After the training programs are implemented, the key stakeholders would participate in the design, implementation and participatory planning and monitoring of landscape conservation and management plans, implementation of sustainable land, forestry and agriculture development programs, etc. In particular, this Output will support the following activities:

- 1.4.1 **Capacity needs assessment** to assess requirements in key national agencies and at the parish level to inform specific training and skill requirements (including appropriate institutions for undertaking such training as a long-term strategy to build in-country capacities) for mainstreaming of biodiversity, ecosystem services and gender in sectoral and national and parish level planning and management;
- 1.4.2 **Analysis of specific institutional development requirements for key agencies** (environment, forestry and agriculture, local government, NGOs and CBOs) for mainstreaming of biodiversity and ecosystem services into their respective plans and programs, tools and techniques (including those to be developed under Outputs 1.2 and 1.3) and other specific resource needs;
- 1.4.3 **Identification of specific arrangements (e.g. field learning schools) at the Parish level in the pilot landscape** for improvement of skills and capacity for undertaking training of community members, in particular for implementation of sustainable land, forest and agricultural practices, sustainable livelihood practices and value addition, community biological monitoring, etc.;

- 1.4.4 **Provision of short-term training programs for key national and parish staff** identified through the capacity needs assessment exercise; and
- 1.4.5 **Provision of support for capacity building and methodologies for baseline assessment** to enhance biodiversity management and the development and testing of new approaches for monitoring.

Output 1.5: Financial sustainability strategies developed and operationalized to sustain integrated landscape management approaches

45 A financial sustainability strategy will be formulated in the second half of the project based on lessons learned at the field level that will ensure that the integrated land use planning approach and landscape management models developed and tested in the project landscape will be sustained and scaled up within the landscape and elsewhere in the country. This Output would support the analysis of the viability of a range of financial instruments, including existing and new innovative mechanisms for sustaining and delivering tangible improvements in biodiversity and natural resources outcomes, in particular to local communities. It would also evaluate feasibility of the design and implementation of a voluntary certification scheme for tour operators and tourism businesses and establishment of a system of penalties for malfeasance in the tourism sector. The project will develop and support protocols/training for implementation of certification scheme and carrying out the enforcement of penalties. The financial sustainability strategy will provide a basis for identifying appropriate financial instrument, identify institutional and coordination arrangements for promotion of these instruments, resources and partnership commitments (including with NGOs, banking and private sector institutions) to encourage investments in biological friendly economic development activities (in tourism, production sectors of agriculture and forest, local and international markets, etc.). Potentially viable financial mechanisms will be piloted and tested in Cockpit Country before these are expanded elsewhere.

46 Under this Output, the project will support the following activities:

- 1.5.1 **Analysis of financial instruments** that are available that can be used the promotion of biodiversity-friendly practices in tourism, production and value added agriculture, climate smart investments in agriculture and productive natural resources sectors, etc.
- 1.5.2 **Evaluate potential for design of a biodiversity-friendly tourism certification program and its piloting** for community managed facilities and services, to be trialed initially in the Cockpit County;
- 1.5.3 Promotion of **selected tourism products and services** that recognize biodiversity-friendly conservation principles (e.g. trails and hikes, guide services, homestays, etc.) in the Cockpit County area;
- 1.5.4 Development of a **financial sustainability and scaling up strategy and plan** (based on good practices and lessons learned from the Project and regional and international initiatives) for biodiversity-friendly business ventures, including resources requirements, partners and coordination arrangements; and
- 1.5.5 End-of-project seminars on financial mechanisms on best practices, experiences and needs **for biodiversity conservation and economic activities within biological landscapes**; and
- 1.5.6 Preparation of a **UNESCO nomination dossier** for the Cockpit Country landscape.

Component 2: Application of Integrated Landscape Planning and Management in Key Biodiversity Areas

Total Cost: US\$28,506,600; GEF project grant requested: US\$3,485,900; Co-financing: US\$25,020,100

Outcome 2: Integrated landscape level planning and management of biologically rich ecosystems through conservation and sustainable community and private sector use

Baseline conditions for this outcome (without GEF project):

- 47 As land-use planning would continue largely with limited consideration of ecosystem values and biodiversity, this would lead to further forest and natural resource degradation, with a concomitant loss of high conservation value forests and critical ecosystems within and outside of protected areas. Sectoral approaches that prevail in terms of land use decision-making in the forest, agriculture, tourism and other sectors will be likely continue to require support to adequately incorporate biodiversity, ecosystem services and landscape considerations. National policies and national and parish planning systems will pay less than the necessary attention to support land use optimization to sustain resource resilience and biodiversity, gender and ecosystem services considerations. Enforcement capacities to ensure compliance with ecological standards in land use and reduction of high levels of trespassing in use of forests will remain limited. Decision-support tools such as Development Orders will continue to need strengthening to provide the effective planning framework needed to ensure long-term sustainability of ecosystem services and biodiversity and to secure forest-based livelihoods.
- 48 The 86,000 hectares within the project biological landscape (the area proposed to be protected in the Cockpit Country and the Stephney John's Vale Forest Reserve) will likely continue to be managed with little consideration of the extensive natural habitats beyond its boundaries and the threats that emanate from outside its boundaries. Consequently, the closed broadleaf forests and other natural habitats within the proposed area to be protected within the Cockpit Country and Stephney John's Vale Forest Reserve will continue to likely be managed as "islands" and threats from surrounding areas will likely continue to increase. This would further undermine the conservation values of these biologically rich areas and increase fragmentation of such habitats. Designation of new and effective conservation measures will likely be slow to materialize and might come too late to enable effective conservation. There will also likely be insufficient resources and capacity to properly manage the areas even after declaration of the proposed protected area.
- 49 Given the limitedness of financial resources, in the absence of the GEF project, there will be slow progress in developing sustainable land, forestry and agricultural management practices and alternative livelihoods within the target clusters resulting in continued unsustainable farming systems, unsustainable production and consumption of non-timber forests products (including medicinal and oriental plants and wild animals for trade and domestic consumption) and other forms of resource extraction. Markets for agricultural, forest and tourism products will continue to be poorly developed thereby acting as a constraint for improving the lives and livelihoods of local communities. In addition, business approaches and opportunities to enhance and mobilize funds (tourism, sustainable harvesting, production of local crafts, etc.) will be largely limited. Consequently, local communities within the target clusters will continue to depend on natural resources, resulting in further degradation of biological habitats and severing connectivity between these important biological habitats. Key biodiversity species and ecosystems will face intense pressures and threats, with likely reductions in fauna and flora diversity and species population sizes, thereby threatening the survival of these species over their overall biological range.

Alternative for this outcome (with GEF project):

- 50 Under this outcome, the GEF increment will support the improved management of least 86,000 hectares of biologically important areas within the pilot landscape, through improved protected area management, regeneration of disturbed critical habitats using ecologically sensitive assisted natural regeneration methods and improved agriculture and livelihood practices. Additionally, the project would support biodiversity-friendly enterprise developments for communities and private sector with the intent of providing incentives for local communities to conserve their biodiversity and natural resource base. The project will also train and equip forest and environment staff, CSOs and local community organizations for monitoring and enforcement to reduce violations and wildlife crime. Overall, the aim of this cross-training and co-involvement between forest and environment staff and community organizations/local communities, largely through community based management agreements is to improve efforts to conserve their biodiversity and natural resources base. These improved efforts will not only be within the target clusters, but will also be for coordination and integration across the larger landscape and within the interface zones spanning the biological landscape and adjacent human-induced production areas. The project will provide an opportunity to monitor progress in implementation of METT (Management Effectiveness Tracking Tool) in order to evaluate the efficiency of management efforts.

- 51 In addition, the GEF increment will support improvement and diversification of rural livelihoods as a means to strengthen agricultural and non-agricultural based incomes. The community-based models proposed are aimed at (i) ensuring sustainable land management practices; (ii) improving biodiversity friendly livelihood and business management practices; (iii) improved productivity of degraded agricultural lands; (iv) providing financial and other incentives to encourage investments and enterprises that avoid biodiversity loss; and (v) increased engagement of the community in land use decision-making, enforcement and monitoring. These activities will be implemented through existing community institutions, to the extent relevant. About 12,000 persons would benefit directly from project investments (improved agriculture and livelihoods, value addition and income from non-agricultural related investments) within the 6 target clusters. Indirect beneficiaries would be around 21,000 persons who would benefit from improved conservation, watershed management and ecosystem services generated through project interventions in PA management, forest conservation and restoration and mainstreaming of biodiversity conservation and natural resources management in parish and local planning systems.
- 52 Following the development of an integrated management framework for the landscape, the project will support the mainstreaming of biodiversity conservation aspects into national, sector, parish and local level planning through a variety of measures including increased awareness of the importance of planning at all levels, development of a management plan for the proposed Cockpit Country (including land use and connectivity plans, cluster plans and the integration of their outputs into decision-support tools such as Development Orders). These plans will, *inter alia*: (a) identify high biodiversity areas within the project area to receive specific conservation focus; (b) identify gaps and measures to enhance management effectiveness of Protected Areas (PAs); and (c) prescribe appropriate land uses and forest management measures in production landscapes thus avoiding, reducing and mitigating the impacts to biodiversity. This outcome will be achieved through the following five outputs, which will contribute to achieving the overall goal of expansion and improved management of biological habitats within the pilot landscape.

Output 2.1 Integrated landscape strategy incorporating biodiversity, ecosystems services, climate adaptation, high conservation value forests, and community-based sustainable resource use developed and , implemented

- 53 This Output will focus on site specific actions to develop and implement an integrated approach to landscape management incorporating outputs of decision making tools (Component 1) that will integrate ecosystem, biodiversity and gender considerations. This Output will support the elaboration of an integrated landscape strategy or framework agreement for the pilot landscape to ensure the connectivity of biodiversity and key forested areas in the mixed-use productive landscape within the project landscape. This will be achieved by building capacity to plan, develop and implement landscape level planning using biodiversity compatible, climate resilient and sustainable forest and land management (including agriculture) and livelihood practices. A participatory landscape planning process will be established that complements existing planning processes (Annex 7). The landscape strategy will be elaborated, shared and adopted through a participatory approach, involving key players (national, parish and local entities, resource owners and users, NGOs, civil society, local communities, private sector, etc.), under the supervision of the JWG (Output 1.1). The integrated landscape strategy will provide the basic framework agreement among the key stakeholders that operate in the landscape for determining expected and agreed outcomes for the landscape. The framework agreement will facilitate the subsequent negotiation and development of harmonized Cockpit Country Protected Area management plan, target cluster development plans and community investments in the target clusters. The framework agreement will also guide sector level and Parish Level Sustainable Development Planning that would be supported with dedicated inter-sectoral landscape coordination platform in place.
- 54 This Output will be achieved through the following actions:

- 2.1.1 Assessment and Participatory Mapping** (using available information that is supplemented satellite imagery and by field verification) of biological, socio-economic, environmental and institutional aspects to facilitate assessment of biodiversity and ecosystem services values and threats, identification/validation of conservation values, extent and location of land, forest agricultural land

degradation, areas for enhancing biological connectivity and baseline surveys necessary to assess distribution, status and ecology of key species etc.;

- 2.1.2 Based on the mapping exercise, **official recognition of the pilot landscape area, internal zoning** needs highlighting biodiversity priorities, new and additional protection areas or set-asides for non-exhaustive or sustainable local use to improve connectivity and biodiversity conservation, multiple use zones for sustainable natural resource use. It would also identify disturbed forest areas for assisted natural regeneration to improve connectivity, degraded agricultural lands for productivity improvements and SLM, opportunities for sustainable biodiversity-friendly community livelihood development and areas for intensive community resource use and environmentally-friendly tourism. Mapping will help identify and prioritize: (i) biologically sensitive areas for conservation of biodiversity, in particular for endangered and endemic species and their habitats and their dispersal and/or connectivity corridors, vulnerable interface areas (with human settlements) and other important ecological sites; (ii) areas for sustainable community natural resources management and use, including sustainable harvesting and extraction, community based conservation and forest management, watershed conservation and climate risk management; (iii) degraded areas for community forest restoration and fire management; and (vi) areas for sustainable agricultural development and improvement and livelihood improvement;
- 2.1.3 **Integrated Landscape Framework Agreement for project landscape** (that entails a multi-sectoral shared vision for zoning of the landscape, actions for mainstreaming biodiversity conservation into parish and local and sectoral plans/policies, sustainable land and forest use, etc.), developed and formally adopted by all relevant entities through Development Orders as well defining partnership arrangements with Maroon communities, NGOs, community groups, private sector and parish entities with the aim of building a truly coordinated and collaborative effort for conservation of biological diversity and ecological habitats in the pilot landscape;
- 2.1.4 **Support Parish level decisions on mainstreaming biodiversity** considerations into the respective development planning systems (based and/or informed by policies/regulations/guidelines developed under Outputs 1.2 and 1.3) developed and adopted;
- 2.1.5 **Capacity building to facilitate mainstreaming of gender responsive biodiversity conservation** in key sectors (e.g. tourism, forestry, agriculture, mining and natural resource use) and parish and local development planning in the Cockpit Country;
- 2.1.6 Provide analysis and recommendations for enabling **application of biodiversity considerations in the EIA process** (based on guidance developed under Output 1.3) and its enforcement for all socio-economic and infrastructure development in the landscape; and
- 2.1.7 **Identification and validation of prioritized target cluster areas** within the landscape to demonstrate sustainable integration of biodiversity conservation into economic activities including forest and land management, agricultural development investments, etc.

55 The biodiversity surveys, mapping and landscape planning exercise will provide the tools to inform on-the-ground actions at the landscape level to support biodiversity conservation within the five main sectors (forestry, agriculture, mining, tourism and natural resource use). The project will fund on-the-ground investments in best practices and alternate livelihood activities within these target clusters.

56 The six target clusters within the project landscape for intensive project investment were selected based on the following criteria (refer Annex 17 for details of the clusters):

- Extent of coverage of high biodiversity areas that are defined as areas that represent a suite of vulnerable, endangered and rare species and habitats (based on species irreplaceability, habitat connectivity, ecological permanence and having representative bio-indicators).
- Sites where there exist clear and present dangers, including land-use changes and land-use conflicts;
- Sites where there is demonstration potential in terms of conflict reduction, enabling policy environment, political and social support, socio-cultural considerations and potential for trade-offs.

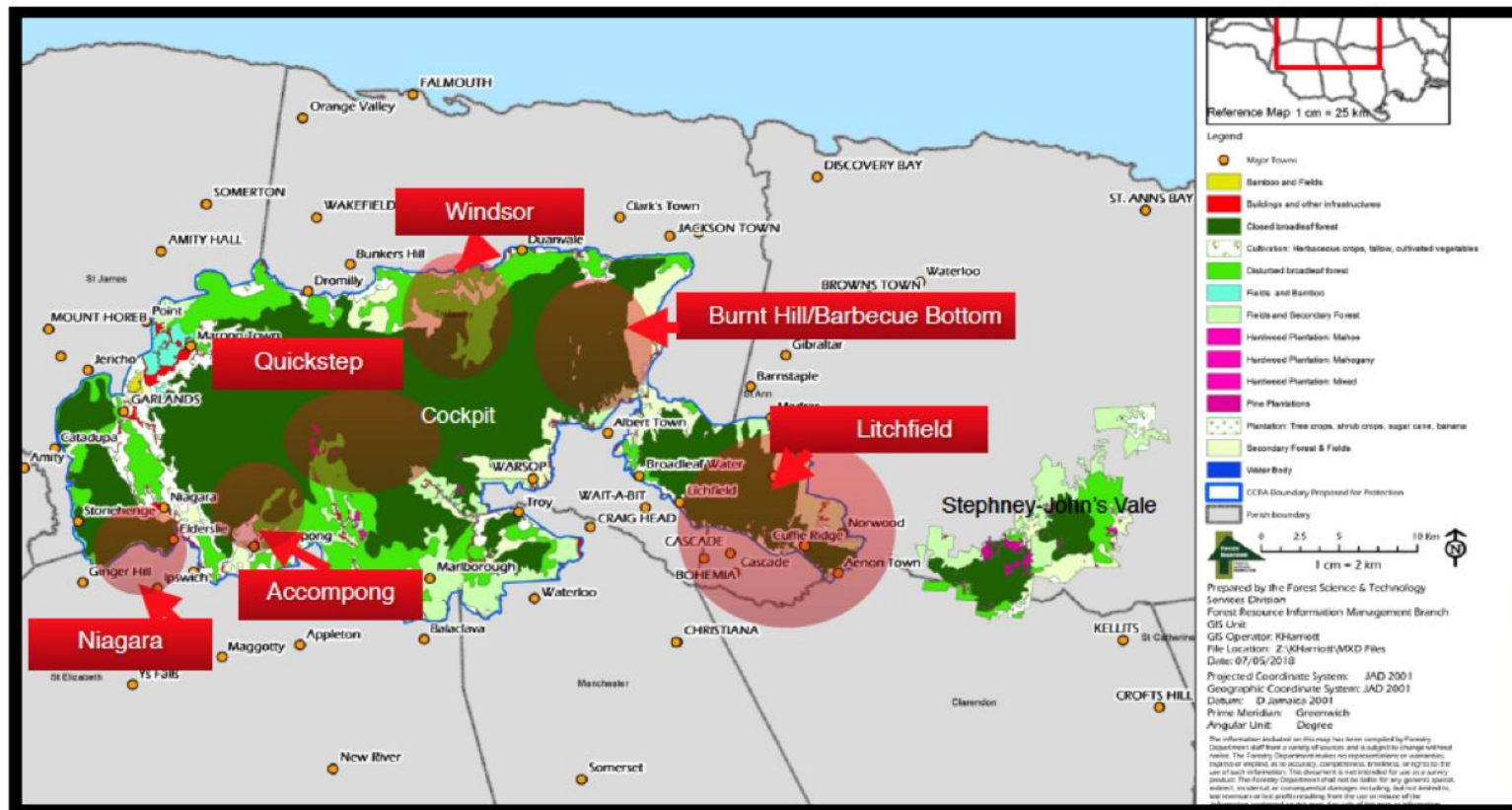


Figure 4: Map of Target Clusters

Output 2.2: Improved management effectiveness of proposed Cockpit Country Protected Area

- 57 This Output will facilitate the management of the area proposed for protection in the Cockpit Country. In particular, the project will provide technical and material support the effective management of this area to ensure long-term conservation objectives and to apply new more inclusive management approaches. In this way, the project aims to fill gaps in current PA management approaches in the country to encompass a more participatory and transparent process for gender sensitive planning and management processes. In addition, the project will provide some incremental support in terms of field and communication equipment; facilitate the establishment of a PA governance structure that will adequately ensure the participation of all relevant stakeholders, particularly the local Maroon population and other inhabitants in its planning, management and implementation. It will also enhance sustainable natural resource management and benefit sharing approaches through environmentally compatible natural resources use, ecotourism and sustainable livelihood opportunities. Feasibility analysis for conservation agreements will be carried out.
- 58 In facilitating the development of the management plan for Cockpit Country area, the project will pay specific attention in ensuring that there is free, open and transparent communication of the expectations and outcomes from the establishment of the PA and support a bottom-up planning process that seeks to address the values and aspirations of the local communities in the planning and management of the PA. It would also ensure that any restrictions of resource use in not induced by the government entities, but defined through a mutual participatory consensus building process amongst the communities, and that such restrictions are compensated by adequate alternative livelihood measures. It will also support the development and implementation of monitoring framework to assess status of key species especially Cockpit Country endemics and globally threatened species, including some or all of the following species: (i) Butterflies: Giant Swallow-Tailed butterfly (*Pterourus homerus*) and Panton's Fritillary butterfly (*Atlantea pantomi*); (ii) Parrots: Black-billed (*Amazona agilis*) and Yellow-billed (*Amazona collaria*); (iii) Columbids: White-crowned Pigeon (*Patagioenas leucocephala*), Ring-tailed Pigeon (*P. caribea*) and Plain Pigeon (*P. inornata*); (iv) bats; (v) endemic frogs; (vi) endemic plants; (vii) fresh water species, etc. Annex 9 provides an outline of processes for planning and management of the protected area.
- 59 Specific outputs of this Output will be the following:
- 2.2.1 **Support national decision** on management responsibility, legal framework and funding for core activities within Cockpit Country Protected Area;
 - 2.2.2 Undertake an assessment and consultations for **improved management of private lands within the protected area and associated conservation corridors** and rules and guidelines for its implementation;
 - 2.2.3 Support the **preparation of a participatory management plan, defined zoning and management prescriptions** for the Cockpit Country Protected Area that is fully reviewed and agreed with all stakeholders that seeks to conserve biodiversity, enhance gender equity and equality, while seeking to minimize impacts of access restriction on local communities;
 - 2.2.4 Support for **completion of an in-depth ecological and resource use inventory**,³⁹ including analysis of forest cover changes of the proposed protected area and red listing of at least two groups of plants;
 - 2.2.5 Providing **training and skills development** for Forestry Department and Environment Department staff to improve communication, consultation, planning, management, gender mainstreaming and monitoring of the protected area;
 - 2.2.6 Provide **support for development and implementation of monitoring framework to assess key species population and habitat changes and provide essential field and monitoring equipment** for PA management;

³⁹ Note that this builds on the works started for the land use zoning.

- 2.2.7 Support the development of a communication strategy for facilitating community and stakeholder participation in effective management and protection of the protected area; and
- 2.2.8 **Monitor management effectiveness** of the PA on a regular basis ensuring independence in such monitoring efforts.

Output 2.3: *Ecological restoration of degraded and fragmented areas to enhance biodiversity, ecosystem services and forest connectivity developed, tested and implemented.*

60 Within the selected target clusters, the GEF increment will support activities within a broader range of potential investments for conservation and ecological restoration of habitats to enhance biological diversity and improve connectivity. Under this Output, restoration efforts will particularly focus on sustainable forest management, restoration of disturbed broad leaf forests, eradication of invasive species and rehabilitation of degraded areas, including those areas of privately owned lands. Consistent with the overall vision of the project, the intent of forest restoration/rehabilitation activities in this project is to promote biodiversity friendly forest restoration activities as well as improve ecological integrity and connectivity in the biological landscape. This objective will be achieved by conducting forest restoration activities particularly in disturbed areas that are adjacent or close to the high conservation value forests and areas where forest connectivity needs to be maintained. In conducting forest restoration, the project will largely make use of native species. In general, the forest restoration strategies adopted will be guided by the following principles:

- **Priority sites to be restored are in or close to, or those that could adversely affect connectivity** within the identified target clusters,
- Ensure that forest restoration and rehabilitation activities at the site level **fits within the overall environmental, social and economic objectives at the landscape level;**
- Activities and restoration initiatives are identified **through an ecological assessment and informed participatory process** involving key stakeholders.
- Activities that will **provide a wide range of ecosystem goods and services**, including biodiversity and ecosystem benefits, connectivity, land cover, non-timber forest products and ecotourism,
- Activities **will offer multiple local benefits and/or improve rural livelihoods (e.g. use of species that can have economic value to the stakeholders** like fruits or other valuable species, where suitable), particular on community or private lands;
- Planting of selective **native and adaptive species;** and
- Be supported by **community management and monitoring** efforts.

61 The project would explore different forest restoration strategies and identify the most effective approach, giving due considerations to the general principles listed above (refer Annex 10 for specific approaches for management of disturbed broadleaf forests). This would largely include passive approaches (e.g. assisted natural regeneration) rather than costly reforestation. The primary consideration in pursuing forest restoration/rehabilitation activities is foremost to ensure that the disturbed forest ecosystems within the adjacent areas of key biodiversity and protection forest areas can 'recover' from disturbances and provide their ecological protective functions and enhance connectivity. In particular restoration activities will be targeted at the following:

- Range of **other effective conservation measures** to accord improved connectivity (through forest restoration and biodiversity compatible production systems) within the project landscape;
- **Sustainable forest management (Assisted Natural Regeneration or ANR) approaches for restoration of disturbed broad leaf forests** in priority clusters defined by the National Forest Management and

Conservation Plan ⁴⁰ and outputs from this project within the Cockpit County covering 400 hectares using a range of native species;

- **Promotion of privately managed protected areas**, including micro-reserves through development of an integrated system of promotion, technical and financial support and provision of incentives for conservation of forested areas and restoration with native species to strengthen connectivity, protect endemic species and enhance ecosystem services;
- **Promotion of sustainable management of degraded riparian areas and steep slopes to improve ecosystem functions**; and
- **Restoration of 200 hectares of degraded lands, including mined out areas** in areas adjacent to the proposed CCPA (that would include options for agriculture and agroforestry) as a pilot to test biologically compatible ecological restoration and production systems that can benefit local communities. The financing of the restoration of mining areas would be sought through co-financing from private sector (mining companies) and/or government budgetary support.

62 Forest restoration will be implemented following a sequence of steps described below:

- 2.3.1 **Identification of priority areas for recovery measures:** The landscape mapping exercise (Output 2.1) will identify key priority areas for restoration (including degraded riparian areas and steep slopes) based on the following criteria: (i) disturbed forest areas either within or adjacent to biodiversity rich areas; (ii) areas that can provide significant biodiversity conservation benefits and enhance connectivity; and (iii) areas that have potential for recovery based on soil conditions, level of disturbance and ecosystem functions; (iv) availability of seedlings; and (v) community support for restoration.
- 2.3.2 **Identify the key drivers of both forest degradation and ecosystem restoration**, and explore and test different restoration and incentive options appropriate for the disturbed broadleaf areas, riparian areas and steep slopes to improve ecosystems services and biological connectivity;
- 2.3.3 With direct and active participation of stakeholders, **develop restoration/rehabilitation management guidelines and prescriptions**. This should involve agreement on shared goals and responsibilities of forest restoration (including agro-forestry) as well as to optimize the conservation and sustainable livelihood benefits of forest restoration.
- 2.3.4 **Stakeholder consultations and participation in forest restoration**, including for the establishment and maintenance of a suitable mix of protection and other sustainable conservation (including agroforestry) and maintenance measures such as social fencing to reduce grazing, choice of species, silvicultural techniques, wood collection and sustainable NTFP extraction; fire control, etc.;
- 2.3.5 **Supporting various arrangements, in particular with local forest management committees and NGOs** that may include certificates of stewardship contracts, community based forest management or conservation agreements. The support will include the identification of stakeholders needs and institutional strengthening of established arrangements and structures;
- 2.3.6 Support development and **implementation of maintenance and monitoring plan**;
- 2.3.7 **Development of evaluation tool and its application for monitoring forest restoration progress and impacts**, including in partnership with local forest management committees for assessment of biological, ecological and economic benefits; and
- 2.3.8 Investigation of potential for **collaboration** in forest restoration through complementary national, parish and private owner initiatives including testing of a new approach and incentives to management of conservation on privately owned closed broadleaf forests based on ecological assessment, management planning and technical support.

⁴⁰ Forestry Department. 2017. Draft Jamaica: National Forest Management and Conservation Plan. Forestry Department, Kingston, Jamaica.

Output 2.4: Sustainable community based sustainable land management, sustainable agriculture, sustainable livelihood, responsible tourism and business enterprise solutions developed, tested and implemented.

63 Based on the site-specific participatory community consultative and planning framework for target clusters (Annex 8), the GEF increment will support activities in each cluster area within a broader range of potential investments for improving community livelihoods and benefits through improved agricultural and land management practices, biodiversity-friendly livelihood and business enterprise development programs, to diversify incomes and improve farm and non-farm productivity. Annex 11 provides specific procedures for SLM and restoration of degraded lands. The expected outcome of this output will be the formalization and implementation of at least 6 target cluster plans. The project will provide technical assistance, training and support implementation of the target cluster plans. Through the implementation of the 6 target cluster plans, the project intends to improve the sustainable management of a total of 2,500 ha of degraded agricultural lands.

64 As the project envisages a fully participatory process, project investments are not defined at this juncture (although Annex 18 provides a menu of conservation, sustainable resource use, livelihood and small business development options), but would evolve during the participatory target cluster planning process so that project investments are defined by community needs and priorities. This would include support for: (a) management of conservation areas; (b) community-based biodiversity-friendly land management interventions; (c) biodiversity-friendly livelihood and small business enterprises, and (d) community based agricultural improvement and farming systems.

65 Under this Output, the project will support a two-phased approach to resource use and livelihood improvement, that builds and influences each other: (i) establishment of SLM, SFM and Agricultural Development (AD) demonstrations (Refer Annex 18 for potential demonstration actions and their proposed cluster locations); and (ii) based on the demonstration activities provide incentive mechanisms for uptake of successful SLM, SFM and AD best practices in all clusters, as relevant. Both demonstration and promotion will focus on the following key activities:

- 2.4.1 **Promotion of biodiversity friendly sustainable land management, agro-forestry and climate resilient agriculture**, including adaptive agricultural practices for short-term crops, multiple story (agroforestry and inter-cropping approaches); organic fertilizer use and IPM, living yam sticks and other innovative ways of staking yams, vanilla, water and soil conservation and climate resilient crops and cropping techniques. These sustainable agriculture and land management activities will contribute to soil nutrient management activities, tillage and residue management, agronomic practices, agroforestry practices, soil and water management, and. restoration and rehabilitation of degraded lands and supporting alternatives to the destructive use of wood and bamboo sticks in yam production;
- 2.4.2 **Drought mitigation** through improved water conservation and management, improved water harvesting techniques (solar pumps, gravity flows and drip irrigation), improved drainage and water storage, slope agricultural land technology (SALT), the introduction of drought stress tolerant improved crop varieties etc.;
- 2.4.3 **Promotion of alternatives to slash and burn agriculture** for soil fertility improvements, forest fire prevention and suppression, outreach and demonstration and policy incentives;
- 2.4.4 **Support for special programs for women** and introducing appropriate tools and technologies to support their participation and expansion in agriculture (e.g. basic tools to improve land preparation).
- 2.4.5 **Promotion of micro and small business enterprises**, including for women, youth and the Maroon community. The project would provide support through feasibility studies, technical assistance, extension, marketing and demonstration that can have potential for scaling up and replication;
- 2.4.6 **Selection of economically viable culturally acceptable enterprise and value chain products and services based on a value chain analysis**. The value chain analysis will require, the mapping of (i) the market potential of the product/service, (ii) the customer requirements and (iii) the challenges faced by marketers/customers, and viability, including cost/benefit analysis. The objective of this is to identify value chains where rural producers and service providers have a competitive advantage and

can establish sustainable livelihoods. Based on the value chain analysis, interventions will be designed and supported under the project that could include agricultural and non-agricultural products, ecotourism and small business enterprise solutions. Project interventions will be designed to complement and enhance ongoing interventions by other stakeholders such as the government, other donor agencies, etc.

- 2.4.7 **Implementation of project interventions for value chain promotion** would require: (i) capacity building of stakeholders in the value chain, training and skill development to producers and service providers to help understand customer requirements, increase productivity, learn necessary business skills and other specific needs as per the value chain, including developing new products and services. Systems and processes will be developed to capture adequate data and monitor the functioning of the value chain; (ii) support community based producer organization and management; (iii) collaborate with national, parish and private sector institutions to provide producers and service providers with both technical and infrastructure (small processing, storage and marketing facilities); (iv) seek opportunities for branding and marketing that will allow producers and service providers to gain maximum value for their goods and services; (v) assess the feasibility and commercialization of specific products as they relate to the application of modern and appropriate technologies in aquaponics, hydroponics, greenhouses, improved management systems (beekeeping, small ruminants), and value addition (herbal and spice industry and dasheen production and marketing); and (vi) Geographical indications (GI) registration to the extent relevant; and

- 2.4.8 **Community based activities to address threats to forests and biodiversity posed by invasive species.** This will require (i) an assessment of the scale and impacts of threats posed by invasive alien species of plants in selected areas (especially Burnt Hill/Barbecue Bottom road); (ii) identification and testing of evidence-based techniques for IAS eradication; and (iii) use of community labor to eradicate selected species in selected areas. This could be a significant source of employment in some areas.

66 Following the successful demonstration of SFM, SLM and sustainable agricultural development (AD) activities, the promotion and uptake of such best practices at the community level in all clusters would be defined through a consultative and participatory process that ensures that community needs and priorities are recognized based on the principles of free, prior and informed consent (FPIC) and will ensure that they actively participate and benefit from these activities. Promotion of women and disadvantaged group participation, including the Maroons in project decision-making and activities are defined in the Gender Assessment and mainstreaming Action Plan (Annex 5) and Social and Environmental Screening Procedures or SESP (Annex 3). The project will provide technical and extension and grant financing for the promotion and uptake of SLM, SFM and AD practices through the community cluster planning process. Grant financing would be performance-based and designed by ensuring transparency and extensive consultations with local entities and other relevant stakeholders. It will be well coordinated and promoted through effective technical support, NGO oversight, regular review of implementation arrangements and the use of monitoring and evaluation information to adjust and refine the system in consultation with the stakeholders (Refer Annex 8 for criteria regarding micro-grants for cluster conservation plan activities). Grants will be a typical cash for work payments based on the following principles: (i) competitive assessment to select community institutions/beneficiaries; (ii) selection of beneficiaries in accordance with transparent criteria (to be defined early in the project); (iii) upfront payment (percentage of payment to be defined in consultation with stakeholders); and (iv) balance payment on successful completion and verification of work. Measures will be put in place to address disincentives to community members for engaging in such work, such as payment by check and delayed payments. The Output is expected to enhance incomes of local communities from alternative livelihood activities to supplement their existing income through activities that are more attractive than unsustainable or illegal ones. Based on initial assessment of target cluster plan options during the project preparation phase, a menu of possible investments and alternative options is presented in Annex 18. While, the target cluster plan investments will be supported under the project, complementary financing will be also sought through parish, local, sector and NGO programs to ensure broader financial support and long-term commitment to improving the economic well-being and quality of life of local communities. The convergence of government resources to support biological landscape activities will be sought through the support of Parish and sector entities and by co-opting parish, local and agency staff into Target Cluster Planning and Implementation efforts.

67 In addition, the project will evaluate the feasibility of establishment of revolving funds at the community-level or cluster-level that will help to financially sustain and expand investments beyond the project period (refer Section V iv “Sustainability and scaling up” for discussion of suggestions for capitalization of such funds). The project will support improving the capacity of local communities to manage such revolving funds, meet financial reporting requirements and be accountable for effective management of such funds. The project will also facilitate linkages with rural banks and microfinance institutions, to the extent feasible and desirable by the communities.

Output 2.5: Capacities for development, implementation and management of productive systems and sustainable land management strengthened for biodiversity friendly production practices that reduce land degradation and for the effective transfer of knowledge

68 The project will develop the integrated landscape framework for the biological landscape (Output 2.1) and the preparation of enabling guidelines, best practices and protocols for integration of gender and biodiversity conservation into sector and local plans and programs and parish and local planning and management systems. However, institutionalization of the objectives of integrated landscape frameworks and the mainstreaming of biodiversity considerations into the relevant sector and local plans, budgets and monitoring systems requires the adoption of planning guidelines, convergence of planning systems, integration with other sustainable area based initiatives, capacity building, technical assistance and adjustment of current practices in relation to planning and budgeting.

69 The project will target this effort in particular, in those parishes that are located within the biological landscape, through involvement of parish and local sector staff in the integrated landscape planning exercise, in the elaboration of target cluster plans, in the oversight and implementation of activities defined under the respective target cluster plans and in monitoring progress, impacts and best practices.

70 In particular, this Output will support the following indicative activities:

- 2.5.1 **Undertaking assessment** to define extent to which current sector, parish and local community planning systems integrate biodiversity and gender to identify barriers and gaps and entry points for improving integration;
- 2.5.2 **Develop criteria** to help municipal corporations make strategic choices in options for integration of biodiversity considerations into their planning and budgeting processes;
- 2.5.3 **Develop screening processes, tools, guidelines and protocols** for integration of biodiversity conservation outcomes, enhancing habitat connectivity and management of threats into parish, sector and community planning systems;
- 2.5.4 **Develop specific business cases** for biodiversity, with its inherent economic and social outcomes, to demonstrate value of integration;
- 2.5.5 **Participation of regional, parish and sector staff in target cluster planning, management and monitoring;**
- 2.5.6 **Capacity building of regional, parish and sector** staff in the use of tools and practices for biodiversity and gender mainstreaming; and
- 2.5.7 **Preparing a Local Planning Tool** – A guide to the preparation of local planning strategies in biological landscapes

71 Overall, the capacity building efforts will focus on the following: (i) Integrated training modules for extension officers based on capacity needs assessment, to encourage sustainable land, forest and agricultural management practices to be institutionalized within tertiary educational institutions; (ii) Integrated training and extension modules for producers (100 community members targeted), focusing on biodiversity, gender and land-compatible production practices; and (iii) Integrated training (linked to Output 2.4) for local community organizations, CSOs and Maroons to implement biodiversity compatible and environmentally sensitive resource use management practices. This will be carried out through: (i) Field based demonstrations (4 model farms) serving as regional learning centers for adaptive production techniques and business models for replication; (ii)

Community level nurseries (3) with protective structures (shade houses) for climate resilient crops, irrigation/water management/production techniques; (iii) Demonstration sites for SLM techniques (at minimum 6) for native tree propagation, mixed strata agroforestry, irrigation, SLM, and (iv) demonstration sites for eradication of IAS. Where appropriate, training will support Maroon land use traditions into local and parish level planning initiatives and land use practices ensuring Maroon support. Training modules and capacity development initiatives will be institutionalized (tertiary institutions, training institutes, etc.) so as to support institutional and private sector capacity and enhance future replicability and scale up.

Component 3: Knowledge management, gender mainstreaming and monitoring and evaluation

Total Cost: US\$3,860,433; GEF project grant requested: US\$659,733; Co-financing: US\$3,200,700

Outcome 3: Knowledge management and monitoring and evaluation support and contribute to equitable gender benefits and increased awareness of biodiversity conservation

Baseline conditions for this outcome (without GEF project):

72 Some inequities exist in terms of gaps in information sharing, knowledge, and attitudes amongst women and other disadvantaged groups. Considerations on gender and biodiversity that require examining the influence of gender roles and gender relations on the access and attitudes to use, management and conservation of biodiversity by men and women are needed. Without this project, gender inequality in relation to access to resources, including time; differences in impacts that men experience in relation to agriculture and impacts of climate and disaster risks; differences in relation to knowledge at the institutional and ground level regarding biodiversity would persist. Traditional knowledge if it persists, will likely continue to be unappreciated, only partly documented and segregated by gender. While there are some on-going efforts at sharing knowledge using public media and other social networks, this is likely to continue to advance at its own slow pace. Knowledge and understanding of the relationship between biodiversity conservation, protected areas and sustainable forest and land management and human welfare will remain incomplete. Appreciation of the contribution of conservation to development will continue to be less recognized. Priorities for information collection will likely not fully consider gender, or the concerns of the Maroon communities, NGO and vulnerable groups of people. The overall low appreciation of conservation values in general and limited understanding of the concept of landscape or landscape level planning will persist. Significant gaps in understanding of terrestrial and freshwater habitats, both at the institutional level and at the community level will continue to exist, and the impacts of poor land management and exploitative practices will remain not well understood. Management of land, forest, freshwater and biological resources data will continue to be limited. Despite its growing use of media, without the GEF increment, communications will modernize only slowly. While much information is generated through “projects”, this information is likely to continue to be compartmentalized and not widely shared outside of the close circle of project implementers.

73 Gender inequality relating to knowledge and attitude will continue as many national capacity building and information management efforts in the past decade have likely focused on monitoring, enforcement, field-work. These activities in the main might have counted man and women, but did not examine and respond to the particular needs and interests of men *vis a vis* women, or take account of the power relations between them and how this would influence planning with, or resource allocation to either group. Without an approach that integrates gender considerations into the entire project cycle, very little sex-disaggregated data will be generated. This will in turn, make it difficult to evaluate and plan for targeted gender-responsive improvements.

Alternative for this outcome (with GEF project):

75 The goals of Outcome 3 are: (i) improving knowledge and information collection and management systems to enhance awareness about best practices on conservation of terrestrial and wetland habitats and their associated biodiversity and ecosystems through communication, documentation and dissemination; (ii) ensuring gender considerations are mainstreamed into natural resources planning and management, including gender equitable

access; and (iii) monitoring and evaluating project investments to ensure that these are meeting project outcomes and contribute to Jamaica's conservation and ongoing development agendas. Specifically, the project presents an opportunity for the country to address in a very strategic manner, a number of critical policy and programmatic proposals and international commitments made over the years to enhance attention to gender mainstreaming in natural resources management.

- 76 To achieve such an objective requires the improved understanding and participation of key target groups (decision makers and staff from key sectors), non-governmental organizations, as well as community groups, researchers and others, including in particular women and the most vulnerable segments of the population. The development of a knowledge management and communication strategy (Annex 6) is intended to promote meaningful stakeholder awareness, understanding and participation in biodiversity conservation, sustainable natural resource use and alternative livelihood as well as to document, disseminate and scale up successful lessons and best practices in resource conservation from the target clusters in the project landscape and beyond. This will be accomplished through awareness campaigns, and creation and maintenance of an online public access database and documentation repository. Expanding the role of knowledge management is key to enabling a gender-equity perspective to inform how information is collected, prioritized, shared, communicated, and used within the landscape planning, agriculture and forest development, tourism development, and biodiversity conservation and management, according to the Gender Analysis and Mainstreaming Action Plan (Annex 5).

Output 3.1: Knowledge Management and Communications, Gender Mainstreaming and Monitoring and Evaluation strategies developed and implemented

- 77 The implementation of the Knowledge Management and Communication Strategy (Annex 6) and Gender Analysis and Mainstreaming Action Plan (Annex 5) will be key to the overall goal of creating bridges between the stakeholders from the grass-roots to the national, parish and community levels to document best practices and results of the project. It will also ensure the flow of information, exchange of ideas and implementation and mainstreaming of gender in community-based conservation and sustainable natural resources management. The communication strategy is aimed at making "mainstreaming biodiversity and sustainable natural resource use" a national priority for large terrestrial biological landscapes that will help build visibility to the conservation needs of these ecosystems (as relevant depending on the biological corridor site). The strategy will serve to connect stakeholders such as policy makers, media, research and academic institutes, the private sector, NGO's, CBOs and the general public through a comprehensive program, from consultations, brand building to outreach and information dissemination. Annex 6 also provides a list of indicative knowledge management and communication tools for the project. It also intends to develop among stakeholders ownership to the goals of the project – of shared knowledge, experiences, inputs and ideas for effective action. An objective the gender analysis and mainstreaming action plan (Annex 5) is to enhance the role of women in conservation-based actions by providing for their voice to be heard in the decision making process related to conservation, sustainable resource management, livelihood from and local to national level activities.

- 78 This Output would be supported through the following activities:

- 3.1.1 Development of **knowledge management and communication action plan for the project landscape** based on overall knowledge management and communication strategy (Annex 6) so that (i) the project is well understood, accepted, and implemented effectively and equitably; (ii) knowledge and lessons learned from the implementation process of this project are captured, documented and used to improve current and future project practices; (iii) understanding of biological landscape planning and management is increased; (iv) implementation and upscaling of best practices is improved; and (v) the public develops an environmental ethic and an increased awareness and understanding of biodiversity conservation and threats, and (vi) knowledge management products are shared and used;
- 3.1.2 **Implementation of a gender analysis and mainstreaming action plan** (Annex 5) so that: (i) a gender and socially inclusive perspective is applied to every set of activities; (ii) research on gender and social roles

in the biological landscape informs resulting plans and ensures equitable distribution of benefits; and (iii) information and sex-disaggregated data are collected and shared within all components of the project;

- 3.1.3 **Training of staff of government agencies and other stakeholders such as CSOs and community organizations** on application of gender mainstreaming in project communication and project activities;
- 3.1.4 **Design of communication materials and programs** (local language, teaching materials for schools, etc.)
- 3.1.5 **Conduct of awareness and outreach activities** for a variety of stakeholders at the national, parish and local levels such as competitions, website, mass media, video and film, junior ranger programs, festivals, etc.;
- 3.1.6 **Preparation of an M&E plan** including Identification of a suite of biological and socio-economic indicators, a strategy for collecting information on them, and for sharing information to facilitate review and regular update of M&E plan, including results framework baselines, tracking tools, Theory of Change to subsequently adopt these findings to implement all aspects of the project; and
- 3.1.7 Conduct **mid-term and terminal evaluation** in line with UNDP/GEF requirements and incorporate and adapt recommendations of MTR to revised project plans and monitor their implementation.

Output 3.2: Harmonized information management system to integrate lessons from the biological landscapes and user friendly operational

- 79 By implementing the Knowledge Management and Communication Strategy (Annex 6) the project will ensure that best practices derived from the project landscape are captured, documented and shared widely, and together with implementing the Gender Analysis and Mainstreaming Action Plan (Annex 5), the project would ensure that information collection and sharing is inclusive and thus highly useful for future scaling up and replication. The Project will make good use of more modern techniques for knowledge management, including sharing via web-based platforms and social media. Knowledge Management will prioritize spatial knowledge arising from the planning processes employed within the pilot landscape, written and oral knowledge of best practices, and a wide range of mapped, written, and traditional knowledge of biodiversity conservation and natural resources management.
- 80 There are numerous databases in the Jamaica, and the project will contribute to these existing databases and information sharing platforms, including at the NEPA, Forestry Department and parish levels. Data collection at biological landscape level will be integrated along with an improvement of the existing database housed at NEPA. Standards developed in Outcome 1 and 2 will include transferring all information into a digital format as well as establishing regular periods for information transfer. This database will support the collection and documentation of detailed information on species, habitats, degradation and threats, and conservation actions collected from project activities, ultimately improving the overall national and parish capacity and the ability to effectively target threats and risks. Initial data management will be at the project landscape level that could be later expanded at the parish and subsequently at the national level. Mechanisms for protecting sensitive data will be put in place.
- 81 The project will catalog best practices and make them available via the web. For all categories (plans and best practices), efforts will also be made to collect the discrete packages of information that are scattered throughout the project landscape.
- 82 Output 3.2 will support the following activities:
- 3.2.1 Development **or strengthening** of a **simplified, standardized and dedicated information management system** (including website and social media platforms) for biological landscapes, including standards for information collection and sharing which can be integrated into the Application Management and Data Automation (AMANDA) system planning interface and be accessible at all levels of planning including the Cabinet Office and Planning Institute of Jamaica (PIOJ);

- 3.2.2 **Biological Information Management System** operationalized, initially collection and documentation of detailed information on species, habitats, threats, and conservation actions from the project landscape, ultimately expanding and improving the overall national and parish capacity and the ability to effectively target threats and risks, including data collection, input, on-line website and dissemination;
- 3.2.3 Setting up **information collection standards** that are gender and socially inclusive; identify software and devices for standardized inputting and recording of information; and provide for digital access and sharing, including compatibility with existing databases as feasible, building on the data generated from project landscape that later can be expanded nationally;
- 3.2.4 **Development of guidelines on information** needs for management of threats, apprehensions, evidence collection and prosecutions;
- 3.2.5 **Support an institutional platform to collect, digitally catalog and disseminate biological information existing biological information**
- 3.2.6 **Training and skills development** of staff of NEPA, Forestry Department, parish administration, CSOs, local community organizations and other relevant entities for effective mobile application and data management; and
- 3.2.7 **Improving server facilities** at NEPA, Forestry Department and relevant municipal councils at the project landscape level.

Output 3.3: Knowledge Management and gender mainstreaming contribute to learning and facilitates replication and scaling up of integrated gender sensitive biodiversity management approaches elsewhere in the country.

- 83 Promotion of integrated biological landscape practices, as well as innovative approaches to conservation, sustainable land, freshwater and forest management, and sustainable livelihoods will be facilitated through a set of recommendations that can guide and influence future national and parish level plans, programs and practices. Consultations with stakeholders from government, research organizations, CSOs and others would be expanded to further assess needs and gaps in policy outreach and advocacy. Gender mainstreaming knowledge and skills will be integrated into and inform all aspects of the overall project development strategy.
- 84 A sustainability/replication strategy will be formulated in the second half of the project based on lessons learned at the project landscape level that will ensure that the integrated biodiversity management planning approaches and models developed and tested in the project landscape can be scaled up to other biological landscapes within the country. This Output would support the analysis, documentation and dissemination of best practices and lessons learned from the project that deliver tangible improvements in biodiversity and natural resources status to provide examples for replication. It would also entail participation of project staff and partners in national, regional and international workshops, conferences and field visits to improve learning and exchange of experiences in mainstreaming biodiversity and gender considerations. Based on these best practices and lessons learned, the sustainability/replication strategy will provide a basis for actions in other key landscapes and areas, identify required institutional and coordination arrangements, resources and partnership commitments.
- 85 Key activities under this Output will include:
 - 3.3.1 **Documentation and dissemination** of case studies, best practices and lessons learned from the project;
 - 3.3.2 Development of **policy guidance notes** that addresses current constraints and gaps in existing policies and legislation;
 - 3.3.3 **Technical reports, publications and other knowledge management products** (including popular versions for use by community groups in local languages and accessible to IPs) documented and disseminated via mass media;
 - 3.3.4 **Documentation of Maroon cultural system** related to natural resources management and disseminated to constrain or avoid the erosion of Maroon cultures following FPIC procedures;

- 3.3.5 **National and parish level workshops** to facilitate dissemination of field lessons and help inform legal and policy reform relevant to biological landscape conservation practice. The initial documentation of these lessons will be included as part of the participatory monitoring process, that would be complemented by additional national technical support to distil and document lessons and experiences. The project will support workshops at the landscape level (Year 5) to share lessons and experiences and a national workshop at the end of Year 6 to facilitate the sharing of lessons more widely, but importantly to be able to further develop and refine successful approaches for replication nationally;
- 3.3.6 Efforts would be made to **institutionalize some of the best practices** through promotion of sectoral and/or national regulatory instruments in order to expand access to finance for replication and up-scaling. The project will collaborate with the private and public sector financial institutions to support local associations, landowners and other land users;
- 3.3.7 Capacity building and technical support for **dissemination and upscaling** of project best practices to facilitate integrated landscape planning approaches in other areas within Jamaica
- 3.3.8 **Inclusion of public engagement pages** on national and parish websites and social media platforms that link to information about the project and its products, including development of a specific public information sharing platform. This in particular could serve to share information with PA managers, sector agencies, beneficiaries, local communities, NGOs and government entities;
- 3.3.9 Preparation of a **replication and scaling up strategy** based on project experiences and best practices for promotion of integrated landscape planning and management, including institutional, financial and resource requirements, partners and coordination arrangements;
- 3.3.10 An **Implementer's Manual and Lessons Learned guide** (with contributions from project partners) that captures the process of project implementation, and describes Integrated landscape management approach, monitoring strategies for biological landscapes and SFM and SLM approaches, sustainable livelihood improvements, mainstreaming of biodiversity in sector planning at parish and local levels, etc.; and
- 3.3.11 **End of project national seminar on** outcomes of integrated gender sensitive biological landscape management practices in Jamaica

ii. Partnerships:

- 86. The proposed project will coordinate with several government programs and specific projects associated with them to generate positive results through combined action (where appropriate) and to share lessons learned and best practices. The key national environment and natural resources management agencies whose programs will be coordinated with the project include the NEPA and the Forestry Department both of which are in the Ministry of Economic Growth and Job Creation. On-going and recently completed projects and programs of relevance are summarized in Table 2 below. They include the approved Protected Area System Master Plan (2013-2017), and outputs of the GEF-4 Strengthening the Operational and Financial Sustainability of the National Protected Area System project (2012-2017), which provide an essential protected area framework and foundation upon which this GEF-6 project builds connectivity in the mixed-use landscape between these protected sites. This project also developed and operationalized sustainable finance mechanisms, upon which financing mechanisms for biodiversity in the integrated landscape can build. The forestry aspects of the project will be greatly enhanced by the continuing budgetary support that is being provided by the EU for Forestry Department to implement its plans. For the planning aspects of the project, the main partners are the NEPA and Municipal Corporations. These agencies are currently engaged in the National Spatial Plan initiative, which will support the geo-spatial aspects of land use planning and the implementation of Vision 2030 at the national scale. The project will be integrated into this initiative and will support further mainstreaming of ILM, biodiversity and gender issues into local planning through on-going revision and updating of the parish development orders. In the agriculture sector, the key national programs to work with would be the various climate change adaptation and resilience building projects (including Adaptation Program and Financing

Mechanism for the Pilot Program for Climate Resilience (PPCR, 2015-2020, US\$7.9M) and Building Climate Resilience of Urban Systems through Ecosystem-based Adaptation (EbA) in Latin America and the Caribbean (2017-2021, US\$6M), through the Special Climate Change Trust Fund, will also support restoration and rehabilitation of forest reserve degraded lands. The project will also work closely with the Bureau of Gender Affairs, the Maroons, Local Forest Management Committees, Social Development Commission, Parish Development Committees and locally based NGOs and CBOs to support participation of local communities, integration of traditional knowledge systems and practices and mainstreaming of ILM and biodiversity concerns into local governance. In support of biodiversity friendly enterprise promotion, the project will also work closely with the Ministry of Tourism, JAMPRO, the Tourism Enhancement Fund, and the Foundations for Competitiveness and Growth Project of the Ministry of Commerce, Agriculture and the private sector.

87. The project will build on the regional Implementing Integrated Land, Water & Wastewater Management in Caribbean SIDS project (2012-2016) that addresses policy, tools and guidelines for IWRM as well as methods for multi-scale assessment and monitoring of land degradation trends. In addition, the GEF financed Caribbean Large Marine Ecosystem (CLME+, 2015-2019) project provided practical experience in spatial planning of the Pedro Bank, which with this project can synergise to help ensure effective terrestrial spatial planning, The GEF/WB-TNC supported Sustainable Financing & Management of Eastern Caribbean Marine Ecosystem Project (2011-2016) will support long term sustainable financing for protected areas through the development of a National Trust Fund, recently government approved and being implemented. Many synergies exist with the Integrating Water, Land and Ecosystems Management in Caribbean Small Island Developing States (IWeCO) (2016-2021) that is contributing to the preservation of Caribbean ecosystems that are of global significance and the sustainability of livelihoods through improved fresh water resources management and sustainable land management in Jamaica’s wetland ecosystem, with coordination supported through overlapping agencies responsible for implementation.
88. In the context of the above and related core programs, the project will collaborate with agencies on knowledge and lessons learned from recently completed projects (which are described in the various sections of the project design), as well as ongoing and pipeline projects (usually assisted by donor/development partners). Collaboration with ongoing and pipeline projects would primarily aim to synergize planning and implementation with concerned projects in common sites. The following are the key ongoing and pipeline projects.⁴¹

Table 2: Partnership Arrangements

⁴¹ The list includes Projects that officially ended in Dec 2017 that have produced important knowledge products that can help in the implementation planning of this Project.

Name of on-going and recently completed program/project, years of implementation and sites	Program/project objectives and targets	How proposed UNDP/GEF project will collaborate with the program/project?
Protected Area System Master Plan (2013-2017)	Provided the framework for improving management of the protected area system	Identifies priorities for the protected area system, including Cockpit Country
GEF-4 Strengthening the Operational and Financial Sustainability of the National Protected Area System	Consolidation of the operational and financial sustainability of Jamaica's National System of Protected Area.	Consultant reports on <i>inter alia</i> financial sustainability and legislative framework will support the implementation of this project. Implementation of the National Conservation Trust Fund of Jamaica (NCTFJ).
GEF-5 Integrated Management of the Yallahs River and Hope River Watersheds (2013-2017)	To reduce pressure on natural resources in 2 watersheds management units in the Blue Mountains by increasing the practice of SLM and thereby improving the flow of ecosystem services that sustain local livelihoods.	The project experience in increasing the practice of SLM and thereby improving the flow of ecosystem services that sustain local livelihoods will be relevant to this project.
National Biodiversity Planning to support the Implementation of the CBD 2011-2020	Development of the Biodiversity Strategy and Action Plan (BSAP)	The project will support the implementation of relevant sections of the BSAP
Adaptation Programme and Financing Mechanism for the Pilot Programme for Climate Resilience (PPCR) 2015-2020	Assisting the Government of Jamaica in improving management systems to integrate climate change into decision-making	Useful synergies with biodiversity and ecosystem management initiatives
National Spatial Plan initiative (2011- ongoing)	Supports prioritization of land dependent decision making with the goal of integrating national development and conservation.	Will support and integrate initiatives under the project to develop integrated land use management and planning
Vision 2030 Jamaica: National Development Plan	Provides guidelines for national development priorities and guides the National Spatial Plan	Will provide the framework for the proposed new overarching environment and sustainable development policy
Building Climate Resilience of Urban Systems through Ecosystem-based Adaptation (EbA) in Latin America and the Caribbean (2017-2021)	Support restoration and rehabilitation of forest reserve degraded lands and capacity development in Forestry Department for forest management and SLM.	Links to forest restoration and capacity development.
EU budgetary support for Forestry Department	Supports implementation of national Forest Management Plan.	Links to forest restoration and capacity development.
Ministry of Agriculture Policy Development Programme (to be completed 2021)	To establish a policy framework that protects agricultural land and fisheries resources as well as ensure food and nutrition security and safety	Links to policy development.
Other Policy and legislation review and updates (ongoing) and ACP-EU Development Minerals Programme (2015-18)	Update of Forest Policy, Forest Act and regulations, Wild Life Protection Act, Mining Policy, Tourism and Environment Policy and Sustainable Tourism Guidelines.	Links to mainstreaming of biodiversity conservation into policies and legislation across sectors.
Update of planning process and development orders	NEPA supporting Municipal Corporations to update development orders for all parishes	Links to mainstreaming ILM into planning processes.
Foundations for Competiveness and Growth Project (2020+)	Support for micro, small and medium-sized enterprises	Links to capacity development and economic activities in the clusters.

Integrated water, land and ecosystem management in Caribbean Small Island Developing States (IWECS) (2018-2022)	Mainly focused in Negril wetlands but includes support for Government of Jamaica policy, legal and institutional frameworks for sustainable land management, integrated management of water resources and the management of ecosystem services, taking into account climate change issues.	Contributes to policy, legislative and SLM aspects of project.
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89. The proposed project will coordinate with selected government programs and specific projects associated with them to generate positive results through combined action (where appropriate) and to share lessons learned and best practices. The key national Environment and Natural Resources programs to work with include: National Biodiversity Strategy and Action Plan (2016-2021) program that aims to protect habitats, ecosystems, species and genetic resources through engagement with NGOs and community groups, small and medium enterprises (SMEs), and private sector representatives.
90. The key lessons learned from the National Protected Area System (NPAS) project that provides a PA framework and foundation on which the proposed project can build on. The National Conservation Trust Fund of Jamaica (NCTFJ) created under NPAS provides a financial framework arrangement that might be relevant for the Cockpit Country PA that the project would seek to evaluate as part of its strategy to build financial sustainability for the project. Feed back from NPAS evaluation has provided learning that enables corrective action to ensure that sustainable human development and women's empowerment in PA management is critical to meet equity and sustainable development.

iii. Risks and Assumptions:

91. As per standard UNDP requirements, the Project Director will monitor risks quarterly and report on the status of risks to the UNDP Country Office. The UNDP Country Office will record progress in the UNDP ATLAS risk log. Risks will be reported as critical when the impact and probability are high (i.e. when impact is rated as 5, and when impact is rated as 4 and probability is rated at 3 or higher). Management responses to critical risks will also be reported to the GEF in the annual PIR.

Table 3: Project Risk and Mitigation Matrix

Project risks					
Description	Type	Impact, Probability and Risk Level	Mitigation Measures	Owner	Status
General Risks					
Risk 1 - Agencies will fail to agree on a common framework as basis for integrated planning, management and implementation of programs in the landscape.	Institutional	I =2, P=3 Moderate	The inter-agency technical working group (TWG) that has been created to support the preparation of the project will serve as a vehicle to ensure cross-sectoral coordination and collective decision-making during the implementation phase of the project. Through this inter-agency mechanism, coordination and collaboration at the national, parish and local levels will be facilitated and inter-agency conflicts resolved. The Project will undertake mapping and assessments at the pilot landscape level studies	PMU	Implementation phase

			to demonstrate the interrelationships and cross-sectoral impacts of various programs. The study will involve the active participation of agency staff at the central and parish levels in the landscape to engender ownership and joint analyses of results. The Project will use this information to reach broad stakeholder agreement or vision for the management of the pilot landscape that would deliver sustainable benefits. Embedded within this vision will be: • A decision support (multi-sectoral, multi-stakeholder coordination and governance) framework for landscape level planning for biodiversity objectives; • A platform for integration of multiple landscape level objectives for biodiversity conservation and sustainable natural resource use • An understanding of the trade-offs between conservation, resource use and socio-economic development objectives; and • Definition of roles and responsibilities of key stakeholders within the pilot landscape.		
Risk 2: The project's outputs addressing policy, legislation and regulations will not be approved or implemented	Institutional	I=2, P=3 Moderate	The project will support changes in legislation, policy and regulations to a large extent where this process of change is already on-going, indicating that there is already a commitment from the government. In other cases, the project will work with agencies to develop guidelines and best practices that can support conservation and sustainable resource uses. However, with or without the adoption of these instruments, the project will impact conservation and land use planning at the landscape level. The activities supporting landscape and cluster planning will be developed and institutionalized, thereby systematically impacting decision-making at the ground level. These management tools will still be essential for land management decisions, by the municipal corporations and local community organizations.	PMU	Implementation
Social and Environmental Risks					
Risk 3: Project activities to ensure conservation and sustainable natural resource use could have unintended negative consequences on endangered species or critical habitats if not planned or implemented correctly (including insufficient enforcement	Environmental	I = 3, P =2 Moderate	Project impacts are proposed to be managed as follows: (i) Criteria for the selection of target clusters for project intervention developed at PPG stage conformed to the project's objective of 'enhancing the conservation of biodiversity through mainstreaming of biodiversity into planning policies and practices into Jamaica's productive landscapes and located outside the proposed PA boundary.	PMU	Implementation phase

of protected area management rules). (Principle 3; Standard 1; Questions 2 and 4)			(ii) All community agriculture and production systems and livelihood activities will take place outside the boundaries of the existing and proposed PAs through appropriate zoning arrangements. (iii) The use of a screening checklist (based on SESP for project investments developed (Annex 3) and Project Participatory Community Consultative and Planning Framework of Annex 8) to screen all investments to ensure that they comply with sound social and environmental principles and is sustainable. Such a checklist would also include the identification of investment location in relation to protected areas. (iv) The planning process for PA management and cluster management (during project implementation) will entail establishing specific rules and regulations for location and nature of sustainable natural resources use and livelihood activities (and that ensure that these activities will not endanger habitats or species) that will be supported by building community capacity for enforcement and management of these plans. (v) Target Cluster investment plans will include specific reciprocal commitments by local communities for voluntary compliance and support for conservation actions. (vi) The project will include training to equip community members to monitor changes in local biodiversity and over use of natural resources to ensure community rules are complied with (vii) The preparation and implementation of the Stakeholder Engagement Plan and Knowledge Management Plan (completed during the PPG stage) will help promote awareness towards the key features of PA management, from local to national level, for flow of information and exchange of ideas between resource users and management staff.		
Risk 4: The Project involves forest restoration and harvesting of forest plantations (Principle 3; Standard 1; Questions 1, 3, 6 and 9)	Environmental	I = 3, P = 3 Moderate	Mitigation measures include the following: (i) The mapping of target cluster resources and consultation with local communities will entail agreements on forest restoration; (ii) The use of a screening checklist (based on SESP) and feasibility studies to ensure that activities are within permissible limits; (iii) Monitoring of harvests of trees in plantations will be undertaken to ensure compliance with the environmental norms as identified through the screening process. If this activity is on Government lands licenses and permits are necessary, if not obtained the harvesting cannot take place. This includes specific consideration of forest products to be harvested. Implementation of sustainable harvest plans within the forests will be based on scientific assessment of potential	PMU	Implementation phase

			harvest rates and harvest methods to avoid ecological damage; and (iv) Participatory community consultative and planning framework (Annex 8) will entail agreements on forest restoration modalities, species choices and protection and enforcement, that will be monitored by community groups and project staff. In terms of forest rehabilitation/restoration (Annex 10) specific rehabilitation/restoration methods are suggested using to the extent feasible: (i) Assisted natural regeneration processes; (ii) Promotion of restoration with native and adaptive species; (iii) Restoration based on an approved management plan, with clear targets, silvicultural practices and monitoring protocols		
Risk 5: The creation of a Cockpit Country Protected Area will result a shift from unsustainable to sustainable biodiversity-friendly investments and enterprises thus having potential of restricting resource access. <i>(Principle 3: Standard 5, Questions 2 and 4)</i>	Social	I = 3, P = 3 Moderate	The risk will be managed as follows: (i) The use of a participatory landscape and cluster management planning guidelines developed during PPG stage, including the use of FPIC procedures for planning of project investments. This will be supported by capacity building and training for local communities for effective implementation and enforcement of these cluster management plans. (ii) Any potential loss of access (and incomes) will be compensated through defined measures (including livelihood improvement activities) that would be agreed amongst those potentially affected persons and the NEPA and reflected in the Cluster Management plans. (iii) The Cluster Management Plans will be implemented by the communities with extension support from the sector agencies. Monitoring procedures will be outlined in the Cluster Management plans and will be undertaken by the community and ensure in particular that specific measures for income restoration are effective and measurable. (iv) The use of a grievance redressal system (Section VI, Part iv) to address this specific and any other community concerns, including in particular the Maroon community;	NEPA	Design and Implementation phase
Risk 6: The proposed Project could possibly affect land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources, in particular for special groups, like the Maroons	Social	I = 4, P = 3 High	The project will manage this risk through the following measures: (i) The designation of Accompong (Maroon area) as a distinct Cluster for project investment enables the provision of special attention to the Maroon rights, cultural norms and practices; (ii) The Maroons have been involved from the level of the Maroon Council in all the preparation processes including in the inter-agency Technical Working Group which is the final decision making	PMU	Implementation phase

(Principle 1, Questions 1, 2, 3, 4 and 8 and Standard 6 Question 1, 2, 3, 4, 5, 6 and 7)			body, along with the UNDP for the project so they have a voice in decision-making. (iii) Further consultations and feasibility studies will be carried out early project implementation to ensure that effective consultation (through FPIC) takes place prior to deciding on specific location, nature and scope of project investments This is intended to ensure that project interventions do not infringe on human rights, lands, natural resources claimed by the Maroon community (iii) Identification and implementation of project investments (including use of natural and/or biological resources) through the Cluster management plans will be defined by the development needs and priorities of the Maroon and other communities themselves and as well as identification of specific measures to reduce or avoid any potential impingement on the tenure, land rights and customary practices of communities, including the Maroons; (iv) Implementation of cluster management plan will follow receipt of formal consent from the Maroon Council and other community-based organizations through MOUs signed between the Maroon Council) and respective community-based organizations) and NEPA thus ensuring that communities have the opportunity to refuse any activity that they do not want. (v) The engagement of parties through the Grievance Redressal System (Section IV, Part iv) to address conflicts, including those of the Maroon Community of Accompong; and (vi) the use of project screening checklist to be developed by the M&E Specialist to be recruited through the project (based on SESP Annex 3) in early project implementation to screen all investments, including forest restoration, land restoration and other initiatives to ensure that they comply with sound social		
Risk 7: Women and vulnerable groups among the local community may not be fully involved in planning, implementation and monitoring of project interventions and getting benefits from such initiatives, rather land owners and other influential persons at the local level may have more control on local level decision making (Principle 2, Questions 1 and 2)	Social	I -3, P-2 Moderate	The project will manage this risk through the following measures: (i) The application of the “<i>Gender Analysis and Mainstreaming Action Plan</i>” (Annex 5) prepared during the PPG stage to ensure that the project contributes to gender equality and creates equitable opportunities for women and men at all levels of engagement; (ii) Promote equal representation of women in project related decisions in communities (iii) The use of a gender and socially inclusive lens to every project activity and output to further analyze impacts on the rights of women and vulnerable peoples, as well as support land reform initiatives that benefit women and indigenous groups;	PMU	Implementation phase

			(iv) Special investments would be planned based on women's requirements to ensure that they adequately benefit from project investments; (v) The use of the monitoring Plan (RFA) with gender responsive indicators to access gender dimensions, including that the project scores a Gen. 2 Marker. (v) Needs assessment followed by training and capacity building to enhance gender and socially responsive knowledge, at all levels of the project cycle and within the institutions; (vi) Guidelines and tools to strengthen gender responsiveness of local organizations to ensure the participation of women and vulnerable groups in decision-making including in respect of the allocation of resources to activities within the clusters; provision for women and youth only investment activities; (vii) Technical expertise on gender mainstreaming to support project development to implementation, monitoring and evaluation; budgets to secure gender responsiveness in the project, including the collection of sex-disaggregated data. (viii) Oversight by the Bureau of Gender Affairs (ix) The project will draw on and strengthen the experience with the Gender Focal Point personnel within Ministries, Department and Agencies, in particular the Ministry of Agriculture as well encourage attention to requirements under the National Policy for Gender Equality, adopted in 2011.		
Risk 8: The cultural identity of the Maroon community will not be respected (Principle 3; Standard 4, Question 2)	Social	I = 3; P =2 Moderate	This risk will be managed by the following measures: (i) The use of the "Special Interest" Peoples Plan for Maroon Community Engagement prepared during the PPG stage of the project will form the basis for dealing with the interests of the Maroons and ensuring the maintenance of their cultural identity; (ii) The Maroon community, represented by the Maroon Council will be part of the Technical Working Group, which is the highest decision making body for the project so that they can have an influence in project decisions; (iii) There is a distinct target cluster assigned to Maroons with specific means to ensure that any investment is based on their needs and priorities, and in consonance with their cultural norms and practices; (iv) Any project investments in the area occupied by the Maroon community will be subjected to FPIC procedures. Such investments will then be reflected in the Cluster Management Plan for the Maroon area and consensual agreement obtained through an MOU signed between the Maroon Council and NEPA. This will enable the Maroons to	PMU	Implementation phase

			ensure that activities are not detrimental to their culture and practices; (v) The Cluster Management Plan for the Maroon areas will be implemented by the Maroon community themselves with extension support from the sector agencies. This is intended to ensure that all investments are defined by the Maroons themselves, implemented and monitored by the Maroons themselves that will ensure the maintenance of the integrity of their cultural norms and practices; (vi) The effective use of the grievance redressal system Section IV, Part iv) to address these specific concerns; (vii) The use of a screening checklist to be developed by the M&E Specialist to be recruited through the project (based on SESP Annex 3) in early project implementation to screen all investments to ensure that they comply with sound social, environmental and cultural principles. The oversight for SESP implementation will rest with the M&E specialist. UNDP supervision mission will review SESP implementation; and (viii) Provision has also been made for the documentation by Maroon community stakeholders of their cultural practices to enhance biodiversity conservation.		
Risk 9: Climate change and associated threats to environments and agricultural practices (e.g. potentially stronger cyclones, changes in rainfall, and temperature) could threaten project impacts in the longer-term. (Principle 3, Standard 2, Question 2)	Environmental	I = 3, P = 2 Moderate	Mitigation measures for this risk include: (i) Participatory community risk assessment and planning that will, inter alia, influence the choice of investment projects with considerations of their risks; (ii) Establishment of protected areas and other conservation and sustainable natural use practices will enhance protection of ecosystem services; (iii) Monitoring plan to ensure that the health of the eco-system is kept in focus and (iv) The knowledge management and communication strategy will rise public awareness and involvement in climate smart actions. Investments actions are aimed at further enhancing climate resilience by supporting an integrated approach to management of landscapes (and associated community resources) to help reduce stresses from water shortage and control unsustainable use of natural resources, reduce forest fires, increase and diversify incomes and productive practices, helping to increase the health of ecosystems and their adaptive capacity to cope with climatic changes. The project will also help build awareness and capacity of local communities to adapt to such threats in the longer term, including through putting in place standardized community	PMU	Implementation phase

			monitoring of terrestrial habitats and resources to identify when ecosystems are changing		
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iv. **Social and environmental safeguards:**

92. The Social and Environmental Screening Procedure (SESP) was followed during project preparation, as required by the UNDP SESP Guidance Note and undertaken by environmental and social development specialists. Accordingly, the social and environmental sustainability of project activities is in compliance with the SESP for the project (see Annex 3). A total of 7 risks have been identified for the project. One has been assessed as high risk and six are categorized as moderate risks. Consequently, the overall project risk is categorized as high. The following safeguards standards have been triggered: Principle 1: Human Rights; Principle 2: Gender Equality and Women's Empowerment; Standard 1: Biodiversity Conservation, Standard 2: Climate Change Mitigation and Adaptation; Standard 4: Cultural Heritage; Standard 5: Displacement and Resettlement. The SESP identifies management measures to respond to these risks and these have been integrated into the detailed design of project activities.
93. The one high risk (Risk 3 in the SESP) relates to tenure and customary rights, in particular in connection with its potential impact on the Maroon community. In terms of the Maroons, they are not specifically considered as IPs in Jamaica, but as a Special Interest group, and therefore this context was considered in design of the project. Nevertheless, in addition to the Project Participatory Framework for Community Level Planning, Implementation and Monitoring (Annex 8) that will guide the consultation and participatory approaches, during the PPG stage an additional "Special Interest" Peoples Plan for Maroon Community Engagement (Annex 16) was developed (in line with UNDP guidance for preparation of an IP Plan) and will be used to specifically ensure participatory process for maintaining local cultural norms and practices while protecting natural resources that are of interest to the Maroon community. In addition, a number of other management measures are proposed in consultation with the Maroon community to mitigate this risk. During the PPG stage, the Maroons have been involved from the level of the Maroon Council in all the preparation processes including in the inter-agency Technical Working Group which is the final decision making body for the project, along with the UNDP. The project design entails a distinct target cluster assigned to Maroons with specific means to ensure that any investment is based on their needs and priorities. During project implementation, any project investments in the area occupied by the Maroon community as well as other communities (including the use of natural and/or biological resources) will be subjected to FPIC procedures. Any potential loss of access will evolve through a consensus agreement amongst the Maroons (and other communities) themselves rather than be imposed by the project. Any such potential loss of access (and incomes) will be compensated through defined measures (including livelihood improvement activities) that would be agreed amongst those potentially affected persons and the Maroon Council (and respective community-based organization) itself and reflected in the Cluster Management plans. The cluster management plans will only be financed by the project following receipt of formal consent from the Maroon and other communities. Consensual agreement for the cluster management plan will be obtained through an MOU signed between the Maroon Council (and in the case of other communities with their respective community-based organizations) and NEPA. Management responses to the other six moderate risk categories are reflected in Annex 3 (SESP) of the Project Document.
94. The Project Management Unit in consultation with the respective provincial entities will guide the implementation of the SESP and monitor compliance with the environmental and social norms as identified through the screening process. The Project Management Unit will oversee and evaluate the implementation of the management interventions to assess if social and environment screening has been adequate and if any new risks emerge or escalate in impact and probability at any project sites. Implementation of the SESP and safeguards risks will be monitored each year and reported on as part of the PIR. Implementation of social and environmental mitigation measures will also be monitored by the Project Steering Committee and reported

annually, including actions taken. Annually supervision missions will assess the extent to which the risks have been identified and managed.

95. In line with UNDP standard procedures, the Project will set up and manage a grievance redress mechanism (GRM) as recommended by UNDP (2014) that would address project affected persons' (PAP) grievances, complaints, and suggestions. The GRM will be managed and regularly monitored by the PMU and oversight of the Project Steering Committee. The grievance mechanism will be finalized during the inception phase and detailed in the final Stakeholder Involvement Plan (Annex 4).
96. ***The intent of the GRM*** is to (i) receive and address concerns, complaints, emerging situations or conflicts, grievances and any harm arising from the project; (ii) assist in resolution of grievances between and among stakeholders, including project implementing agencies; and (iii) ensure flexibility, transparency and collaboration with the aim of problem solving and consensus building.
97. ***The functions of the GRM*** would be to: (i) receive, log and track grievances; (ii) provide regular updates on grievances resolution; (iii) engage all necessary stakeholders to facilitate grievance resolution; (iv) propose solutions to resolve grievances in a defined timeframe (around 60 days); (v) recommend possible precautionary measures to avoid the more common grievances; (vi) make available bi-annual reports on grievances and resolution measures available to the public; (vii) Increase awareness, accessibility, transparency and credibility to the GRM process; (viii) collaborate with partner institutions and CSOs to increase awareness to the GRM and its access; (ix) ensure continuing education of project entities to laws and policies related to GRM; and (x) monitor grievance resolutions and solutions.
98. ***Management of GRM:*** The GRM will be managed by PMU (national level), Parish Administration and the Field Coordination Team (FCT).
99. ***Communicating a Grievance through multiple locations and channels from grassroots level up to the Provincial and National Level:*** A simplified system of informing about the grievance redress system and also actual management of grievances will be developed under the project. Multiple ways (manual as well as virtual) of submitting complaints or suggestions at various levels will be provisioned in the project. Grievances and suggestions will reach the FCT in person, via mail, email, via special page of the Project website, and phone. These channels will be locally-appropriate, widely accessible, and publicized in written and verbal forms on all project communication materials, and in public locations in the project areas. Since the project will be dealing with local community members, natural resources based small entrepreneurs and producers of non-farm products and services at the local level, they will be facilitated to communicate their problems through their collectives like CBOs, NGOs, community groups, etc. They will also be able to communicate directly to the FCT. ***These teams will be responsible for the functioning as an interface for the grievance redress mechanism.***
100. ***Process of informing and registering grievances at various levels:*** All grievances, whether received through FCT or Parish Administration, will be registered by either the PMU, FCT, or Parish Administration. The complaint will be assigned a unique tracking number upon its submission. The PMU will maintain a database with full information on all submitted complaints, responses taken and solutions of the problems.
101. ***Complaint Resolution System:*** A clear system of complaint resolution will be developed to ensure timely resolution of grievances of the stakeholders. The grievances of the stakeholders will be of different types therefore the grievance will be classified into three types -
 - Local level problems related to compensation/payments etc. (FCT)
 - Project implementation related problems (Parish Administration)
 - Grievances / Problems that require policy decisions/decisions (PMU)
102. Procedures will be developed and observed, and personnel at cluster level will be assigned to handle the grievances. FCT or Parish Administration will follow nationally developed clear and strict grievance redress

procedures, and assign responsibilities. Difficult situations and conflicts will be brought to the attention of PMU and UNDP CO if the local entities are unable to find appropriate solution.

103. **Repository of grievances and solutions and sharing it on the project website:** A repository of all the grievances received from the different stakeholders will be maintained at PMU for monitoring and evaluation purposes and also for learning. The grievances and their solutions will be shared through the project website so that each province will be able to learn from the other. This aspect will be facilitated through Outcome 3 relating to communication and knowledge sharing. Further, this information will be used to assess trends and patterns of grievances across the project landscapes and for monitoring and evaluation purposes.
104. **Maintaining Communications and Status Update and provision of feedback about the compliance of grievances:** A system of giving feedback will be developed to give response to all registered grievances. FCT, or Parish Administration will provide feedback by contacting the complainant directly or their community committees so that complainants are aware about the status of their complaint. Once some decisions/actions are taken on the complaint, the complainant will be informed about the same. If complainants are not satisfied with the FCT, or Parish Administration response to their grievance, they will be able to appeal the PMU decision and UNDP CO via mail, e-mail or the Project website.
105. **Investigation and Consensus Building:** (i) within one week of receiving a Grievance, the implementing partner will notify the relevant manager of the GRM at local, parish or national level Management Team of the receipt of the grievance; (ii) the relevant manager of the GRM will identify a specific team of individuals to develop a response to the Grievance; (iii) this team will engage the Claimant and any other relevant Stakeholders deemed appropriate, to gather all necessary information regarding the Grievance; (iv) make a request to the appropriate institutions any information (documents or otherwise) relevant to resolving the Grievance and avoiding future Grievances of the same nature; (v) convene a meeting relevant individuals and credible local institutions as needed; (vi) develop a thorough understanding of the issues and concerns raised in the Grievance and facilitate consensus around a proposed solution and way forward; and (vii) seek any advise required to resolve the Grievance.
106. **Making proposed actions and solutions public and overseeing implementation:** Communicate to the Claimant proposed actions or resolutions and clearly articulate reasons and basis and way forward, and suggest alternative options if the Claimant is not satisfied with the proposed actions.
107. **Mediation:** If mediation is required ensure professional expertise and impartial mediation; ensure mediation in local language; and ensure that mediators are willing to mediate without prejudice to personal relationships and interests.
108. **Monitoring and evaluation:** The performance of the GRM will be regularly monitored. All information about the grievances and their resolution will be recorded and monitored. This data will be used to conduct in-depth analyses of complaint trends and patterns, identify potential weaknesses in the Project implementation, and consider improvements. Environmental and social grievances will be reported to the GEF in the annual PIR. The full Social and Environment Screening Procedures (SESP) report is included in Annex 3.

v. Stakeholder engagement plan:

- 109 The project included a wide range of consultations during the PPG stage. Initial stakeholder analysis during the PIF stage was followed up with consultation during the PPG stage in terms of the design of the project. During the PPG stage, the stakeholder analysis was updated and elaborated (refer Annex 4) following consultations undertaken by international and national consultants at the biological corridor site and with the parish governments addressing both institutional stakeholders in the context of their statutory involvement in the project, and more broadly for non-governmental stakeholders at the district, community and parish levels including natural resource dependent communities. The PPG team conducted a number of field visits to discuss

with various stakeholders, including local communities on their perceptions in relation to the proposed Cockpit Country protected area, their relationship with the forest and its natural resources and specific needs of the communities to improve their agricultural productivity, livelihoods and their potential role in the proposed project. Cluster and Parish stakeholder consultations were conducted to obtain the perspective of the different stakeholders during the period July through September and October 2018. Approximately 480 stakeholders were consulted formally and informally. In addition to the 384, at the formal consultations, approximately 100 were reached through transect walks. Stakeholders included males, females, youths, interest groups such as farmers, women's and environmental associations in addition to approximately 17 institutions and political representatives (see Annex 4 for further details of consultations). Following the Inception Workshop that was conducted in Kingston on July 9, 2018, and following extensive field work and further development of the project design, a validation workshop was conducted in Kingston on December 6, 2018 to discuss the project design and reach general consensus on project outcomes, outputs, activities and institutional arrangements for the project. The list of stakeholders consulted has been downloaded in PIMS.

110 The purpose of Stakeholder Involvement Plan (SIP) for the project is the long-term sustainability of the project achievements, based on transparency and the effective participation of the key stakeholders. The objectives include the following: (a) to identify the main stakeholders of the project and their basic roles and responsibilities in relation to the project; and (b) to take advantage of the experience and skills of the main stakeholders and safeguard their active participation in different activities of the project to reduce obstacles in its implementation and sustainability after completion of the project. The approach is based on the principles of fairness and transparency in selection of stakeholders, ensuring consultation, engagement and empowerment of relevant stakeholders comprehensively for better coordination between them from planning to monitoring and assessment of project interventions; access of information and results to relevant persons; accountability of stakeholders; implementing grievances redress mechanism and ensuring sustainability of project interventions after its completion.

111 Stakeholder involvement is guided by the objective of the enhancement of the planning and management of pilot biological corridor in Jamaica to secure conservation of globally and national important biodiversity within it by mainstreaming biodiversity and sustainable natural resources use in socio-economic development within the realm of the integrated ecosystem management planning for the landscape. NEPA will be instrumental in establishing collaborative links with national and parish entities, CSOs and local communities during the implementation stage of the project. The Parish governments will coordinate with sector and local level stakeholders, may solicit the services of NGOs/CSOs and local communities to implement project activities.

Identification of Potential Stakeholders

112. The SIP was prepared through the identification of the stakeholders that would be involved as partners in the project. Stakeholders at national, parish and local levels including relevant national agencies, parish, CSOs and local communities and others would be partners in project implementation.

Role and responsibilities of key stakeholders and their Involvement Mechanisms and Strategies

113. Mechanisms and strategies for stakeholder involvement will ensure that the relevant shareholders receive and share information and provide their inputs in the planning, design, implementation, monitoring and evaluation of project initiatives and play a role in sustaining the initiatives during and after the closure of the project. Roles and responsibilities of main stakeholders of the project are summarized in Table 4 below. Early in project implementation, NEPA (national level) and Parish entities will develop a more detailed Stakeholder Engagement plan that would detailed to ensure (i) specific ways to involve stakeholders in project planning, implementation and monitoring; (ii) engagement of stakeholders in social and environmental screening and risk monitoring; (iii) ensuring free, fair and transparent methods of information sharing and accessibility; (iv) implementation of gender mainstreaming strategy and action plan; (v) measures to empower stakeholders and potential project beneficiaries; and (vi) information disclosure.

Table 4: Stakeholder Involvement Plan

Key Stakeholder	Role and responsibilities / mandate	Proposed role in the project and involvement mechanism
<u>Implementing Agency</u> National Environment and Planning Agency (NEPA)	NEPA is the responsible body for the environment and planning and executes the various related Acts such as the Natural Resources Conservation Authority, the Town and Country Planning Act and the Land Development and Utilization Act.	The project will be managed by the National Environmental Protection Agency (NEPA). NEPA will be responsible for the project execution and for coordinating the activities and inputs of Government agencies and other stakeholders. NEPA will serve on the national steering committee and Technical Working Group (TWG). NEPA will also be a key agency providing technical support for land planning, economic valuation, designing financial systems and incorporate biodiversity conservation into EIAs, SEAs and Development Orders (components 1&2). NEPA has a Policy Analysis, Formulation and Evaluation Network (PAFEN) that can be supported to be an effective framework to mainstream gender in biodiversity conservation.
Responsible Party: Forestry Department	The Forest Department (FD) will be a Responsible Party, responsible for implementation of all Forestry related activities. The FD is also a key technical agency carrying out forest restoration and manages FRs on Jamaica. Under this project including providing support for agro-forestry initiatives in the Cockpit Country and NRV of the Stephney John's Vale Forest Reserves	The Forest Department (FD) will be a Responsible Party, responsible for oversight and implementation of all Forestry related activities under the project. It would serve on the Project Steering Committee and the TWG
Ministry of Economic Growth and Job Creation (MEGJC)	Provide visionary leadership, appropriate legislation, innovative policies and coordinated implementation which facilitate investments, sustained growth and prosperity for all in an environmentally sustainable manner through its departments and agencies	The Ministry will be involved at the PSC and TWG levels as the entity with ministerial responsibility for the environmental portfolio. The Ministry will further be involved in the monitoring of the GEF outcomes as the GEF focal point sits within the Ministry in addition to its oversight and decision-making duties and reporting responsibilities for the Implementing Agency (NEPA) and the Responsible Party (Forestry Department).
Ministry of Local Government and Community Development	This Ministry plays a primary role in community development through the Social Development Commission	This Ministry will be involved in the planning within the Parishes as well as in community related activities, and thus will be a key project partner in all its community related activities.
Local Government Organizations	St. Elizabeth Municipal Corporation (formerly Parish Council); Trelawny Municipal Corporation, St James Municipal Corporation; Clarendon Municipal Corporation; St. Ann Municipal Corporation and the respective Parish Development Committees (PDCs). Cockpit Country is in all above Parishes. Authorities will be involved in development of Development Orders and integration of	Monitoring of project for compliance with regulatory standards, support of project implementation through the provision of minor water supply, etc.

Key Stakeholder	Role and responsibilities / mandate	Proposed role in the project and involvement mechanism
	Biodiversity and ecosystem services into Local Sustainable Development Plans.	
Ministry of Tourism/Tourism Product Development Company/Resort Board/Tourism Enhancement Fund	Establishment and implementation of policies, plans, programs and systems for the promotion of activities and the creation of products and services that contributes to sustainable growth and development in Jamaica through Tourism	The Ministry will support community level tourism initiatives (technical support, marketing, capacity building, other) and will contribute to sustainable tourism initiative under this project.
Ministry of Industry, Commerce, Agriculture and Fisheries (MICAFA)	Through its agencies, RADA and JAS as well the Apiculture Unit (see below)	The MICAFA along with the Rural Agricultural Development Authority (RADA) will implement the sustainable agriculture, agroforestry and alternative livelihood components of this project, and provide technical support, extension services and training to farmers (Component 4).
Rural Agricultural Development Authority (RADA)	Rural Agricultural Development Authority (RADA) is a statutory body of the MICAFA that supports implementation of the agriculture and alternative livelihood activities. RADA is MICAFA's main arm providing extension services and acting as a catalyst for rural development. RADA is in the process of reviving a number of Produce Marketing Organizations (PMOs), as a means of more efficiently supporting farmer's marketing efforts. RADA will be the lead on the agroforestry initiatives.	RADA will provide technical support, extension services and training to farmers for agricultural and livelihood activities under the project as well as support value addition and marketing as a Responsible Partner for the project RADA has a Gender Focal Point person who can be a pivotal resource to support, with key project partnership, gender-mainstreaming efforts in the field. Representation on cluster and regional planning and implementation teams.
Planning Institute of Jamaica	Initiative, coordinate and development plans, policies and programs for Jamaica's economical, financial, social, cultural and physical development; identify and implement development projects	The Planning Institute of Jamaica (PIOJ) will serve on the project steering committee and provide technical support and support coordination among the sector agencies The Gender Division can provide additional critical insight into focusing attention to gender.
National Irrigation Commission (NIC)	The NIC has responsibility for the MICAFA's irrigation schemes. The NIC supplies farmers with irrigation water.	NIC will help integrate and apply lessons learned from their work on providing irrigation infrastructure and training, as well as technical support for improving water management and conservation
Beekeeping Unit, Apiculture Extension Services (MICAFA)	To identify best practices suitable to local conditions to increase efficiency, productivity, development and competitiveness in the Industry	This Unit will support livelihood activities through its extension officers, as well as provide advice on good agricultural and management practices, disease control, marketing of bee products, business development, procurement of beekeeping equipment, and sourcing of grants/loans. Beekeeping Unit expansion to Cockpit Country will be supported as help train trainers in these activities

Key Stakeholder	Role and responsibilities / mandate	Proposed role in the project and involvement mechanism
Bureau of Gender Affairs /Ministry of Culture, Gender, Entertainment and Sport	The national machinery responsible for empowering men and women of Jamaica while focusing at the policy level in order to ensure that gender analysis is integrated into all national policies, plans, programs and projects.	This Bureau will support and ensure that gender equity and women affairs are well integrated into project design and implementation. The Bureau will carry out both livelihood and gender assessments, and support community-level women engagement and outreach
Ministry of Mining and Transport, Jamaica Bauxite Institute	Exercise general supervision over all prospecting, mining and quarrying operations throughout the Island; manages the investigation, characterization, documentation and release information on all aspects of the geology of Jamaica.	The Ministry will be responsible for integrating environmental and land use planning imperatives in the Mining Policy. The Jamaica Bauxite Institute will provide collaborative support with Forestry to pilot biodiversity-friendly restoration of mined-out Bauxite lands, and will be an integral partner in this project's restoration efforts
Private sector and financial institutions	Development of for profit businesses that can provide employment and support alternative livelihoods. Banks are financial institutions that have provide/support micro-credit loans for small farmers and other small and medium sized enterprises	Opportunity for participation, create synergies for project impacts; co-financing opportunities
Rural Water Supply Ltd.	The Rural Water Supply Ltd. is a government engineering firm which has expertise in the implementation of small but very impactful water solutions in particular in rural areas that experience prolonged drought conditions throughout the year. Their solutions include rainwater harvesting both on at the community level and on an individual household level and repairing and refurbishing of wayside tanks. Their Master plan includes solutions for numerous communities,	The Rural Water Supply Ltd can be a pivotal partner in helping to identify and to provide design solutions to address the persistent water challenges in some key communities.
Maroons	Special community group in the Cockpit Country	As a community living in the Cockpit Country with special rights, their endorsement of planning and programs and participation is essential, with their cultural practices respected. All project interventions will be carried out based on the principle of free prior and informed consent (FPIC). They will participate and be beneficiaries of all project investments in sustainable land management, sustainable agriculture, livelihoods and ecotourism
NGOs and CBOs	<u>Windsor Research Center</u> : Key research center in Cockpit Country that carries out biodiversity research and compiles data on Cockpit Country's biodiversity and ecological processes.	Project provides opportunity to participate as direct or indirect beneficiaries for capacity building and livelihoods investment opportunities; Representation on cluster and regional planning and implementation teams.

Key Stakeholder	Role and responsibilities / mandate	Proposed role in the project and involvement mechanism
	<u>Cockpit Communities for Conservation</u>: Key community stakeholders comprised of communities Aenon Town, Madras, Accompong, Thornton, Aberdeen, Quick Step, Burnt Hill, Sherwood Content, Duanvale, etc. National Association of Parish Development Committees (St. Ann, Clarendon, Trelawny, St. Elizabeth, St. James); Cockpit Country Local Forest Management Committees; Southern Trelawny Environmental Agency; Sherduan CC, Aberdeen CDC, Quick Step CDC, Accompong Maroon Council, Madras CDC, Sawyers LFMC, Local Forest Management Committees	
Support Service Entities	National Water Commission, Ministry of Health, National Works Agency, Department of Cooperatives and Friendly Societies, HEART Trust/NTA, Jamaica Social Investment Fund, Digital Foundation, etc.	Opportunity to participate and support project implementation catering to competing social needs in target communities such as roads, water, infrastructure development, community centers and the assisting beneficiaries with meeting the basic legal standards for social enterprise development and management as well as opportunities for co-financing.
Institute of Jamaica/Jamaica National Heritage Trust	Natural history, biodiversity and cultural rights preservation, promotions; Regulate utilisation of cultural heritage resources; National repository of biodiversity information; Monitoring and regulation of impacts on biodiversity	Engage in community outreach, biodiversity and cultural heritage rights promotion and preservation; capacity building in promotion of cultural rights and monitoring of project impacts on biodiversity; Representation and TWG or PSC
Jamaica Fire Brigade/Jamaica Constabulary Force	Public safety and security; enforcement of laws	Public awareness, promotion and enforcement of laws that governs forest sustainability; Representation on cluster and regional planning and implementation teams.
Social Development Commission	Principal community organisation agency of the GOJ. Promotes and controls schemes for sport, social, cultural and economic development.	Strengthen community participation, capacity building, livelihoods promotion, provide technical support and business planning to operate a social business enterprise, coordinate closely with the community members to ensure the sustainability of the social business enterprise beyond the proposed project duration; Representation on cluster and regional planning and implementation teams.

vi. Gender equality and empowering women:

114. Women are directly engaged in key economic activities including agriculture, tourism and natural resources management, particularly in local communities in the project landscape. They are expected to significantly influence current practices, and can be effective community advocates of sustainable natural resources management strategies. Among the Maroon communities, there are clear roles for women as leaders, resource managers, trainers of the youth, etc. Among farming communities, women make important decisions regarding

production, and have vital roles in marketing of the produce, allocation of domestic resources and harvests. As nurturers of families, women are most directly affected by resource degradation or drastic changes in natural resources productivity. A screening of the UNDP social and environmental screening procedures (SESP) revealed a potential risk related to gender: "Project potentially may limit women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services while also facing potential of have adverse impacts on gender equality and/or the situation of women and girls". This risk will be managed through the project. A gender analysis (Annex 5) was undertaken at PPG stage to determine the differentiated roles of women and men in biodiversity conservation and natural resources management, the impacts of biodiversity loss and resource degradation on women and their potential role in reversing these trends. The results have been used to develop a gender mainstreaming action plan. Gender responsive indicators have been included that will guide the monitoring and evaluation of the Project's impact on promoting gender equality and equity. The UNDP Gender Marker will assess project's potential contribution to promoting this outcome. In addition, this gender assessment will also identify areas where negative impacts can be reduced and positive ones enhanced. Both during the planning and implementation period, the project will ensure equal opportunities for women and men to participate in decision-making. Steps will be taken to ensure that women's practical needs and strategic interests are taken into account in management arrangements for the project from the community and throughout the different levels. Gender and social inclusion considerations have been integrated into the overall project design.

Gender Mainstreaming

115. Gender mainstreaming will be addressed at the institutional, policy, programs and projects levels and in monitoring and evaluation to ensure that both men and women have the opportunities and benefits of participating in biodiversity conservation and management and equality and equity are embedded in public policy and administration. A gender analysis and mainstreaming action plan was developed during the PPG stage. However, at the pre-implementation stage (before the end April 2019) there will be an additional review of the gender plan and budget. Subsequently, at the start of the project, the National Project Implementation Team (with gender specialist support) will be responsive to and come to own the parameters set out to achieve Gen. 2 certification of the project and ensure that clear steps and processes are in place to effectively implemented the gender action plan. The implementation of the gender plan will be the responsibility of the PMU and progress in meeting the actions defined in gender action plan will be reviewed by UNDP supervision teams. The Bureau of Gender Affairs will provide oversight to ensure effective gender mainstreaming in all activities of the project.

(a) Institutional Level

116. By focusing on the 4 to 5 key institutions, (NEPA, Forestry, Agriculture, Mining and Tourism), the project will ensure gender integration, paying special attention to recommendations made over the years.⁴² The following are some of the minimum requirements to be met to mainstream gender at this level:

- All institutions to have an explicit stated mandate for promoting gender equity and equality and mainstreaming gender.
- Improve inter-sectoral collaboration and increase interdisciplinary work, for example, through collaboration among gender focal points in the respective agencies.
- Ensure that the key institutions have Gender Focal Points under the program of the Bureau of Gender Affairs.
- Memoranda of Understanding relating to collaboration among institutions would include the requirement for the promotion of gender equality and equity;
- Establish a targeted capacity building plan to ensure staff has the necessary tools and knowledge to integrate gender issues in their current work;

⁴² See *National Strategy and Action Plan on Biological Diversity in Jamaica, 2016-2021*. National Environment and Planning Agency, December 2016.

- Ensure gender equity in the selection and training of personnel in ensuring technical knowledge transfer for example, in economic valuation of biodiversity resources;
- Gender mainstreaming actions would be reflected in work plans and budgets and institutions would report on this aspect of their work; and

(b) Project Steering Committee /Project Board

- Representation to include the highest political/policy level commitment to gender equality and the empowerment of women, namely the Bureau of Gender Affairs;
- National Project Steering Committee to be sensitive to the importance of gender issues;
- Representation/participation of civil society organizations, including women's organizations.
- Ensuring gender equity in composition of Project Board.
- Project Board at the local /parish level to include gender expertise among representatives

(c) Policy Level

- Policies relating to the mandate and work of the key institutions to be made more responsive to biodiversity and gender concerns. This might entail revision of existing policies. Focus should be placed on responding to particular policy recommendations made by over the years and take steps, where appropriate to implement findings: for example:

"strengthen the capacity of environmental agencies...in relation to integrating gender concerns in environmental policies, programs and projects and to increase the sustainability and management of such activities". Gender Sector Plan 2009-2010, p. 90 and

"Conduct gender analysis and develop strategies in the mining and quarrying sector to garner baseline information to fully understand the gender issues within the sector". NBSAP 2016.

- Identify the related strategies, work plans and budgets to ensure coherent implementation of policies.

(d) Program and Project Level

- Development and implementation of tools and methodologies to assess and strengthen capacity at institutional levels, including within the governance framework;
- Gender responsive stock-taking and assessment with attention to the disaggregation by sex of qualitative and quantitative data;
- Ensure that the gender outcomes are reflected in the monitoring and evaluation framework and plan.
- Develop and implement robust client responsive capacity building programs on gender and development;
- Train relevant actors to integrate gender, with attention to biodiversity and climate change into policy and into the projects life cycle (project identification, preparation, appraisal, presentation/planning, implementation, monitoring and evaluation);
- Design in collaboration with particular interest groups and implement gender specific programs/projects to address particular vulnerabilities and build participation and ownership in the conservation project. (e.g. youth/women only projects);
- Implementation of mechanism to ensure access to equitable basic services such as water, sanitation and solid waste management;
- Support the strengthening of civil society/community based organizations in participatory methodologies to address gender and development issues among community members and promote social inclusion, for example through sports;
- Address gender inequalities, biodiversity threats/loss and climate change impacts through pilot projects and strong partnerships, for example, in community-based water management and in Protected Areas Management; and

- Incorporate gender and socially sensitive indicators and collect sex-disaggregated data to support monitoring and evaluation

vii. South-South and Triangular Cooperation (SSTrC):

117. The MAB Program provides an unique platform for cooperation on research and development, capacity building and networking to share information, knowledge and experiences on a number of issues (integrated landscape management) that is relevant to the Jamaica project. In particular, the project will share its experiences and learn from similar experiences from the Caribbean and other developing countries on (i) monitoring and evaluation approaches to measure on management effectiveness and improve information availability; (ii) approaches that align landscape approaches and local legislation, that is a key aspect of the project; (iii) guidelines and procedures for effective multi-stakeholder and multi-sector integration; (iv) integration of climate change into landscape planning and management; (v) using sustainable management of landscape resources as a means to ensure poverty alleviation and sustain rural economic development; and (vi) approaches at certification and branding of tourism, forest and fisheries resource use. The issues that this project seeks to address are common to many small island states worldwide, therefore the integrated landscape management at the national and local scales will be widely applicable elsewhere. The knowledge management component is structured to facilitate the sharing of the policies, plans, guidelines and processes developed and tested through the project (including new approaches to protected area management, conservation on private lands, forest restoration and restoration of mined-out lands) across a wide cross-section of audiences.

118. Additionally, the Biosphere Smart Initiative that promotes the transition to green societies and sustainable futures by facilitating networking and information sharing of smart knowledge gained in UNESCO Biosphere Reserves could serve as a good vehicle for the use of new information and communication technologies. The Biosphere Smart Initiative includes a global observatory and information facility, the *Biosphere Smart Information Platform* created to facilitate sharing of ideas, best practices, and experiences among UNESCO designated Biosphere Reserves on challenges and smart solutions related to climate change, green economies, and sustainable development at large. Through this network, the project can: (i) share ideas and best practices on issues related to sustainable development and climate change; (ii) share experience and lessons in using biosphere reserves as green economy models; (iii) provide an educational tool with mapping and advanced communication services; (iv) empower sustainable communities to improve their access to information and decision-making capacity; (v) improve information and response capacity for public and private decision makers and the scientific community in biosphere reserves; (vi) share and facilitate access to the knowledge and expertise of the scientific community; and (vii) strengthen partnerships within the World Network of Biosphere Reserves (WNBR). The Biosphere Smart Information Platform can also serve as a useful means provide biosphere reserves with their own dedicated information platforms. The UNESCO facebook page⁴³ also allows, BRs to share information and best practices.

viii. Sustainability and Scaling Up:

119. The project will address sustainability as follows:

120. **Financial sustainability** will be achieved by a number of means, including: (i) ensuring that through the integrated biodiversity management planning exercise for the landscape, the national, parish and local entities that will facilitate the convergence of sub-national government financial resources to support conservation and sustainable community livelihoods that would help financially sustain activities beyond the life of the project; (ii) ensure a partnership arrangement between national, parish, sector and local institutions, communities, NGO

⁴³ <https://www.facebook.com/unesco/photos/pb.51626468389.2207520000.1467131105./10154306228603390/?type=3>

and private sector partners within the biological landscape that will ensure complementarity and cost-effectiveness of multiple partners and investments; (iii) develop new business models for biological landscape conservation, sustainable natural resources use, community livelihoods and value chains that recognize the full range of environmental ecosystem services provided by biological landscapes and their attendant species and ecosystems. Developing market linkages for sustainable forest and agriculture products and services, ecotourism and local handicrafts and establishment of “brand” labels that will ensure financial sustainability of local livelihoods; (iv) support for establishment of Community level revolving funds that will help to financially sustain and expand investments beyond the project period; (v) facilitating market linkages, green certification of products and services to improve sustainability and value addition; and (vi) training of local entrepreneurs and enterprises. Implementation of such models through carefully developed business plans could lead to a diversification of funding base from sources such as ecotourism, NTFPs and other mechanisms, when these becomes available.

121. **Institutional sustainability** will be improved through systematic capacity development of existing public institutions (particularly that of NEPA, RADA, Forest Department, Parish level entities, etc.), local communities and civil society organizations that operate in the biological landscape, other relevant sectors and the local communities in the biological landscape. By engaging these stakeholders in gender responsive conservation and livelihood investment planning, the project will help establish alliances for conservation and sustainable use of biological resources that is expected to continue beyond the project period. Capacity building measures will be improved by integrating these programs into the curricula of appropriate training institutes. Carefully tailored training and capacity building to enhance the skills of local communities in relation to sustainable non-timber forest products (NTFP), SLM, SFM, ecotourism and other local producers will provide institutional sustainability. The project’s institutional arrangements will further help build coordination structures at the national and landscape (or parish) level with representation from different development sectors and stakeholders (including sub-national government entities, NGOs and private sector) to implement integrated biological landscape planning and to ensure that Parish and local development plans mainstream biodiversity policies. To ensure sustainability of institutional arrangements for integrated biodiversity management planning and ensuring mainstreaming of biodiversity policies into socio-economic development plans, the Government of Jamaica will work towards institutionalization of these coordination mechanisms as part of its long-term strategy to streamline and support biodiversity goals. Formalization of these coordination arrangements will enable sustaining and scaling up of benefits of the project within biological landscapes in the country.

122. **Social sustainability** will be enhanced through the development/strengthening of stakeholder participation mechanisms for the target biological landscape. A Knowledge Management and Communication strategy (Annex 6) has been developed to facilitate awareness and enhance stakeholder participation. Frameworks for Participatory Integrated Landscape Management Planning (Annex 7) and Participatory Community Consultative and Planning Framework for Cluster planning (Annex 8) was designed during PPG stage to ensure adequate consultation and participatory decision making to ensure that project activities are detailed in collaboration with local communities, so that extensive consultation including all affected groups is undertaken prior to delineation of areas to be set asides for conservation, so as to avoid excessive community resource use areas or to improve the management of such uses. Social sustainability will also be achieved by strengthening of community institutions, ensuring their active participation in planning and implementation of conservation and sustainable natural resources management, improving community capacity for management of natural resources and for improving grievance redressal mechanisms that will ensure social sustainability. These objectives and measures are all to be anchored in a gender responsive approach resulting from robust mainstreaming of gender in all aspects of the project cycle.

123. **Environmental sustainability** will be achieved through a coordinated approach involving improved protected area management approaches, sustainable natural resources, forest and land management, securing improved forest restoration and sustainable NTFP use, improving incentives for conservation and community participation. It would also help reduction of external threats on PAs and wildlife through biological landscape level partnerships, will enhance controls on poaching, and improve inter-parish collaboration. This work at

biological landscape is aimed at ensuring environmental and socio-economic sustainability through improved institutional capacity, policies and legislation.

124. Innovation: The project design is innovative in several ways. First, it proposes to pilot the first programs in Jamaica for integrated management planning and management in large landscapes. The project seeks to mainstream biodiversity conservation outcomes in sectoral and parish economic planning. This approach, that would involve multi-stakeholder planning and an inter-sectoral coordination approach to biological landscape management in Jamaica would propose the following approaches: (i) a biological landscape being viewed as a system in its self, comprised of various natural, cultural and socio-economic components; in turn, it is part of the bigger national, regional, thematic, and global networks of biological landscapes; (ii) biological landscape would be appropriately zoned by ecology-based planning using a patch-corridor-matrix model for biodiversity conservation, taking account of landscape ecology, inter-connectedness, vegetation zoning, regional land-use planning, nature and cultural landscape integration, etc. (i.e. landscape planning); (iii) bringing actors from the parishes, communities, market and civil society sectors together to achieve mutual understanding and negotiate and implement mutually agreeable plans, combining top-down and bottom-up approaches and promotion of community participation (i.e. intersectoral coordination); and (iv) promoting a conservation-based economy in biological landscapes, with value creation and increased economic benefits for local people; labeling of goods and services from biological landscapes (e.g. tourism products and services; sustainable agricultural products; NTFPs, etc.); consumption and production in line with sustainable development; fair distribution; and awareness of conservation of nature and culture. Lessons learned on collaboration with the tourism and other sectors can be shared with other biological landscapes and protected areas in the region. Secondly, it is innovative because it would seek to link KBAs (and “set-asides”) and forest restoration as part of a larger effort to improve biodiversity conservation outcomes in and improve connectivity of individual parts of the larger biological landscape. Thirdly, it would serve as a pilot to develop and test sustainable financing mechanisms at the local level (community or district level) to improve incentive for community engagement in conservation, including establishment of local level revolving funds, tourism concession fees, accommodation surcharges, etc.).

125. Potential for scaling up: The project is designed to provide demonstration models for up-scaling in Jamaica. In particular, the capacity building and the development of guidelines and regulations for each aspect of the project will strongly support up-scaling. Ensuring that activities, impacts and lessons learnt from the demonstration site is disseminated widely helps generate a bottom-up demand for similar activities throughout the country. The Project’s investment component will seek to develop synergies among rural development actors and programs with an objective of raising additional investments that will fund and expand models of resource use and alternative livelihood activities within and outside of the targeted biological corridors. The financial strategy plan would facilitate replication and scaling (Output 1.5) and help assess sustainable financial and institutional arrangements for scaling up, support identification of new biological landscape sites, develop a best practice manual and conduct dissemination events to encourage uptake of integrated conservation approaches in other sites. In particular activities to be undertaken as part of the effort of scaling up include the following:

- **Development of a financial strategy** based on lessons learned at the field level that will ensure that the integrated management planning approach and models developed and pilot tested in the biological corridor is scaled up to include all other biological landscapes in the country. This Output (3.3) would support the analysis, documentation and dissemination of best practices and lessons learned that deliver tangible improvements in biodiversity and natural resources status to provide examples for replication. It would also entail participation in regional workshops and best practice sharing events to improve learning and exchange of experiences in mainstreaming biodiversity considerations, and integrated management planning and practices. Based on these best practices and lessons, the financial strategy will provide a basis for actions at other key biological landscapes, identify required institutional and coordination arrangements resources and partnership commitments (including with NGOs), select interventions and potential sites for replication by the fifth year of the project.

- **Providing technical support to facilitate identification of new biological landscapes and initiation of planning** for integrated approaches in other sites;
- **Annual seminars** for key staff and decision makers on best practices, experiences and needs;
- **Financial mechanisms** identified to strengthen and upscale financial support to conservation and sustainable land use/natural resource management in biological landscape
- **Publishing of best practice manuals/handbooks/compendiums** of integrated landscape management approaches; and
- **End of project national seminar** on outcomes and replication for integrated landscape approaches in Jamaica.

V. PROJECT MANAGEMENT

Cost efficiency and effectiveness:

130. The project has been designed to reflect the most cost-effective approach. A number of strategies were evaluated during the project formulation stage to identify those strategies and activities that demonstrate this cost-effective approach. The cost-effective approaches that have been applied to the project are the following:
131. *Defining a holistic approach to project formulation:* The project adopts an integrated spatial approach that connects land, forest and productive systems and their various interactions to maximize opportunities for synergies, such that selected actions and interventions generate multiple benefits. This is to be accomplished through development and implementation of well-designed conservation actions (protected area management with defined conservation management practices, sustainable resource use areas, non-consumptive use areas, set-asides to facilitate restoration and recovery of disturbed habitats), sustainable community resource use and management and livelihood improvement measures in agriculture, tourism, small-scale enterprises, etc. and the improved management of land and forest-based activities (based on an integrated landscape conservation approach).
132. *Sequencing of activities:* Project design and sequencing of project activities ensures that foundational activities are completed first (under Outcome 1), such as (i) establishing functional governance and coordinating mechanisms at the national and sub-national levels; (ii) policy and regulatory changes for establishing integrated landscape management and clarifying institutional responsibilities for landscape planning, management and oversight; and improved policies and practices that facilitate mainstreaming biodiversity into sector and environmental planning; and (iii) capacity improvements developed to provide the necessary groundwork for later demonstration of integrated planning and management in the selected target clusters within the landscape under Outcome 2. The project includes subsequent documentation, dissemination of best practices and knowledge management in Outcome 3 to lay the ground work for scaling up of integrated planning and management landscapes in the country and feedback mechanisms to influence further policy and legislative changes, as appropriate.
133. *Improving efficiency, effectiveness and coordination of management and enforcement actions:* The effective, efficient and coordinated use of existing national, municipal, local and NGOs capacity and resources (including manpower, budgets, equipment, etc.) based on individual agency mandates. This will ensure that landscape activities are defined within existing budgetary and institutional constraints that operate in the country and is considered a more cost-effective and sustainable strategy for management of landscapes and parts within, rather than rely on unreliable external funding that cannot be sustained beyond the project period.
134. *Models to demonstrate benefits:* Project design ensures selectivity in the identification and development of on-the-ground demonstration models (Outcome 2) focusing mainly on trialing of integrated planning and management, environmentally sustainable forest and land resources (including agriculture) use, livelihood best practices, trialing of community-based ecotourism best practices, so as to ensure cost-effectiveness in terms of avoiding duplication and ineffective spread of activities.
135. *Building on existing lessons and best practices:* As a measure to ensure cost-effectivity, project design focuses on use of available resource to the extent possible building on the existing Parish management planning approaches. Rather than hire expensive external consultants, project-supported staff would work closely with Parish level and sector staff in collaboration with local communities and local partners will make use of available information and expertise to develop plans that follow the “No Regrets” principle adopted by national policies. This results in plans that have higher levels of participation and buy-in. While they may be simpler than plans drafted by external experts, they would be more likely to be accepted and implemented by local communities. It would also build and replicate lessons from on-going and other national initiatives.

136. *Data management systems:* The project will focus on the development of standardized but simple information collection and databases at landscape level (rather than on costly GIS systems) is also a proven and effective way to collect and share data. The Knowledge Management and Communication Strategy in particular makes use of free and widely available forms of communication in the country.

137. *Co-financing Cost-effectiveness:* The total GEF investment of US\$ 6,210,046 for this project will leverage a minimum of US\$ 43,915,347 in cofinancing, a cost-effective ratio of over 1:7 with additional associated financing inputs anticipated during project implementation.

138. *Project management:* *provide information on the location (s) where the project will be operationalized, the number and local of physical project offices, arrangement for dedicated or shared operations support, how the project will work with other projects etc.*

139. Agreement on intellectual property rights and use of logo on the project's deliverables and disclosure of information: To accord proper acknowledgement to the GEF for providing grant funding, the GEF logo will appear together with the UNDP logo on all promotional materials, other written materials like publications developed by the project, and project hardware. Any citation on publications regarding projects funded by the GEF will also accord proper acknowledgement to the GEF. Information will be disclosed in accordance with relevant policies notably the UNDP Disclosure Policy⁴⁴ and the GEF policy on public involvement⁴⁵.

⁴⁴ See http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/

⁴⁵ See https://www.thegef.org/gef/policies_guidelines

VI. PROJECT RESULTS FRAMEWORK

This project will contribute to the following Sustainable Development Goal (s): *Target 15.2:* By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally; *Target 15.5:* Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species; and *Target 15.9:* integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts.

This project will contribute to the following country outcome included in the UNDAF/Country Program Document: Outcome 4 Inclusive and sustainable solutions adapted for the conservation, restoration and use of eco-systems and natural resources. Output 4.1, indicator 4.1.1, 4.2.1.

This project will be linked to the following output of the UNDP Strategic Plan: Output IRRF 2.4.1.1 Country has gender-responsive measures in place for conservation, sustainable use, and equitable access to and benefit sharing of natural resources, biodiversity and ecosystems:

	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Data Collection Methods and Risks/Assumptions
Project Objective: <i>To enhance conservation of biodiversity and ecosystem services through mainstreaming of biodiversity into policies and practices into Jamaica's productive landscapes and key sectors⁴⁶</i>	Indicator 1: GEF Core Indicator 1.1: Number of hectares on new protected areas created Note: The project landscape includes almost exclusively the proposed Cockpit Country PA (IUCN category "Protected Landscape") and Stepheny John's Vale FR. The project landscape can be a considered as a productive landscape with some of the most important remaining areas of undisturbed closed broadleaf forest in Jamaica, some production forests extensive areas of production forests (hardwood and pine), agriculture and tree crops, agro-forestry, slash and burn agriculture, NTFP collection, etc., with various development sectors (agriculture, environment, forestry, water resources, tourism, etc.) and parish and local governments operating within the landscape.	33,085 ha of Cockpit Country designated as forest reserves with limited management inputs	Cockpit Country forest reserve and other forests areas within Cockpit Country designated as Cockpit Country PA covering around 75,000 ha	Cockpit Country covering around 75,000 ha under improved management through development of management plan, improved financial manpower resources and conservation investments	<u>Means of verification:</u> -Government gazette notification -Cockpit Country management plan -Forest restoration plans -Forest monitoring plans -Community income survey reports <u>Assumptions:</u> -Local communities, national and parish governments understand livelihood benefits and ecological security from cooperation with and sustainable management of land, forest and other natural resources. Thus, they will participate in sustainable management and ecosystem restoration work. -The National and Parish Governments consider it their priority to support integrated ecosystem management planning of its biological landscape and implement target- oriented activities with local communities to improve conservation and sustainable use of such resources. -Parish and local governments, CBOs, private sector and communities collaborate closely for preparation of Integrated landscape plans and approaches <u>Risks:</u>

	Indicator 2: GEF Core Indicators 3.1 and 3.2 Area of disturbed broad leaf forest lands restored Note: Since, full restoration of forest cover would take longer than the project some proxy measures are taken into consideration to measure impacts; namely (i) participatory forest restoration plans developed and under implementation; (ii) community roles defined through MOUs for restoration, maintenance and monitoring; (iii) benefit sharing agreements with communities agreed to; (iv) various new innovative lost cost restoration techniques being tried out; (v) private-public partnerships for forest regeneration established; (vi) agro-forestry systems under development for degraded areas, etc.	<i>Forest lands under continued degradation due to poor management regimes and lack of proven and cost-effective methods of use and restoration</i>	<i>Areas of forest land restoration identified and under process of restoration (400 ha of disturbed natural forests and 200 ha of degraded common areas) providing economic benefits</i>	<i>600 ha of disturbed natural forests and degraded common lands restored⁴⁷ providing economic benefits</i>	<i>-Natural disaster/climate change may affect the restoration work.</i> <i>-Lack of capacity in government and communities to meet obligations related to project.</i> <i>-Political transitions leave plans unused.</i> <i>-Livelihood benefits from sustainable management may be limited and slow for communities to give up current unsustainable practices</i> <i>- Lack of involvement from private sector and/or resource users (including vulnerable people) with continued unsustainable practices</i> <i>-Conflicts over territorial issues between parish and local communities could undermine efforts at promoting integrated planning approaches.</i>
	Indicator 3: GEF Core Indicator 11: Number of direct beneficiaries disaggregated by sex as co-benefit of GEF investment Note: Direct beneficiaries will receive project investments for agricultural improvement, livelihoods, value addition and non-agricultural income generation activities	<i>Baseline number of project beneficiaries = 0</i> <i>Baseline annual average incomes in project clusters assessed at US\$ 2,880/year</i> Note: This baseline value is derived from the “A Socio-economic Study of the Communities Utilizing Johns Vale Forest Reserve” 2013. Forestry Department.	<i>Around 3,000 persons (at least 40% women) with 5% average increase in income in participating clusters</i>	<i>At least 12,000 persons composed of at least 40% women directly benefiting from improved natural resources management practices, improved livelihoods and small business development with 15% average increase in incomes from average baseline in participating clusters</i>	

Outcome⁴⁸ 1 <i>Strengthened policy, regulatory, institutional and governance framework in place for mainstreaming biodiversity into sectoral and land use planning and decision making for integrated management of biological landscapes</i>	Indicator 4: Extent to which legal or policy instruments are in place for integration of socio-economic development, agriculture, forest, mining, fisheries, and tourism into sectoral planning and gender responsive management of biological landscapes (UNDP mandatory indicator: IRRF Output 2.5 indicator 2.5.1). <u>Note:</u> The potential instruments drafted could include decrees, circulars or guidelines to incorporate biodiversity consideration in socio-economic development planning, mainstreaming biodiversity into tourism, agriculture, aquaculture, forestry and other relevant sectors, biological corridor zoning, and differentiation of EIA and BIA application in different zones of biological corridors, as well as PA declaration notices clarifying institutional roles and responsibilities and zoning; revised/new Development Orders to reflect mainstreaming of biodiversity in development actions; PA regulations; Guidelines for private forests management; guidelines for biodiversity mainstreaming in mining, forestry, tourism, etc.;	<i>Specific, targeted integrated biodiversity management planning and management regulations, guidelines and policies largely absent or rudimentary</i>	<i>Regulations, guidelines and policies for integrated planning and management and biodiversity mainstreaming in sector planning adopted by Government for submission to National Assembly and Circulars, Guidelines, Joint Memorandum, Administrative Orders, etc. under preparation</i>	<i>At least six instruments (circulars and guidelines, Joint Memorandum, Administrative Orders,) clarifying integrated planning for mainstreaming biodiversity in sectoral and local planning systems drafted</i>	<u>Means of verification:</u> -Government gazette notifications -Government or sector administrative orders -Official release of guideline notices and guideline documents -Updated UNDP capacity development scorecard -Monitoring reports <u>Assumption:</u> -The national government will develop appropriate legislative, policy, institutional and technical measures informed by gender analysis that facilitate integrated landscape planning and management in a timely manner. -Development strategies and landscape management strategies and plans will be officially endorsed by parish governments with allocation of appropriate staff and funding for their implementation -The Municipal Corporations (Parishes) will take active part in developing the strategies and implementation using new knowledge and skills provided by the project -Local communities are convinced mainstreaming biodiversity and gender into key development sectors is in their long-term interests <u>Risks:</u> -Priorities of Parish government and local communities might shift if development benefits take long to manifest
	Indicator 5: Level of institutional capacities for planning, implementation and monitoring integrated biodiversity management planning in biological landscapes as measured by UNDP's capacity development scorecard	<i>Limited institutional capacities for planning, implementation and monitoring of multiple use integrated planning and management in biological landscapes as measured by UNDP Capacity Development Scorecard baseline values of 21</i>	<i>Increase of institutional capacity as measured by a 10 point increase in UNDP National Capacity Development Scorecard baseline value</i>	<i>Increase of institutional capacity as measured by at least a 30 point increase in UNDP National Capacity Development Scorecard of baseline values</i>	

	<u>Indicator 6:</u> Extent to which Protected Areas System has adopted automated biodiversity monitoring system for biodiversity and threat assessment	<i>Monitoring system in PAs paper-based and inefficient to capture real-time monitoring of biodiversity and threats</i>	<i>At least Cockpit Country has adopted automated digital, online monitoring system for biodiversity and threat assessment</i>	<i>Automated digital, online biodiversity monitoring system for biodiversity and threat assessment extended nationally</i>	
Outcome 2 <i>Integrated landscape level planning and management of biologically rich ecosystems through conservation and sustainable community and private sector use</i>	<u>Indicator 7:</u> Improved management effectiveness of existing forest reserves within designated biological landscape supported by tenure security and improved resource access and sustainable use	<i>Baseline METT scores: CC PA : 17 SJV FR : 39</i>	<i>Average increase by at least 10 points in METT for CC PA</i>	<i>Average increase by at least 20 points in METT from current baselines for CC PA</i> <u>Note:</u> The 20 point increase in METT score refers to CCPA only, and not to SJV FR because activities proposed in SJV FR is limited to natural resources valuation alone	<u>Means of verification:</u> -Updated METT Tracking Tools -Project progress reports -Community survey and perception reports -Annual work plans and budget reports <u>Assumption:</u> -Development strategies and management plans will be officially approved by Parish governments with allocation of appropriate funding for their implementation -The Municipal Corporations will take active part in developing the strategies and implementation using new knowledge and skills provided by the project -Local communities are convinced that critical habitats in their vicinities will benefit livelihoods and ecological security to them and they will participate in conservation and restoration work. -Local community based institutions would establish an effective gender sensitive institutional mechanism to facilitate conservation outcomes <u>Risk:</u> -Administrative/political changes may undermine the implementation of the management plan strategies -Lack of capacity in government and communities to meet obligations related to project -Conflicts between Parish and sector entities and local communities regarding management and access to natural resources may undermine integrated planning approaches
	<u>Indicator 8:</u> Number of hectares of degraded agricultural lands rehabilitated using biodiversity-friendly restoration technologies and ecologically sensitive livelihood measures <u>Note:</u> The potential list of biodiversity-friendly restoration and livelihood options are detailed in Annex 18	<i>Agricultural lands under continued degradation due to poor management regimes and lack of proven and cost-effective methods of use and restoration</i>	<i>At least 250 ha of degraded agricultural lands under improved rehabilitation using biodiversity-friendly restoration technologies</i>	<i>At least 2,500 ha of degraded agricultural lands, under improved rehabilitation using biodiversity-friendly restoration technologies</i>	

	<u>Indicator 9:</u> Status of populations remain stable or increasing, namely: (i) Giant Swallowtail and Panton's Fritillary Butterfly; (ii) Black-billed and Yellow-tailed parrots; and (iii) White-crowned, Ring-tailed and Plain Pigeons <u>Note:</u> Monitoring Methods include the following: <u>For butterflies,</u> methods of measurement include Measurement method includes the 'Pollard Walk' to count number of butterfly adults through a fixed transect walk in locations where butterflies are recorded (weekly basis). Transects typically 2-4 km long divided into sections corresponding to different habitats or management units. Preferably monitoring in at least two six-week periods in May-July and Oct-Dec. <u>For Parrots,</u> it includes monitoring at least once a year using a simultaneous census approach, involving a participatory approach that will engage community members and experts on a particular day between dawn and 10 AM to cover as much of the area as possible <u>For Pigeons:</u> it entails using point source counts (used in Cockpit Country 10 years ago) consisting of 1-minute acclimation and 6 minutes counting. Counts carried out on standard routes (roads or trails within forest habitat), each route with 10 points at least 200m apart. Counts carried out 3 times/year on each route between April and July. Minimum number of routes is 10.	<i>Key species under continued threat from forest loss and degradation and poaching. Baseline to be established in Year 1</i> <i><u>Note:</u> The project will support in Year 1 the design of a monitoring framework to assess baselines and changes in key population status and support annual monitoring</i>	<i>Key species rate of population loss declining over baseline</i>	<i>Key species populations stable or increasing from baseline values</i>	<u>Means of verification:</u> -Species monitoring survey reports <u>Assumption:</u> -Adequate technical capacity available for undertaking monitoring species populations -Wildlife populations are declining because of hunting, and improved enforcement will help increase population <u>Risk:</u> -External factors beyond the control of the project (e.g. climate change) might affect bird populations negatively
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Outcome 3 <i>Knowledge management and monitoring and evaluation support contributes to equitable gender benefits and increased awareness of biodiversity conservation</i>	<u>Indicator 10:</u> Increase in percentage of sampled community members, government and sector agency staff, private sector and other stakeholders (disaggregated by sex and type of beneficiary) aware of and taking action to address potential conservation threats and their adverse impacts on biodiversity within biological corridors as measured by KAP survey approach. <u>Note:</u> The Knowledge, Attitude and Practices (KAP) approach will collect reference qualitative and quantitative declarative information on misunderstanding and barriers to behavior change, using appropriate tools including survey questionnaires, Focus Group Discussions and Key Informant Interviews, among others.	<i>Coordinated outreach on conservation threats lacking. Limited awareness of impact unplanned development among general public. Baseline survey established in Year 1</i>	<i>At least 15 % sampled community members, government and sector agency staff, private sector and other stakeholders (at least 30% women) aware of potential conservation threats and adverse impacts of unplanned developments) and have undertaken 1 or more actions to reduce threats or improve conservation</i>	<i>At least 50% (of which at least 30% women) of sampled community members, government and sector agency staff, private sector and other stakeholders aware of potential conservation threats and adverse impacts of unplanned developments and have undertaken 1 or more actions to reduce threats or improve conservation</i>	<u>Means of verification:</u> -KAP surveys - KM documents, best practice documents, proceedings of dissemination events and implementation reports <u>Assumption:</u> -Stakeholders willing to actively participate in the review process. -Project management will be able to identify, document and disseminate the best practices -Mid Term Review and End of Project Evaluation of the project will also contribute to identifying the best practices -Best practices from sustainable resource management readily available to resource users <u>Risks:</u> -Government priorities may change from due to political pressure from resource users -Actions among the assorted agencies and NGOs remain uncoordinated -Community diversity will not be a hindrance to outreach activities
	<u>Indicator 11:</u> Number of best practice conservation and sustainable resource management codified and disseminated nationally and internationally	<i>Limited number (less than 5) of best practice conservation and sustainable resource management codified and disseminated nationally and internationally</i>	<i>At least three additional best practices in conservation and sustainable resource management codified and disseminated nationally and internationally</i>	<i>At least ten additional best practice in conservation and sustainable resource management codified and disseminated nationally and internationally</i>	

VII. MONITORING AND EVALUATION (M&E) PLAN

140. The project results as outlined in the project results framework will be monitored annually and evaluated periodically during project implementation to ensure the project effectively achieves these results. *Supported by Component/Outcome Four: Knowledge Management and M&E, the project monitoring and evaluation plan will also facilitate learning and ensure knowledge is shared and widely disseminated to support the scaling up and replication of project results.*

141. Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the [UNDP POPP](#) and [UNDP Evaluation Policy](#). The UNDP Country Office will work with the relevant project stakeholders to ensure UNDP M&E requirements are met in a timely fashion and to high quality standards. Additional mandatory GEF-specific M&E requirements (as outlined below) will be undertaken in accordance with the [GEF M&E policy](#) and other relevant GEF policies⁴⁹.

142. In addition to these mandatory UNDP and GEF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed during the Project Inception Workshop and will be detailed in the Inception Report. This will include the exact role of project target groups and other stakeholders in project M&E activities including the GEF Operational Focal Point and national/regional institutes assigned to undertake project monitoring. The GEF Operational Focal Point will strive to ensure consistency in the approach taken to the GEF-specific M&E requirements (notably the GEF Tracking Tools) across all GEF-financed projects in the country. This could be achieved for example by using one national institute to complete the GEF Tracking Tools for all GEF-financed projects in the country, including projects supported by other GEF Agencies.⁵⁰

M&E Oversight and monitoring responsibilities:

143. Project Director: The Project Director (with support from the Financial and Procurement officers) is responsible for day-to-day project management and regular monitoring of project results and risks, including social and environmental risks. The Project Director will ensure that all project staff maintain a high level of transparency, responsibility and accountability in M&E and reporting of project results. The Project Director will inform the Project Board, the UNDP Country Office and the UNDP-GEF RTA of any delays or difficulties as they arise during implementation so that appropriate support and corrective measures can be adopted.

144. The Project Director will develop annual work plans based on the multi-year work plan included in Annex 1, including annual output targets to support the efficient implementation of the project. The Project Director will ensure that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality. This includes, but is not limited to, ensuring the results framework indicators are monitored annually in time for evidence-based reporting in the GEF PIR, and that the monitoring of risks and the various plans/strategies developed to support project implementation (e.g. ESMP, gender action plan, stakeholder engagement plan etc.) occur on a regular basis.

145. Project Board: The Project Board will take corrective action as needed to ensure the project achieves the desired results. The Project Board will hold project reviews to assess the performance of the project and appraise the Annual Work Plan for the following year. In the project's final year, the Project Board will hold an end-of-project review to capture lessons learned and discuss opportunities for scaling up and to highlight project results and lessons learned with relevant audiences. This final review meeting will also discuss the findings outlined in the project terminal evaluation report and the management response.

146. Project Implementing Partner: The Implementing Partner is responsible for providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary. The Implementing Partner will strive to ensure project-level M&E is undertaken by

⁴⁹ See https://www.thegef.org/gef/policies_guidelines

⁵⁰ See https://www.thegef.org/gef/gef_agencies

national institutes, and is aligned with national systems so that the data used and generated by the project supports national systems.

147. **UNDP Country Office:** The UNDP Country Office will support the Project Director as needed, including through annual supervision missions. The annual supervision missions will take place according to the schedule outlined in the annual work plan. Supervision mission reports will be circulated to the project team and Project Board within one month of the mission. The UNDP Country Office will initiate and organize key GEF M&E activities including the annual GEF PIR, the *independent mid-term review* and the independent terminal evaluation. The UNDP Country Office will also ensure that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality.
148. The UNDP Country Office is responsible for complying with all UNDP project-level M&E requirements as outlined in the [UNDP POPP](#). This includes ensuring the UNDP Quality Assurance Assessment during implementation is undertaken annually; that annual targets at the output level are developed, and monitored and reported using UNDP corporate systems; the regular updating of the ATLAS risk log; and, the updating of the UNDP gender marker on an annual basis based on gender mainstreaming progress reported in the GEF PIR and the UNDP ROAR. Any quality concerns flagged during these M&E activities (e.g. annual GEF PIR quality assessment ratings) must be addressed by the UNDP Country Office and the Project Manager.
149. The UNDP Country Office will retain all M&E records for this project for up to seven years after project financial closure to support ex-post evaluations undertaken by the UNDP Independent Evaluation Office (IEO) and/or the GEF Independent Evaluation Office (IEO).
150. **UNDP-GEF Unit:** Additional M&E and implementation quality assurance and troubleshooting support will be provided by the UNDP-GEF Regional Technical Advisor and the UNDP-GEF Directorate as needed.
151. **Audit:** The project will be audited as per UNDP Financial Regulations and Rules and applicable audit policies on NIM implemented projects.⁵¹

Additional GEF monitoring and reporting requirements:

152. **Inception Workshop and Report:** A project inception workshop will be held within two months after the project document has been signed by all relevant parties to, amongst others:
- Re-orient project stakeholders to the project strategy and discuss any changes in the overall context that influence project strategy and implementation;
 - Discuss the roles and responsibilities of the project team, including reporting and communication lines and conflict resolution mechanisms;
 - Review the results framework and finalize the indicators, means of verification and monitoring plan;
 - Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E; discuss the role of the GEF OFP in M&E;
 - Update and review responsibilities for monitoring the various project plans and strategies, including the risk log; SESP, Environmental and Social Management Plan and other safeguard requirements; project grievance mechanisms; the gender strategy; the knowledge management strategy, and other relevant strategies;
 - Review financial reporting procedures and mandatory requirements, and agree on the arrangements for the annual audit; and
 - Plan and schedule Project Board meetings and finalize the first year annual work plan.

⁵¹ See guidance here: <https://info.undp.org/global/popp/frm/pages/financial-management-and-execution-modalities.aspx>

153. The Project Director will prepare the inception report no later than one month after the inception workshop. The inception report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and will be approved by the Project Board.
154. GEF Project Implementation Report (PIR): The Project Director, the UNDP Country Office, and the UNDP-GEF Regional Technical Advisor will provide objective input to the annual GEF PIR covering the reporting period July (previous year) to June (current year) for each year of project implementation. The Project Director will ensure that the indicators included in the project results framework is monitored annually in advance of the PIR submission deadline so that progress can be reported in the PIR. Any environmental and social risks and related management plans will be monitored regularly, and progress will be reported in the PIR.
155. The PIR submitted to the GEF will be shared with the Project Board. The UNDP Country Office will coordinate the input of the GEF Operational Focal Point and other stakeholders to the PIR as appropriate. The quality rating of the previous year's PIR will be used to inform the preparation of the subsequent PIR.
156. Lessons learned and knowledge generation: Results from the project will be disseminated within and beyond the project intervention area through existing information sharing networks and forums. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to the project. The project will identify, analyse and share lessons learned that might be beneficial to the design and implementation of similar projects and disseminate these lessons widely. There will be continuous information exchange between this project and other projects of similar focus in the same country, region and globally.
157. GEF Focal Area Tracking Tools: The following GEF Tracking Tool(s) will be used to monitor global environmental benefits: *list the required GEF Tracking Tool(s), as agreed with the UNDP-GEF Regional Technical Advisor*. The baseline/CEO Endorsement GEF Focal Area Tracking Tool(s) – submitted as Annex to this project document – will be updated by the Project Director/National Coordination Team (not the evaluation consultants hired to undertake the MTR or the TE) (*indicate other project partner, if agreed*) and shared with *the mid-term review consultants* and terminal evaluation consultants before the required *review/evaluation* missions take place. The updated GEF Tracking Tool(s) will be submitted to the GEF along with the completed *Mid-term Review report* and Terminal Evaluation report.
158. Independent Mid-term Review (MTR): *An independent mid-term review process will begin after the second PIR has been submitted to the GEF, and the MTR report will be submitted to the GEF in the same year as the 3rd PIR. The MTR findings and responses outlined in the management response will be incorporated as recommendations for enhanced implementation during the final half of the project's duration. The terms of reference, the review process and the MTR report will follow the standard templates and guidance prepared by the UNDP IEO for GEF-financed projects available on the [UNDP Evaluation Resource Center \(ERC\)](#). As noted in this guidance, the evaluation will be 'independent, impartial and rigorous'. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. The GEF Operational Focal Point and other stakeholders will be involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the UNDP-GEF Directorate. The final MTR report will be available in English and will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and approved by the Project Board.*
159. Terminal Evaluation (TE): An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The terminal evaluation process will begin three months before operational closure of the project allowing the evaluation mission to proceed while the project team is still in place, yet ensuring the project is close enough to completion for the evaluation team to reach conclusions on key aspects such as project sustainability. The Project Director will remain on contract until the TE report and management response have been finalized. The terms of reference, the evaluation process and the final TE report will follow the standard templates and guidance prepared by the UNDP IEO for GEF-financed projects available on the

[UNDP Evaluation Resource Center](#). As noted in this guidance, the evaluation will be ‘independent, impartial and rigorous’. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. The GEF Operational Focal Point and other stakeholders will be involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the UNDP-GEF Directorate. The final TE report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and will be approved by the Project Board. The TE report will be publically available in English on the UNDP ERC.

160. The UNDP Country Office will include the planned project terminal evaluation in the UNDP Country Office evaluation plan, and will upload the final terminal evaluation report in English and the corresponding management response to the UNDP Evaluation Resource Centre (ERC). Once uploaded to the ERC, the UNDP IEO will undertake a quality assessment and validate the findings and ratings in the TE report, and rate the quality of the TE report. The UNDP IEO assessment report will be sent to the GEF IEO along with the project terminal evaluation report.

161. Final Report: The project’s terminal PIR along with the terminal evaluation (TE) report and corresponding management response will serve as the final project report package. The final project report package shall be discussed with the Project Board during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.

Table 5: Mandatory GEF M&E Requirements and M&E Budget:

GEF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget ⁵² (US\$)		Time frame
		GEF grant	Co-financing	
Inception Workshop	UNDP Country Office	5,000	5,000	Within two months of project document signature
Inception Report	Project Director	None	None	Within two weeks of inception workshop
Standard UNDP monitoring and reporting requirements as outlined in the UNDP POPP	UNDP Country Office	None	None	Quarterly, annually
Risk management	Project Director Country Office	None	None	Quarterly, annually
Monitoring of indicators in project results framework	Project Director with support from M&E consultant	None (<i>please refer to footnote 68</i>)	12,000	Annually before PIR
GEF Project Implementation Report (PIR)	Project Director and UNDP Country Office and UNDP-GEF team	None	None	Annually
NIM Audit as per UNDP audit policies	UNDP Country Office	None	18,000 ⁵³	Annually or other frequency as per UNDP Audit policies

⁵² Excluding project team staff time and UNDP staff time and travel expenses.

⁵³ Audits co-financed by UNDP

GEF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget ⁵² (US\$)		Time frame
		GEF grant	Co-financing	
Lessons learned and knowledge generation	Project Director and consultants	None ⁵⁴	30,000	Annually
Monitoring of environmental and social risks, and corresponding management plans as relevant ⁵⁵	Project Director and M&E officer UNDP Country Office	180,000	20,000	On-going
Stakeholder Engagement Plan	Project Director and consultants UNDP Country Office	None	20,000	On-going
Gender Action Plan	Project Director with support from gender specialist UNDP Country Office UNDP GEF team	None	20,000	On-going
Addressing environmental and social grievances	Project Director and M&E specialist UNDP Country Office	None	None	On-going
Project Board meetings	Project Board UNDP Country Office Project Director	None	12,000	At minimum annually
Supervision missions	UNDP Country Office	None ⁵⁶	6,000	Annually
Oversight missions	UNDP-GEF team	None ⁵⁶	None	Troubleshooting as needed
GEF Secretariat learning missions/site visits	UNDP Country Office and Project Director and UNDP-GEF team	None	None	To be determined.
<i>Mid-term GEF Tracking Tool to be updated</i>	Project Director and M&E Officer	None	5,000	Before mid-term review mission takes place.
<i>Independent Mid-term Review (MTR) and management response</i>	UNDP Country Office and Project team and UNDP-GEF team	30,000	5,000	Between 2 nd and 3 rd PIR.
Terminal GEF Tracking Tool to be updated	Project Director	None	5,000	Before terminal evaluation mission takes place
Independent Terminal Evaluation (TE) included in UNDP evaluation plan, and management response	UNDP Country Office and Project team and UNDP-GEF team	50,000	10,000	At least three months before operational closure
<i>Translation of MTR and TE reports into English</i>	UNDP Country Office	None	None	As required. GEF will only accept reports in English.

⁵⁴ Costs reflected under Component 3

⁵⁵ The \$180,000 covers the time of the M&E Specialist, technical specialists (in particular gender specialist) and support from the Ministry of Gender Affairs in monitoring the implementation of the results framework, social, environmental and gender management plans

⁵⁶ The costs of UNDP Country Office and UNDP-GEF Unit's participation and time are charged to the GEF Agency Fee.

GEF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget ⁵² (US\$)		Time frame
		GEF grant	Co-financing	
TOTAL indicative COST Excluding project team staff time, and UNDP staff and travel expenses		265,000	168,000	

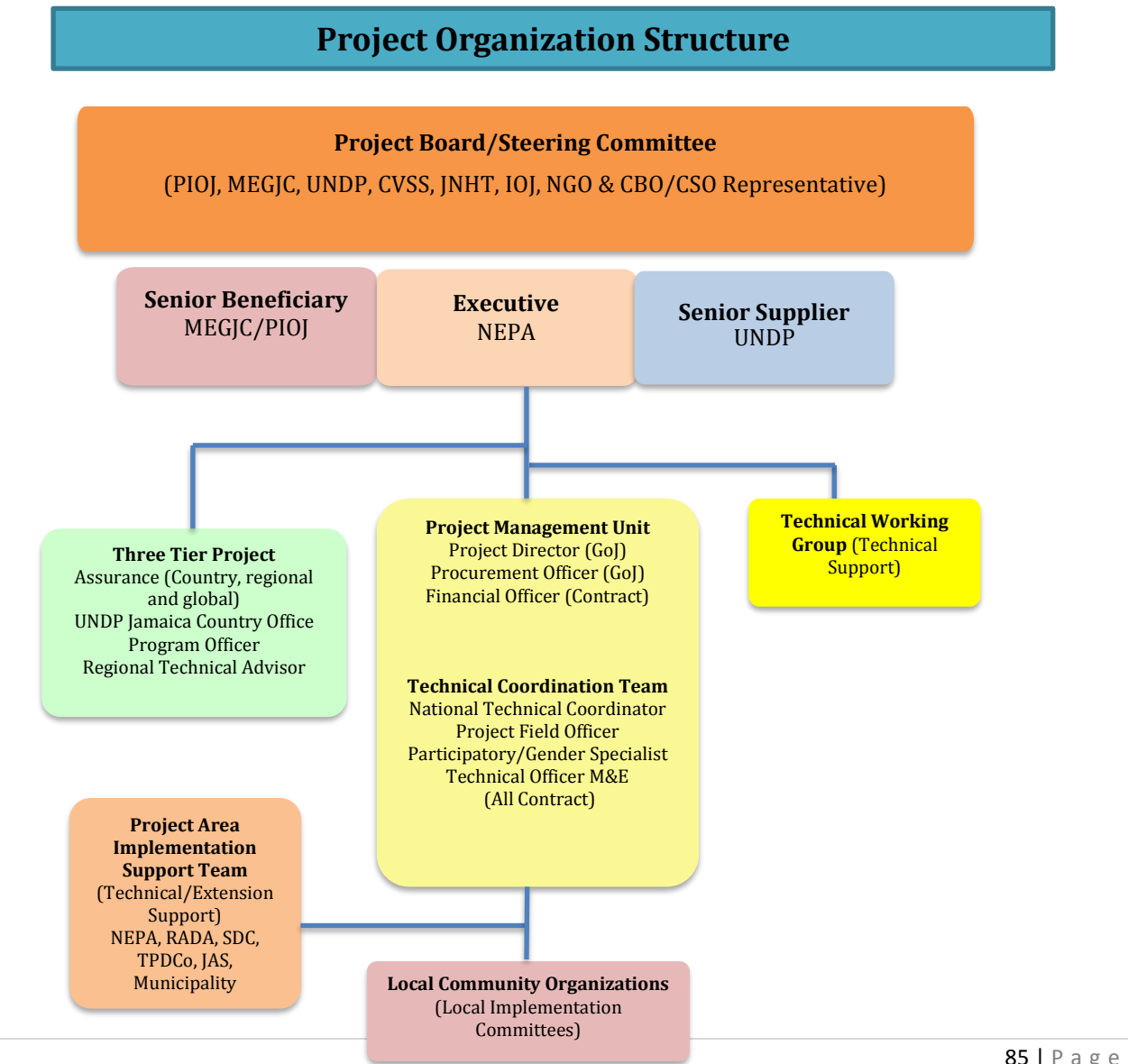
VIII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

162. Roles and responsibilities of the project’s governance mechanism: The project will be implemented following UNDP’s national implementation modality, according to the Standard Basic Assistance Agreement between UNDP and the Government of *Jamaica*, and the Country Program. The **Implementing Partner** for this project is the National Environmental and Planning Agency of the Ministry of Economic Growth and Job Creation.

163. The Implementing Partner is responsible and accountable for managing this project, including the monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of UNDP resources. The Implementing Partner is responsible for:

- Approving and signing the multi-year work plan;
- Approving and signing the combined delivery report at the end of the year; and,
- Signing the financial report or the funding authorisation and certificate of expenditures.

164. The project organisation structure is as follows:



165. **Project Board:** The Project Board (also called Project Steering Committee) is responsible for making by consensus, management decisions to guide the Project Director, including recommendations for UNDP/Implementing Partner approval of project plans and revisions, and addressing any project level grievances. In order to ensure UNDP's ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition. In case a consensus cannot be reached within the Board, the final decision shall rest with the UNDP Program Manager.

166. The PSC could be comprised of the PIOJ, MEGJC, UNDP, NEPA, FD, supported by NGOs such as CVSS and CBO/CSOs drawn from direct project beneficiaries to ensure representation by beneficiary groups. NGOs, CBO/CSOs will nominate their representative to serve on the PSC. The CBO/CSOs will serve for two years. The representation will rotate over the six-year duration of the project.

167. Specific responsibilities of the Project Board include:

- Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;
- Address project issues as raised by the Project Director and stakeholders;
- Provide guidance on new project risks, and agree on possible countermeasures and management actions to address specific risks;
- Agree on Project Director's tolerances as required;
- Review the project progress, and provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans;
- Appraise the annual project implementation report, including the quality assessment rating report; make recommendations for the work plan;
- Sign off on annual work plans;
- Provide ad hoc direction and advice for exceptional situations when the Project Director's tolerances are exceeded; and
- Assess and decide to proceed on project changes through appropriate revisions.

168. The composition of the Project Board must include the following roles:

169. **Executive:** The Executive represents ownership of the project and chairs the Project Board. The Executive is the National Environmental and Planning Agency (NEPA).

170. The Executive is ultimately responsible for the project, supported by the Senior Beneficiary and Senior Supplier. The Executive's role is to ensure that the project is focused throughout its life cycle on achieving its objectives and delivering outputs that will contribute to higher level outcomes. The Executive has to ensure that the project gives value for money, ensuring a cost-conscious approach to the project, balancing the demands of beneficiary and supplier. The Executive further has the authority to commit or acquire supplier resources required.

171. **Specific Responsibilities:** (as part of the above responsibilities for the Project Board):

- Ensure that there is a coherent project organization structure and logical set of plans;
- Set tolerances in the Annual Work Plan (AWP) and other plans as required for the Project Director;
- Monitor and control the progress of the project at a strategic level;
- Ensure that risks are being tracked and mitigated as effectively as possible;
- Brief relevant stakeholders about project progress;

172. **Senior Supplier:** The Senior Supplier is an individual or group representing the interests of the parties concerned which provide funding and/or technical expertise to the project (designing, developing, facilitating, procuring, implementing). The Senior Supplier's primary function within the Board is to provide guidance regarding the technical feasibility of the project. If necessary, more than one person may be required for this role. Typically, the implementing partner, UNDP and/or donor(s) would be represented under this role.

173 The Senior Supplier is UNDP.

174 Specific Responsibilities (as part of the above responsibilities for the Project Board)

- Ensure progress towards the outputs remains consistent from the supplier perspective;
- Promote and maintain focus on the expected project output(s) from the point of view of supplier management;
- Ensure that the supplier resources required for the project are made available;
- Contribute supplier opinions on Project Board decisions on whether to implement recommendations on proposed changes;
- Arbitrate on, and ensure resolution of, any supplier priority or resource conflicts.

175 **Senior Beneficiary:** The Senior Beneficiary is an individual or group of individuals representing the interests of those who will ultimately benefit from the project. The Senior Beneficiary's primary function within the Board is to ensure the realization of project results from the perspective of project beneficiaries. The Senior Beneficiary is MEGJC/PIOJ.

176 The Senior Beneficiary is responsible for validating the needs and for monitoring that the solution will meet those needs within the constraints of the project. The Senior Beneficiary monitors progress against targets and quality criteria. This role may require more than one person to cover all the beneficiary interests. For the sake of effectiveness, the role should not be split between too many people.

177 Specific Responsibilities (as part of the above responsibilities for the Project Board)

- Prioritize and contribute beneficiaries' opinions on Project Board decisions on whether to implement recommendations on proposed changes;
- Specification of the Beneficiary's needs is accurate, complete and unambiguous;
- Implementation of activities at all stages is monitored to ensure that they will meet the beneficiary's needs and are progressing towards that target;
- Impact of potential changes is evaluated from the beneficiary point of view;
- Risks to the beneficiaries are frequently monitored.

178 **Project Assurance:** UNDP provides three-tier supervision, oversight and quality assurance role – funded by the GEF agency fee – involving UNDP staff in Country Offices and at regional and headquarters levels. Project Assurance must be totally independent of the Project Management function. The quality assurance role supports the Project Board and Project Management Unit by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed.

179 The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. This project oversight and quality assurance roles are covered by the GEF.

180 **Technical Working Group:** The existing technical working group for the GEF project will continue to serve during the implementation period of the project to guide and provide technical support. The membership of the TWG is to be complemented with an Attorney given the legal issues that could arise from project implementation.

181 **Project Management Unit:** The Project Management Unit (PMU) under NEPA would manage the day-to-day activities of the project on behalf of the Project Board and make management and implementation decisions within the constraints laid by the Project Board. The PMU will be decentralized with visibility in the project area and will consist of a Project Director (senior staff of NEPA), a Procurement Officer (staff of NEPA) and a Financial Officer (on contract) and that will be supported by a Technical Coordination Team that includes a

National Technical Coordinator, Technical Officer (M&E); Field Coordination officer and Participatory/Gender Specialist.

182 **Project Director:** The Project Director (PD) will be officially appointed by NEPA. He/she will manage the PMU and will be accountable to NEPA for the use of project resources and to deliver on outcomes. The PD will manage the implementation of all project activities and will work closely with all partner institutions to link the project with complementary national programs and initiatives. The PD is accountable to NEPA, and the PSC for the quality, timeliness, and effectiveness of the activities carried out, as well as for the use of funds. Detailed TORs in Annex 2.

183 The PD will also be technically supported by contracted national and international consultants and service providers. Recruitment of specialist services for the project will be done by the PD, in consultation with the UNDP and the NEPA. The PD will not be paid from the project funds, but, will represent a Government in-kind contribution to the project.

184 The Project Director will be expected to undertake the following tasks, with support from the financial and procurement officer as listed below:

- Provide direction and guidance to project team(s)/ responsible party (ies);
- Liaise with the Project Board to assure the overall direction and integrity of the project;
- Identify and obtain any support and advice required for the management, planning and control of the project;
- Responsible for project administration;
- Plan the activities of the project and monitor progress against the project results framework and the approved annual workplan;
- Mobilize personnel, goods and services, training and micro-capital grants to initiative activities, including drafting terms of reference and work specifications, and overseeing all contractors' work;
- Monitor events as determined in the project monitoring schedule plan/timetable, and update the plan as required;
- Manage requests for the provision of financial resources by UNDP, through advance of funds, direct payments or reimbursement using the fund authorization and certificate of expenditures;
- Monitor financial resources and accounting to ensure the accuracy and reliability of financial reports;
- Be responsible for preparing and submitting financial reports to UNDP on a quarterly basis;
- Manage and monitor the project risks initially identified and submit new risks to the project board for consideration and decision on possible actions if required; update the status of these risks by maintaining the project risks log;
- Capture lessons learned during project implementation;
- Prepare the annual workplan for the following year; and update the Atlas Project Management module if external access is made available.
- Prepare the GEF PIR and submit the final report to the Project Board;
- Based on the GEF PIR and the Project Board review, prepare the AWP for the following year.
- Ensure the mid-term review process is undertaken as per the UNDP guidance, and submit the final MTR report to the Project Board.
- Identify follow-on actions and submit them for consideration to the Project Board;
- Ensure the terminal evaluation process is undertaken as per the UNDP guidance, and submit the final TE report to the Project Board

185 The Project Director's prime responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost. Additional tasks are detailed in Annex 2.

186 **Technical Coordination Team:** Implementation of the integrated project activities will be supported by a Technical Coordination Team that will include a National Technical Coordinator and a Technical Officer (M&E)

who will be stationed in Kingston and a Field Officer/Coordinator and Participatory/Social Inclusion Specialist located in Cockpit Country, all funded by the project. The Technical Coordination Team will work very closely (as a single team) with the respective Project Area Implementation Support Teams to plan and implement the project at the ground level. Detailed TORs for Project Field Officer and Participatory/Gender Specialist in Annex 2).

187 Project Area Implementation Support Team: Through existing structures such as the Inter-Agency Networks (IANs) major GOJ entities such as RADA, NEPA, FD, Social Development Commission or SDC, Jamaica Agriculture Society or JAS, Tourism Product Development Company or TPDCo., Parish Development Committee or PDC, etc.), an overarching body that oversees the operations of the entire project area (Cockpit Country) will work closely with the Technical Coordination Team and the PMU to plan and implement the project activities within target clusters, in particular to participate in the planning of community investments and provide technical and extension support for implementation of project activities at the community level.

188 Local Community Organizations: The implementation of the project activities at the community level within the target clusters will be undertaken by the clusters through their respective community-based organizations (CBOs, LFMCS, etc.) in partnership with technical, extension and technological support from the respective sectoral institutions represented on the Parish Cluster Planning and Implementation Teams. There may be different structures in different local implementation areas.

Governance role for project target groups:

189 The National Governance and Coordination Committee will facilitate the engagement, transparency and coordination among key decision-makers, sectors and stakeholders at the national level, including in particular, to oversee arrangements between NEPA, Forest Department and RADA and respective Parishes in the planning and implementation of the project.

190 During the initial year of the project, the governance structure will advise and support the drafting and adoption of the regulatory and planning framework, standard operating protocols, bylaws regulation and guidelines to facilitate the conservation of biodiversity and ecosystems within biological landscapes in Jamaica and for mainstreaming of biodiversity into sectoral policy and plans that are relevant to large landscape areas. The multi-sectoral coordination arrangements (committee) will be guaranteed by a Secretariat, within NEPA.

191 The tasks of this governance structure is further elaborated in Output 1.1, and will include in particular supporting mainstreaming national-level biodiversity and marine ecosystem approaches into biological landscape plans, and to mainstream such activities into provincial and sector development activities.

192 The national governance structure will be supported by the existing TWG that will facilitate a close collaboration between key partners during the planning and management of the project landscape, support the consultants responsible for information collection and documentation for preparation of the policies, legislation and protocols for biological landscapes, consultants responsible for providing input for integrated planning of the project landscape and facilitate regional support for monitoring key ecological and biodiversity within the project landscape.

193 Community Organizations: Local communities in the target clusters will be directly responsible for planning and implementation of project investments in their respective districts/communities. These site-specific interventions and annual plans of operations (APOs) would be executed through the well-established democratic community institutions, and in close coordination with other community-based organizations as appropriate depending upon their compatibility and strengths.

194 All livelihood and natural resource management planning would be coordinated through the Field Coordination Unit and Project Area Implementation Support Team under the supervision and guidance of TWG. Community

level activities agreed through bottom-up planning process and as outlined in the APO will then be funded and operationalized under this project.

- 195 At each district/community site, two types of activities are visualised under the project, viz., activities dealing with generation of innovative livelihoods especially for the households who are highly dependent on the biomass resources, and participatory natural resource management/eco-restoration activities. The community organizations would be encouraged to create assets and revolving funds from the savings made through contributory labor for various activities which would be used for ancillary community-based development activities such as maintenance of water harvesting structures, common property resources etc.
- 196 Planning will be undertaken at an individual community level. To the extent feasible, applicable and relevant; the community organizations, under the technical direction of the Project Area Implementation Support Team; will be directly involved in the planning activities for conservation, sustainable natural resources use and livelihood improvement. Communities will develop local ILM plans, participate in the development of Development Orders, CCPA management planning through community mapping and participatory planning, develop and implement conservation agreements,
- 197 The community organizations with the support of the Project Area Implementation Support Team will take congruence of other programs and activities of the different groups, and will support community monitoring, skills development, technology improvements, product development, marketing, product branding, linkages with financial institutions and other available government and non-government programs and resources, etc.
- 198 Other community organizations within the district/community, to the extent relevant such as producer groups, women groups, indigenous people associations, and similar other entities would be directly involved in the implementation of relevant activities within the district/community.
- 199 For each district/community committee where the project would be piloted, a separate bank account would be maintained and operated jointly by the Head of the Committee and a representative of NEPA or any other Responsible Party. All payments would be made through checks and, accounts will be audited annually.
- 200 **Role of NGOs, research and training institutions, individual experts, private institutions, financial institutions, cooperative institutions and civil society organizations:** A range of organizations and experts will be engaged in the project to source specialized services and provide - technical support, financial support, capacity building, research and development services, value chain management, sub-project implementations, etc. These institutions and experts will be engaged as specialized institutions for specific assignments or sub-projects in their area of specialization.
- 201 As per the requirement of the project, institutions will be engaged on a contract basis with clear Terms of Reference for the tasks assigned to them. In particular, CSOs operating within the landscapes will be contracted to undertake key project activities in selected target clusters.

IX. FINANCIAL PLANNING AND MANAGEMENT

202 The total cost of the project is USD 49,385,816. This is financed through a GEF grant of USD 6,210,046 and USD 43,175,770 in parallel co-financing. UNDP, as the GEF Implementing Agency, is responsible for the execution of the GEF resources and the cash co-financing transferred to UNDP bank account only.

203 Parallel co-financing: The actual realization of project co-financing will be monitored during the *mid-term review* and terminal evaluation process and will be reported to the GEF. The planned parallel co-financing will be used as follows:

Table 6: Co-financing Activities

Co-financing source	Co-financing type	Co-financing amount	Planned Activities/Outputs	Risks	Risk Mitigation Measures
NEPA	Grant	8,010,879	Ongoing programs for protected area and species/habitat management and land management and technical support	No significant risks	Protected area and species/habitat management is its core mandate
Forestry Department	Grant	5,500,000	On-going programs for rehabilitation, protection and management of existing forests, sustainable utilization and technical support	No significant risks	Forest management, restoration and protection is its core mandate
RADA	Grant	28,080,866	Ongoing programs for climate smart agriculture, specifically land, soil and water management, improved hill side farming and technical support	No significant risks	Agricultural productivity management and improvement is its core mandate
MEGJC	In-Kind	314,163	Ongoing programs for biodiversity conservation and technical support	No significant risks	Policy oversight for biodiversity conservation is one of its mandates
PIOJ	Grant	1,149,862	Ongoing programs for climate information management and application in local and national planning systems and enhancing resilience of small scale agricultural practices	No significant risks	Research and technical support in natural resource management is its key mandate
UNDP	Grant	120,000	Quality assurance and technical support	No significant risks	Core part of mandate is supervision and oversight
TOTAL		43,175,770			

204 Budget Revision and Tolerance: As per UNDP requirements outlined in the UNDP POPP, the project board will agree on a budget tolerance level for each plan under the overall annual work plan allowing the project manager to expend up to the tolerance level beyond the approved project budget amount for the year without requiring a revision from the Project Board. Should the following deviations occur, the Project Director and UNDP Country Office will seek the approval of the UNDP-GEF team to ensure accurate reporting to the GEF: a) Budget re-allocations among components in the project with amounts involving 10% of the total project grant or more; b) Introduction of new budget items/or components that exceed 5% of original GEF allocation.

- 205 Any over expenditure incurred beyond the available GEF grant amount will be absorbed by non-GEF resources (e.g. UNDP TRAC or cash co-financing).
- 206 Refund to GEF: Should a refund of unspent funds to the GEF be necessary, this will be managed directly by the UNDP-GEF Unit in New York.
- 207 Project Closure: Project closure will be conducted as per UNDP requirements outlined in the UNDP POPP.⁵⁷ On an exceptional basis only, a no-cost extension beyond the initial duration of the project will be sought from in-country UNDP colleagues and then the UNDP-GEF Executive Coordinator.
- 208 Operational completion: The project will be operationally completed when the last UNDP-financed inputs have been provided and the related activities have been completed. This includes the final clearance of the Terminal Evaluation Report (that will be available in English) and the corresponding management response, and the end-of-project review Project Board meeting. The Implementing Partner through a Project Board decision will notify the UNDP Country Office when operational closure has been completed. At this time, the relevant parties will have already agreed and confirmed in writing on the arrangements for the disposal of any equipment that is still the property of UNDP.
- 209 Transfer or disposal of assets: In consultation with the NIM Implementing Partner and other parties of the project, UNDP program manager (UNDP Resident Representative) is responsible for deciding on the transfer or other disposal of assets. Transfer or disposal of assets is recommended to be reviewed and endorsed by the Project Board following UNDP rules and regulations. Assets may be transferred to the government for project activities managed by a national institution at any time during the life of a project. In all cases of transfer, a transfer document must be prepared and kept on file⁵⁸.
- 210 Financial completion: The project will be financially closed when the following conditions have been met: a) The project is operationally completed or has been cancelled; b) The Implementing Partner has reported all financial transactions to UNDP; c) UNDP has closed the accounts for the project; d) UNDP and the Implementing Partner have certified a final Combined Delivery Report (which serves as final budget revision).
- 211 The project will be financially completed within 12 months of operational closure or after the date of cancellation. Between operational and financial closure, the implementing partner will identify and settle all financial obligations and prepare a final expenditure report. The UNDP Country Office will send the final signed closure documents including confirmation of final cumulative expenditure and unspent balance to the UNDP-GEF Unit for confirmation before the project will be financially closed in Atlas by the UNDP Country Office.

⁵⁷ see <https://info.undp.org/global/popp/ppm/Pages/Closing-a-Project.aspx>

⁵⁸ See https://popp.undp.org/_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PPM_Project%20Management_Closing.docx&action=default.

X. TOTAL BUDGET AND WORK PLAN

Award ID:	00128896	Project ID(s):	00122739
Award Title:	Conserving biodiversity & reducing land degradation		
Business Unit:	JAM10		
Project Title:	Conserving BD & Reducing LD		
PIMS no.	6109		
Implementing Partner (Executing Agency)	National Environment and Planning Agency (NEPA)		

GEF Component/Atlas Activity	Responsible Party/ (Atlas Implementing Agent)	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Amount Year 6 (USD)	Total	See Budget Note:
COMPONENT 1 <i>Systemic and institutional capacity for integrated landscape management at national level</i>	NEPA	62000	GEF	71200	International Consultant	60,000	21,000	12,000	12,000	12,000	12,000	129,000	1
				71300	Local Consultant	21,000	60,000	30,800	16,300			128,100	2
				71600	Travel	38,750	45,250	21,420	18,050	7,150	6,380	137,000	3
				71400	Contractual Services - Individuals	131,715	140,000	140,000	140,000	140,000	140,000	831,715	4
				72100	Contractual Services Companies	53,000	88,000	65,000	33,000	23,000	3,000	265,000	5
				72200	Equipment and Furniture	30,000						30,000	6
				72400	Communication and audio-visual equipment	10,500	10,000	8,000	6,000	3,000	3,000	40,500	7
				72500	Supplies	12,000	8,000	8,000	8,000	8,000	6,000	50,000	8
				72800	Information Technology Equipment	7,500	7,000	500	500			15,500	9
				73100	Rental & Maintenance- Premises	6,000	6,000	6,000	6,000	6,000	6,000	36,000	10
				74200	Audio Visual & Print Prod Costs	747	735					1,482	11

				75700	Training, Workshops and Confer	15,000	24,000	24,000	24,000	14,000	3,400	104,400	12
					GEF Total Outcome 1	386,212	409,985	315,720	263,850	213,150	179,780	1,768,697	
COMPONENT 2 <i>Application of Integrated Landscape Planning and Management in Key Biodiversity Areas</i>	NEPA	62000	GEF	71200	International Consultant	20,000	14,000	14,000				48,000	13
				71300	Local Consultant	40,000	80,000	60,000	25,000	20,000	14,300	239,300	14
				71600	Travel	10,000	19,000	15,000	13,100	5,500	5,050	67,650	15
				71400	Contractual Services - Individuals	15,000	15,000	15,000	15,000	15,000	15,000	90,000	16
				72100	Contractual Services Companies	63,400	112,800	190,500	147,800	147,500	32,000	694,000	17
				72200	Equipment and Furniture	106,600	69,500	5,000	3,000	5,000	21,000	210,100	18
				72300	Material and goods	86,700	4,000					90,700	19
				72600	Grants	106,250	482,500	612,500	451,250	142,500	35,000	1,830,000	20
				72800	Information Technology Equipment	3,000	2,000					5,000	21
				74200	Audio Visual & Print Prod Costs	9,000	15,000					24,000	22
				75700	Training, Workshops and Confer	38,075	63,575	44,275	19,075	14,775	7,375	187,150	23
					GEF Total Outcome 2	498,025	877,375	956,275	674,225	350,275	129,725	3,485,900	
COMPONENT 3 <i>Knowledge management, gender mainstreaming and monitoring and evaluation</i>	NEPA	62000	GEF	71200	International Consultant			15,000			24,500	39,500	24
				71300	Local Consultant	46,950	9,050	30,250	8,000	8,000	22,000	124,250	25
				71400	Contractual Services - Individual	7,635	8,000	15,500	15,500	15,500	15,500	77,635	26
				72100	Contractual Services Companies	18,000	34,000	44,000	30,000	24,000	24,000	174,000	27
				71600	Travel	6,930	10,230	21,330	8,326	7,580	20,587	74,983	28

				72800	Information Technology Equipment	3,000						3,000	29
				74200	Audio Visual & Print Prod Costs	14,365	24,000	24,000	24,000	24,000	26,000	136,365	30
				75700	Training, Workshops and Confer	12,000		6,000			12,000	30,000	31
					GEF Total Outcome 3	108,880	85,280	156,080	85,826	79,080	144,587	659,733	
PROJECT MANAGEMENT	NEPA	62000	GEF	71400	Contractual Services - Individ	35,080	35,080	35,580	35,580	35,080	35,094	211,494	32
				71600	Travel	5,000	5,000	5,000	5,000	5,000	5,000	30,000	33
				72500	Supplies	4,000	4,000	4,000	4,000	2,000	2,000	20,000	34
				73100	Rental & Maintenance-Premises	6,000	6,000	6,000	6,000	6,000	4,222	34,222	35
					GEF Total Project Management	50,080	50,080	50,580	50,580	48,080	46,316	295,716	
GEF PROJECT TOTAL						1,043,197	1,422,720	1,478,655	1,074,481	690,585	500,408	6,210,046	

Summary of Funds:

	Amount Year 1	Amount Year 2	Amount Year 3	Amount Year 4	Amount Year 5	Amount Year 6	Total
GEF	1,043,197	1,422,720	1,478,655	1,074,481	690,585	500,408	6,210,046
UNDP	20,000	20,000	20,000	20,000	20,000	20,000	120,000
Government	7,550,000	8,250,000	8,770,000	7,500,000	6,100,000	4,885,770	43,055,770
TOTAL	8,613,197	9,692,720	10,268,655	8,594,481	6,810,585	5,406,178	49,385,816

Budget note number	Comments
Component 1	
1	(i) International Consultant to develop a framework for ILM for Jamaica at national, sub-national and local scales (position paper, workshops, MOUs (Output 1.1) – 25 man days x USD600 per day = USD 15,000; (ii) International Consultant to strengthen the Institutional mechanisms for Coordination and Management of SLM, SFM and SAD initiatives and its mainstreaming into policies, strategies, plans and budgets (Output 1.2) - 50 man days x USD600 per day = USD30,000; and (iii) International Consultant for the development, review and production of guidelines and standards for information collection on biodiversity, threats, species and ecosystem change detection; and surveillance and monitoring (Output 1.2) - 20 man days x USD600 per day = USD12,000; (iv) Technical Advisor - 20days/year x 6 years at \$600/day = USD72,000. TOTAL = USD129,000
2	(i) National Consultant to provide technical and workshop support in facilitating review and development/ update of policies and legislation and strengthening of institutional mechanisms for coordination and management for SLM, SFM and SAD initiatives and mainstreaming into policies, plans strategies and budget (to work with international consultant) (Output 1.2) - 100 man days x USD400 per day = USD40,000; (ii) National Consultants for the preparation of operational guidelines, protocols and best practices for mainstreaming biodiversity conservation into ILM, mainstreaming SLM, SFM and SAD practices (Output 1.2) – (55 man days x USD400 per day = USD 22,000) (iii) National Consultant to support the improvement of ICT capacities (Output 1.3) - 34 man days x USD400 per day = USD13,600; (iv) National Consultant to facilitate the development of a strategic plan for sustainable, community-based tourism (Output 1.2) - 16 man days x USD312.50 per day = USD5,000; (vi) National Consultant to support the development, review and production of guidelines and standards for information collection on biodiversity, threats, species and ecosystem change detection; and surveillance and monitoring (Output 1.3) - 40 man days x USD400 per day = USD16,000; (vii) National Consultant to conduct capacity needs assessment, develop program for field learning centers, improve capacity at National History Museum and capacity building for baseline assessment to support biodiversity management and monitoring (Output 1.4) - - 45 man days x USD500 per day = USD22,500; and (viii) National Consultant for the preparation of a UNESCO nomination dossier for the Cockpit Country landscape (output 1.5) - 20 man days x USD450 per day = USD9,000: TOTAL = USD128,100
3	(i) Travel related costs for international and national Consultants for strengthening the existing governance and establishing a Coordination mechanism (Output 1.1) – USD3,250; (ii) Travel costs for participants for attending workshops and meetings for strengthening the existing governance and establishing a Coordination mechanism (Output 1.1) – USD3,000; (iii) Travel costs for professional staff to provide technical support for Planning and Coordination (Output 1.1) – USD39,130; (iv) Travel costs for TWG Workshops and meetings (Output 1.1) - USD1,500; (v) Travel costs for International Consultants to strengthen the policy, regulatory, guidelines and planning frameworks (Output 1.2) – USD12,150; (vi) Travel costs for National Consultants to strengthen the policy, regulatory, guidelines and planning frameworks (Output 1.2) – USD10,500; (vii) Travel costs of Consultancy Firm related to the review of the adequacy, availability, standardization and use of spatial information for informed decision making and adaptive management (Output 1.3) – USD1,000; (viii) Travel costs of Consultancy Firm related to the review of existing biodiversity, land degradation, invasive species and threat monitoring methods, information use and capacities (output 1.3) – USD750; (ix) Travel costs for participants for attending training and workshop related to improvements in ICT capacities (Output 1.3) – USD2,000;

	(x) Travel costs for International Consultants to develop, review and produce of guidelines and standards for information collection on biodiversity, threats, species and ecosystem change detection; and surveillance and monitoring (Output 1.3) – USD3,000; (xi) Travel costs for participants for attending workshops for training and skills development of staff of relevant agencies at national and parish levels for effective data collection, verification, monitoring and management (output 1.3) – USD3,220; (xii) Travel costs related to the Conduct of NRV by National Consultants as well as for NRV training and workshops (Output 1.3) – USD8,500; (xiii) Travel costs for National Consultant for capacity assessments (Output 1.4) – USD500; (xiv) Travel costs related for training and workshops related to the analysis of specific institutional development requirements for key agencies, the identification of specific arrangements (e.g. field learning schools) at the Parish level in the pilot landscape, and supporting capacity building and methodologies for baseline assessment to support biodiversity management and for development and testing of new approaches for monitoring (Output 1.4) – USD2,000; and (xv) Travel costs for National Consultants for the preparation of a UNESCO nomination dossier for the Cockpit Country landscape and for participants attending a workshop on the same (Output 1.5) – USD1,500 (xvi) Travel costs for overall coordination and management of policy, legal and ILM related activities (overall Component 1) = \$45,000 TOTAL USD137,000
4	Individual Contractual Services of Staff to provide technical support for Planning and Coordination as follows (Output 1.1): (i) National Technical Coordinator (Total Costs of USD56,700 x 6 years = USD340,200) of which costs met from all 3 components and PMC. Costs related to Component 1 = USD 238,140 (ii) Technical Coordinator M&E (Total costs for 6 years = USD285,250) that will be met from the 3 components. Costs related to Component 1 = USD 199,675; (iii) One Field Officer and One Participatory Specialist at Field level) –USD393,900; (TOTAL = USD 831,715)
5	(i) Contractual Services of Firm to prepare position paper on ILM, establish planning framework for implementing ILM (including review of decision making processes, SEAs, SEIAs, EIAs, Development Orders, etc. assessment of gaps in policy, regulations and institutions (Output 1.1) – USD 50,000; (ii) Contractual Services of Firm to review adequacy, availability, standardization and use of spatial information, review of existing biodiversity, LD, AIS and threat monitoring and conduct training of staff of relevant agencies at national and parish levels for effective data collection, verification, monitoring and management for informed decision making and adaptive management (Output 1.3) – 100 days at USD500/day = USD50,000; (iii) Contractual services (firm) for baseline ecological assessment of Stephney-John's Vale, provision of training to forestry department, conduct NRV and basic training to other relevant agencies (Output 1.3) - 200 man days x USD500 per day = USD100,000; (iv) national gender and development consultancy this consultancy can be coupled into single contract with budget number 7. xiii under Component 2) USD 65,000 TOTAL USD265,000
6	Equipment and furniture, including (i) Computers for technical staff (Output 1.1) – 8 Computers x USD1,000 = USD8,000; and (ii) Office furniture (desks, chairs, filing cabinets, etc.) and equipment (printers, fax machine, telephones, etc. - USD) USD22,000. TOTAL USD30,000
7	Communication and audio-visual equipment to provide technical support to the field operations in the Cockpit Country (Output 1.1) – USD40, 500.
8	Office supplies for field technical officers (Output 1.1) at USD12,000 in year 1 and USD8, 000 in years 2-5 and USD6,000 in year 6. TOTAL USD50,000
9	(i) Information technology equipment to administrative support for Planning and Coordination (Output 1.1) – USD5,000 in year 1; (ii) Information technology training equipment to support improvements in ICT capacities (Output 1.1) – USD8,000; (iii) Information technology training equipment to support the Development, review and production of guidelines and standards for information collection on biodiversity, threats, species and ecosystem change detection; and surveillance and monitoring (Output 1.3) – USD2,000; and

	(iv) Information technology training equipment to support increased capacity of Natural History Museum of IOJ to manage biodiversity information (National Clearing House Mechanism and Jamaica Invasive Species Database (Output 1.4) – USD500. TOTAL USD15,500
10	Related costs for utilities and office space to technical support for Planning and Coordination (Output 1.1) – 6 years x USD6,000 per year = USD36,000
11	Rental of audio-visual equipment to support the conduct of training workshops on gaps and opportunities for strengthening existing policy, regulatory and institutional arrangements (Output 1.1) – USD1,482
12	(i) Related costs for the conduct of one national workshop to develop consensus about ILM for Jamaica at national, sub-national and local scales (position paper, workshops, MOUs (Output 1.1) = USD5,000; (ii) Related costs for the conduct of two workshop to advice on gaps and opportunities for strengthening existing policy, regulatory and institutional arrangements (Output 1.1) = USD 6,000; (iii) Related costs for the conduct of one national workshop to establish the planning framework for implementing ILM (including review of decision making processes, SEAs, SEIAs, EIAs, Development Orders, etc. (output 1.1) = USD3,000; (iv) Related costs to support the Project Board Meetings (Output 1.1) – 6 years at USD1,000 per year = USD6,000; (v) Related costs to support the TWG Workshops and Meetings (Output 1.1) – 6 years at USD2,000 per year = USD12,000; (vi) Related costs to support biannual meetings for the dissemination of outcomes (Output 1.1) – One meeting each in years 2, 4 and 6 at USD2,000 per meeting = USD6,000; (vii) Related costs for the conduct of two workshops (one each in year 1 and 2) to facilitate the review and development/ update of policies and legislation including overarching policy (Output 1.2) - Year 1 (USD3,000) and year 2 (USD3,000) = USD6,000; (viii) Related costs for the conduct of a capacity building workshops/sessions for ICT improvements during years 2 through 4 (Output 1.3) =USD12,400; (ix) Related costs for the conduct of one workshop to develop, review and production of guidelines and standards for information collection on biodiversity, threats, species and ecosystem change detection; and surveillance and monitoring (Output 1.3) = USD3,000; (x) Related costs for the conduct of NRV training workshop for staff of the Forestry Department (output 1.3) = USD3,000; (xi) Related costs for the conduct of one workshop for training and skills development of staff of relevant agencies at national and parish levels for effective data collection, verification, monitoring and management (Output 1.3) = USD3,000; (xii) Training and workshops costs related to the reaching consensus on NRVs applicable methodology for Stephney-John's Vale (Output 1.3) – USD9,000; (xiii) Related costs for the conduct of one training workshop in principles and application of NRV for agencies (Output 1.3) = USD2,000; (xiv) Related costs for the conduct of one training workshop in the analysis of specific institutional development requirements for key agencies (Output 1.4) = USD2,000; (xv) Related costs for the conduct of one training workshop to identify specific arrangements (e.g. field learning schools) at the Parish level in the pilot landscape (Output 1.4) = USD2,000; (xvi) Related costs for the conduct of one workshop to increase the capacity of Natural History Museum of IOJ to manage biodiversity information (National Clearing House Mechanism and Jamaica Invasive Species Database)- (Output 1.4) = USD2,000; (xvii) Related costs for the conduct of workshop to support capacity building and methodologies for baseline assessment to support biodiversity management and for development and testing of new approaches for monitoring (Output 1.4) = USD 2,000; and (xviii) Related costs for the conduct of workshop to support the preparation of a UNESCO nomination dossier for the Cockpit Country landscape = USD2,000 (xix) Miscellaneous consultancies – 6 years at \$3,000 per year = USD 18,000 TOTAL USD104,400
Component 2	
13	(i) International Consultant to undertake satellite tracking study of parrots to determine habitat use/need (Output 2.2) - 10 man days x USD600 per man day = USD6,000;

	(ii) International Consultant to strengthen the Capacities and capabilities for the commercialization of the Herbal sector in the Cockpit Country (Output 2.4) - 40 man days x USD600 per man day = USD24,000; and (iii) International Consultant to promote Apiculture/ Beekeeping technology with the adoption of best proven, climate smart production technologies (Output 2.4) - 30 man days x USD600 per man day = USD18,000.. TOTAL USD = 48,000
14	(i) National Consultant to determine biodiversity conservation targets, verification of the cluster boundaries and development of guidelines and criteria for project investment, ground truthing, data entry and analysis, and conduct GIS overlays and draft zoning arrangements (Output 2.1) – approx. 100 man days x USD400 per man day = USD40,000; (ii) National Consultant to develop strategy and guidelines for integrating biodiversity conservation into agriculture and gardening in the CC developed and disseminated (Output 2.1) – 15 man days x USD400 per day = USD6,000; (iii) National Consultant for the assessment of Freshwater ecosystems and water quality (Output 2.1) – 10 man days x USD500 per day = USD5,000; (iv) National Consultant to test the use of drones for monitoring changes in forest cover (Output 2.1) – 10 man days x USD500 per day = USD5,000; (v) National Consultant to conduct Assessment and consultations on private lands and conservation corridors (Output 2.2) – 5 man days x USD500 per day = USD2,500; (vi) National Consultant to conduct Socio-economic assessment of patterns of dependence on natural resources and threat assessment (Output 2.2) – 22 man days x USD400 per day = USD8,800 (vii) National Consultants for the preparation of management plan for improved management effectiveness in the Cockpit Country, visioning workshop, zoning and support drafting of management plan(Output 2.2) = 80 days x USD 500 = USD 40,000; (viii) National Consultant to evaluate Pollution -Management of solid wastes and sewage (Output2.2) – 6 man days x USD500 per day = USD3,000; (ix) National Consultant for the identification of training needs and equipment, prepare staffing and development plan, monitoring plan, and annual operating plan, support upgrade of interpretation centers and conduct capacity building of NGOs/CBOs on organizational development and produce training materials Outputs 2.2, 2.4 and 2.5) – 50 man days x USD450 per day = USD22,500 (x) National Consultant to support the conduct of feasibility study for Conservation Agreements or payment for ecological services (Output 2.2) – 10 man days X USD250 per day = USD2,500; (xi) National Consultant to support the conduct of feasibility study for botanic garden and native plant nurseries (Output 2.3) – 15 man days x USD400 = USD6,000; (xii) National Consultant to support the development of proposal (with silvicultural practices) for rehabilitation of degraded lands, – 30 man days x USD400 per day = USD12,000; (xiii) National Consultant to develop and promote a portfolio of alternatives to Slash and Burn (Output 2.4) – 30 man days x USD400 = USD12,000; (xiv) National Consultant to research the feasibility of using Bamboo and Biomass Briquette mas biofuel substitute to charcoal (Output 2.4) – 50 man days x USD300 per day = USD15,000; (xv) National Consultant to develop evidenced-based techniques and applied in the eradication of invasive alien species (Output 2.4) – 30 man days x USD400 per day = USD12,000; (xvi) National Consultant to assess the effectiveness of parish level planning and develop criteria to support improved integration of biodiversity into parish level planning (Output 2.5) – 18 an days x USD500 per day + USD9,000; (xvii) National Consultants to develop plan for sustainable community-based tourism in partnership with communities and businesses, including heritage sites, trail networks, interpretation centers, the development of training materials for guides (Output 2.5) – 40 man days x USD500 = USD20,000; (xviii) National consultant to provide strategic guidance for establishing framework for management of environmental and social safeguards and training of key staff to undertake effective monitoring – 45 days x USD 400 = USD 18,000 TOTAL USD239,300
15	(i) Travel related costs for international and national Consultants to introduce ILM, vision and scope of the project (Output 2.1) = USD2,900; (ii) Travel related costs of National Consultant to determine conservation targets (Output 2.1) = USD750; (iii) Travel related costs of National Consultant to conduct Gap assessment and analysis of existing data (output 2.1) = USD1,000;

	(iv) Travel related costs of National Consultants to conduct Field assessments and ground truthing, data entry and analysis (Output 2.1) = USD3,500; (v) Travel related costs of National Consultant to conduct GIS overlays and draft zoning (Output 2.1) = USD700; (vi) Travel related costs of National Consultant for the verification of field assessment and draft strategies for workshop (Output 2.1) = USD600; (vii) Travel related costs of National Consultant to develop and review of the ILM framework (Output 2.1) – USD2,300; (viii) Travel related costs of National Consultant to assess freshwater ecosystems and water quality (Output 2.1) – USD600; (ix) Travel related costs of Contractual Firm for the assessment of mammals. bats, review of on-going bat surveys. Baseline assessment and testing of monitoring protocols for bats. Status of Mustached Bat assessment (Output 2.1) – USD8,000; (x) Travel related costs to Establish multiagency management committee and core staff (Output 2.2) – USD1,800; (xi) Travel related costs of National Consultant to conduct Socio-economic assessment of patterns of dependence on natural resources (Output 2.2) – USD1,000; (xii) Travel related costs of National Consultants to prepare management plan for improved management effectiveness in the Cockpit Country (Output 2.2) – USD2,100; (xiii) Travel related costs of National Consultants to conduct feasibility study for Conservation Agreements or payment for ecological services (Output 2.2) – USD1,000; (xiv) Travel related costs of National Consultants to conduct feasibility study for botanic garden and native plant nurseries (Output 2.3) – USD1,000; (xv) Related travel for identifying areas and developing proposal for restoration of degraded lands as pilot (Output 2.3) – USD2,500; (xvi) Travel related costs of National Consultant to Assess training needs assessment and develop materials to enhance women and youth participation in cluster (output 2.4) – USD1,200; (xvii) Travel related costs of National Consultant for capacity building to strengthen NGOs/CBOs Organizations (Output 2.4) – USD1,200; (xviii) Travel related costs to Promote biodiversity friendly agro-forestry and climate smart agriculture (Output 2.4) – US\$5,000; (xix) Travel related costs of National Consultant to develop and promote a portfolio of alternatives to <i>Slash and Burn</i> (Output 2.4) – USD3,000; (xx) Travel related costs to promote small business enterprises that are economically viable and culturally acceptable – <i>Aquaponics</i> (Output 2.4) –USD 5,000; (xxi) Travel related costs to promote small business enterprises that are economically viable and culturally acceptable – <i>Hydroponics</i> (Output 2.4) –US\$5,000; (xxii) Travel related costs to promote small business enterprises that are economically viable and culturally acceptable – Greenhouses (Output 2.4) –USD4,000; (xxiii) Travel related costs of international Consultant to strengthen the Capacities and capabilities for the commercialization of the Herbal sector in the Cockpit Country (Output 2.4) – USD7,000; (xxiv) Travel related costs of international Consultant to promote Apiculture/ Beekeeping technology with the adoption of best proven, climate smart production technologies (Output 2.4) – USD4,500; and (xxv) Travel related costs of National Consultants to develop plan for sustainable community-based tourism in partnership with communities and businesses, including heritage sites, trail networks, interpretation centers, the development of training materials for guides (Output 2.5) – USD2,000. TOTAL USD67,650
16	Contractual services (Individual) (i) National Technical Coordinator (Total Costs of USD56,700 x 6 years = USD340,200) of which costs met from all 3 components and PMC. Costs related to Component 2 = USD 40,000 (ii) Technical Coordinator M&E (Total costs for 6 years = USD285,250) that will be met from the 3 components. Costs related to Component 2 = USD 50,000; Total Costs = USD90,000
17	Contractual services (Firms) (i) Contractual Services of firm for the purchase of satellite imagery (Output 2.1) – USD1,000; (ii) Contractual Services of firm for the Installation of additional automatic weather stations (Output 2.1) – USD1,000; (iii) Contractual Services firm for the analysis of changes in forest cover (Output 2.2) – USD4,000;

	(iv) Contractual Services: to develop guidelines and Promote Sustainable management of degraded riparian and steep slopes on private lands (Output 2.3) – USD60,000; (v) Contractual Services: to Promote restoration, protection and conservation measures to revert disturbed broadleaf forest to closed forests enhance improved connectivity within the project landscape (Output 2.3) –USD105,000; (vi) Contractual Services: to implement Sustainable forest management approaches (including agro-forestry) for restoration of 400 ha of forest (Output 2.3) – On an effective area of 220 ha x USD1,000 per ha = USD240,000; (vii) Contractual Services: to promote privately managed protected areas, through provision of incentives for declaration of privately owned closed broadleaf forest lands as forest reserves or forest management areas (Output 2.3) – USD60,000; (viii) Contractual Services firm to implement initiatives to improve community-based ecotourism services and products in support of community livelihoods and conservation efforts (Output 2.4) – USD18,000; (ix) Contractual Services: to develop evidenced-based techniques and applied in the eradication of invasive alien species (Output 2.4) – USD18,000; (x) Contractual Services to support team Jamaica Training for community based tour operators, licenses and start-up activity, forest trails, training of history guides one application/guide for visitation, development of history guide for CC PA, installation of signage (Output 2.5) – USD70,000; (xi) Contractual contract – firm to development monitoring framework, develop baselines and conduct species monitoring to facilitate assessment of project impacts (e.g. mammals, bats, pigeon and parrots, endemic birds, butterflies etc.) 100 man days x USD500 per day = USD50,000; (xii) contractual services – firm for mobilizing and stimulating the engagement of women and youth (Yr 3,4,5) (this consultancy can be coupled into single contract with budget number 5.iv under Component 1) USD40,000; (xiii) Contractual services to help establish community grant mechanism, rules and regulations for grant issue, monitoring and financial management and annual review: USD 27,000 TOTAL USD694,000
18	(i) Equipment for Telemetry studies of Ring-tailed Pigeon and Plain Pigeon and parrots to assess habitat use and range, thus conservation needs (Output 2.1) – USD1,000; (ii) Equipment for Satellite tracking study of parrots to determine habitat use/needs (Output 2.1) – USD1,000; (iii) Equipment for test the use of drones for monitoring changes in forest cover (Output 2.1) – USD2,000; (iv) Equipment for use in the Red Listing of plant species by the IOJ (Output 2.2) – USD5,000; (v) Field equipment for monitoring management effectiveness of proposed Cockpit Country protected areas (Output 2.2) – USD7,000; (vi) Project vehicle insurance and maintenance (Output 2.2) – USD5,000; (vii) Equipment for the construction of one demonstration greenhouse at Litchfield (Output 2.3) to include: Pipes, Fixtures, Wood, Water pump, Aerator, Solar panels with brackets, labor = USD6,500); (viii) Equipment for establishing water harvesting facility for demonstration greenhouse (Output 2.3) to include: tank, pump, guttering materials, and labor – USD4,700; (ix) Equipment rental and maintenance for two (2) demonstration sites to promote biodiversity friendly agro-forestry and climate smart agriculture (Output 2.4) – USD9,000; (x) Equipment for establishing two (2) water harvesting facility, one each for the 2 demonstration sites to promote biodiversity friendly agro-forestry and climate smart agriculture (Output 2.4) to include: tank, pump, guttering materials, and labor – USD10,000; (xi) Equipment for the establishment of three (3) demonstration sites for Aquaponics (tree types: DWC (floating raft system), Nutrient Film Technique System, and Media Based System) to include installation cost (Output 2.4) – USD24,300; (xii) Equipment for establishing three (3) water harvesting facility, one each for the 3 Aquaponics demonstration sites (Output 2.4) to include: tank, pump, guttering materials, and labor – USD15,000;

	(xiii) Equipment for hydroponics demonstration sites (2) to promote small business enterprises that are economically viable and culturally acceptable – Hydroponics (Output 2.4) to include: Pipes, Fixtures, Wood, Reservoir, Water pump, Aerator, Solar panels with brackets, Batteries and charge controller, Sensors, Valves, Microcontroller, Developed Software to control the system – USD19,400; (xiv) Equipment for the construction of one demonstration greenhouse at second cluster in the Cockpit Country (Output 2.4) to include: Pipes, Fixtures, Wood, Water pump, Aerator, Solar panels with brackets, labor = USD6,500); (xv) Equipment for establishing water harvesting facility for demonstration greenhouse (Output 2.4) at second site in the Cockpit Country to include: tank, pump, guttering materials, and labor – USD4,700; and (xvi) Equipment to conduct research on the feasibility of using Bamboo and Biomass Briquette mas biofuel substitute to charcoal (Output 2.4) – USD8,000. (xvii) Purchase of satellite imagery for analysis of forest cover (year 2 and Year 6) USD36,000 (xviii) One heavy-duty SUVs for the Cockpit Country terrain– 1 vehicle x USD45,000 = USD 45,000 TOTAL USD 210,100
19	(ii) Materials and goods for the construction of one greenhouse demonstration facility at Litchfield (Output 2.3) to include: Gravel for flooring, Steel, Cement, Sand, Wood, Roofing material (transparent), and mesh – USD5,700; (ii) Materials and goods for small ruminant demonstration pilot site (output 232) to include: animals, materials for construction of animal housing, water harvesting facility, materials for planting grass, etc. – USD18,000; (iii) Materials and goods for two (2) demonstration sites to promote biodiversity friendly agro-forestry and climate smart agriculture (Output 2.4) – USD19,500; (iv) Materials and goods for the establishment of three (3) demonstration sites for Aquaponics (tree types: DWC (floating raft system), Nutrient Film Technique System, and Media Based System) to include: Water quality meter, fish tank materials, Seedlings, Fish Feed, etc. (Output 2.4) – USD9,300; (v) Materials and goods for hydroponics demonstration sites (2) to promote small business enterprises that are economically viable and culturally acceptable – Hydroponics (Output 2.4) to include: gravel for flooring, steel, cement, sand, wood, roofing material (transparent) and mesh – USD13,000; (vi) Materials and goods for the construction of second greenhouse demonstration site (Output 2.4) to include: Gravel for flooring, Steel, Cement, Sand, Wood, Roofing material (transparent), and mesh – USD5,700; (vii) Materials and goods to promote Small ruminant Industry through improvements in the breeding, management and production systems for sheep and goats (Litchfield is already costed)- (Output 2.4) to include: high quality breeding animals, materials for construction of animal housing, water harvesting facility, materials for planting grass, etc. – USD12,500; and (viii) Materials and goods for the conduct research on the feasibility of using Bamboo and Biomass Briquette mas biofuel substitute to charcoal (Output 2.4) – USD7,000. TOTAL USD90,700
20	(i) Community grants for the implementation of livelihood activities on 200 ha of degraded lands (Output2.2) – USD100,000; (ii) Community grants for the practices derived from demonstration sites (Output 2.4) – USD1,020,000; (iii) Community grants for micro and small enterprise development (Output 2.4) – USD410,000; (iv) Community grants for the funding of existing best practices in other livelihood activities (Output 2.4) – USD300,000. TOTAL USD1,830,000 Note; The selection and implementation of all grants; [(i) through (iv)] above will be done in compliance with UNDP's Policy and Operational Guidance on Low-Value Grants. All grants will be granted in accordance to UNDP Rules and Regulations on Low-Value Grants. These grants will also cover financial support for investments in Maroon areas (approximately USD 300,000) and resources for gender-specific activities and investments (see Table 8 and Section VII of Annex 5 for details) that are integrated into the grants
21	(i) Information technology training equipment to support Red Listing of plants by the IOJ (Output2.2) – USD2,000; and (ii) Information technology equipment to support the strengthening of the Capacities and capabilities for the commercialization of the Herbal sector in the Cockpit Country (Output 2.4) – USD3,000. TOTAL USD5,000

22	Audio-visual print and production costs related to: (i) Development and promotion of a portfolio of alternatives to <i>Slash and Burn</i> (Output 2.4) – USD9, 000; and (ii) Implementation of initiatives to improve community-based ecotourism services and products in support of community livelihoods and conservation efforts (Output 2.4) – USD15, 000. TOTAL USD24,000
23	(i) Related costs for the conduct of one national workshop to introduce ILM, vision and scope for the project (Output 2.1) – USD2,500; (ii)) Related costs for the conduct of one national workshop to verify field assessment and draft strategies (Output 2.1) – USD3,000; (iii) Related cost for workshop to review ILM framework (Output 2.1) – USD600; (iv) Related costs for the conduct of work to review the test use of drones for monitoring changes in forest cover (Output 2.1) – USD1,200; (v) Related costs for the conduct of one national workshop for Assessment and consultations on private lands and conservation corridors (Output 2.2) – USD1,200; (vi) Related costs for the conduct of national workshops to develop the Management Plan, including strategies, identification of needs, review of the plan, monitoring of the plan, and annual operating plan (output 2.2) – USD4,700; (vii) Related costs for the conduct of a national workshop to review feasibility study for Conservation Agreements or payment for ecological services (Output 2.2) – USD500; (viii) Related costs for the conduct of one national workshop on monitoring of management effectiveness (Output 2.4) – USD1000; (ix) Related costs for the conduct of national workshop to Review existing mechanisms for the promotion of conservation management of private lands (Output 2.2) – USD1,000; (x) Related costs for the conduct of national workshop to develop new category of private conservation areas, with guidelines, criteria for selection and attractive incentives (Output 2.2) – USD1,000; (xi) Related costs for the conduct of training workshops on technologies for the rehabilitation of degraded lands as pilot (Output 2.3) – 3 workshops x USD2,000 per workshop = USD6,000; (xii) Related costs for the conduct of four community consultation and training facilitate women and youth participation in clusters (Output 2.4) – USD14,000; (xiii) Related costs for the conduct training workshops to strengthen institutional capacities of NGOs/CBOs (Output 2.4) – USD15,000; (xiv) Related costs for the conduct 8 training workshops to Promote biodiversity friendly agro-forestry and climate smart agriculture (Output 2.4) – 8 workshops x USD4,000 per workshop = USD32,000; (xv) Related costs for the conduct 3 training workshops to promote small business enterprises that are economically viable and culturally acceptable – <i>Aquaponics</i> (Output 2.4) – 3 workshops x USD4,000 = USD12,000; (xvi) Related costs for the conduct 3 training workshops to promote small business enterprises that are economically viable and culturally acceptable – <i>Hydroponics</i> (Output 2.4) – 3 workshops x USD4,000 = USD12,000; (xvii) Related costs for the conduct 3 training workshops to promote small business enterprises that are economically viable and culturally acceptable – <i>Greenhouses</i> (Output 2.4) – USD10,000; (xviii) Related costs for the conduct 6 training workshops to strengthen the Capacities and capabilities for the commercialization of the Herbal sector in the Cockpit Country (Output 2.4) – USD18,000; (xix) Related costs for the conduct 3 training workshops to promote Apiculture/ Beekeeping technology with the adoption of best proven, climate smart production technologies (Output 2.4) – USD12,000; (xx) Related costs for the conduct 5 training workshops to promote Small ruminant Industry through improvements in the breeding, management and production systems for sheep and goats (Litchfield already costed) (Output 2.4) – USD15,000; (xxi) Related costs for the conduct of workshops to implement initiatives to improve community-based ecotourism services and products in support of community livelihoods and conservation efforts (Output 2.4) – USD18,000; (xxii) Related costs for the conduct of training workshops to Train 30 natural history guides at various levels (Output 2.5) – USD6,000; and (xxiii) Related costs for the conduct Meetings to establish multi-agency management committee and core staff (Output2,2) – USD450. TOTAL USD187,150

Component 3	
24	(i) International consultant for conduct of mid-term evaluation (Output 3.1) = USD 15,000; (ii) Terminal evaluation (Output 3.1) = USD 24,500 TOTAL: USD 39,500.
25	(i) National Consultant to document maroon Cultural systems in biodiversity (output 3.1) - 40 man days x USD450 per day = USD18,000; (ii) National Consultant for Knowledge Management and Monitoring and Evaluation Support and Contribute to Equitable Gender Benefits and Increased Awareness of Biodiversity Conservation (Output 3.1) – 20 man days per year x 6 years at USD400 per man day – USD48,000; (iii) National Consultant for Baseline KAP/Needs Analysis (Output 3.1) - 40 man days x USD450 per day = USD18,000; (iv) National Consultant to support the conduct of mid-term evaluation (Output 3.1) = USD 8,750, and terminal evaluation (Output 3.1) = USD 14,000: Total: USD 22,750; (v) National Consultant for establishing knowledge and information management platform for monitoring of ISM, SLM, SFM and SAD - 50 man days at USD350 per man day = USD17,500; TOTAL USD124,250
26	Contractual Services – Individual Contractual Services with (i) individual for the establishment of Project Knowledge Clearing House/Project Hub; website maintenance, hosting, etc. (Output 3.2) – USD30, 000. (ii) National Technical Coordinator (Total Costs of USD56,700 x 6 years = USD340,200) of which costs met from all 3 components and PMC. Costs related to Component 3 = USD 12,060 (iii) Technical Coordinator M&E (Total costs for 6 years = USD285,250) that will be met from the 3 components. Costs related to Component 3 = USD 35,575; TOTAL USD 77,635
27	Contractual Services - Firms (i) Contractual Services with agencies/NGOs/CBOs for executing community outreach support services to promote the engagement of women and youth (Output 3.1) –USD60, 000; (ii) Contractual Services with firm for the publication and dissemination of cultural systems information (Output 3.1) – USD6, 000. (iii) Contractual services firm for supporting National Knowledge Management and Communications to promote outreach and increased public awareness of biodiversity conservation (Output 3.1) - 40 man days per year x 6 years at USD450 per man day = USD108,000. TOTAL USD174,000
28	(i) Travel related costs of National Consultant for the documentation of maroon Cultural systems in biodiversity (Output 3.1) – USD6,000; (ii) Travel related costs of International and National Consultants for mid-term evaluation (Output 3.1) = USD 6,250; and terminal evaluation (Output 3.1) = USD 11,500: TOTAL: USD 17,750; (iii) Other Travel related costs of staff and national agencies and participants for Knowledge Management and Monitoring and Evaluation Support and Contribute to Equitable Gender Benefits and Increased Awareness of Biodiversity Conservation (Output 3.1) – 10,500; (iv) Travel related costs of National Consultant to establish knowledge and information management platform for monitoring of ISM, SLM, SFM and SAD practices (Output 3.2) – USD1,500; and (v) Travel related costs of Knowledge Management and Communications Consultant - Promote outreach and increased public awareness of biodiversity conservation (Output 3.3) – USD12,746. (vi) Travel costs for awareness and knowledge management events and programs–USD 26,487 TOTAL USD74,983
29	Information technology equipment for the establishment of a knowledge and information management platform for monitoring of ISM, SLM, SFM and SAD (Output 3.2) – USD3, 000.

30	(i) Costs related to publications and outside broadcast for project launch in year 1 (USD2,000) and project closure in year 6 (USD2,000) – (Output 3.3) = USD4,000; (ii) Costs related to Videography/photography/story production during Year 2 to 5 for public education and awareness (Output 3.3) – 5 years x USD8,000 per year = USD40,000; (iii) Costs related to project visibility, signage for demonstration plots, banners, publications, etc. (Output 3.3) – 6 years x USD4,000 per year = USD24,000; and (iv) Costs related to the Collation, documentation and dissemination of knowledge products from Components 1 and 2 (Output 3.3) = Year 1 at USD 8,365 and Years 2-6 at USD12,000 per year = USD68,365. TOTAL = 136,365
31	(i) Costs related to the conduct of workshops (3) for reporting to stakeholders on project progress (Output 3.1) – USD6,000 per year for three years (1, 3, and 6) = USD18,000; and (ii) Costs related to project launch meeting (USD6,000) and project closure workshop (USD6,000) – (Output 3.3): = USD12,000. TOTAL USD30,000
Project Management	
32	Contractual Services -individuals (i) Finance Officer at USD 171,494 for project period of which about 80% of costs met from PMC (and shortfall will be covered by co-financing) = PMC costs = USD 137,494 (ii) National Technical Coordinator (Total Costs of USD56,700 x 6 years = USD340,200) of costs met from all 3 components and PMC. Costs related to Project Management = USD 50,000 Procurement Consultant (60 days at \$400) = \$24,000: TOTAL =211,494;
33	Travel costs for national PMU team = USD 5,000 x 6 years = USD30,000
34	Supplies for PMU (stationery, paper, pens, etc.) = USD20,000
35	Utilities (mailing costs, internet services, bank fees, etc.) =USD34,222

XI. LEGAL CONTEXT

This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of Jamaica and UNDP, signed on 26 January 1976. All references in the SBAA to “Executing Agency” shall be deemed to refer to “Implementing Partner.”

This project will be implemented by [name of entity] (“Implementing Partner”) in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.

The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations or UNDP concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries.

XII. RISK MANAGEMENT

1. Consistent with the Article III of the SBAA *[or the Supplemental Provisions to the Project Document]*, the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:
 - a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
 - b) assume all risks and liabilities related to the Implementing Partner's security, and the full implementation of the security plan.

2. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner's obligations under this Project Document.

3. The Implementing Partner agrees to undertake all reasonable efforts to ensure that no UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml.

4. The Implementing Partner acknowledges and agrees that UNDP will not tolerate sexual harassment and sexual exploitation and abuse of anyone by the Implementing Partner, and each of its responsible parties, their respective sub-recipients and other entities involved in Project implementation, either as contractors or subcontractors and their personnel, and any individuals performing services for them under the Project Document.

(a) In the implementation of the activities under this Project Document, the Implementing Partner, and each of its sub-parties referred to above, shall comply with the standards of conduct set forth in the Secretary General's Bulletin ST/SGB/2003/13 of 9 October 2003, concerning "Special measures for protection from sexual exploitation and sexual abuse" ("SEA").

(b) Moreover, and without limitation to the application of other regulations, rules, policies and procedures bearing upon the performance of the activities under this Project Document, in the implementation of activities, the Implementing Partner, and each of its sub-parties referred to above, shall not engage in any form of sexual harassment ("SH"). SH is defined as any unwelcome conduct of a sexual nature that might reasonably be expected or be perceived to cause offense or humiliation, when such conduct interferes with work, is made a condition of employment or creates an intimidating, hostile or offensive work environment.

5. a) In the performance of the activities under this Project Document, the Implementing Partner shall (with respect to its own activities), and shall require from its sub-parties referred to in paragraph 4 (with respect to their activities) that they, have minimum standards and procedures in place, or a plan to develop and/or improve such standards and procedures in order to be able to take effective preventive and investigative action. These should include: policies on sexual harassment and sexual exploitation and abuse; policies on whistleblowing/protection against retaliation; and complaints, disciplinary and investigative mechanisms. In line with this, the Implementing Partner will and will require that such sub-parties will take all appropriate measures to:

- i. Prevent its employees, agents or any other persons engaged to perform any services under this Project Document, from engaging in SH or SEA;
 - ii. Offer employees and associated personnel training on prevention and response to SH and SEA, where the Implementing Partner and its sub-parties referred to in paragraph 4 have not put in place its own training regarding the prevention of SH and SEA, the Implementing Partner and its sub-parties may use the training material available at UNDP;
 - iii. Report and monitor allegations of SH and SEA of which the Implementing Partner and its sub-parties referred to in paragraph 4 have been informed or have otherwise become aware, and status thereof;
 - iv. Refer victims/survivors of SH and SEA to safe and confidential victim assistance; and
 - v. Promptly and confidentially record and investigate any allegations credible enough to warrant an investigation of SH or SEA. The Implementing Partner shall advise UNDP of any such allegations received and investigations being conducted by itself or any of its sub-parties referred to in paragraph 4 with respect to their activities under the Project Document, and shall keep UNDP informed during the investigation by it or any of such sub-parties, to the extent that such notification (i) does not jeopardize the conduct of the investigation, including but not limited to the safety or security of persons, and/or (ii) is not in contravention of any laws applicable to it. Following the investigation, the Implementing Partner shall advise UNDP of any actions taken by it or any of the other entities further to the investigation.
 - b) The Implementing Partner shall establish that it has complied with the foregoing, to the satisfaction of UNDP, when requested by UNDP or any party acting on its behalf to provide such confirmation. Failure of the Implementing Partner, and each of its sub-parties referred to in paragraph 4, to comply of the foregoing, as determined by UNDP, shall be considered grounds for suspension or termination of the Project.
6. Social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards (<http://www.undp.org/ses>) and related Accountability Mechanism (<http://www.undp.org/secu-srm>).
 7. The Implementing Partner shall: (a) conduct project and programme-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the project or programme to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.
 8. All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any programme or project-related commitments or compliance with the UNDP Social and Environmental Standards. This includes providing access to project sites, relevant personnel, information, and documentation.
 9. The Implementing Partner will take appropriate steps to prevent misuse of funds, fraud or corruption, by its officials, consultants, responsible parties, subcontractors and sub-recipients in implementing the project or using UNDP funds. The Implementing Partner will ensure that its financial management, anti-corruption and anti-fraud policies are in place and enforced for all funding received from or through UNDP.
 10. The requirements of the following documents, then in force at the time of signature of the Project Document, apply to the Implementing Partner: (a) UNDP Policy on Fraud and other Corrupt Practices and (b) UNDP Office of Audit and Investigations Investigation Guidelines. The Implementing Partner agrees to the requirements of

the above documents, which are an integral part of this Project Document and are available online at www.undp.org.

11. In the event that an investigation is required, UNDP has the obligation to conduct investigations relating to any aspect of UNDP projects and programmes in accordance with UNDP's regulations, rules, policies and procedures. The Implementing Partner shall provide its full cooperation, including making available personnel, relevant documentation, and granting access to the Implementing Partner's (and its consultants', responsible parties', subcontractors' and sub-recipients') premises, for such purposes at reasonable times and on reasonable conditions as may be required for the purpose of an investigation. Should there be a limitation in meeting this obligation, UNDP shall consult with the Implementing Partner to find a solution.
12. The signatories to this Project Document will promptly inform one another in case of any incidence of inappropriate use of funds, or credible allegation of fraud or corruption with due confidentiality.

Where the Implementing Partner becomes aware that a UNDP project or activity, in whole or in part, is the focus of investigation for alleged fraud/corruption, the Implementing Partner will inform the UNDP Resident Representative/Head of Office, who will promptly inform UNDP's Office of Audit and Investigations (OAI). The Implementing Partner shall provide regular updates to the head of UNDP in the country and OAI of the status of, and actions relating to, such investigation.

13. UNDP shall be entitled to a refund from the Implementing Partner of any funds provided that have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the Implementing Partner under this or any other agreement. Recovery of such amount by UNDP shall not diminish or curtail the Implementing Partner's obligations under this Project Document.

Where such funds have not been refunded to UNDP, the Implementing Partner agrees that donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities under this Project Document, may seek recourse to the Implementing Partner for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document.

Note: The term "Project Document" as used in this clause shall be deemed to include any relevant subsidiary agreement further to the Project Document, including those with responsible parties, subcontractors and sub-recipients.

14. Each contract issued by the Implementing Partner in connection with this Project Document shall include a provision representing that no fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the proposal, have been given, received, or promised in connection with the selection process or in contract execution, and that the recipient of funds from the Implementing Partner shall cooperate with any and all investigations and post-payment audits.
15. Should UNDP refer to the relevant national authorities for appropriate legal action any alleged wrongdoing relating to the project, the Government will ensure that the relevant national authorities shall actively investigate the same and take appropriate legal action against all individuals found to have participated in the wrongdoing, recover and return any recovered funds to UNDP.
16. The Implementing Partner shall ensure that all of its obligations set forth under this section entitled "Risk Management" are passed on to each responsible party, subcontractor and sub-recipient and that all the clauses under this section entitled "Risk Management Standard Clauses" are included, *mutatis mutandis*, in all sub-contracts or sub-agreements entered into further to this Project Document.

XIII. ANNEXES

Annex 1: Multi Year Work Plan

Task	Responsible Party(ies)	YR 0	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6			
			Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
Pre-Planning Phase (PPG Phase)																										
Constituting of Project Board	UNDP, GOJ																									
Hiring of Contractual Staff (National Technical Coordinator, Field Officer and Admn/Financial Officers)	NEPA																									
Establishment of Project Special Accounts and Fund Flow Arrangements	UNDP and GOJ																									
Planning and Implementation Phase																										
Component 1: Systemic and institutional capacity for integrated landscape management at national level																										
Outcome 1: Strengthened policy, regulatory, institutional and governance framework in place for mainstreaming biodiversity and gender into sectoral and land use planning and decision making for integrated management of biological landscapes																										
Output 1.1: Strengthening of existing governance and coordination mechanism established at national level to support dialogue, information flow and decision-making between national and parish levels for facilitating integrated planning and management of biological Landscapes																										
Activity 1.1.1																										
Activity 1.1.2																										
Activity 1.1.3																										
Activity 1.1.4																										
Activity 1.1.5																										
Activity 1.1.6																										
Activity 1.1.7.																										
Activity 1.1.8																										
Activity 1.1.9																										
Output 1.2: Policy, regulations, guidelines and planning frameworks for development of integrated management of biological landscapes and integrating biodiversity into key development sectors developed and adopted																										
Activity 1.2.1																										
Activity 1.2.2																										
Activity 1.2.3																										
Activity 1.2.4																										
Activity 1.2.5																										

[illegible]

[illegible]

[illegible]

ANNEX 2 - TERMS OF REFERENCE FOR KEY POSITIONS

Project Director (Government staff)

The role of the Project Director (PD) is to ensure that the Project is fully aligned with the policies of the Government of Jamaica, ensure its smooth implementation by facilitating coordination between the responsible parties, ensure proper use of project resources in line with the NIM agreement between UNDP and GOJ and approve the Annual Work Plan and Budget and Annual Report.

Specific responsibilities of the PD include:

Be responsible to the GOJ and the Project Board for the smooth implementation of the project in line with the GOJ policies and the NIM Agreement between UNDP and the GOJ;

- Provide direction and guidance;
- Liaise with the project board;
- Overall financial oversight;
- Approve the Annual Work Plan and Budget of the Project;
- Approve the assignment of Government staff appointed to project management roles;
- Approve the appointment of advisers;
- Approve the Project Annual Report;
- Attend meetings of the Project Board [chair the board];
- Ensure coordination between the NEPA and other responsible parties;
- Maintain good communication with UNDP and other Development Partners on behalf of the GOJ;
- Represent the Project in public forums; and
- Oversee the day-to-day work of the Project management unit in the NEPA.

National Technical Coordinator

The National Technical Coordinator (NTC) chief role is to provide technical support for all components of the project, including in particular for overseeing the landscape planning process, revision of policies and guidelines, capacity building and for implementation of PA management, SLM and SFM activities as well as the knowledge management, gender mainstreaming and M&E. He/she will also be responsible for supporting the NPD for ensuring the quality and the providing technical oversight for all project activities and the delivery of its outputs, under the direct guidance of the NPD. The NTC will support and coordinate the activities of all partners, staff, and consultants as they relate to the implementation of the project. The NTC will be responsible for the following specific tasks:

- Technical oversight and guidance for the landscape planning, policies and guidelines, capacity building, PA management planning, SFM and SLM activities
- Oversee and guide the implementation of the knowledge management and communication activities of the project
- Work with the Technical Officer (M&E) to oversee the M&E aspects of the project, including ensuring regular monitoring of RAF indicators and capacity assessment scorecard.
- Support the NPD in providing technical inputs to prepare work plan and budget;
- Make recommendations for modifications to the project activities and, where relevant, submit proposals for project revisions to the PB, and UNDP;
- Facilitate project planning and decision-making sessions;
- Facilitate relevant agreements with stakeholders and the liaison with them
- Support the NPD to develop appropriate TORs for contracting of consultants and experts for the project, including preparing TORs for all technical assistance required, preparation of an action plan for each consultant and expert, supervising their work, and reporting to the UNDP Project Officer;

- Provide technical guidance and oversight for all project activities;
- Oversee the technical progress of the project components conducted by local and international experts, consultants, and cooperating partners;
- Coordinate and oversee the preparation of all outputs of the project;
- Foster, establish, and maintain links with other related national and international programs and national projects, including information dissemination through media such as web page actualization, etc.;
- Coordinate and report the work of all stakeholders under the guidance of UNDP;
- Support the NPD to prepare PIRs/APRs in the language required by the GEF and the UNDP's CO and attend annual review meetings;
- Ensure that all relevant information is made available in a timely fashion to UNDP regarding activities carried out nationally;
- Support the PD with technical inputs for preparation of quarterly progress and financial reports to UNDP as required, following all UNDP quality management system and internal administrative process;
- Coordinate and participate in M&E exercises to appraise project success and make recommendations for modifications to the project;
- Prepare and submit technical concepts and requirements about the project requested by UNDP, or other external entities;
- Ensure the project utilizes best practices and experiences from similar projects;
- Solve all scientific and administrative issues that might arise during the project.

Outputs:

- Detailed technical reports of project progress
- TORs and action plan of the staff and monitoring reports;
- Quarterly reports on the consultant's activities, all stakeholders' work, and progress of the project to be presented to UNDP (in the format specified by UNDP);
- A final report that summarizes the work carried out by consultants and stakeholders during the period of the project, as well as the status of the project outputs at the end of the project;
- Minutes of meetings and/or consultation processes;
- Yearly PIRs/APRs;
- Adaptive management of project.

Qualifications (indicative):

- A graduate academic degree on natural sciences;
- Minimum 5 years of experience in project technical facilitation;
- Experience in biodiversity conservation, sustainable land and forest management or related community development
- Experience facilitating consultative processes, preferably in the field of natural resource management;
- Proven ability to promote cooperation between and negotiate with a range of stakeholders, and to organize and coordinate multi-disciplinary teams;
- Strong leadership and team-building skills;
- Self-motivated and ability to work under the pressure;
- Demonstrable ability to organize, facilitate, and mediate technical teams to achieve stated project objectives;
- Familiarity with logical frameworks and strategic planning;
- Strong computer skills;
- Flexible and willing to travel as required;
- Excellent communication and writing skills in English;
- Previous experience working with a GEF-supported project is considered an asset.

Technical Officer (Monitoring and Evaluation)

Under the overall supervision and guidance of the Project Manager, the M&E Officer will have the responsibility for project monitoring and evaluation of all components of the project. The M&E Officer will work closely with the Communications Officer on knowledge management aspects of the project. Specific responsibilities will include:

- Monitor project progress and participate in the production of progress reports ensuring that they meet the necessary reporting requirements and standards;
- Ensure project's M&E meets the requirements of the Government, the UNDP Country Office, and UNDP-GEF; develop project-specific M&E tools as necessary;
- Oversee and ensure the implementation of the project's M&E plan, including periodic appraisal of the Project's Theory of Change and Results Framework with reference to actual and potential project progress and results;
- Oversee and monitor community grants
- Oversee/develop/coordinate the implementation of the stakeholder engagement plan;
- Oversee and guide the design of surveys/ assessments commissioned for monitoring and evaluating project results;
- Facilitate mid-term and terminal evaluations of the project; including management responses;
- Facilitate annual reviews of the project and produce analytical reports from these annual reviews, including learning and other knowledge management products;
- Support project site M&E and learning missions;
- Visit project sites as and when required to appraise project progress on the ground and validate written progress reports.

Qualifications (Indicative)

The Project M&E Officer will be recruited based on the following qualifications

- Masters degree, preferably in the field of environmental or natural resources management;
- At least five years of relevant work experience preferably in a project management setting involving multi-lateral/ international funding agency. Previous experience with UN project will be a definite asset;
- Significant experience in collating, analyzing and writing up results for reporting purposes;
- Very good knowledge of results-based management and project cycle management, particularly with regards to M&E approach and methods. Formal training in RBM/PCM will be a definite asset;
- Knowledge and working experience of the application of gender mainstreaming in international projects;
- Understanding of biodiversity conservation, law enforcement, sustainable livelihoods and associated issues;
- Very good inter-personal skills;
- Proficiency in computer application and information technology.
- Excellent language skills in English (writing, speaking and reading) and in local languages.

Project Finance Officer

The Project Finance Officer will be responsible for the financial and administrative management of the project activities and assists in the preparation of quarterly and annual work plans and progress reports for review and monitoring by UNDP.

The Project Finance Officer will have the following responsibilities:

- Responsible for providing general financial support to the project;
- Take own initiative and perform daily work in compliance with annual work schedules;

- Assist project management in performing budget cycle: planning, preparation, revisions, and budget execution;
- Provide assistance to partner agencies involved in project activities, performing and monitoring financial aspects to ensure compliance with budgeted costs in line with UNDP policies and procedures;
- Monitor project expenditures, ensuring that no expenditure is incurred before it has been authorized;
- Assist project team in drafting quarterly and yearly project progress reports concerning financial issues;
- Ensure that UNDP procurement rules are followed during procurement activities that are carried out by the project and maintain responsibility for the inventory of the project assets;
- Perform preparatory work for mandatory and general budget revisions, annual physical inventory and auditing, and assist external evaluators in fulfilling their mission;
- Prepare all outputs in accordance with the UNDP administrative and financial office guidance;
- Ensure the project utilizes the available financial resources in an efficient and transparent manner;
- Ensure that all project financial activities are carried out on schedule and within budget to achieve the project outputs;
- Perform all other financial related duties, upon request

Qualifications and Skills:

- At least an Associate's Degree in finance, business management, or related fields;
- Experience related to project implementation;
- A demonstrated ability in the financial management of development projects and in liaising and cooperating with government officials, NGOs, etc.;
- Self-motivated and ability to work under the pressure;
- Team-oriented, possesses a positive attitude, and works well with others;
- Flexible and willing to travel as required;
- Excellent interpersonal skills;
- Excellent verbal and writing communication skills in Khmer and English;
- Good knowledge of Word, Outlook, Excel, and Internet browsers is required;
- Previous experience working with a GEF-supported project is considered an asset.

Procurement Officer (Government staff)

The Procurement officer works in close collaboration with the operations and project teams in for the implementation of the projects procurement plan and providing solutions to complex procurement-related issues and information delivery. The specific duties include:

- Ensuring full compliance of procurement activities with UN/UNDP & Government of Jamaica rules, regulations, policies and strategies;
- Elaboration of proposals and implementation of cost saving and reduction strategies in consultation with the Project team;
- Provision of researched information for formulation and implementation of contract strategy and strategic procurement including tendering processes and evaluation, managing the contract and contractor, legal considerations and payment conditions, sourcing strategy, supplier selection and evaluation, quality management, e-procurement introduction;
- Preparation of procurement plans for the project and their implementation monitoring;
- Organization of procurement processes including preparation and conduct of RFQs, ITBs or RFPs, receipt of quotations, bids or proposals, their evaluation, negotiation of certain conditions of contracts in full compliance with UNDP and GOJ rules and regulations;
- Preparation of inventory reports;
- Implementation of Inventory and physical verification control in the projects;

- Organization of travel including purchase of tickets, DSA calculation, PO preparation; arrangement of shipments; vehicle maintenance; conference facilities arrangements

Qualifications (indicative):

- Advanced university degree in Business Administration (MBA) or Public Administration (MPA) or related field;
- Minimum of 3 years professional experience at the national or international level in providing procurement services and/or managing an operations service. Experience in the usage of computers and office software packages are essential

Project Field Officer

The Field Officer (FO) will work in close collaboration with the Parish Municipalities to be responsible for day to day planning and management of the Cockpit Country Landscape, including general and financial administration, work planning, progress reporting, monitoring and quality control of project inputs and delivery of outputs and impact. The FO will work closely with the PMU in planning, management and monitoring of project activities. Specific tasks include:

- Assist in setting up the Field Office, undertake procurement of equipment and services as required by the project;
- Management and supervision of project implementation and evaluation across all components in the project landscape, applying administrative and financial procedures as required under the national and UNDP procedures, to assure successful implementation and completion of the project in accordance with the stated outcomes and performance indicators summarized in the Project Results Framework;
- Assist the PD in coordination of the project planning and implementation, as well as communication and coordination with parish or local entities as well as territorial line departments, CBOs, NGOs, local community entities and other project partners and interested stakeholders;
- Maintain regular communication with the PD and NTC with regard to all project activities, and assure coordination with other relevant UNDP, donor or government projects and broad strategic initiatives implemented in the project landscape
- Work closely with provincial administration in ensuring coordination of sector specific activities, budget allocations and delivery of project actions;
- Responsible for effective implementation of SESP, Gender Action Plan, Knowledge management and communication and risk mitigation;
- Coordinate with enforcement agencies in ensuring monitoring and effective implementation and enforcement of agreed activities;
- Preparation of project landscape Annual Work Plans and Quarterly Work Plans, including monthly targets and deliverables as well as spending targets in accordance with the Project Document, under guidance for approval by the PD. During the year, track implementation and delivery of agreed work outputs in accordance with the Annual Work Plan (AWP);
- Coordinate the preparation and implementation of project landscape framework and CC PA management plan;
- Track and manage project spending in accordance with the agreed project budget and work plan, as well as UNDP rules and procedures, to ensure transparency, responsibility, and timely fulfillment of both program targets and budget targets;
- Supervise data collection and analysis activities, as well as reporting and public outreach via the mass media in the project landscape to disseminate project results and to promote conservation, sustainable livelihoods and resource management; support the independent Terminal Evaluations of the project;

- Act as the focal point for the project to ensure successful implementation of project in the parishes, coordinating with the sector extension officers; and
- Perform other duties related to the project in order to achieve its strategic objectives.

Qualifications (Indicative):

- University degree in natural resource management, biodiversity conservation, socio-economic development or another field with direct relevance to the project;
- At least 5 years of experience in managerial involvement in projects on natural resource management, biodiversity conservation or social development in Jamaica,
- Close familiarity with the roles, activities, and priorities as well as legal-regulatory and institutional framework of the provincial authorities, line departments and other partners and stakeholders, with regard to land and forest resource management, biodiversity conservation, agriculture and livelihood support;
- Good technical understanding of land and forest resources management and agriculture and livelihood development;
- Demonstrated ability to work effectively with a broad range of stakeholders;
- Demonstrated ability to work effectively under minimal supervision;
- Superior leadership and team-building skills in organization and management, including past experience with planning, tracking, evaluation, and supervision of national and international consultants and/or staff;
- Strong skills in financial tracking and budget management;
- Flexibility and willingness to travel in project site and to other locations as needed; and
- Fluency in English, with good command in reading, writing, and speaking.

PARTICIPATORY/GENDER SPECIALIST

The Participatory/Gender Specialist will work under the supervision and guidance of Field Officer. He/she will be responsible for the following tasks:

- Collect base line information for community resource uses and dependencies and livelihood related activities, and assess gender roles in decision-making, natural resources activities and income generation;
- Guide and oversee strengthening of community level committees (including Maroon institutions) and individual community members in planning, designing and implementing sustainable natural resources and livelihood activities;
- Conducted participatory resource appraisal, community needs assessment and gap analysis in livelihood and community resource use activities as well as gender mainstreaming;
- Link community organizations/interest groups with Government Departments, NGOs and private organizations for provision of needed inputs and services in livelihood development for income generation;
- Provide capacity building in gender mainstreaming, community forest and agricultural planning and livelihood activities;
- Facilitate preparation of community level investment plans;
- Facilitate linking of community organizations with Parish and Sector institutions, private sector and NGOs to improve community access to resources and investments in agriculture, forestry, tourism and livelihood activities,
- Monitor and evaluate the implemented activities and made amendments in the activities accordingly.
- Plan, design and conduct capacity building/training/knowledge management programs for community activists, staff of different NGOs and Government Departments;
- Provide back up support to the community for utilization of trained skills;
- Liaise with National Technical Coordinator and other Technical Specialists and entities working in the landscapes to ensure convergence of programs and funding within the landscapes.

Qualifications (indicative):

- University degree in participatory community actions and gender mainstreaming or related fields

- At least 6 years of experience in livelihood and participatory development in large-scale projects on livelihood initiatives, natural resource management, biodiversity conservation or social development in Jamaica
- Close familiarity with the roles, activities, and priorities of the Government of Jamaica, and other national partners, with regard to livelihood, gender mainstreaming and participatory development
- Demonstrated ability to work effectively with a broad range of stakeholders
- Demonstrated ability to work effectively under close supervision, as well as under minimal supervision
- Superior skills in organization and management, including past experience with planning, tracking, evaluation, and supervision of consultants and/or employees
- Strong skills in financial tracking and budget management
- Preferably have close familiarity with the operations and rules of UNDP
- Fluency in English, in reading, writing, and speaking.

ANNEX [3]. SOCIAL AND ENVIRONMENTAL SCREENING TEMPLATE

Project Information

<i>Project Information</i>	
1. Project Title	Conserving Biodiversity and Reducing Land Degradation Using an Integrated Landscape Approach
2. Project Number	6109
3. Location (Global/Region/Country)	JAMAICA

Part A. Integrating Overarching Principles to Strengthen Social and Environmental Sustainability

QUESTION 1: How Does the Project Integrate the Overarching Principles in order to Strengthen Social and Environmental Sustainability?
<i>Briefly describe in the space below how the Project mainstreams the human-rights based approach</i>

The project upholds human rights principles, by ensuring inclusiveness and equitable distribution of natural resources opportunities and livelihood benefits, including women, and marginalized groups, in particular the traditional and cultural norms that have been practiced by the Maroon people. The project will ensure free, prior and informed consent (FPIC) before decisions are made in terms of conservation, natural resources and livelihood investments applying the existing “Participatory Community Consultative and Planning Framework” developed during the PPG Stage (Annex 8). The application of this framework will ensure that effective consultation takes place prior to defining the nature of project investments and will ensure that existing tenure/community rights arrangements and traditional and cultural practices are maintained. The Maroons are not specifically considered as IPs in Jamaica, but as a Special Interest group, and therefore this context was considered in design of the project. A “Special Interest” Peoples Plan for Maroon Community Engagement (Annex 16) was developed during the PPG stage (in line with UNDP guidance for preparation of an IP Plan) and will be used to ensure that local cultural norms and practices are maintained and promoted while protecting natural resources. The Maroons have been involved from the level of the Maroon Council in all the preparation processes including in the inter-agency Technical Working Group which is the final decision making body for the project, along with the UNDP.

- The project is grounded in expanding the choices and enlarging the responsibilities of men and women for their own collective development related to natural environment and the conservation of resources to which they are inextricably linked. Extensive consultations with communities have informed the approach in designing demonstration projects in the selected clusters that respond to both biodiversity conservation and sustainable livelihoods strengthening. As such, the synergies, inter-dependence, rights and responsibilities are embedded in the activities.
- The approach to the development of the project is anchored in the interactive participation of women and men in their communities in discussing and understanding their local context and challenges in relation to the project objectives and integrating their proposals to find appropriate solutions
- Both community members as rights holders and government officials as representing duty bearers were enabled to share their respective perspectives on core issues of the project in structured interactions, based on shared national aspirations for equal rights and justice.
- In the stakeholder engagement process, all persons were encouraged to express their views, regardless of their position and views. This was particularly important in discussions with the Maroons.
- The strategies for governance of the project are empowering with a focus on strengthening community organizations. This will enable participation of local groups in parish organizational networks, combined with municipal authorities and other actors to direct the project at the local level, linking into the national level. At both local and national level, the project management framework is guided by core principles, including representation, inclusion, transparency, openness and information sharing, consultation and accountability.
- The planning ensures equitable distribution of development opportunities and benefits, including to women, youth and safeguarding the rights and interests of Maroon community and other special interest groups.
- The project includes a grievance and redress process to address any conflicts in resource use and benefit sharing, etc.
- The project interventions will contribute to sustaining livelihoods and improving wellbeing of local communities and beneficiaries with sustainable management of natural resources as a central theme. This will further efforts to improve the economic and social rights of the local communities and will also be responsive to their cultural traditions.
- The project strategy will ensure that female-headed households, lower income and minority and vulnerable groups benefit from demonstration activities.

Briefly describe in the space below how the Project is likely to improve gender equality and women’s empowerment

A gender responsive perspective has guided the development of the project and is manifested in specific measures to promote social inclusion and in particular to enhance gender equality and the empowerment of women and girls. (See Annex - “Gender Analysis and Mainstreaming Action Plan”). This has been shown in the following:

- Mainstreaming gender at the institutional, policy, programs/projects levels and in monitoring and evaluation.
- The work plans and budgets of the project to reflect the commitment to the implementation of the gender mainstreaming action plan and to securing the UNDP Gender Marker 2- namely making a significant contribution to gender equality.
- Implementing a targeted capacity building plan to ensure that staff across the critical sectors and agencies responsible for the project, have the necessary knowledge and tools to integrate gender issues in their work and that gender equity governs selection of personnel for technical training for example, re the economic valuation of biodiversity resources.

- Policies relating to the mandate and work of the key institutions to be made more responsive to biodiversity and gender concerns, involving revision of existing key policies and with priority to the generation of sex disaggregated data.
- Ensuring active and targeted involvement of women and men in defining their specific concerns and proposals for addressing them. This can be achieved through measures such as innovative labor-saving technologies, incentives and strong outreach through recruitment of local women in planning and outreach teams to enhance participation of women and marginalized groups;
- Addressing access to potable water for households and communities through use of community-managed schemes and with partners.
- Women-only projects to be instituted which address their practical and strategic needs and interests and systematize approaches responsive to specific needs and situations, for example, childcare facilities at selected meetings, etc.
- Support for the capacity building and strengthening of civil society/community based organizations, including women's groups and the Local Forest Management Committees, through structured programs and in partnership with responsible agencies;
- Use of time-use study data and other popular methodologies and to raise awareness and support behavior change around gender and development issues among community members and to promote social inclusion.
- Address gender inequalities, biodiversity threats/loss and climate change impacts through pilot projects with strong partnerships, for example, in community-based water management and or in Protected Areas Management.
- Promotion of adequate representation and active participation of women in project specific committees, technical workshops, strategic planning events, etc.
- The appointment of a Gender Specialist to coordinate implementation of the Action Plan from the national level and to support coordinated inter- agency implementation at the local level is proposed.
- Oversight in relation to gender issues will be provided by the Bureau of Gender Affairs

In addition to the gender analysis and action plan that was developed at the PPG stage, at the pre-implementation stage there will be an additional review of the gender plan and budget. At early implementation stage, the National Project Implementation Team (with gender specialist support) will be responsive to and come to own the parameters set out to achieve Gen. 2 certification of the project and ensure that clear steps and processes are in place to effectively implemented the gender action plan. The implementation of the gender plan will be the responsibility of the PMU and progress in meeting the actions defined in gender action plan will be reviewed by UNDP supervision teams.

Briefly describe in the space below how the Project mainstreams environmental sustainability

The objective of the project is very clearly stated: conserve biodiversity and promote sustainable management of natural resources, specifically of the land. Environmental sustainability has been addressed in the project through the following:

- A systematic, precautionary approach to environmental protection has been advanced in Jamaica through assessments and conservation activities of agencies such as the National Environmental Protection Agency and the Forestry Department, the co-implementors of the project. This project seeks to build on these efforts in achieving its objectives.
- The risks and threats to biological resources within the Cockpit Country Protected Area has been assessed by experts. The design of the project has been informed by these assessments and will be guided by further research during its implementation.
- The National Biodiversity Strategy and Action Plan (NBSAP) 2016-2021 reflects consensus within the environmental sector, broadly speaking, on national priorities to be addressed. The NBSAP has made practical recommendations on biodiversity conservation that are embedded in the project.
- There is increasing awareness of local communities and special groups like the Maroons (including men and women in agriculture, forest users and other resource users) on the need to reduce threats to biodiversity and of their need to participate in shaping and taking action that will serve to mitigate the threats. These also have implications for their immediate welfare and long-term sustainable livelihood.
- The increasing awareness among public sector entities and decision-makers at national and parish levels, and of civil society of the need for integration of biodiversity considerations into national and local level planning and project implementation. These entities increasingly recognize the need for an inter-agency approach to resource management.

- The project adapts a small-scale community management approach to securing livelihoods, including addressing water issues that loom large in various communities.
- Community members are very conscious of the link to safeguarding biodiversity and securing the life giving air quality and water resources which they regard as treasures of their environment.
- The project promotes the development of an effective model of interaction of agencies at the national, parish and community levels for biodiversity conservation.

Part B. Identifying and Managing Social and Environmental Risks

QUESTION 2: What are the Potential Social and Environmental Risks? <i>Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any “Yes” responses). If no risks have been identified in Attachment 1 then note “No Risks Identified” and skip to Question 4 and Select “Low Risk”. Questions 5 and 6 not required for Low Risk Projects.</i>	QUESTION 3: What is the level of significance of the potential social and environmental risks? <i>Note: Respond to Questions 4 and 5 below before proceeding to Question 6</i>			QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?
<i>Risk Description</i>	<i>Impact and Probability (1-5)</i>	<i>Significance (Low, Moderate, High)</i>	<i>Comments</i>	<i>Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.</i>

Risk 1-Environmental Project activities to ensure conservation and sustainable natural resource use could have unintended negative consequences on endangered species or critical habitats if not planned or implemented correctly (including insufficient enforcement of protected area management rules). <i>(Principle 3; Standard 1; Questions 2 and 4)</i>	I-2 P-3	Moderate	Project interventions in terms of biodiversity conservation, sustainable natural resources use and livelihood improvements could occur within and adjacent to protected areas and critical habitats. Cluster planning management planning decisions will aim to strengthen sustainable use and conservation of marine biodiversity but if these are poorly planned there is the risk of adverse impacts. The probability of this occurring is low as specialist biodiversity expertise has contributed to the design of project activities, and biodiversity expertise at NEPA will support PA management planning during implementation. However, there is some risk with a lack of community awareness and/or capacity to implement and enforce PA management plans, resulting in a higher overall risk rating. Project implementation is guided by criteria for selection of cluster interventions.	Project impacts are to be managed as follows: (i) Criteria for the selection of target clusters for project intervention (Annex 17) developed at PPG stage conformed to the project's objective of 'enhancing the conservation of biodiversity through mainstreaming of biodiversity into planning policies and practices into Jamaica's productive landscapes and are largely to be located outside the proposed PA boundary; (ii) All community agriculture, productive and livelihood activities will take place within community lands and no new areas within the Cockpit Country Protected Area are proposed for such activities. Appropriate zoning of the Protected Area will be undertaken to ensure that biodiversity areas are conserved with minimum interference; (iii) The use of a screening checklist (based on SESP for project investments developed (Annex 3) and Project Participatory Community Consultative and Planning Framework of Annex 8) to screen all investments to ensure that they comply with sound social and environmental principles and is sustainable. Such a checklist would also include the identification of investment location in relation to protected areas; (iv) The planning process for PA management and cluster management (during project implementation) will entail establishing specific rules and regulations for location and nature of sustainable natural resources use and livelihood activities (and that ensure that these activities will not endanger habitats or species). This will be supported by building community capacity for implementation and enforcement of these management plans; (v) Target Cluster investment plans will include specific reciprocal commitments by local communities for voluntary compliance and support for conservation actions; (vi) The project will include training to equip community members to monitor changes in local biodiversity and over use of natural resources to ensure community rules are complied with; and (vii) The preparation and implementation of the Stakeholder Engagement Plan (Annex 4) and Knowledge Management Plan (Annex 6) completed during the PPG stage will help promote awareness towards the key features of PA management, from local to national level, for flow of information and exchange of ideas between resource users and management staff.
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Risk 2: Environmental As the project might involve harvesting of natural forests and forest restoration, there is a likelihood that such efforts might be detrimental to conservation of biodiversity <i>(Principle 3; Standard 1; Questions 1, 3, 6 and 9)</i>	I = 3 P = 3	Moderate	Unless clear guidelines and procedures are applied to the use of forest resources and restoration efforts, there could be negative impacts on forest conservation.	Mitigation measures include the following: (i) The mapping of target cluster resources and consultation with local communities will entail agreements on resource use and harvesting limits with local communities; (ii) The use of a screening checklist (based on SESP) and feasibility studies will facilitate harvest of forest products within permissible sustainable limits; (iii) Monitoring of harvests will be undertaken to ensure compliance with the environmental norms as identified through the screening process. This includes specific consideration of forest products to be harvested. Implementation of sustainable harvest regimes within the forests will be based on scientific assessment of potential harvest rates and harvest methods to avoid ecological damage; and (iv) Participatory community consultative and planning framework (Annex 8) will entail agreements on forest restoration modalities, species choices and protection and enforcement that will be monitored by community groups and project staff. In terms of forest restoration (Annex 10) specific restoration methods are suggested using to the extent feasible to avoid impacts of biodiversity. These are (i) Assisted natural regeneration processes; (ii) Promotion of restoration with native and adaptive species; (iii) Restoration based on an approved management plan, with clear targets, silvicultural practices and monitoring protocols
Risk 3: The proposed Project could possibly affect land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources, in particular for special groups, like the Maroons <i>(Principle 1, Questions 1, 2, 3, 4 and 8 and Principle 3: Standard 6 Question 1, 2, 3, 4, 5, 6 and 7)</i>	I=4, P=3	High	Unless specific measures are undertaken in the design and implementation of the project to mitigate the following: (i) loss of access to resources; (ii) economic displacement; and (iii) other social impacts, there is potential for negative consequences on local communities rights, resource access and livelihoods	The project will manage this risk through the following measures: (i) The designation of Accompong (Maroon area) as a distinct Cluster for project investment enables the provision of special attention to the Maroon rights, cultural norms and practices; (ii) The Maroons have been involved from the level of the Maroon Council in all the preparation processes leading to the design of the project. The Maroon Council is also represented in the inter-agency Technical Working Group which is the final decision making body, along with the UNDP for the project thus enabling them to have a voice in project decision making; (iii) Further consultations and feasibility studies will be carried out early in project implementation to ensure that effective consultation takes place prior to deciding on specific location, nature and scope of project investments to reduce potential for conflict. This is intended to ensure that project interventions do not infringe on human rights, lands, natural resources claimed by the Maroon community; (iii) Identification and implementation of project investments (including use of natural and/or biological resources) will be subjected to FPIC procedures. The investments in the Cluster management plans will be defined by the development needs and priorities of the Maroon and other communities themselves

				and as well as identification of specific measures to reduce or avoid any potential impingement on the tenure, land rights and customary practices of communities, including the Maroons; (iv) Since the cluster management plan will be financed by the project following receipt of formal consent from the Maroon Council and other community-based organizations through MOUs signed between the Maroon Council) and respective community-based organizations) and NEPA thus ensuring that communities have the opportunity to refuse any activity that they do not want. (v) The engagement of parties through the Grievance Redressal System (Section IV, Part iv) to address conflicts, including those of the Maroon Community of Accompong; and (viii) the use of project screening checklist to be developed by the M&E Specialist to be recruited through the project (based on SESP Annex 3) in early project implementation to screen all investments, including forest restoration, land restoration and other initiatives to ensure that they comply with sound social and environmental principles, and in particular do not conflict with claims of the Maroon community. The oversight for SESP implementation will rest with the M&E specialist. UNDP supervision mission will review SESP implementation
Risk 4: Social The creation of a Cockpit Country Protected Area will result a shift from unsustainable to sustainable biodiversity-friendly investments and enterprises thus having potential of restricting resource use and access. <i>Principle 3: Standard 5, Questions 2 and 4)</i>	I = 3 P = 3	Moderate	The level of risk will depend to a large extent on (i).The nature of the relationship between the communities and project entities; (ii) the extent to which conservation activities goes hand in hand with addressing some of the most damaging threats and (iii) the extent of community 'buy-in to new technologies and practices'.	This risk will be managed through the following measures: (i) The use of a participatory landscape and cluster management planning guidelines developed during PPG stage that outlines specific processes for consultation will local communities, including the use of FPIC procedures for planning of project investments. Such processes will help define nature and location of conservation, sustainable natural resources use and livelihood activities (and that will also ensure that these activities will not endanger habitats or species) that are agreeable and beneficial to local communities. This will be supported by capacity building and training for local communities for effective implementation and enforcement of these cluster management plans; (ii) If there are any potential for loss of access these will evolve through a consensus agreement amongst the Maroons (and other respective communities) themselves, rather than be imposed by project decisions. Any such potential loss of access (and incomes) will be compensated through defined measures (including livelihood improvement activities) that would be agreed amongst those potentially affected persons and the Maroon Council (and in the case of other clusters with their respective community-based organizations) and reflected in the Cluster Management plans; (iii) The Cluster Management Plans will be implemented by the community groups with extension support from the sector agencies. Monitoring procedures will be outlined in the Cluster Management plans and will be undertaken by the community to ensure in particular that specific measures for income restoration are effective and measurable;

				(iv) The use of a grievance redressal system (Section VI, Part iv) to address this specific and any other community concerns, including in particular those of the Maroon community in terms of resource use conflicts;
Risk 5: Social Women and vulnerable groups within the communities may not be fully involved in the planning, implementation and monitoring of the project and securing benefits. Landowners and other influential persons, mainly men, may have more control on local level decision-making. <i>(Principle 2, Questions 1 and 2)</i>	I-3 P-2	Moderate	Landowners and other influential persons, mainly men, may have more control on local level decision-making.	The project will manage this risk through the following measures: (i) The application of the “<i>Gender Analysis and Mainstreaming Action Plan</i>” (Annex 5) prepared during the PPG stage to ensure that the project contributes to gender equality and creates equitable opportunities for women and men at all levels of engagement; (ii) Promote equal representation of women in project related decisions in communities; (iii) The use of a gender and socially inclusive lens to every project activity and output to further analyze impacts on the rights of women and vulnerable peoples, as well as support land reform initiatives that benefit women and indigenous groups; (iv) Special investments would be planned based on women’s requirements to ensure that they adequately benefit from project investments and that there is responsiveness to their practical needs and strategic interests; (v) The use of the monitoring plan (RAF) with gender responsive indicators to access gender dimensions, including that the project scores a Gen. 2 Marker. (vi) Needs assessments’ followed by training and capacity building to enhance gender and socially responsive knowledge at all levels of the project cycle and within the institutions; (vii) Guidelines and tools to strengthen gender responsiveness of local organizations to ensure the participation of women and vulnerable groups in decision—making including in respect of the allocation of resources to activities within the clusters, provision for women and youth only investment activities; (vii) Technical expertise on gender mainstreaming to support project implementation and monitoring and evaluation; budgets to secure gender responsiveness in the project, including the collection of sex-disaggregated data; and (viii) Oversight by the Bureau of Gender Affairs
Risk 6: Social The cultural identity of the Maroon community will not be respected.	I = 3 P =2	Moderate	The influx of new investments and approaches might have potential for erosion of Maroon cultural practices	This risk will be managed by the following measures: (i) The use of the “Special Interest” Peoples Plan for Maroon Community Engagement prepared during the PPG stage of the project will form the basis for dealing with the interests of the Maroons and ensuring the maintenance of their cultural identity;

<i>(Principle 3; Standard 4, Question 2)</i>				(ii) The Maroon community, represented by the Maroon Council will be part of the Technical Working Group, which is the highest decision making body for the project so that they can have an influence in project decisions; (iii) There is a distinct target cluster assigned to Maroons with specific means to ensure that any investment is based on their needs and priorities, and in consonance with their cultural norms and practices; (iv) Any project investments in the area occupied by the Maroon community will be subjected to FPIC procedures. Such investments will then be reflected in the Cluster Management Plan for the Maroon area and consensual agreement obtained through an MOU signed between the Maroon Council and NEPA. This will enable the Maroons to ensure that activities are not detrimental to their culture and practices; (v) The Cluster Management Plan for the Maroon areas will be implemented by the Maroon community themselves with extension support from the sector agencies. This is intended to ensure that all investments are defined by the Maroons themselves, implemented and monitored by the Maroons themselves that will ensure the maintenance of the integrity of their cultural norms and practices; (vi) The effective use of the grievance redressal system Section IV, Part <i>iv</i>) to address these specific concerns; (vii) The use of a screening checklist to be developed by the M&E Specialist to be recruited through the project (based on SESP Annex 3) in early project implementation to screen all investments to ensure that they comply with sound social, environmental and cultural principles. The oversight for SESP implementation will rest with the M&E specialist. UNDP supervision mission will review SESP implementation; and (viii) Provision has also been made for the documentation by Maroon community stakeholders of their cultural practices to enhance biodiversity conservation after FPIC.
Risk 7- Environmental- Climate Change Climate change and associated threats could threaten projects impacts in the medium to longer-term. <i>(Principle 3, Standard 2, Question 2)</i>	1 =2 P =3	Moderate	Climate change can pose a major risks to natural resources in Jamaica with potentially stronger winds, changes in rainfall and temperature, although Impacts are unlikely to increase over project term but likely to arise in the longer-term.	Mitigation measures for this risk include: (i) Participatory community risk assessment (including climate change) and planning that will, inter alia, influence the choice of climate smart investment projects; (ii) Strengthening of sustainable and other conservation practices will enhance protection of ecosystem services; (iii) Monitoring plan to ensure that the health of the eco-system is kept in focus and

				(iv) the knowledge management and communication strategy (Annex 6) will raise public awareness and involvement in climate smart actions. Investments actions are aimed at further enhancing climate resilience by supporting an integrated approach to management of landscapes (and associated community resources) to help reduce stresses from water shortage and control unsustainable use of natural resources, reduce forest fires, increase and diversify incomes and productive practices, helping to increase the health of ecosystems and their adaptive capacity to cope with climatic changes. The project will also help build awareness and capacity of local communities to adapt to such threats in the longer term, including through putting in place standardized community monitoring of terrestrial habitats and resources to identify when ecosystems are changing
Would the potential outcomes of the Project be sensitive or vulnerable to potential impacts of climate change and natural disasters?	QUESTION 4: What is the overall Project risk			
	Select one (see SESP for guidance)			Comments
	<i>Low Risk</i>	☐		
	<i>Moderate Risk</i>	☐		
	<i>High Risk</i>	☒		A total of 7 risks have been identified. One has been assessed as high risk, namely Risk 3: relating to tenure and customary rights, in particular relating to Maroon community. The other 6 risks are rated as moderate. namely the following (1) Risk 1: Project activities could have unintended negative consequences on endangered species or critical habitats; (2) Risk 2: The Project involves harvesting of natural forests and forest restoration (3) Risk 3: The Project could possibly affect land tenure arrangements and/or community based property rights/customary rights; (4) Risk 4: Resistance to the creation of a Cockpit Country Protected Area; (5) Risk 5: Women and vulnerable groups within the communities may not be fully involved; (6) Risk 6: Cultural identity of the Maroons; and (7) Risk 7: Climate change and associated threats to marine environments and fisheries resources. The following safeguards are triggered: Principle 1: Human Rights, Principle 2: Gender Equality and Women’s Empowerment, Principle 3, Standard 1: Biodiversity Conservation and Natural Resource Management; Standard 2: Climate Change Mitigation and Adaptation; Standard 4: Cultural Heritage and Standard 5: Displacement and Resettlement. The overall project risk categorization is High. A “Special Interest” Peoples Plan for Maroon Community Engagement (Annex 16) prepared during the PPG stage of the project outlining the additional safeguard measures. In accordance with this Plan, a targeted assessment of potential economic risks will be–done during cluster planning and any additional management measures detailed. This will include the completion of a livelihoods action plan as part of the cluster management plans that would be agreed with all communities (including the Maroons) and validated through MOUs signed between the communities and NEPA. These cluster management plans will reflect the priorities and needs of the community.

			This SESP template (Annex 3) will form the basis of the targeted assessment and will be updated as required. A gender assessment (Annex 5) has been completed along with a gender mainstreaming action plan and will be updated in terms of the plan and budget during pre-implementation stage. Implementation of the project gender action plan will be integrated in all capacity building, livelihoods and other activities to ensure that institutions and individuals optimize gender outcomes Defined M&E and adaptive management procedures will be applied during project implementation. Key measures will include: • Ensuring capacity development and improved management effectiveness of PAs, and greater community participation and co-management. • Comprehensive stakeholder engagement plan that considers broad range of stakeholders and how to consult and engage them in project activities • All plans, tools and measures incorporate climate change adaptation considerations Support for safeguards and gender has been built into the project budget, the monitoring and evaluation framework and specific responsibilities allocated to Project Management Unit M&E staff. Oversight for gender related activities will also be provided by Bureau of Gender Affairs to ensure the mainstreaming of gender concerns. The independent Mid-Term Review and Terminal Evaluation will be tasked to assess whether these mitigation measures have been met. This will be explicitly stated in the Terms of Reference of these consultancies.
	QUESTION 5: Based on the identified risks and risk categorization, what requirements of the SES are relevant?		
	Check all that apply		Comments
	<i>Principle 1: Human Rights</i>	X	See Risk 4. Ensuring effective consultation using FPIC prior to deciding on specific location, nature and scope of project investments, MOUs with Maroon communities and others to formalize investment agreements, use of grievance redressal mechanism and use of screening checklist. In terms of the Maroon, the use of the “Special Interest” Peoples Plan for Maroon Community (Annex 16) will form the basis for dealing with the interests and concerns.
	<i>Principle 2: Gender Equality and Women’s Empowerment</i>	X	See Risk 4. Gender disparities exist at project sites and could potentially be enhanced by project activities. A gender assessment has been completed along with a gender mainstreaming action plan. Implementation of the project gender action plan will be integrated in all capacity building, livelihoods and other activities to ensure that institutions and individuals optimize gender outcomes.
	<i>1. Biodiversity Conservation and Natural Resource Management</i>	X	See Risks 1 and 2. Criteria for the selection of target clusters for project intervention located outside the proposed PA boundary, use of screening checklist (SESP) to ensure investments outside key biodiversity sites, PA management planning define specific rules for location and nature of investments within PA; guidelines for sustainable harvest of

			forest products and monitoring of compliance and environmentally friendly natural regeneration of forest proposed
	2. Climate Change Mitigation and Adaptation	x	See Risk 7. Application of participatory community risk assessment and planning that will, inter alia, influence the choice of investment projects with considerations of their risks. Monitoring plan to ensure that the health of the eco-system and implementation of knowledge management and communication strategy to enhance public awareness and involvement in climate smart actions.
	3. Community Health, Safety and Working Conditions	☐	
	4. Cultural Heritage	x	See Risk 6. The use of the “Special Interest” Peoples Plan will form the basis for dealing with the interests of the Maroons. The use of the grievance redressal system to address these specific concerns and the screening checklist based on SESP to ensure that these take into consideration all potential impacts and implementation would be monitored to ensure that there is no impacts on cultural heritage of the Maroon community. Any project related economic development initiatives proposed by Maroon communities will rest on the maintenance of the integrity of Maroon culture, for example, in agricultural practices, eco-tourism, etc.
	5. Displacement and Resettlement		See Risks 3. Preparation of cluster management plan for Maroon community (and other communities) that will reflect priorities and development needs of the community, including special livelihood improvement measures for loss of access and/or economic displacement. Application of FPIC procedures during cluster management planning, such management plans agreed by the Maroon community and validated through MOUs signed between the Maroon Council and NEPA and implemented and monitored by the community itself. Representation of the Maroon Council in the Technical Working Group, the use of GRM, use of screening checklist (SESP) and culturally sensitive investments as defined through the cluster management plan.
	6. Indigenous Peoples/ Special Community	x	See response to Risk 3 and 6 above. In addition specific project design aspects related to the Maroon include (i) defining a distinct target cluster assigned to Maroons with specific means to ensure that any investment is based on their needs and priorities; and (ii) Involvement from the level of the Maroon Council in all the preparation processes including in the inter-agency Technical Working Group which is the final decision making body, along with the UNDP for the project.
	7. Pollution Prevention and Resource Efficiency	☐	

Final Sign Off

Signature	Date	Description
QA Assessor		UNDP staff member responsible for the Project, typically a UNDP Programme Officer. Final signature confirms they have “checked” to ensure that the SESP is adequately conducted.
QA Approver		UNDP senior manager, typically the UNDP Deputy Country Director (DCD), Country Director (CD), Deputy Resident Representative (DRR), or Resident Representative (RR). The QA Approver cannot also be the QA Assessor. Final signature confirms they have “cleared” the SESP prior to submittal to the PAC.
PAC Chair		UNDP chair of the PAC. In some cases PAC Chair may also be the QA Approver. Final signature confirms that the SESP was considered as part of the project appraisal and considered in recommendations of the PAC.

SESP Attachment 1. Social and Environmental Risk Screening Checklist

Checklist Potential Social and Environmental <u>Risks</u>	
Principles 1: Human Rights	Answer (Yes/No)
1. Could the Project lead to adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups?	Yes
2. Is there a likelihood that the Project would have inequitable or discriminatory adverse impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups? ⁵⁹	Yes
3. Could the Project potentially restrict availability, quality of and access to resources or basic services, in particular to marginalized individuals or groups?	Yes
4. Is there a likelihood that the Project would exclude any potentially affected stakeholders, in particular marginalized groups, from fully participating in decisions that may affect them?	Yes
5. Is there a risk that duty-bearers do not have the capacity to meet their obligations in the Project?	No
6. Is there a risk that rights-holders do not have the capacity to claim their rights?	No
7. Have local communities or individuals, given the opportunity, raised human rights concerns regarding the Project during the stakeholder engagement process?	No
8. Is there a risk that the Project would exacerbate conflicts among and/or the risk of violence to project-affected communities and individuals?	Yes
Principle 2: Gender Equality and Women's Empowerment	
1. Is there a likelihood that the proposed Project would have adverse impacts on gender equality and/or the situation of women and girls?	Yes
2. Would the Project potentially reproduce discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	Yes
3. Have women's groups/leaders raised gender equality concerns regarding the Project during the stakeholder engagement process and has this been included in the overall Project proposal and in the risk assessment?	No

⁵⁹ Prohibited grounds of discrimination include race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. References to "women and men" or similar is understood to include women and men, boys and girls, and other groups discriminated against based on their gender identities, such as transgender people and transsexuals.

4.	Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services?	No
Principle 3: Environmental Sustainability: Screening questions regarding environmental risks are encompassed by the specific Standard-related questions below		
Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management		
1.1	Would the Project potentially cause adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services?	Yes
1.2	Are any Project activities proposed within or adjacent to critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?	Yes
1.3	Does the Project involve changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods?	Yes
1.4	Would Project activities pose risks to endangered species?	Yes
1.5	Would the Project pose a risk of introducing invasive alien species?	No
1.6	Does the Project involve harvesting of natural forests, plantation development, or reforestation?	Yes
1.7	Does the Project involve the production and/or harvesting of fish populations or other aquatic species?	No
1.8	Does the Project involve significant extraction, diversion or containment of surface or ground water?	No
1.9	Does the Project involve utilization of genetic resources? (e.g. collection and/or harvesting, commercial development)	Yes
1.10	Would the Project generate potential adverse transboundary or global environmental concerns?	No
1.11	Would the Project result in secondary or consequential development activities which could lead to adverse social and environmental effects, or would it generate cumulative impacts with other known existing or planned activities in the area?.	No
Standard 2: Climate Change Mitigation and Adaptation		

2.1	Will the proposed Project result in significant ⁶⁰ greenhouse gas emissions or may exacerbate climate change?	No
2.2	Would the potential outcomes of the Project be sensitive or vulnerable to potential impacts of climate change?	Yes
2.3	Is the proposed Project likely to directly or indirectly increase social and environmental vulnerability to climate change now or in the future (also known as maladaptive practices)?	No
Standard 3: Community Health, Safety and Working Conditions		
3.1	Would elements of Project construction, operation, or decommissioning pose potential safety risks to local communities?	No
3.2	Would the Project pose potential risks to community health and safety due to the transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	No
3.3	Does the Project involve large-scale infrastructure development (e.g. dams, roads, buildings)?	No
3.4	Would failure of structural elements of the Project pose risks to communities? (e.g. collapse of buildings or infrastructure)	No
3.5	Would the proposed Project be susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions?	No
3.6	Would the Project result in potential increased health risks (e.g. from water-borne or other vector-borne diseases or communicable infections such as HIV/AIDS)?	No
3.7	Does the Project pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or decommissioning?	No
3.8	Does the Project involve support for employment or livelihoods that may fail to comply with national and international labor standards (i.e. principles and standards of ILO fundamental conventions)?	No
3.9	Does the Project engage security personnel that may pose a potential risk to health and safety of communities and/or individuals (e.g. due to a lack of adequate training or accountability)?	No
Standard 4: Cultural Heritage		

⁶⁰ In regards to CO₂, 'significant emissions' corresponds generally to more than 25,000 tons per year (from both direct and indirect sources).

4.1	Will the proposed Project result in interventions that would potentially adversely impact sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)?	No
4.2	Does the Project propose utilizing tangible and/or intangible forms of cultural heritage for commercial or other purposes?	Yes
Standard 5: Displacement and Resettlement		
5.1	Would the Project potentially involve temporary or permanent and full or partial physical displacement?	No
5.2	Would the Project possibly result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	Yes
5.3	Is there a risk that the Project would lead to forced evictions? ⁶¹	No
5.4	Would the proposed Project possibly affect land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	Yes
Standard 6: Indigenous Peoples		
6.1	Are indigenous peoples present in the Project area (including Project area of influence)? ⁶²	Yes
6.2	Is it likely that the Project or portions of the Project will be located on lands and territories claimed by indigenous peoples?	Yes
6.3	Would the proposed Project potentially affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples (regardless of whether indigenous peoples possess the legal titles to such areas, whether the Project is located within or outside of the lands and territories inhabited by the affected peoples, or whether the indigenous peoples are recognized as indigenous peoples by the country in question)?	Yes
6.4	Has there been an absence of culturally appropriate consultations carried out with the objective of achieving FPIC on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	Yes

⁶¹ Forced evictions include acts and/or omissions involving the coerced or involuntary displacement of individuals, groups, or communities from homes and/or lands and common property resources that were occupied or depended upon, thus eliminating the ability of an individual, group, or community to reside or work in a particular dwelling, residence, or location without the provision of, and access to, appropriate forms of legal or other protections.

⁶² The Maroons are not considered as IPs in Jamaica, but as a “Special Interest” group. Nevertheless, since the SESP checklist does not contain provisions that specifically relate to such special interest group, the risks related to IPs are appropriately triggered.

6.5	Does the proposed Project involve the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	Yes
6.6	Is there a potential for forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources?	Yes
6.7	Would the Project adversely affect the development priorities of indigenous peoples as defined by them?	Yes
6.8	Would the Project potentially affect the physical and cultural survival of indigenous peoples?	No
6.9	Would the Project potentially affect the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	No
Standard 7: Pollution Prevention and Resource Efficiency		
7.1	Would the Project potentially result in the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	No
7.2	Would the proposed Project potentially result in the generation of waste (both hazardous and non-hazardous)?	No
7.3	Will the proposed Project potentially involve the manufacture, trade, release, and/or use of hazardous chemicals and/or materials? Does the Project propose use of chemicals or materials subject to international bans or phase-outs?	No
7.4	Will the proposed Project involve the application of pesticides that may have a negative effect on the environment or human health?	No
7.5	Does the Project include activities that require significant consumption of raw materials, energy, and/or water?	No

ANNEX 4 - STAKEHOLDER ENGAGEMENT PLAN

This Stakeholder Engagement and Involvement Plan supports the development and implementation of the ***Conserving Biodiversity and Reducing Land Degradation Using an Integrated Landscape Approach project***.

The approach was based on the FPIC method; Free, Prior and Informed Consent and conducted based on the UNDP's Stakeholder Model ranging on the continuum from inform to decision-making. The Plan informs project sustainability and enables effective participation of key stakeholders at the community, parish and national levels.

The objectives of the stakeholder engagement activity were to:

- Sensitise communities, interest groups and GOJ parish management of the upcoming project
- Take advantage of the experience and skills of the main stakeholders in informing the development of the project document and advance buy-in
- Identify stakeholders and determine their mandate, roles and responsibilities in relation to the project
- Analyse the capacity and institutional needs of each stakeholder
- Identify constraints and conflicts that could affect project effectiveness
- Determine the governance structure for the project at the community, parish and national levels

The project initiated consultations with a range of stakeholders during preparation of the Concept Note which was later expanded on during the PPG stage. During the PPG stage, national consultants lead the process undertaking transect walks, focus group discussions and cluster-based and parish-level consultation meetings. During these activities, stakeholders made significant contributions to project outcomes, outputs, activities and institutional arrangements for the project.

Civil society stakeholders were first identified from the SDC's list of community-based organisations while others identified in the field. All GOJ entities in the targeted parish with responsibility for biodiversity, land use management, tourism, forest management and supporting services were invited to participate in the consultations.

Mechanisms and strategies for stakeholder engagement will ensure that the relevant shareholders receive and share information and provide their inputs in the planning, design, implementation, monitoring and evaluation of project initiatives. Stakeholders will further play a role in sustaining the initiatives after the closure of the project. The Stakeholder Involvement Plan describes the process of representation of stakeholders in the project steering committee and technical working group.

Roles and responsibilities of stakeholders identified are summarised below.

Stakeholders Consulted

Approximately 480 stakeholders were consulted formally and informally. In addition to the 384, at the formal consultations, approximately 100 were reached through transect walks. Stakeholders included males, females, youths, interest groups such as farmers, women's and environmental associations in addition to approximately 17 institutions and political representatives.

Table 1 – Breakdown of Stakeholders Consulted

Cluster Marker	Government	Community	Total
Cluster 1 – Quick Step, St. Elizabeth	25	78	103
Cluster 2 – Burnt Hill, Trelawny	22	32	54
Cluster 3 – Niagara, St. James	18	43	61
Cluster 4 – Accompong, St. Elizabeth	-	49	49
Cluster 5 – Windsor, Trelawny	-	55	55
Cluster 6 – Litchfield/Matheson's Run, St. Ann/Clarendon	31	41	72
TOTAL	96	298	384

NB: Clusters 1 and 4 (St. Elizabeth) along with Clusters 2 and 5.1 (Trelawny) GOJ meetings were held as one.

2.3 Stakeholder Involvement Plan

Many of the proposed roles do not directly relate to the project. However, the consultations proved that many pressing needs, due to neglect, over the years has reduced the readiness of many communities and other pressing social problems must be addressed prior to project implementation. Mechanisms and strategies for stakeholder involvement will ensure that the relevant shareholders receive and share information and provide their inputs in the planning, design, implementation, monitoring and evaluation of project initiatives and play a role in sustaining the initiatives during and after the closure of the project. Roles and responsibilities of main stakeholders of the project are summarized in Table 2 below. Early in project implementation, NEPA (national level) and Parish entities will develop a more detailed Stakeholder Engagement plan that would detailed to ensure (i) specific ways to involve stakeholders in project planning, implementation and monitoring; (ii) engagement of stakeholders in social and environmental screening and risk monitoring; (iii) ensuring free, fair and transparent methods of information sharing and accessibility; (iv) implementation of gender mainstreaming strategy and action plan; (v) measures to empower stakeholders and potential project beneficiaries; and (vi) information disclosure.

Table 2 – Stakeholder Involvement Plan

#	Stakeholder	Type	Potential Role In Project	Component/Output
1.	Aberdeen Community Development Committee	Community	- Strengthen community participation, growth and development - Recipients/coordination of livelihoods investment opportunities - Recipients of capacity building exercises in mainstreaming gender and biodiversity, management and social enterprise development	Component 2 - Outcome 2 - Output 2.1; 2.2; 2.3; 2.4; 2.5 Component 3 - Outcome 3 - Output 3.1

#	Stakeholder	Type	Potential Role In Project	Component/Output
2.	Accompong Maroon Council	Community/ Political	- Strengthen community participation, growth and development - Recipients/coordination of livelihoods investment opportunities - Recipients of capacity building exercises in mainstreaming gender and biodiversity, management and social enterprise development	Component 2 - Outcome 2 - Output 2.1; 2.2; 2.3; 2.4; 2.5 Component 3 - Outcome 3 - Output 3.1; 3.2
3.	Accompong Maroon Youth Culture Group	Community	- Strengthen community participation, growth and development - Promote maroon culture/heritage, traditions and history - Coordination of livelihoods investment opportunities - Recipients of capacity building exercises in mainstreaming gender and biodiversity, management and social enterprise development	Component 2 - Outcome 2 - Output 2.1; 2.2; 2.3; 2.4; 2.5 Component 3 - Outcome 3 - Output 3.1; 3.2
4.	Aenon Town Community Development Committee	Community	- Strengthen community participation, growth and development - Recipients/coordination of livelihoods investment opportunities - Recipients of capacity building exercises in mainstreaming gender and biodiversity, management and social enterprise development	Component 2 - Outcome 2 - Output 2.1; 2.2; 2.3; 2.4; 2.5 Component 3 - Outcome 3 - Output 3.1
5.	Aenon Town Police Youth Club	Community	- Strengthen community participation, growth and development - Recipients of capacity building exercises in mainstreaming gender and biodiversity, management and social enterprise development	Component 2 - Outcome 2 - Output 2.1; 2.2; 2.3; 2.4; 2.5
6.	Albert Town Community Development Committee	Community	- Strengthen community participation, growth and development - Coordination of livelihoods investment opportunities - Recipients of capacity building exercises in mainstreaming gender and biodiversity, management and social enterprise development	Component 2 - Outcome 2 - Output 2.1; 2.2; 2.3; 2.4; 2.5
7.	Albert Town Community Youth Club	Community	- Strengthen community participation, growth and development - Coordination of livelihoods investment opportunities - Recipients of capacity building exercises in mainstreaming gender and biodiversity, management and social enterprise development	Component 2 - Outcome 2 - Output 2.1; 2.2; 2.3; 2.4; 2.5

#	Stakeholder	Type	Potential Role In Project	Component/Output
8.	Albert Town Development Area Committee	NGO	- Strengthen community participation, growth and development - Coordination of livelihoods investment opportunities. - Coordination of local CBS and NGOs - Recipients of capacity building exercises in mainstreaming gender and biodiversity, management and social enterprise development	Component 2 - Outcome 2 - Output 2.1; 2.2; 2.3; 2.4; 2.5
9.	Alps Community Development Committee	Community	- Strengthen community participation, growth and development - Coordination of livelihoods investment opportunities - Recipients of capacity building exercises in mainstreaming gender and biodiversity, management and social enterprise development - Collaborate with other CBOs	Component 2 - Outcome 2 - Output 2.1; 2.2; 2.3; 2.4; 2.5
10.	Bunkers Hill (JAS Group) Cultural Experience and River Tours	Community	- Strengthen community participation, growth and development - Recipient/coordination of livelihoods investment opportunities - Recipients of capacity building exercises in mainstreaming gender and biodiversity, management and social enterprise development - Promote sustainable agricultural production in the area	Component 2 - Outcome 2 - Output 2.1; 2.2; 2.3; 2.4; 2.5
11.	Bureau of Gender Affairs	Government	- Gender-sensitive data collection tools and indicator monitoring - Representation on project steering Committee	Component 1 - Outcome 1 - Output 1.1; 1.2; 1.3; 1.4 Component 3 - Outcome 3 - Output 3.3
12.	Chamber of Commerce and Industry	NGO	- Promote parish and community development by improving the social environment - Short-term engagement for capacity building, enterprise development, mentoring, and coaching	Component 2 - Outcome 2 - Output 2.1; 2.2; 2.5
13.	Child Protection and Family Service Agency	Government	- Family empowerment - Capacity building	Component 1 - Outcome 1 - Output 1.2; 1.2
14.	Cuffie Ridge Farmers' Association	Community	- Strengthen community participation, growth and development - Coordination of livelihoods investment opportunities - Recipients of capacity building exercises in mainstreaming gender and biodiversity, management and social enterprise development	Component 2 - Outcome 2 - Output 2.1; 2.2; 2.3; 2.4; 2.5 Component 3 - Outcome 3 - Output 3.1

#	Stakeholder	Type	Potential Role In Project	Component/Output
15.	Department of Cooperatives & Friendly Societies	Government	Assist with capacity building and technical support for enterprise development	Component 1 - Outcome 1 - Output 1.2; 1.2; 1.5 Component 2 - Outcome 2 - Output 2.4
16.	Digicel Foundation	NGO	Co-financing	Component 1 - Outcome 1 - Output 1.5 Component 2 - Outcome 2 - Output 2.4
17.	Faith-based Organizations	FBO	- Strengthen community participation, growth and development - Coordination of livelihoods investment opportunities - Dispute resolution - Recipients of capacity building exercises in mainstreaming gender and biodiversity, management and social enterprise development	Component 2 - Outcome 2 - Output 2.1; 2.2; 2.3; 2.4; 2.5 Component 3 - Outcome 3 - Output 3.1
18.	Forestry Department	Government	- Approve permits/licenses and enforce legislations - Implementing forest management and conservation plan - Implementing body and lead on conservation and biodiversity - Representation on project steering committee	Component 1 - Outcome 1 - Output 1.1; 1.2; 1.3; 1.4 Component 2 - Outcome 2 - Output 2.2 Component 3 - Outcome 3 - Output 3.2; 3.3
19.	Institute of Jamaica (Natural History Museum)	Government	- National repository of biodiversity information/Clearing House Mechanism - Monitoring and regulation of impacts on biodiversity - Biodiversity outreach and education	Component 1 - Outcome 1 - Output 1.1; 1.2; 1.3; 1.4; 1.5 Component 2 - Outcome 2 - Output 2.2; 2.3 Component 3

#	Stakeholder	Type	Potential Role In Project	Component/Output
				○ Outcome 3 ▪ Output 3.2
20.	Jamaica Agriculture Society	Government	• Promotion of sustainable agricultural practices • Recipient/coordination of livelihoods investment opportunities • Facilitate skills training	• Component 2 ○ Outcome 2 ▪ Output 2.1; 2.5 • Component 3 ○ Outcome 3 ▪ Output 3.1; 3.2
21.	Jamaica Bauxite Institute	Government	• Build synergies for project implementation	• Component 2 ○ Outcome 2 ▪ Output 2.2; 2.3; 2.5
22.	Jamaica Business Development Corporation	Government	• Enterprise development and management capacity building • Synergies for project co-financing	• Component 1 ○ Outcome 1 ▪ Output 1.2; 1.2; 1.5 • Component 2 ○ Outcome 2 ▪ Output 2.4
23.	Jamaica Constabulary Force	Government	• Law enforcement • Public safety	• Component 1 ○ Outcome 1 • Output 1.1; 1.2 • Component 3 ○ Outcome 3 • Output 3.1
24.	Jamaica Cultural Development Commission	Government	• Strengthen community participation, growth and development • Promotion of cultural heritage (Maroons)	• Component 1 ○ Outcome 1 • Output 1.1; 1.2 • Component 3 ○ Outcome 3 • Output 3.1
25.	Jamaica Fire Brigade	Government	• Promotion of sustainable forest fire prevention	• Component 1 ○ Outcome 1 • Output 1.1; 1.2 • Component 3 ○ Outcome 3 • Output 3.1

#	Stakeholder	Type	Potential Role In Project	Component/Output
26.	Jamaica Horticulture Society	Government	Coordinate/promote sustainable livelihoods projects	Component 2 - Outcome 2 - Output 2.1
27.	Jamaica National Heritage Trust	Government	- Community outreach, biodiversity and cultural heritage promotion and preservation - Regulate utilisation of cultural heritage resources - Capacity building in promotion of cultural rights	Component 1 - Outcome 1 - Output 1.1; 1.2; 1.3; 1.4; 1.5 Component 2 - Outcome 2 - Output 2.2; 2.3 Component 3 - Outcome 3 - Output 3.2
28.	Jamaica Red Cross	NGO	- Building capacity and resilience - Promotion of biodiversity conservation and environmental management	Component 3 - Outcome 3 - Output 3.1; 3.3
29.	Jamaica Social Investment Fund	Government	- Synergies for project co-financing - Assist with managing livelihood projects that promotes a sustainable environment - Representation on Project Steering Committee	Component 1 - Outcome 1 - Output 1.2; 1.2; 1.5 Component 2 - Outcome 2 - Output 2.4
30.	Jamaica 4-H Clubs	Government	- Public education in schools and communities - Organising and sensitising communities on good agricultural practices - Participate in an interagency institutional structure for conservation and protection of the natural environment	Component 3 - Outcome 3 - Output 3.1
31.	Lay Magistrates Association (Justices of the Peace)	Government	Conflict management/dispute resolution	Component 2 - Outcome 2 - Output 2.2
32.	Local Forest Management Committee (Cockpit Country, South-West)	Community	- Strengthen community participation, growth and development - Recipients/coordination of livelihoods investment opportunities - Recipients of capacity building exercises in mainstreaming gender and biodiversity, management and social enterprise development - Promote local biodiversity conservation	Component 2 - Outcome 2 - Output 2.1; 2.2; 2.3; 2.4; 2.5 Component 3 - Outcome 3

#	Stakeholder	Type	Potential Role In Project	Component/Output
				▪ Output 3.1
33.	Local Media	Private	- Public information dissemination and education - Promote building of community value	Component 3 - Outcome 3 - Output 3.1
34.	Madras Community Development Committee	Community	- Strengthen community participation, growth and development - Coordination of livelihoods investment opportunities - Recipients of capacity building exercises in mainstreaming gender and biodiversity, management and social enterprise development - Collaborate with other CBOs	Component 2 - Outcome 2 - Output 2.1; 2.2; 2.3; 2.4; 2.5 Component 3 - Outcome 3 - Output 3.1
35.	Mocho Producer Marketing Organization	Community	- Strengthen community participation, growth and development - Coordination of livelihoods investment opportunities. - Collaborate with other CBOs - Recipients of capacity building exercises in mainstreaming gender and biodiversity, management and social enterprise development	Component 2 - Outcome 2 - Output 2.1; 2.2; 2.3; 2.4; 2.5 Component 3 - Outcome 3 - Output 3.1
36.	Ministry of Culture, Gender, Entertainment and Sport	Government	- Strengthen community participation, growth and development - Gender-sensitive data collection tools and indicator monitoring. - Maintaining cultural heritage of proposed areas.	Component 1 - Outcome 1 - Output 1.1; 1.2 Component 3 - Outcome 3 - Output 3.1; 3.3
37.	Ministry of Education	Government	- Biodiversity conservation, public education in schools - Facilitate capacity training in project management and research	Component 1 - Outcome 1 - Output 1.1; 1.2 Component 3 - Outcome 3 - Output 3.1
38.	Ministry of Health	Government	- Delivery of public health through primary and secondary institution (health centres and hospital) - Training of health aid workers - Expanding infrastructure in health - Maintain public health standards	Component 1 - Outcome 1 - Output 1.1; 1.2
39.	Ministry of Labor and Social Security	Government	Facilitate training and capacity building	Component 1 - Outcome 1

#	Stakeholder	Type	Potential Role In Project	Component/Output
				Output 1.1; 1.2
40.	Municipal Corporation	Government	- Facilitate local sustainable development/manage development plans/orders - Technical support for minor water supply development and distribution - Monitor and regulate city ordinances	Component 1 - Outcome 1 - Output 1.1; 1.2; 1.3; 1.4 Component 2 - Outcome 2 - Output 2.2; 2.3; 2.5 Component 3 - Outcome 3 - Output 3.1; 3.2; 3.3
41.	National Environment and Planning Agency	Government	- Monitoring the natural resource assets of the project area and immediate surroundings - Approval of environmental permits and licenses - Participate in interagency institutional structure for conservation and protection of the natural environment	Component 1 - Outcome 1 - Output 1.1; 1.2; 1.3; 1.4 Component 2 - Outcome 2 - Output 2.2; 2.3; 2.5 Component 3 - Outcome 3 - Output 3.1; 3.2; 3.3
42.	National Irrigation Commission	Government	Capacity building/establish communal irrigation systems	Component 1 - Outcome 1 - Output 1.1; 1.2
43.	National Land Agency	Government	Special initiative for resolving land tenure, ownership and access issues	Component 1 - Outcome 1 - Output 1.1; 1.2
44.	National Solid Waste Management Authority	Government	- Public education/awareness on solid waste management - Enforcement of solid waste management regulations	Component 1 - Outcome 1 - Output 1.1; 1.2
45.	National Water Commission	Government	Provide technical services for community-level water distribution and management	Component 1 - Outcome 1 - Output 1.1; 1.2

#	Stakeholder	Type	Potential Role In Project	Component/Output
46.	National Works Agency	Government	Short-term engagement for capacity building, for women's employment project activities	Component 1 - Outcome 1 - Output 1.1; 1.2; 1.3; 1.4
47.	Niagara Community Development Committee	Community	- Strengthen community participation, growth and development - Recipients/coordination of livelihoods investment opportunities - Recipients of capacity building exercises in mainstreaming gender and biodiversity, management and social enterprise development - Collaborate with other CBOs	Component 2 - Outcome 2 - Output 2.1; 2.2; 2.3; 2.4; 2.5 Component 3 - Outcome 3 - Output 3.1
48.	Parish Development Committee	Local Government	- Supervision of projects at the community level - Liaison with community development committees	Component 2 - Outcome 2 - Output 2.2; 2.4; 2.5 Component 3 - Outcome 3 - Output 3.1
49.	Office of Disaster Preparedness & Emergency Management	Government	Promoting disaster risk management through public education	Component 1 - Outcome 1 - Output 1.1; 1.2
50.	Quickstep Community Development Committee	Community	- Strengthen community participation, growth and development - Recipient/coordination of livelihoods investment opportunities - Recipients of capacity building exercises in mainstreaming gender and biodiversity, management and social enterprise development - Collaboration with other CBOs	Component 2 - Outcome 2 - Output 2.1; 2.2; 2.3; 2.4; 2.5 Component 3 - Outcome 3 - Output 3.1
51.	Rural Agricultural Development Authority	Government	- Monitor agricultural, agro-tourism livelihoods projects - Facilitation of marketing extension services - Facilitate training and capacity building	Component 1 - Outcome 1 - Output 1.1; 1.2; 1.3; 1.4 Component 2 - Outcome 2 - Output 2.1; 2.5 Component 3 - Outcome 3

#	Stakeholder	Type	Potential Role In Project	Component/Output
				Output 3.1; 3.2
52.	Scientific Research Council	Government	- Coordinate scientific research - Provide training and technical assistance - Assist with development of agro-based livelihood activities	Component 1 - Outcome 1 - Output 1.1; 1.2; 1.3
53.	Sherduan Community Development Committee	Community	- Strengthen community participation, growth and development - Recipient/coordination of livelihoods investment opportunities - Recipients of capacity building exercises in mainstreaming gender and biodiversity, management and social enterprise development - Collaborate with other CBOs	Component 2 - Outcome 2 - Output 2.1; 2.2; 2.3; 2.4; 2.5 Component 3 - Outcome 3 - Output 3.1
54.	Social Development Commission	Government	- Strengthen community participation - Short-term engagement for capacity building - Livelihoods promotion - Provide technical support and business planning to operate a social business enterprise - Coordinate closely with the community members, to ensure the sustainability of the social business enterprise beyond the proposed project duration - Representation on project steering committee - Facilitate empowerment of citizens by enabling participation, integration and sustainable programs	Component 1 - Outcome 1 - Output 1.1; 1.2; 1.3; 1.4; 1.5 Component 2 - Outcome 2 - Output 2.4; 2.5 Component 3 - Outcome 3 - Output 3.1
55.	Social Enterprise Boost Initiative	Civil Society	- Capacity building for social enterprise projects - Project synergies/co-financing	Component 2 - Outcome 2 - Output 2.4
56.	Southern St. James Social Economic Development Trust	Government	- Capacity building - Assistance with livelihoods project establishment - Coordinate resources available within the communities	Component 2 - Outcome 2 - Output 2.1; 2.2; 2.4; 2.5
57.	Southern Trelawny Environmental Agency	NGO	- Promote sustainable use of the natural resources - Support with monitoring, biodiversity conservation activities - Public education - Short-term engagement for capacity building for community-based enterprise conservation strategy (e.g. home stay project activities), project management, administration leadership, livelihoods, rain water harvesting	Component 2 - Outcome 2 - Output 2.1; 2.2; 2.4; 2.5 Component 3 - Outcome 3 - Output 3.1

#	Stakeholder	Type	Potential Role In Project	Component/Output
58.	Sweet Water Agriculture Cooperative	Community	- Strengthen community participation, growth and development - Recipient/coordination of livelihoods investment opportunities - Recipient of capacity building exercises in mainstreaming gender and biodiversity, management and social enterprise development	Component 2 - Outcome 2 - Output 2.1; 2.4; 2.5
59.	Tourism Product Development Company/Resort Boards	Government	- Monitoring and regulation of tourism livelihoods standards - Technical support, capacity building training for tourism-related project activities - Facilitate community tourism projects	Component 1 - Outcome 1 - Output 1.1; 1.2; 1.3; 1.4 Component 2 - Outcome 2 - Output 2.4 Component 3 - Outcome 3 - Output 3.1
60.	Trelawny Inter-Agency Network	Government	Strengthen GOJ integration and synergy across sectors	Component 1 - Outcome 1 - Output 1.1; 1.2; 1.3; 1.4
61.	Trelawny Women's Progressive Group	Community	- Empowerment - Monitoring of women's participation and gender equality - Strengthen community participation, growth and development; particularly of women and girls	Component 1 - Outcome 1 - Output 1.4 Component 3 - Outcome 3 - Output 3.1; 3.3
62.	Troy Information Technology Club	Community	- Short-term engagement for project technological needs at the community level - Strengthen community participation, growth and development - Collaborate with other CBOs	Component 2 - Outcome 2 - Output 2.1; 2.2; 2.3; 2.4; 2.5 Component 3 - Outcome 3 - Output 3.1
63.	University of the West Indies	Education	Short-term engagement for research, monitoring and evaluation and capacity building.	Component 1 - Outcome 1 - Output 1.3 Component 2 - Outcome 2 - Output 2.2; 2.5

#	Stakeholder	Type	Potential Role In Project	Component/Output
				• Component 3 ○ Outcome ▪ Output 3.2
64.	Water Resource Authority	Government	• Management of water resource. • Facilitates technical assistance on water use projects.	• Component 1 ○ Outcome 1 • Output 1.1; 1.2
65.	Windsor Research Centre	NGO	• Support with monitoring biodiversity conservation activities. • Research and environmental education. • Mapping and data gathering	• Component 2 ○ Outcome 2 ▪ Output 2.2; 2.5 • Component 3 ○ Outcome ▪ Output 3.2

2.4 Stakeholder Analysis

Table 3 – Stakeholder Analysis

#	Stakeholders	Interests at stake in relation to project	Effect of project on interests (-/0/+)	Importance For Project Success 1=Little/No Importance 2=Some Importance 3=Moderate Importance 4=Very Important 5=Critical player	Degree of Influence 1=Little/No Influence 2=Some influence 3=Moderate Influence 4=Significant Influence 5=Very Influential
1.	Aberdeen Community Development Committee	Opportunity to participate	Positive	5	2
		Increase community livelihoods	Positive		
		Ecosystem preservation	Positive		
2.	Accompong Maroon Council	Opportunity to participate	Positive	5	4
		Increase community livelihoods	Positive		
		Ecosystem preservation	Positive		

#	Stakeholders	Interests at stake in relation to project	Effect of project on interests (-/0/+)	Importance For Project Success 1=Little/No Importance 2=Some Importance 3=Moderate Importance 4=Very Important 5=Critical player	Degree of Influence 1=Little/No Influence 2=Some influence 3=Moderate Influence 4=Significant Influence 5=Very Influential
3.	Accompong Maroon Youth Culture Group	Opportunity to participate	Positive	5	2
		Increase community livelihoods	Positive		
		Ecosystem preservation	Positive		
4.	Aenon Town Community Development Committee	Opportunity to participate	Positive	5	3
		Increase community livelihoods	Positive		
		Ecosystem preservation	Positive		
5.	Aenon Town Police Youth Club	Opportunity to participate	Positive	3	3
		Increase community livelihoods	Positive		
		Ecosystem preservation	Positive		
6.	Albert Town Community Development Committee	Opportunity to participate	Positive	3	3
		Increase community livelihoods	Positive		
		Ecosystem preservation	Positive		
7.	Albert Town Community Youth Club	Opportunity to participate	Positive	3	3
		Increase community livelihoods	Positive		
		Ecosystem preservation	Positive		
8.	Albert Town Development Area Committee	Opportunity to participate	Positive	4	3
		Increase community livelihoods	Positive		
		Ecosystem preservation	Positive		
9.		Opportunity to participate	Positive	4	3

#	Stakeholders	Interests at stake in relation to project	Effect of project on interests (-/0/+)	Importance For Project Success 1=Little/No Importance 2=Some Importance 3=Moderate Importance 4=Very Important 5=Critical player	Degree of Influence 1=Little/No Influence 2=Some influence 3=Moderate Influence 4=Significant Influence 5=Very Influential
	Alps Community Development Committee	Increase community livelihoods	Positive		
		Ecosystem preservation	Positive		
10.	Bunkers Hill JAS	Opportunity to participate	Positive	5	3
		Increase community livelihoods	Positive		
		Ecosystem preservation	Positive		
11.	Bureau of Gender Affairs (Women's Affairs)	Equal participation of males and females	Positive	4	3
12.	Cave Valley Multipurpose Cooperative	Opportunity to participate	Positive	3	1
		Increase community livelihoods	Positive		
13.	Chamber of Commerce Jamaica	Increase livelihoods	Positive	2	1
14.	Cockpit Country Local Forest Management Committee	Opportunity to participate	Positive	5	3
		Increase community livelihoods	Positive		
		Ecosystem preservation	Positive		
15.	Cuffie Ridge Farmers' Association	Opportunity to participate	Positive	5	3
		Increase community livelihood	Positive		
		Ecosystem preservation	Positive		

#	Stakeholders	Interests at stake in relation to project	Effect of project on interests (-/0/+)	Importance For Project Success 1=Little/No Importance 2=Some Importance 3=Moderate Importance 4=Very Important 5=Critical player	Degree of Influence 1=Little/No Influence 2=Some influence 3=Moderate Influence 4=Significant Influence 5=Very Influential
16.	Department of Cooperatives and Friendly Societies	Compliance with regulatory standards	Positive	2	1
17.	Digicel Foundation	Increase community livelihood	Positive	3	1
18.	Faith-based Organizations	Enhance citizen participation	Positive	3	1
		Opportunity to participate	Positive		
19.	Forestry Department	Ecosystem preservation	Positive	5	5
		Enhance citizen participation	Positive		
		Enhance livelihood	Positive		
20.	HEART Trust/NTA	Enhance citizen participation	Positive	2	2
		Enhance livelihood	Positive		
21.	Institute of Jamaica	Preservation of cultural heritage Biodiversity knowledge	Positive	5	4
22.	Jamaica Agriculture Society	Ecosystem preservation	Positive	4	3
		Enhance citizen participation	Positive		
		Enhance livelihood	Positive		
23.	Jamaica Bauxite Institute	Preserve special interest	Positive	3	3
24.	Jamaica Business Development Cooperation	Enterprise development	Positive	2	1
25.	Jamaica Constabulary Force	Enhance citizen participation	Positive	3	2
26.	Jamaica Cultural Development Commission	Preservation of cultural heritage	Positive	3	2

#	Stakeholders	Interests at stake in relation to project	Effect of project on interests (-/0/+)	Importance For Project Success 1=Little/No Importance 2=Some Importance 3=Moderate Importance 4=Very Important 5=Critical player	Degree of Influence 1=Little/No Influence 2=Some influence 3=Moderate Influence 4=Significant Influence 5=Very Influential
27.	Jamaica Fire Brigade	Ecosystem preservation	Positive	3	2
28.	Jamaica Horticultural Society	Enhance livelihoods	Positive	3	1
29.	Jamaica National Heritage Trust	Preservation of cultural heritage and heritage value	Positive	4	4
30.	Jamaica Red Cross	Enhance citizen participation	Positive	1	1
31.	Jamaica Social Investment Fund	Support of alternative livelihoods	Positive	3	1
32.	Jamaica 4-H Clubs	Enhance citizen participation	Positive	3	2
		Enhance livelihoods	Positive		
33.	Local Media	Enhance citizen participation	Positive	3	2
34.	Madras Community Development Committee	Opportunity to participate	Positive	5	3
		Increase community livelihood	Positive		
		Ecosystem preservation	Positive		
35.	Ministry of Culture, Gender, Entertainment and Sport	Enhance citizen participation	Positive	3	2
36.	Ministry of Education	Enhance citizen participation	Positive	2	2
37.	Ministry of Health	Ecosystem preservation	Positive	3	2
		Enhance citizen participation	Positive		
38.	Ministry of Industry, Commerce, Agriculture and Fisheries	Support agricultural extension and livelihoods	Positive	4	3

#	Stakeholders	Interests at stake in relation to project	Effect of project on interests (-/0/+)	Importance For Project Success 1=Little/No Importance 2=Some Importance 3=Moderate Importance 4=Very Important 5=Critical player	Degree of Influence 1=Little/No Influence 2=Some influence 3=Moderate Influence 4=Significant Influence 5=Very Influential
39.	Ministry of Labor and Social Security	Enhance citizen participation	Positive	2	2
40.	Mocho Producer Marketing Organization	Opportunity to participate	Positive	4	3
		Increase community livelihood	Positive		
41.	Municipal Corporations	Enforce City ordinances	Positive	4	3
		Enhance citizen participation	Positive		
		Enhance livelihoods	Positive		
42.	National Environment and Planning Agency	Ecosystem preservation	Positive	5	5
		Enhance citizen participation	Positive		
		Enhance livelihoods	Positive		
43.	National Irrigation Commission	Manage/support irrigation schemes	Positive	3	2
44.	National Land Agency	Land tenure/access	Positive	3	1
45.	National Solid Waste Management Authority	Ecosystem preservation	Positive	3	1
46.	National Water Commission	Ecosystem preservation	Positive	3	1
47.	National Works Agency	Synergies for alternative livelihoods opportunity	Positive	2	1
48.	Niagara Community Development Committee	Opportunity to participate	Positive	5	3

#	Stakeholders	Interests at stake in relation to project	Effect of project on interests (-/0/+)	Importance For Project Success 1=Little/No Importance 2=Some Importance 3=Moderate Importance 4=Very Important 5=Critical player	Degree of Influence 1=Little/No Influence 2=Some influence 3=Moderate Influence 4=Significant Influence 5=Very Influential
		Increase community livelihoods	Positive		
		Ecosystem preservation	Positive		
49.	Parish Development Committee	Enhance citizen participation	Positive	4	2
		Enhance livelihoods	Positive		
50.	Quickstep Community Development Committee	Opportunity to participate	Positive	5	3
		Increase community livelihood	Positive		
		Ecosystem preservation	Positive		
51.	Rural Agricultural Development Authority	Ecosystem preservation	Positive	5	3
		Enhance citizen participation	Positive		
		Enhance livelihoods	Positive		
52.	Scientific Research Council	Enhance Livelihoods	Positive	3	3
53.	Sherduan Community Development Committee	Opportunity to participate	Positive	5	3
		Increase community livelihood	Positive		

#	Stakeholders		Interests at stake in relation to project	Effect of project on interests (-/0/+)	Importance For Project Success 1=Little/No Importance 2=Some Importance 3=Moderate Importance 4=Very Important 5=Critical player	Degree of Influence 1=Little/No Influence 2=Some influence 3=Moderate Influence 4=Significant Influence 5=Very Influential
			Ecosystem preservation	Positive		
54.	Sherwood Community Committee	Content Development	Opportunity to participate	Positive	5	3
			Increase community livelihood	Positive		
			Ecosystem preservation	Positive		
55.	Social Commission	Development	Enhance citizen participation	Positive	4	3
			Enhance livelihoods	Positive		
			Community economic development	Positive		
56.	Social Enterprise Initiative	Boost	Enhance livelihood	Positive	2	2
57.	Southern Environmental Agency	Trelawny	Enhance citizen participation	Positive	4	3
			Enhance livelihood	Positive		
			Ecosystem preservation	Positive		
58.	Sweet Water Cooperative	Agriculture	Opportunity to participate	Positive	5	3
			Increase community livelihood	Positive		

#	Stakeholders	Interests at stake in relation to project	Effect of project on interests (-/0/+)	Importance For Project Success 1=Little/No Importance 2=Some Importance 3=Moderate Importance 4=Very Important 5=Critical player	Degree of Influence 1=Little/No Influence 2=Some influence 3=Moderate Influence 4=Significant Influence 5=Very Influential
		Ecosystem preservation	Positive		
59.	Tourism Development Company/Resort Boards	Enhance citizen participation	Positive	4	3
		Enhance livelihood	Positive		
		Ecosystem preservation	Positive		
60.	Trelawny Network	Enhance citizen participation	Positive	4	2
		Enhance livelihood	Positive		
61.	Trelawny Progressive Group	Enhance citizen participation	Positive	3	2
62.	Troy Information Technology Club	Opportunity to participate	Positive	5	2
		Increase community livelihood	Positive		
		Ecosystem preservation	Positives		
63.	University of the West Indies	Research and knowledge management	Positive	2	2
64.	Water Resource Authority	Regulate, conserve, allocate Jamaica's water resources	Positive	2	1
65.	Windsor Research Centre	Research and knowledge management	Positive	3	2

#	Stakeholders	Interests at stake in relation to project	Effect of project on interests (-/0/+)	Importance For Project Success 1=Little/No Importance 2=Some Importance 3=Moderate Importance 4=Very Important 5=Critical player	Degree of Influence 1=Little/No Influence 2=Some influence 3=Moderate Influence 4=Significant Influence 5=Very Influential
		Ecosystem preservation	Positive		

ANNEX 5 - GENDER ANALYSIS AND MAINSTREAMING ACTION PLAN

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I. ACRONYMS

BGA	Bureau of Gender Affairs
CBD	UN Convention on Biodiversity
CBO	Community-based Organization
CCAT	Cockpit Country Adventure Tours
CEDAW	Convention on the Elimination of all Forms of Discrimination Against Women
GEF	Global Environmental Facility
GOJ	Government of Jamaica
JAS	Jamaica Agricultural Society
LFMC	Local Forestry Management Committee
M&E	Monitoring and evaluation
MOU	Memorandum of Understanding
NBSAP	National Biodiversity Strategic and Action Plan
OCA	Organizational Capacity Assessment
PDC	Parish Development Committee
PMELP	Performance Monitoring, Evaluation and Learning Plan
PMO	Producer Marketing Organization
PSC	Project Steering Committee
RADA	Rural Agricultural Development Authority
SDC	Social Development Commission
SIDS	Small Island Developing State
STEA	Southern Trelawny Environmental Agency
TPDCo	Tourism Product Development Company
UNDP	United Nations Development Program
ZOSO	Zone of Special Operation

I. INTRODUCTION/BACKGROUND

This report – **Gender Analysis and Mainstreaming Action Plan** - is designed to provide information to ensure that the interests of women, men and other vulnerable groups are taken into account in the design of the project for ‘Conserving Biodiversity and Reducing Land Degradation Using an Integrated Landscape Approach’. It is further expected to ensure that adequate provision is made for the views and interests of women and of Maroon community members, regarded in his context as ‘indigenous’ groups, are also reflected in the implementation, monitoring and evaluation phases of the project.

This interweaving of gender considerations into the field of biodiversity is a relatively new to Jamaica which became in 1995 a signatory to the UN Convention on Biodiversity (CBD). A review of the National Biodiversity Strategy and Action Plan (NBSAP) 2016-2021, which is the national report on the CBD, reveals that unlike previous national reports, the current NBSAP acknowledges and makes specific recommendations to address gender issues in biodiversity conservation. This is critical to the country as a Small Island Developing State (SIDS), facing multiple vulnerabilities and threats to biodiversity as reflected in the SIDS Accelerated Modalities for Action (SAMOA) Pathway, the outcome document of the 2014 SIDS conference which Jamaica has also ratified.

The NBSAP has laid a good foundation for addressing issues of gender equality in a concrete way that can advance, sustainably, the conservation, use and management of biodiversity. It reflects understanding of the goals of the Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW) which Jamaica ratified in 1981 and of Vision 2030 and the related Gender Sector Plan and the 2011 National Policy for Gender Equality.

The NBSAP, proposes activities and budgets to support its key recommendation as follows:

- i. Taking Institutional and policy measures as key entry points to address gender equality.
- ii. Undertaking gender responsive sector analysis to yield vital sex disaggregated data and understanding of gender and biodiversity issues.
- iii. Ensuring inclusion of gender considerations in the management of Protected Areas.
- iv. Promoting inclusion of women on consultations regarding environmental and biodiversity issues.

Forestry, mining and quarrying, environment and climate change and fisheries, were among the specific sectors cited in the Action Plan for further study. Rural Agricultural Development Authority (RADA) was commended for good practice by its 2016-2017 study on women and youth in agriculture.

The focus and work anticipated in the project- “Conserving biodiversity and reducing land degradation using an integrated landscape approach” can be a practical expression of the direction charted in the NBSAP, for the focus on gender in biodiversity conservation, as repeated in the NBSAP is anchored in the reality that:

- a) Women and men have different knowledge, skills and interaction with biological resources;
- b) Conservation initiatives often involve new and or changes in activities related to forestry, land use, agriculture, water management, etc. and because men and women perform different roles and have different and often, unequal access to resources, they do not benefit equally from these resources and activities; and
- c) There is a responsibility under national policy and international commitments to ensure that effective and sustainable conservation initiatives contribute to equality and equity and create equitable opportunities for both men and women at all levels of engagement.

These are imperatives rooted in national policies and international obligations.

II. THE JAMAICAN CONTEXT (ECONOMIC, ENVIRONMENTAL, SOCIAL, POLITICAL)

Jamaica is susceptible to a number of natural hazards, particularly hurricanes, floods, droughts and earthquakes. Between 2001 and 2012, for example, the country experienced 11 storms (including five major hurricanes) that resulted in loss and damage of approximately US\$1.2 billion,⁶³ including damage and loss of biodiversity resources. Households, particularly those that are female-headed, are generally larger in size; consist of more adult females and children; and are poorer as compared to male-headed homes.⁶⁴ As a result, in post-disaster situations they are unduly burdened because of their responsibilities to provide basic amenities, including potable water and food for their loved ones and their lack of skills related to disaster recovery activities.

In occupations that depend on natural resources, such as agriculture, female farmers, who are in the minority,⁶⁵ experience unique challenges. For example, as the table below shows, women are 30.44% of registered farmers and on average farm 3.95 acres, half the acreage farmed by men. Further, while there are no legal barriers to access to land, credit etc., there is a pervasive socio-cultural assumption and inheritance rights that give preference to men, because they are generally considered as primary breadwinners.⁶⁶

II. Table 1 - Total Registered Farmers by Sex and Land Farmed

	N = Total Registered Farmers by Sex	N as a % of females and males	HECTARES(ha) [Total Farmed by Each Sex] [1 hectare = 2.471 acres]	AVG. HECTARES farmed per female and per male
Summary Total # of Female Farmers	50,387	30.44%	80,697.32	1.6 ha per female or 3.95 acres
Summary Total #of Male Farmers	115,139	69.56%	372,984.08	3.23 ha per male or 7.98 acres
TOTAL	165,526	100.00%	453,681.40	

Economic hardships continue to plague many Jamaicans and affect women adversely. “Despite the downward trend in unemployment and the increased employment of female workers, there are still 743,200 people listed outside the labour force, with females accounting for the vast majority of 438,700.”⁶⁷ Even when both sexes are engaged in the workforce, Jamaican women’s estimated earned income (PPP,US\$) is 6,691 as compared to men at 10,999, a difference of approximately US\$4000.⁶⁸ Persons who live in rural areas where the poverty level is highest in the island (28.4%) and female-headed households, 16.6% of whom are poor are especially affected by these hardships.⁶⁹

⁶³ Jamaica SDG Roadmap, p.9

⁶⁴ Jamaica Ageing: http://www.jamaicaobserver.com/front-page/jamaica-ageing-survey-says-smaller-households-with-fewer-children-increasing_112245?profile=0

⁶⁵ Farmer Demographics August 29, 2017 Registration (retrieved from the Agricultural Business Information System (ABIS) Jamaica. Cited in *A Concept Paper: A review and gender analysis of the 'Climate Change Policy Framework for Jamaica'* by Judith Wedderburn and John Grant-Cummings for the Climate Change Division, Ministry of Economic Growth and Job Creation.

⁶⁶ http://www.fao.org/gender-landrights-database/country-profiles/countries-list/land-tenure-and-related-institutions/en/?country_iso3=JAM

⁶⁷ Unemployment falls below 11 per cent in 2017-STATIN: http://www.jamaicaobserver.com/Unemployment_falls_below_11_per_cent_in_2017_STATIN?profile=1228

⁶⁸ Global Gender Gap Report 2016, p.188: http://www3.weforum.org/docs/WEF_GGGR_2017.pdf

⁶⁹ Jamaica Survey of Living Conditions 2015 – Overview: <https://webstore.pioj.gov.jm/images/PreviewDocument/20262.pdf>

Women have continued to be significantly underrepresented in the highest circles of leadership and governance constituting 17.5% of the elected House of Representatives and 24% of Senators.⁷⁰ This is in spite of being more educated (67.1% have achieved at least a secondary level of education)⁷¹ and being in one of 70 countries that has ever a female head of government/state⁷². Ironically, women constitute the majority of party membership and perform many tasks “on the ground” as field and election workers and campaigners. However, these responsibilities hardly materialize into more access to leadership within their parties and consequently, the nation.

These situations have deep implications for what the project is seeking to do regarding addressing gender in biodiversity conservation . This is so because of the pervasive nature of the barriers that drive and sustain gender inequality and the privileging of men over women in so many aspects of life. Addressing these barriers, will rest among other things, on examining how men and women access and control resources, including biodiversity resources, power in the home and society and how partnerships can be nurtured among women and men in pursuit of sustainable development.

⁷⁰ Gender Strategy and Action Plan, p.9

⁷¹ Human Development Indices and Indicators: 2018 Statistical Update:
http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/JAM.pdf

⁷² Number of women leaders around the world has grown, but they're still a small group: <http://www.pewresearch.org/fact-tank/2017/03/08/women-leaders-around-the-world/>

III. METHODOLOGY, LIMITATIONS AND STRUCTURE OF THE REPORT

Methodology

The approach the Gender Safeguards Expert consultancy was four-fold: (1) Start-Up Meetings/Field Work, (2) Literature Review, (3) Community Engagement and (4) Validation Meeting. Data collection was anchored in the Community Engagement phase, which occurred over a one-month period beginning on August 14th and ending on September 5th, 2018.

Approximately 348 persons (171 females and 177 males) were engaged from five clusters spanning four parishes (See Table 3). Two hundred and seventy-two persons (146 males, 126 females) attended community-based consultations while 76 persons (45 females, 31 males) attended stakeholder meetings of key agencies currently involved in, at varying levels, in biodiversity conservation efforts (see Table 3). Of the participants who attended community consultations, the majority (29%) were aged 51-60 years and the least represented was under 21 years (9%) (see Table 4). Additional persons were also engaged through transect walks that occurred in select communities from each cluster.

III. Table 2 - List of Communities Engaged

Parish	Cluster	Surrounding Communities
St. Elizabeth	1 - Quickstep	Pullet Hall, Aberdeen, Benlomonds
Trelawny	2 - Burnt Hill/Ramgoat Cave	Albert Town, Duanvale, Rock Spring, Warsop, Spring Garden, St. Vincent, Wilson Valley, Bunkers Hill, Friendship, Sherwood Content, Bounty Hall, Bunkers
St. James	3- Niagara	-
St. Elizabeth	4 - Accompong	Bagdale Mountain, Cedar Spring, Jointwood, Thornton
St. Ann	5 - Litchfield/ Matheson's Run/ Windsor	Cuffie Ridge, Madras, Aenon Town

IV. Table 3 - Participants by Activity, Sex and Cluster

Activity	Cluster 1: Quickstep		Cluster 2: Burnt Hill		Cluster 3: Niagara		Cluster 4: Accompong		Cluster 5: Litchfield		Total
	F	M	F	M	F	M	F	M	F	M	
Community Consultation	41% (30)	59% (44)	45% (34)	55% (42)	55% (22)	45% (18)	36% (16)	64% (28)	63% (24)	37% (14)	272
Government of Jamaica (GOJ) and Partners Consultation	44% (8)	56% (10)	71% (12)	29% (5)	50% (7)	50% (7)	*	*	67% (18)	33% (9)	76

*This consultation was held in collaboration with Cluster 1. See figures in the Cluster 1 column.

V. Table 4 - Community Consultation Participants by Age and Cluster

Age	Cluster 1: Quickstep		Cluster 2: Burnt Hill		Cluster 3: Niagara		Cluster 4: Accompong		Cluster 5: Litchfield		Total
	F	M	F	M	F	M	F	M	F	M	
Under 21 years	7	5	1	2	1	-	4	2	-	1	23
21-30 years	-	6	3	4	2	4	-	4	1	1	25
31-40 years	3	3	6	8	5	-	5	3	8	1	42

<i>41-50 years</i>	11	6	5	8	2	4	2	6	2	1	47
<i>51-60 years</i>	6	15	13	8	9	6	2	5	11	3	78
<i>61 years and over</i>	3	8	6	10	2	4	3	7	2	7	52
Total	30	43	34	40	21	18	16	27	24	14	267

Two research teams conducted the community engagement meetings: the Stakeholders' Engagement Consultancy team (3 persons) and the Gender Safeguard Expert team (3 persons). Additionally, the Bureau of Gender Affairs (BGA) provided technical support to the community engagement meetings through three technical officers in the parishes of Trelawny and St. Ann. Though each team had its particular focus on either issues related to stakeholder engagement or gender, they shared the responsibilities of facilitation, note-taking and recording at all four activities. All visitations, except one, flowed in the same order: (1) transect walk; (2) gender discussion; (3) community consultation and (4) GOJ and Partners consultation. This was to allow the researchers build capture data "on the ground" among within the communities, some of which would be used for questioning and validation in the GOJ and Partners meeting.

Limitations

A number of factors influenced the Community Engagement process in significant ways:

- Time – The process of mobilization took longer than anticipated due to the fact that the consultants did not reside or work within the communities of interest and therefore had to rely either on pre-existing professional relationships to contact persons on the ground or build new ones through the letters sent to key stakeholders via email. Communication was also affected by rural residents' lack of access to the internet and the use of email and/or WhatsApp as a regular form of communication. Most of the action to kickstart the fieldwork occurred when the research teams spoke to persons directly via telephone.
- Lack of clarity on the location for the Litchfield/Matherson Run cluster
- Timing of the Study – Fieldwork was conducted during the summer holidays, starting in August and ending in September. This is the period when (a) most working professionals take their vacation leave and (b) adults with school-aged children are engaged in back-to-school preparations.
- Procurement Issues – The United Nations Development Program's (UNDP) procurement guidelines were tested as some of the requirements (e.g. needing three quotations) were challenging to meet.
- Competing Government of Jamaica (GOJ) partner priorities - The persons who lead the mobilization had to navigate both their day-to-day work commitments and the requests of the consultants. Sometimes, this delayed the team's ability to finalize plans.

Structure of the Report

The report is divided into seven sections:

- Section I - Introduction – describes the context that shaped the study, in particular, the international policy context. It also discusses the reason why gender mainstreaming in the project is important and finally the methodology and limitations of the research conducted
- Section II – The Jamaican Context – outlines the broad national key economic, environmental, social and political features within which the project is being developed.
- Section III – The Methodology – describes how the study was conducted, the persons who participated and the limitations within which it operated.

- Section IV – Findings: Gender Issues in the Proposed Sites – presents the gender-related issues that emerged from the field work conducted within the four clusters around women and men's: access and control re participation; access to and control of resources; voice and decision-making; the extent to which gender issues will impact the project's sustainability.
- Section V - Proposals for Livelihoods and Quality of Life Improvements in the Context of Biodiversity Conservation (from a Gender Perspective)
- Section VI – Gender Action Plan: Proposed Outcomes and Outputs
- Section VII – Annexes

IV. FINDINGS: GENDER ISSUES IN THE PROPOSED SITES

Gender Perspectives on Biodiversity Conservation within Landscape Cluster Communities

The Cockpit Country is dominated by Maroon heritage and its historical importance to Jamaica. This heritage with strong inter-connection to the land, the forests, the food and material culture, the rivers and caves and the landmarks of long anti-colonial struggles, permeate communities across the landscape. The importance of protecting this heritage and its varied resources, including its biodiversity, remains a complex matter as the lives, and therefore livelihoods, of the people are interconnected with the land and forest. The people are an important feature of the landscape which makes the Cockpit Country significant and yet many men and women do not know enough about the rich biodiversity resources of which they are a part.

Understanding how women and men relate to this resource, is an important aspect of biodiversity conservation efforts. Men and women within the five clusters across the designated physical landscape of this project, hold strong views on their roles and this influences how they relate to the forest and their perspective of biodiversity conservation. In these communities poverty is apparent but men and women alike are very resilient and proud of their ability to co-exist with the beauty and mysteries of the forests and everything it adds to their wellbeing.

From Cuffey Ridge to Niagara, most communities identified with having strong connections with the forest, however in communities which border the estates this was less evident. In areas such as Siloah in Cluster 1-Quickstep, St. Elizabeth, persons emphasised that they did not use the forest but felt the influence of the connection to the plantation legacy of the Appleton Estate. Despite there being a sense of resignation to the poverty and grave inequalities associated with that legacy, residents acknowledge and lament that their lives are still influenced by the legacy of the plantation, from which the Maroons fled to the Cockpit Country.

These inequalities are also gender related and linked to unemployment and access to resources. The estate employs a significant number of men, and residents spoke of the devastating impact with some 200 men having recently lost their jobs. Therefore in the Cockpit Country despite many homogenous features, the interaction with the forest is different within communities.

Knowledge of and Attitude to the Forests and its Resources

The conflict between survival and quality of life is evident in all the communities engaged across the five selected clusters. Both men and women highlight that forest activities are essential for their economic wellbeing or even the ability to meet the most basic needs of everyday living and human survival. Communities identify with the designation of the Cockpit Country as a Protected Area Country and many can articulate the importance of the forest to life in these communities

and the country as a whole. For example a strong link to the forest to water availability and air quality was reiterated in all clusters.

Despite admitting to not knowing details about the range of biodiversity features within the area, residents feel the resources of the forests are important and should be preserved. A few are able to name different birds, for example species of parrots. However, the knowledge around for example endemic plants or butterflies is not as developed as their knowledge of the various herbs and their particular attributes. The pairwise ranking table (Table 5) confirmed this in relation to the issues impacting the local forest. Knowledge and awareness of the forest was highlighted as a major concern, it was felt that there is a need for greater public education at all levels on biodiversity resources.

Residents however lament the lack of economic alternatives with limited employment opportunities and low skill levels, especially among the youth, in particular young men. The forest activities therefore become a primary option for survival among a significant number of persons, and men in particular.

How Forests are Used and Viewed

The following reflects how forests are used and viewed by the clusters and communities which were engaged during field activities.

VI. Table 5 - Forest Use Observations by Cluster

Activity	Observations	Clusters where observed
<i>KEY: Cluster 1 – Quickstep; Cluster 2 - Burnt Hill/Ramgoat Cave; Cluster 3 – Niagara; Cluster 4 – Accompong; Cluster 5 – Litchfield/Matheson's Run</i>		
Animal rearing	A wide array of animals are reared in the forests- cows, goat pigs, chickens. These livestock activities are carried out by both men and women.	All
Bird shooting	- Bird shooting is an activity is promoted by the National Environment and Planning Agency during Game Bird Shooting Season which runs from the end of August to end of September. - The Agency also grants a license with the payment of the required fee and stipulate the number, types of birds and time of day that shooting can occur. - Shooting within sanctuaries or forest reserves, is strictly prohibited, however these guidelines are not always observed and bird shooting is said to occur in the Cockpit Country on a regular basis.	All
Bird trapping	- As home to a wide range of wildlife including butterflies, snakes and birds, the Cockpit Country attracts attention as a ready source of income particularly for young males. - Parrots will sell from J\$2000 to \$10,000 - J\$20,000 and there is a ready market for especially yellow bill parrot, the most expensive. - The eggs of these birds are also taken. - That people are aware and can easily give information on varying prices and markets, means it is a fairly established activity across the landscapes. - Women value these birds as pets but unlike the orchid trade they are not a driving force.	All

Activity	Observations	Clusters where observed
<i>KEY: Cluster 1 – Quickstep; Cluster 2 - Burnt Hill/Ramgoat Cave; Cluster 3 – Niagara; Cluster 4 – Accompong; Cluster 5 – Litchfield/Matheson's Run</i>		
Collection of medicinal herbs	- Men and women are involved in the herb value chain. - Men are more involved in the reaping of herbs and the women, production of tonics for domestic use and for sale. - Both men and women are seen generally as the holders of the knowledge on the preparation these herbs; - In Accompong, women are highly credited as healers and main repositories of the knowledge of herbs. - Many of the herbs are valued as aphrodisiac and strongly connected to men's perception of their role, hence their need for strong investment in their sexual prowess.	All
Disposal of Garbage	The Cockpit Country is not immune to the many drivers and associated impacts of poor solid waste management. In Burnt Hill residents spoke of the trucks coming into the forest to dispose of old appliances, furniture, carcass of slaughtered animals and who know what else? There is fear of contamination of water sources among many residents. Plastic bottle pollution was also mentioned in Quickstep.	All
Farming	- Farming is the main source of livelihood for both sexes. - Most farmers are male. This is linked to the traditional gender roles of men as providers. Men feel a greater desire to enter the most popular and most accessible employment option available to them. - In some areas, e.g. Cuffie Ridge, there is a significant number of female farmers with them outnumbering the men in the Farmers' Group meetings. Farming is not on Forestry Reserves, residents say. - Men carry out the majority of the laborious tasks associated with farming such as land preparation. - Women are mainly involved with planting, reaping of cash crops, and the marketing/selling of produce. - The planting of 'herbs' in areas of the forest is said to be an open secret in some places.	All
Flora collection	- The collection of different flora from the forest for resale, for example orchids and tree ferns is also a thriving business. - It is an activity largely carried out by males, who readily argue that the market for these flowers are driven by women's demand for them.	All
Ground provision reaping – wild yam	- A number of food items, like yams, grow in the wild across the forest landscape. - Men go into the forest, sometimes for months at a time, to search for and dig/reap these food items. - Women are more involved with preparation and selling of these items once they have been brought home.	All
Hideout for persons fleeing the police	- The forest was a refuge for the Maroons as they fled the plantations and today is seen as a hideout for fugitives, fleeing the police. - Niagara in St. James is a border checkpoint of a Zone of Special Operation (ZOSO) checkpoint. The establishment of a permanent police post is a key priority for many in the area.	2 and 4

Activity	Observations	Clusters where observed
<i>KEY: Cluster 1 – Quickstep; Cluster 2 - Burnt Hill/Ramgoat Cave; Cluster 3 – Niagara; Cluster 4 – Accompong;</i> <i>Cluster 5 – Litchfield/Matheson's Run</i>		
Recreational activities/tours/picnic/visit springs/water holes	- All clusters mentioned recreational activities as another way in which the forest is used. - Caving is a huge attraction in the adventure tour offerings of local agencies such as the Cockpit Country Adventure Tours as for more casual community based activities of youth in Madras or Burnt Hill. - Organised tours pass through communities to destinations in the Cockpit Country or to the popular Appleton Rum Tour. These visitors do not interact with the local communities which as a consequence, residents do not gain financially from these activities.	All
Thatch collection for roofing	- Thatch is still a popular roofing option especially for some hotels/resorts or home construction purposes. It was highlighted that collection of materials is still popular in some areas of the Cockpit Country for example in the Litchfield/ Matherson Run Cluster - Again collection is mostly done by men, women are more involved with selling.	4
Wild hog hunting	- Primarily an activity engaged in by men, capturing of wild hogs was mentioned as an ongoing occurrence, albeit not as much as before in Quickstep and Accompong. - Residents pointed out however that the wild hog population has declined over the years.	2 and 4
Wisp drawing for wicker furniture/hampers	- Wicker furniture is part of the Caribbean lifestyle and the collection of raw materials to sell to wicker furniture manufacturers is also a popular activity in the forests. - Some areas such as Benlomon and Aenon Town mentioned this practice. - Both men and women indicate their involvement with the activity, but women mainly strip and dry the vine. - However it is not a reliable income source since buyers might reject the product if it is deemed too brittle. - Price ranges up to \$J150 per lb.	1 and 4
Wood cutting/coal burning	- Coal burning is a major highly acknowledged activity in the Cockpit Country While both men and women are involved with coal burning, men are the primary drivers for cutting of trees, transportation, covering with dirt and burning and owning the kilns. - Some women contract labour to build their own coal kilns. - The women participate in the cooling down process and pack the coal into bags for sale, earning approximately J\$2,000 per day. Wholesale a bag costs \$600 and orders can go up to 100 bags per month. - There are many costs associated with the activity.	All

Activity	Observations	Clusters where observed
<i>KEY: Cluster 1 – Quickstep; Cluster 2 - Burnt Hill/Ramgoat Cave; Cluster 3 – Niagara; Cluster 4 – Accompong;</i> <i>Cluster 5 – Litchfield/Matheson’s Run</i>		
Wood cutting/lumber – for houses and furniture	- Despite the fact that importation of furniture has affected local made household furniture, a point reiterated by a resident of Eldersley, wood cutting is still a major activity in the Cockpit Country. - Once again those engaged in these activities are largely men, however women also participate and hire men in their wood cutting/selling enterprises. - Recent figures from the Forestry Department shows that in the western zone, of 18 licensees who have permits to harvest trees in the reserves, 15 or 83% are males, while 3 or 17% are females.	All
Yam/ tomato sticks cutting	- Men are the ones mainly involved in yam stick cutting and trading but women also use this important resource. - Yam production is pervasive especially in Cluster 2 in South Trelawny , but cutting is mainly in the North. - In some areas of Trelawny the decline in trees to cut is so significant that residents say there is nothing left to cut. - Persons from outside the communities and parish cut yam sticks and remove them by the truck load. - Selling of yam sticks is good business- some \$4500 to \$5000 per hundred. - Yam sells for \$12,000 per 120 lbs. Labourers earn \$2500 per day as against a construction worker who will earn \$4000-5000/day - Cutting of tomato sticks is not seen as a harmful practice.	All



Poor solid waste management and burning of garbage - Burnt Hill

Mining in the Cockpit Country

Following a successful petition against mining in the Cockpit County the Government of Jamaica declared that mining will not be permitted at the end of 2017. According to the Prime Minister Andrew Holness, “The Government is of the view that this area is too valuable in terms of its ecological and hydrological importance and uniqueness to allow mining, which may result in permanent and irreversible harm and deprive future generations of the benefit of this national asset. While we will forgo the extraction of millions of tonnes of high-grade bauxite and limestone with potential earnings of billions of United States dollars, we cannot put a price tag on the loss to our water resources and biodiversity.”⁷³

While there is still concern by environmental advocates that some areas are still at risk, it was felt that it was a win for environmental advocacy and biodiversity conservation. Mining was highlighted as a concern particularly in the Litchfield/Matherson cluster by residents from Gibraltar in particular. Residents lament the impact that mining has already had with large expanse of land left bare, and fearful that the matter is still not settled.

Generational Gap and Forest Activities

There was a significant generational gap in how the interdependence of residents and the forest is perceived. With the exception of those in Accompong, younger persons identify less with the forest. Many persons speak of a decline in forest activities due to the following factors listed below.

Factors Impacting Reduced Forest Activities
Migration- is linked to lack of opportunities in education, skills training, jobs and the absence of amenities, such as potable water. Spring Garden, it was highlighted that Collie Road has seen a significant reduction in the numbers of persons living there.
Aging population/ death of elders: The aging population seen especially in agriculture, has meant as one elderly man said, it is getting harder to work the forest, for example, to cut and draw lumber from the deep forest.
Change in aspirations of youth: Many young men do not want to do farming or take on the subsistence living associated with the forest.
Enforcement by Forestry Department: Many view enforcement by the Forest Department with some ambivalence or in a negative light. On the one hand they see the benefits to the environment, but face restrictions in use of resources that are valuable, like lumber and yam sticks.

The main factor driving forest activity is lack of viable alternatives. Communities lament that there is nothing else to do. In Pullet Hall one respondent pointed out “yu haffi mek wuk fi yu self, go into the bush and mek wuk.” For him the forest is the only way of economic survival.

Community discussions in Albert Town and Duanvale invited men and women, divided into their respective groups, prioritized what they saw as the main threats to the forests. In Albert Town, 9 women and 10 men and in Duanvale 17 women and 13 men discussed the issues and their responses are represented in the pairwise ranking below. The results reveal that overall, climate change, featured as a matter of concern in 3 of the 4 groups. This was followed by

⁷³ PM Holness Announces Boundaries for Cockpit Country. Retrieved from <https://jis.gov.jm/speeches/pm-holness-announces-boundaries-cockpit-country/>

deforestation. Lack of knowledge of the Cockpit Country was discussed in all groups. Where it was not ranked, participants explained that it is a cross-cutting driver of the issues that were ranked. Though it wasn't ranked as a high priority for attention when compared to other issues, exploitation/exploitation of the forest was one of the five issues identified as problems in three of the four groups.

VII. Table 6 – Pairwise Priority Ranking by Men and Women of Issues Affecting the Forest - North and South Trelawny

Priority Ranking	Cluster 2 – Albert Town sub-section		Cluster 2 – Duanvale sub-section	
	Females	Males	Females	Males
1	Climate Change	Low awareness of value of the Cockpit Country	Low awareness of value of the Cockpit Country	Climate Change
2	Deforestation	Garbage Pollution	Exploitation/ Climate Change/ Deforestation	Deforestation
3	Dumping of Garbage	Unseen threats to water supply/resources	Encroachment	Exploitation
4	Unsustainable Development	Deforestation	-	Development e.g. Mining
5	Exploitation of the forest	Soil Erosion	-	Fires

General Issues Affecting Communities

Major issues facing livelihoods/wellbeing of the communities and the impact on men and women were discussed at four community consultations (See Table 6). The information shows that poverty is having a severe impact on the people of the Cockpit Country and there is a desperate need for economic development that protects the forest but also enhances the quality of life of residents. Residents are quick to emphasize that they are not looking for riches but are focused on having a “decent,” or “comfortable” life.

Table 7 – Priority Development Concerns Highlighted by Men and Women in Four (4) Clusters

Cluster	Sex	Priority			
		1	2	3	4
Cluster 1: Quickstep	F	Unemployment (especially) youth	Water	Poor telecommunications	-
	M	Unemployment	Poor road network	Water	-
Cluster 3: Niagara	F	Unemployment	Labour challenges in agriculture	Water	Community togetherness and facilities
	M	Need of skills for youth	Security	Lack of strong community orgs.	-
Cluster 4: Accompong	F	Lack of Jobs and/skills for youth	Water	Transport and telecommunications	-
	M	Boundary dispute with government	Water	Roads	-
Cluster 5: Alexandria	F	Unemployment	Water	Poor roads and transportation	Telecommunications

	M	Farming issues: lack of markets and inputs	Unemployment	Poor roads	Water
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Among other things, the foregoing reveals that:

- Both men and women lament the need for improvements in the areas highlighted above. Women in particular emphasized this need as it impacts their feeling of safety and security.
- The absence of productive engagement facing the youth, especially young men, their lack of skills, their potential to drift into crime all came together in the summary comments.
- The poor road network is associated with challenges for marketing of goods, inaccessibility of communities, severe hardships for travel especially for school-children. This is linked to a sense of isolation many face because of weaknesses in telecommunications services.
- Complaints about lack of water is pervasive. In every cluster, the irony of the Cockpit Country, providing some 40% of water resources of the country is not lost on the many communities that lack potable water and face severe hardships especially with drought.

The Cry for Water

Some communities such as Burnt Hill, Sherwood, Rock Spring, Spring Gardens, Accompong, Mocho and Johnson, do not have an organized public supply system for potable water, but rely on rainwater harvesting to meet their needs. Lack of a reliable water supply emerged as the number one issue of concern among women at the community meetings in Quickstep and Niagra; was a shared priority of men and women at the Accompong and Alexandra meetings. Some communities like Benlomond do have access to a tank, but like the women in Madras say that when it is available “the water spoil”, and is untreated. Being primarily responsible for household management and childcare, women speak of the burden they face from the lack of water. They will walk from 10 to up to 30 minutes to the river to fetch water or to wash. Some have to take a taxi, for example from Warshop to Spring Gardens to do the weekly washing in the river there.

Although purchasing of water is costly, a few occasionally join with family members, as reported in Burnt Hill and Cedar Spring for example, to buy a truck load. This will cost from \$10,000 to \$12,000, a big drum will cost \$300 upwards. Water for irrigation is a related challenge, with farmers complaining of big losses in farming due to drought and the absence of any organized water supplies. In some areas, men will draw water from the rivers and sell to farmers for cash crop production and to households for washing. In most instances, residents have definite proposals on how local needs can be provided from the existing rivers and streams using relatively low cost technologies, or as in the case of Accompong, repairing existing systems that over time have gone out of use.

V. PROPOSALS FOR LIVELIHOODS AND QUALITY OF LIFE IMPROVEMENTS IN THE CONTEXT OF BIODIVERSITY CONSERVATION FROM A GENDER PERSPECTIVE

The proposed alternate livelihood activities must ensure that women are not on the periphery. To this end the field work examined potential obstacles to participation in livelihood opportunities and some approaches that can be taken to ensure gender equity in the livelihood elements of the project. They include the need for the following:

1. Effective Communication

First it is ensuring that once the necessary feasibility studies are completed and pilot interventions are completed, the project would clearly indicate in all communication that men and women are to be given equal opportunity to participate/access/benefit from livelihood opportunities and that measures to support women's participation are provided.. Communication to this effect would be clear and definite.

2. Tools and Measures

Where farming projects are being undertaken, consideration need to be given to developing financial assistance schemes to provide women with the ability to pay for the labor needed to prepare fields and other on farm tasks, which they are less able to undertake, especially whilst caring for children. Day labor costs up to J\$3,000 daily (with lunch) and in the case of dasheen production, digging the hole for planting a root of dasheen will cost anywhere from J\$7 - J\$8.

Often the whole terrain is disturbed when all that is needed is that one hole. Technological advances could also significantly make this activity less onerous and should be explored and would benefit both men and women.

Learning exchange programs could be organized where such appropriate technologies are available. A case study of the operations and outputs of the farming business run by the Female Farmer of the Year for St. James who farms on nine acres near Mocho (Niagra Cluster) could possibly yield important lessons.

3. Addressing Practical and Strategic Gender Issues

Child Care

Addressing childcare issues is another critical approach to addressing gender issues in the context of livelihoods and biodiversity conservation. This is necessary, to raise women's access to and participation in training opportunities that will be provided under the project, whether in agriculture, eco-tourism development in agro-processing or any other facet of business. Addressing child care also raises consciousness about gender issues.

Potable Water

Lack of access to potable water, which disproportionately negatively impacts women and children cannot be overstated. Without water, women's potential and participation in the project will be constrained. Modest ambitions by families to improve their homes and add facilities for a simple bed and breakfast accommodation need potable water and improved sanitation. Such ventures would be particularly beneficial to women who would be better to able to earn an income and

manage household responsibilities while working from home. Whether through local water harvesting schemes or larger community managed schemes the pre-implementation process could seek strategic partners, with the Rural Water Supply Company, for “joined up” efforts for rural development.



Land Access

Residents highlighted that women and men own land, with varying degrees of inequality across the clusters. In Benlomond and Cuffey Ridge, women own and have access to land, while in Quickstep, portions of the land used for farming was seen as “Maroon lands” with one farmer pointing out “if a neva fi Maroon wi dead fi hungry.” In other words, the fact that the Maroons have allowed access to the land for farming has allowed these men to earn a living and provide for their families. Where there is restricted access to land, men were more inclined to encroach on lands that they do not own to secure a livelihood. Culturally women are less inclined and therefore where land access is an issue, mechanisms would need to be put in place to provide opportunities for women to access land for farming purposes. Efforts would also be needed to regularize the activities of men farming on land that they do not own, or to assist them in securing other farm lands.

While the project might not be able to solve this large issue, it will certainly put on the agenda the matter of land reform as being critical to support biodiversity conservation.

Health Risks facing Men

The negative impacts of pesticides use and especially of glyphosate on their reproductive health is of grave concern to men. Women are also affected but men more exposed. There are also health risks to both male and female consumers associated with contamination of agricultural produce. These risks extend to associated contamination of water sources from run offs but are also further linked to washing of spraying equipment in rivers. A programme to provide access to protective gear along with broad awareness raising among men on these risks, should be integrated into climate-smart agricultural initiatives. This could resonate among men and possibly lead to other social interventions. These would also include information for mindset change to bring men into understanding of the effects of 'toxic masculinities' on their own lives and identity and the need for their support of measures to bring more women into productive activity. Women's participation must not to be projected as being in competition with opportunities for men. In the final analysis, these are win-win situations for both sexes.

Women-Only Projects

In that light, the following menu of projects which have emerged from the discussion, are presented for consideration for livelihoods options for women and men.

VIII. Table 8 - Livelihood Opportunities with Potential for Women-Only Projects (proposed by men and women across clusters)

Livelihood Opportunities	Observations
Primary Level Projects	
Expanding agriculture in apiculture, pimento, ginger, dasheen production, ganja	Scaling up honey production to include the establishment of a bee farming network across the Cockpit Country could be a project focus. Valued by the Government of Jamaica at J\$2 billion, the honey industry could provide opportunities including value-added honey products, to include women only projects. This way women, who are more often employed to bottle and make bi-products such as soaps, rather than being fully involved in the value chain, could become owners of apiaries.⁷⁴ Crops identified as having lucrative expansion possibilities also include, dasheen, pimento, ganja and ginger. Ginger is seen as "the next best thing to ganja" fetching some J\$250 per pound and could fetch up to J\$500 depending on availability. Farmers say a structured and regulated production and marketing plan for the next twenty years is needed. Pimento expansion was seen as an important long terms investment which the government should spearhead with farmers, it was proposed. Sellers, for example in Bagdale Mountain can earn \$220/lb for the spice and there is a heavy and growing demand for the product.
Infrastructure projects such as road construction/gabion baskets	Residents felt strongly that improvements in the road network across the Cockpit Country could provide a dual function creating livelihood opportunities as well quality of life improvements. An improved network would mean greater access and freedom of movement adding to the viability of livelihood projects.

⁷⁴ Bee Keeping Big Business in the West. Retrieved from <https://jis.gov.jm/beekeeping-big-business-in-the-west/>

Livelihood Opportunities	Observations
Cold pressed coconut oil/castor oil	Cold pressed coconut oil and especially black castor oil were cited for their importance as value-added products. The Jamaican black castor oil in particular is said to have a growing market.
Secondary Level Projects	
Spring water	This specifically appealed to residents of Accompong. They felt establishing an enterprise on this basis would be a natural follow-up to solving their broader water challenge.
Agro processing facility Eg. Chips, pimento and juices	Fruits are abundant in the many Cockpit Country communities. This includes mango, apple, june plum. The establishment of a production facility in a strategic location would reduce spoilage and waste and generate some employment. Agro-processing facilities for dasheen and ginger (Niagara), plantains (Bagdale Mountain, Cuffey Ridge) were proposed.
Horticulture	The residents of Niagara saw horticulture opportunities linked to their connection to Montego Bay, dubbed “the tourism capital.” The many hotels are seen as a potential market for flowers and plants.
Facility for collective preparation and marketing crops eg. dasheen for export	The absence of a collective produce preparation or marketing facility was seen as limiting the potential contribution of the crop to the community. In Niagara, residents felt having such a facility would provide jobs and drive expansion of the crop. This would open some opportunity for participating in the direct overseas exports trade.
Tertiary Level Projects	
Integrated eco-tourism initiatives	All clusters expressed interest in developing ecotourism enterprise. Such ventures would focus on the unique offerings of the different localities, building out the unique stories and developing associated literature and connection points within the communities. These would include but are not limited to, camping, explorations of nature trails including visits to the many caves and rivers, visits to cultural sites whether linked to a religious or military, biological or geological theme. In the case of Accompong, residents felt the concept of a “Culture Yard” could further attract visitors beyond the January 6 th Celebrations. These eco-tourism ventures would also include creation of homestays or establishment of bed and breakfast facilities from which visitors could explore the Cockpit Country or engage in healing and relaxation further connected with the medicinal herb gardens mentioned further in this table.
Forest centres for animal sanctuaries and research	Accompong residents also highlighted the possibility of creation of forest sanctuaries for guided tours and for research. It was proposed that Jamaican universities could study at first hand the rich biodiversity and contribute to its preservation. Niagara residents also had a similar interest particularly around expanding the population of butterflies.
Bamboo Craft	Establishment of bamboo enterprises was of interest to Niagara and Aenon Town residents. They saw potential in furniture, craft and jewelry related enterprises to develop products for sale to visitors or to retailers. Careful removal of bamboo from the forests was also a means of enhancing the reserves by replacement with other trees. It must be noted that around the world bamboo is now the focus of other ventures including construction of buildings and these could also be part of the feasibility studies, including linking with Bamboo Manufacturing interests in Jamaica.

Livelihood Opportunities	Observations
Herb laboratory/herb gardens/medical tourism ventures	The potential for medicinal products being developed from the forest is well known by residents who already use various herbs for a variety of purposes. In Accompong it was described as “pharmacy in the forest.” Residents therefore see the forest as having many opportunities for livelihood enhancements in communities based on scientific research outputs. Establishing medical tourism enterprises, to include staying in and being treated with the various herbs was of significant interest. Also emphasized was the opportunity for the creation of research centers in collaboration with tertiary institutions, modeled on the concept of “marine laboratories which currently exists through partnerships with University of the West Indies, was mentioned.

In context of the specific proposals for economic ventures tabled above, broad contextual issues are proposed to craft livelihoods development with bio-diversity conservation.



1. Blending the Vision and Themes of the People and the Forests.

Livelihoods ventures should build on what people have and know. It is should also enhance the sense of cultural identity, link the elements of what the Cockpit Country is in relation to its flowers birds and butterflies; its foods, history,

architecture, music, folklore and identity. It should fundamentally enable the people to, men women, boys and girls, to be able to know of and speak to the resources of the forests and of their communities. For example, including lessons on the biodiversity of the various localities in the curriculum of local schools and ensuring that schools/children are able to tour, understand and enjoy the forest are critical elements. For example, will expanding horticulture in Niagra, as suggested, increase the biodiversity resources of the forests and districts?

The Windsor Research Centre has documented some of the opportunities for 'Story-Based Alternative Income Generation in the Cockpit Country' that can be explored.

2. Partnership Building

This is a fundamental principle- building out from partnership between men and women. Also, 'joined up' efforts are needed to deal with specific issues, including infrastructure obstacles in localities where projects will be implemented. Further, partnerships also at the local level, between private land owners and communities also need to be developed.

3. Conflict Mediation and Management

This is vital to the partnership building process. In the immediate context is the need to resolve the dispute between the Government of Jamaica, represented by the Forestry Department and the Maroons who identify as 'The Sovereign State of Accompong' in St. Elizabeth. The mediation of this conflict, along with examination of the related issue of land ownership, especially for women, beg for attention to support effective project implementation.

4. Establishment of Sustainable Social Enterprises

For sustainability purposes livelihood interventions must also include social enterprise approaches. The various fledgling community organizations must be given the capacity building support needed to become formalized and strengthened in management of business so that they can remain impactful well into the future.

In this context, it is important to draw lessons from the experiences of organizations which have been active across the Cockpit Country and engaging in economic projects anchored in environmental protection. These organizations include the Southern Trelawny Environmental Agency (STEA) which has given way to the Cockpit Country Adventure Tours (CCAT), the Bunkers Hill Cultural XPerience and River Tour, the Cave Valley Multipurpose Coop, the Ulster Spring Women's Group and the Sawyers Local Forest Management Committee.

This latter group has been the recipient of a grant for a project which will begin in November 2018 funded by the GEF Small Grants Program. It is directed to 'Preserving Natural Resources while Generating Sustainable Livelihoods in Sawyers'. The community, it is envisaged, 'will benefit from agro-forestry programs, reforestation, creation and expansion of livelihood projects and public awareness and workshop sessions'. Ensuring, monitoring and evaluating the mainstreaming of gender in the project could yield benefits to Sawyers as well as lessons to the larger targeted Cockpit Country project.

Supporting these organisations to become full-fledged social enterprises, providing incentives which demonstrate that biodiversity conservation can be pursued along with sustainable livelihood ventures, can support 'buy in' at the community level. The struggle between earning a living and caring for the forest cannot be overcome without sustainable livelihood opportunities for communities well beyond the project.

5. Managing Expectations – Ensuring Quality of Life vs Promising Riches

The pursuit of livelihoods must be anchored not in raising hopes of wealth for all being generated, but rather, in improvements in quality of life, so that residents can build alternatives for themselves, with the youth in particular being positioned to take advantage of existing opportunities. To that extent it is important to explore the evolution of the STEA, and to draw the lessons learnt of how local people can benefit from modest bread and breakfast facilities or acting as tour operators. Like the impact of mining, residents are cognizant of how development pursuits can negatively affect quality of life in the long term and therefore they emphasize the importance of sustainable development. Ventures which will not only negatively affect the forest but also the health and wellbeing of residents should be avoided.

6. Strengthening of Local Organizations

This is a critical aspect of enabling community membership and leadership to define and pursue their role as partners in development. This is explored more fully in the following section.

5. Gender Voice and Decision-making

As has been discussed so far, gender considerations in relation to biodiversity conservation has entailed examination of (a) men's and women's interaction with and use of the resources of the forests; (b). their understandings of some of the threats to the forests; (c). their articulation of their level of access to and control of economic and social resources, including basic services that would prevent or enable them to give consideration to the biodiversity conservation agenda and (d) and their proposals around priorities for action to promote sustainable livelihoods, improve their daily quality of life while supporting the biodiversity conservation agenda.

Of equal importance are considerations of voice and rights and gender capacity building. Voice and rights focus on the extent to which the community as a whole, and women in particular, have the ability or are constrained in claiming their rights in the privacy of the household, in community based and civil society organisations and in bodies working actively with government agencies. It involves understanding how tasks are shared within the households, particularly to see how time is used by men and by women and the implications this has for their engagement in livelihoods and leadership in the wider community around biodiversity conservation for example.

Voice and Rights at Home

Discussions on the power relations of gender were engaging across all clusters and were occasionally very intense. As was explained in the methodology, the issues of gender were explored mainly through (a) the examination of a 24 hour time use clock in Cluster 2, and (b) by having all male/female groups in the other Clusters examine common issues relating to use of the forests and concerns about and suggestions on community development issues. Discussions became very heated in Cluster 2 when the results of the time use indicative exercise were charted and presented as summarized below. An indicative survey of how men and women respectively spent the last 24 hours was charted at 2 community meetings with 14 males and 19 females in Duanvale and with 10 males and 6 females in Albert Town(Cluster 2). The results are summarized below and point to the reality that gender norms do affect the engagement of men and women in the setting of home and society and have to be taken into account in crafting development interventions.

12am - 6am	• women: were primarily resting. On waking, took they care of their personal hygienic needs and spiritual needs in the form of "devotions" and prayer. • men: were primarily resting. Like the women took care of their personal hygienic needs, but not the spiritual.
6am - 12 noon	• women: worked primarily within the home. It involved both domestic responsibilities as well as work related to the yard or animal care. A few also had farming responsibilities. • men: worked primarily outside of the home on a farm or in other unspecified occupations.
12 noon - 6pm	• women - continued to work at home and yard or at the farm. However, they also had responsibilities related to the care of children. • men - continued to work outside the home but also engaged in other errands.
6pm - midnight	• women were involved in community-based activities e.g. at church. Personal care and rest in the form of reading, writing was also common. • men spent much time in recreational activities e.g. sports. Engagement in casual sexual activities was also reported.

Some of the issues emerging from the findings were as follows:

- Both sexes reported doing some type of work, from as early as the 12am-4am block to the 7/8 pm to midnight block. Work was categorized as domestic responsibilities, animal care, yard maintenance mainly done by women and paid work outside the home mainly done by men
- Both sexes participated in activities outside the home between 4pm and 8pm. However, the nature of the activities differed. Women were at meetings at church or community organisations; men were playing sports, games or hanging out at a local bar.
- Both sexes had access to technology and engaged in texting and social media activities.
- Women were more engaged in activities related to the care of others (including childcare) and involvement in the community.
- Men reported either flirting with or engaged with relationships that were outside of their main relationship. In Albert Town, they went to "the ramping shop" and in Duanvale, "gyal bush". This took place between 8pm and midnight.

- Though both sexes reported engaging with electronic communication (e.g. social media, texting) women reported more time engaging in such activities. This occurred either between 6-9am or 4pm-midnight.

In relation participation and voice, the data above, among other things, points to the some of possibility for more productive engagement for women, once certain enabling conditions are in place; to possibilities for their participation in collective organizing work. The spaces and possible methods and approaches to be taken in mobilizing males in particular are indicated. However it is clear that organizational work to build voice at the community level is a formidable task.

Further, for women to participate equally in leadership and decision-making with men and secure their human rights, there is need for transformation in the attitude and behavior of men both in the family and wider community. For there was much negative feedback from many men to the idea of women's interests being recognized, even to an extent that there was questioning in later meeting, as to why women and men were invited to meet separately.

This points to the need for broad and deep sensitization around gender issues and how these affect men and women.



Voice and Rights in Organizations

There is a high level of female participation in the few organized groups encountered across Cockpit Country communities, both within Community Development Committees and Local Forest Management Committees (LFMCs) at the levels of leadership and membership. Table 8 shows that where they are active, women are at the table of decision-making in their organisations.

The Social Development Commission (SDC) is active across the Clusters in supporting groups to organize themselves from the level of Community Development Councils to the highest tier as Parish Development Committees (PDCs). The St. Ann PDC which participated in discussions in Cluster 5 (St. Ann /Clarendon) is said to be actively representing a number of Community Development Committees, CDCs. Formations such as youth clubs and 4H Clubs, bring together both male and female young people. Across the clusters, the young men advocate for sports, recreational and skills training in the communities as priorities. The voice of female youth was largely silent, except in Accompong.



IX. Table 9 - Community-based Organization Leadership by Sex

Organization	Executive		Active Membership		Comment
	Female	Male	Female	Male	
LFMC-Cockpit Country –South East (Troy-Trelawny)	4	3	8	7	President and Public Relations Officers are males
LFMC-Cockpit Country North (Duanvale)	3	-			Active membership: 8
Cockpit Country South West (Flagstaff-St. James)	1	1	4	3	
Sawyers (Trelawny)	2	5	8	7	Involved in active projects
Niagra, St. James - Community Development Committee (CDC)	3	2	NS	NS	President is male
Mocho PMO- St. James	3	1	17	8	President is female
CDC - Aenon Town, Clarendon	7	2	NS	NS	
Accompong Maroon Council					

Source: Forestry Department - August 2018

RADA organizes female farmers to participate in projects, with a specific home economics programme geared to home-based manufacture of jams, jellies, sauces and condiments. In some instances, the organization provides outlets for the products, but although the production capacity is not large, nor are the returns, these ventures can provide lessons to guide venturing into larger agro-processing. Their viability also raises issues of whether these ventures do not actually lead women into longer working hours since they do these alongside their usual domestic responsibilities.

The proliferation of Churches/Faith Based Organisations across the Cockpit Country is the largest organized space for women. In a few instances for example, in Cuffee Ridge, the only basic school is organized by the church and provides steady employment for a few females. Community members, and women in particular, express a high degree of commitment to their spiritual anchorage in the Church communities. The Evangelicals- notably the New Testament Church of God -and the Seventh Day Adventists were those having a wide community presence. Commenting on the potential of the Church serving to organize communities towards livelihoods and biodiversity conservation, a sentiment was that “Church people bring church people together”, the suggestion being that broad community outreach was not engaged. Yet the potential for partnership with the Churches is one that merits critical reflection in the context of an assumed interest of the Church community in stewardship of the environment.

The Local Forest Management Committees (LFMCs) have the highest level of brand recognition across the Cockpit Country in terms of their direct mandate for environmental action. These Community Based Organisations (CBOs), active partners of the Forestry Department, have what the data suggests, is a fairly balanced involvement of women and men. Their experiences point to some of the major challenges facing CBOs in the rural areas in particular. The draft report of a 2016 study stated:

*“While many LFMC members in the Focus Group sessions reported an interest in the natural environment, there was an overwhelming indication across groups that the prospect of deriving livelihood benefits was an important motivating factor for becoming involved in the LFMCs and the failure of tangible monetary benefits to be realised has contributed to attrition. When groups are able to secure financing for projects there is an upsurge in active membership and interest from the community”.*⁷⁵

The extract points to unmet expectations as a major factor in unstable affiliation and declining membership of organisations. Some leaders, generally female, who will stick to an organization through ‘thick and thin’, are very critical of persons who, in their terms are “expecting hand-outs”. Many point out that men in particular will not come to meetings of the organisations, but become interested and visible when funds are secured for projects and often come into leadership in that context.

The absence of and weakness within existing organisations are linked to other factors such as:

- Low response of the authorities according to young men in particular, to requests for community building support.
- Low organizational capacity in terms of local leadership, linked to high levels of illiteracy, particularly among men in some remote rural communities.
- Many potential leaders, for example teachers, work outside of the communities and so their skills in organization building are not available on a day to day basis.
- Inability and failure by organisations to generate funds for projects;

⁷⁵ The Status of the Local Forest Management Committees, Jamaica: Findings from a Snapshot Survey, December 2016, p. 41

- Isolation of rural communities due to poor roads and transportation facilities, faulty and unstable tele-communications facilities and absence of street lights. These constitute a formidable barrier to planning and implementing within and across the landscapes of the various clusters.
- The challenge of the formalization of CBOs, is seen as a barrier to both men and women who seek to gain formal legal status through registering an organisations such as a Benevolent Society. Formalisation is a requirement for receiving state and support from other entities and in rural communities, it is particularly difficult to meet the required conditions.

Proposals to address the issue of building local organisations was seen as a priority, including organizing women as was suggested by females in Madras. This is seen as a prior action to any large scale project mobilization effort. Specific measures proposed include:

- Undertaking feasibility studies of specific activities proposed, for example, for investment in economic ventures and livelihoods promotion. These studies should include assessment of organizational capacity among proposed project carriers, using established criteria, including, their gender responsiveness.
- Ensuring that organisational readiness for the project is undertaken as a priority. This will require that building/strengthening organisations in the respective clusters and communities which will be engaged in the project, should be prior action undertaken on agreed arrangements with partners.

Without exception, across all communities engaged, a common cry was around either the total absence or weaknesses of existing local level community organisations. Even organisations which described themselves as active, such as those above, also mention limitations which negatively affect their effectiveness in giving voice to issues faced by women and by men.

6. Gender Capacity Building

This dimension of the situation analysis, which contextualizes the gender strategy and action plan for this project, focuses on examining the capacity of the stakeholders at all levels to design, implement and evaluate policies and initiatives that will ensure that women and men equally benefit from the project. This outcome would rest on implementers having skills for gender and social analysis and planning and to mainstream gender into all stages of the project cycle.

The instrument, developed to assess the capacity of leading implementers from public sector entities and civil society bodies, provides some indications of how these key stakeholders view their gender mainstreaming capacity needs. Among stakeholders public sector responding were Child Protection and Family Services Agencies, Forestry Department, HEART Trust NTA, Jamaica Fire Brigade, Rural Agricultural Development Authority (RADA), Social Development Commission, Tourism Product Development Company Ltd. and the Women Centre Foundation of Jamaica.

X. Table 10 - Current and Potential Actions on Gender by Agency

Agency/Organisation		Awareness, action re gender in work of entity	Potential of project to impact women; issues of concern, areas of contribution, recommendations and needs to advance gender in the organization and project
1	Child Protection and Family Services Agency		The agency can assist with needs based assessments and feasibility studies. What are direct benefits to farming families?

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Agency/Organisation		Awareness, action re gender in work of entity	Potential of project to impact women; issues of concern, areas of contribution, recommendations and needs to advance gender in the organization and project
11	Parish Development Committee- St. Ann	PDC has a policy to work through the Ministry of Local Government for the economic empowerment of rural women.	Training is needed which targets gender inequality issues. There is need to create specific working relationships with the agencies mandated to address biodiversity conservation under Vision 2030.
12	Jamaica Agricultural Society (JAS)	JAS reports that it has been instituting gender equality in agriculture through instituting Champion Women Farmers and the Conference of Women in Agriculture. (St. James) “Don’t see any particular issue where gender is concerned- more men than women in farming have to do with preference...been encouraging women and youth in agriculture” (St. Ann)	
13	Jamaica 4 H Clubs	Organisation has role to sensitize schools and communities about the project.	Need for eco-system water harvesting to address drought conditions.

The foregoing shows the need for strengthening the capacity of the wide range of stakeholders from government, civil society and men and women in the homes and communities around mainstreaming issues of gender equality towards the empowerment of women and girls and examining understandings and expressions of masculinities. There is also need to support entities which will advocate for gender equality from the national to the local levels and to hold duty bearers accountable to the policies and programmes that respond to the practical and strategic needs of rights holders. Women cannot participate effectively in the project at the community level unless the gendered barriers, including their workload and responsibilities at the level of the household are factored in and addressed. Without this, project involvement could end up increasing the workload and burden of responsibilities on women, while not altering the contribution of men to the work within the household. Men need to be sensitized on the ways in which the pervasive gender system, perpetuates toxic expressions of masculinities and how their interests are served in processes that engender dynamic partnerships with women, for example, through and in their community organisations. The contribution of the Bureau of Gender Affairs, guided by the National Policy for Gender Equality becomes integral to the success of this project in ensuring that attention is paid in filling most of the above mentioned gaps.

VI. GENDER MAINSTREAMING ACTION PLAN

The purpose of the Gender Mainstreaming Action Plan is to outline specific actions that will be implemented to ensure that both men and women have the opportunity to equally participate and benefit from the project by mainstreaming gender considerations in delivering on all the stated outcomes and outputs. It seeks specifically to engage a process towards men and women working in partnership for biodiversity conservation; to enhance the role of women in decision-making at all levels related to the sustainable resource management and livelihoods development.

The plan gives expression to the national policy direction and specific recommendations outlined for example, in Vision 2030 and its related Gender Sector Plan, the National Policy and Gender Equality 2011, Jamaica's National Biodiversity Strategy and Action Plan, 2016 -2021 and the Jamaica Country Programme Document with the United Nations Development Programme, 2017-2021. It is a key component of the overall project strategy and is allied to the Stakeholder Engagement Plan.

It responds to the findings as reflected in the discussions above by providing targeted gender mainstreaming training to enable selected project leaders at all levels to infuse gender into their work.

Gender Mainstreaming

Gender mainstreaming will be addressed at the institutional, policy, programs and projects levels and in monitoring and evaluation to ensure that both men and women have the opportunities and benefits of participating in biodiversity conservation and management and equality and equity are embedded in public policy and administration.

(a) Institutional Level

By focusing on the 4 to 5 key institutions, (NEPA, Forestry, Agriculture, Mining and Tourism), the project will ensure gender integration, paying special attention to recommendations made over the years.⁷⁶ The following are some of the minimum requirements to be met to mainstream gender at this level:

- All institutions to have an explicit stated mandate for promoting gender equity and equality and mainstreaming gender.
- Improve inter-sectoral collaboration and increase interdisciplinary work, for example, through collaboration among gender focal points in the respective agencies.
- Ensure that the key institutions have Gender Focal Points under the programme of the Bureau of Gender Affairs.
- Memoranda of Understanding relating to collaboration among institutions would include the requirement for the promotion of gender equality and equity;
- Establish a targeted capacity building plan to ensure staff has the necessary tools and knowledge to integrate gender issues in their current work;
- Ensure gender equity in the selection and training of personnel in ensuring technical knowledge transfer for example, in economic valuation of biodiversity resources;
- Gender mainstreaming actions would be reflected in work plans and budgets and institutions would report on this aspect of their work; and

(b) Project Steering Committee /Project Board

- Representation to include the highest political/policy level commitment to gender equality and the empowerment of women, namely the Bureau of Gender Affairs;
- National Project Steering Committee to be sensitive to the importance of gender issues;
- Representation/participation of civil society organizations, including women's organizations.
- Ensuring gender equity in composition of Project Board.
- Project Board at the local /parish level to include gender expertise among representatives

(c) Policy Level

- Policies relating to the mandate and work of the key institutions to be made more responsive to biodiversity and gender concerns. This might entail revision of existing policies. Focus should be placed on responding to

⁷⁶ See *National Strategy and Action Plan on Biological Diversity in Jamaica, 2016-2021*. National Environment and Planning Agency, December 2016.

particular policy recommendations made by over the years and take steps, where appropriate to implement findings: for example:

“strengthen the capacity of environmental agencies...in relation to integrating gender concerns in environmental policies, programs and projects and to increase the sustainability and management of such activities”. Gender Sector Plan 2009-2010, p. 90 and

“Conduct gender analysis and develop strategies in the mining and quarrying sector to garner baseline information to fully understand the gender issues within the sector”. NBSAP, 2016.

- Identify the related strategies, work plans and budgets to ensure coherent implementation of policies.

(d) Program and Project Level

- Development and implementation of tools and methodologies to assess and strengthen capacity at institutional levels, including within the governance framework;
- Training and capacity building to enable selected project leaders at all levels to integrate gender into the project cycle from planning/stock-taking, through to implementation and monitoring and evaluation with attention to (a) the interactive participation of women and other vulnerable stakeholders, (b) the disaggregation by sex of qualitative and quantitative data; and (c). the production and use of tools to enable participants to continue to hone their skills.
- Ensure that the gender outcomes are reflected in the monitoring and evaluation framework and plan.
- Develop and implement robust client responsive capacity building programs on gender and development;
- Train relevant actors to integrate gender, with attention to biodiversity and climate change into policy and into the projects life cycle (project identification, preparation, appraisal, presentation/planning, implementation, monitoring and evaluation);
- Design in collaboration with particular interest groups and implement gender specific programmes/projects to address particular vulnerabilities and build participation and ownership in the conservation project. (e.g. youth/women only projects);
- Implementation of mechanism to ensure access to equitable basic services such as water, sanitation and solid waste management;
- Support the strengthening of civil society/community based organizations in participatory methodologies to address gender and development issues among community members and promote social inclusion, for example through sports;
- Address gender inequalities, biodiversity threats/loss and climate change impacts through pilot projects and strong partnerships, for example, in community-based water management and in Protected Areas Management; and
- Incorporate gender and socially sensitive indicators and collect sex-disaggregated data to support monitoring and evaluation

VII. DETAILED BUDGET FOR GENDER ACTION PLAN

Detailed Budget Activities- USD\$									
Descript ion	U ni t C o s t	Ye ar 1	Ye ar 2	Ye ar 3	Ye ar 4	Ye ar 5	Ye ar 6	To tal	Comment
1.2 Prepare operational guidelines									
National Consultant (NC) 4-days	450.	1,800.						1,800.	Support work of the PIU
1.2 Review/ assess policies and procedures/MOU –(NC) 12 days	450.	5400						5400	MOU signed among key institutions with gender plan and mainstreaming and participation provisions to be followed up by institutions.
1.2 Revise 4 sector plans to integrate gender									
National Consultants (4x 10 days) 40 days)	450	9,000	9,000					18,000	Four sector policies Forestry, Agriculture, Mining, Tourism (20 persons per sector)
4 workshops - venue/travel/refreshments /materials	1000	2000	2000					4,000.	1 day sector workshops -Venue & equipment- 100 -Refreshment-400 -materials-100 -Reporting/rapporteur-500 Total 1 day cost-1000
2.4 Community consultation and training									

Detailed Budget Activities- USD\$									
Descript ion	U ni t C o s t	Ye ar 1	Y e ar 2	Ye ar 3	Y e ar 4	Y e ar 5	Y e ar 6	To tal	Comment
to facilitate women and youth participation at Cluster level									
Training needs assessment and materials development -10 days- Contract Services	600		6,000					6,000.	
Travel and per diem for Contract or- 4 days.	300		1,200					1,200	Travel for consultation to support implementation of the task.
Capacity building, training & mobilization intervention in 6 clusters..	3,500		7,000	14,000			-	21,000	Held at Cluster level; Year 2- 2 clusters Year 3- 4 clusters Capacity budget to be finalized in consultation with Cluster leadership as part of training. Budget to support participation of key partners and include provisions for responding to constraints faced by women and youth.
2.4 Strengthen CBOs in organizational development									

Detailed Budget Activities- USD\$									
Descript ion	U ni t C o s t	Ye ar 1	Y e ar 2	Y e ar 3	Y e ar 4	Y e ar 5	Y e ar 6	To tal	Comment
Capacity Assessm ent of Cluster leadersh ip and organisa tions Contrac tor 10 days	6 0 0	60 00						6,0 00	Assess and plan organizational strengthening through the Development Commission and Department of Cooperatives and Friendly Societies.
DSA and Travel for Contract or (4 days)	3 0 0	12 00						12 00	
Training /capacit y building for Cluster strengthening of Organisa tions Venue/r efreshm ent, travel Contract Services-	3, 0 0 0	6,0 00	1 2, 0 0 0					18, 00 0	Yr. 1- 2 Clusters Yr. 2- 4 Clusters. Travel for local and regional level personnel Support by Social Development Commission(SDC)

Detailed Budget Activities- USD\$									
Descript ion	U ni t C o s t	Ye ar 1	Y e ar 2	Ye ar 3	Y e ar 4	Y e ar 5	Y e ar 6	To tal	Comment
2.4 Establis h women and youth focused livelihoods projects and use alternati ve technolo gies to improve environ ment, biodiver sity, health and well being.									
Feasibilit y Study - 20days National Consulta nt -	4 5 0	9,0 00						9,0 00	
DSA and travel for National Consulta nt	3 0 0	36 00						3,6 00	
Cluster Validatio n & Planning Worksho ps	8 0 0	1,6 00	3, 2 0					4,8 00	
2.4. Develop strategy and partners hips for	4 5 0	13, 50 0						13, 50 0	Responding to wide-spread and central concern with water resources availability.

Detailed Budget Activities- USD\$									
Descript ion	U ni t C o s t	Ye ar 1	Y e ar 2	Ye ar 3	Y e ar 4	Y e ar 5	Y e ar 6	To tal	Comment
water to address strategic gender interests , support livelihoods and ecosystem health in the Clusters National Consultant – 30 days									
DSA and Travel for National Consultant (10 days)	300	3,000						3,000	
Workshop (Cluster level workshop to validate water strategy)	1,000		600					6,000	Findings will inform decisions re investments in the Clusters and for partnership support mobilization.
3.1 Gender and Biodiversity Training									
Design and administrator Training Needs Assessment (TNA)	450.	8,100						8,100	Target group includes Project Steering, PIU, Gender Focal Point personnel Deliverables include a gender mainstreaming training package with audio-visual content

Detailed Budget Activities- USD\$									
Descript ion	U ni t C o s t	Ye ar 1	Ye ar 2	Ye ar 3	Ye ar 4	Ye ar 5	Ye ar 6	To tal	Comment
Prepare Report Develop and test curriculum with audio-visual inputs (NC) 18 days									
Training on mainstreaming gender in the project cycle: 60 persons over 5 years in 2 days sessions in 4 groups of 15. National Consultant	450	-.	3,600	3,600	3,600	3,600	-	14,400	4 batches of 15 trainees per years 2, 3, 4, 5 over 2 days. Two day training sessions for each per group; preparation. & reporting 2 days each per training group. .
Accommodation/per diem/travel for training participants/training materials	3040		3040	3040	3040	3040		12,160	Total of 4 two days trainings events. Per diem expenses -15 participants: -Venue & equipment- 100 -Rural participants (5) @ \$60/per person= 300 - Refreshment- 20/per person= 300 -Materials- 4/pp= 60 Total per diem-1520 2 day training= 3040

Detailed Budget Activities- USD\$									
Description	Unit Cost	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total	Comment
(Two days session).									
Output 3.1 Community Outreach Support Services Contractual Services	5,000			30,000				30,000	To support engagement of women and youth across Clusters in the project in context of the broader Gender Action Plan.
3.3. Documentation of Maroon Cultural systems in biodiversity									
Consultancy to document Maroon Heritage in Biodiversity Conservation National Consultant – 30 days	450			13,500				13,500	Focus on multi-media data collection and partnership with national institutions.
DSA and Travel (20 days) -	300			6,000				6,000	

Detailed Budget Activities- USD\$									
Description	Unit Cost	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total	Comment
Publication & Dissemination (contractual services)	6,000				6,000			6,000.	Attention to Copyright issues.
Total	-	-	-	-	-	-	-	<u>21</u> <u>2,6</u> <u>60</u>	

Appendix 1 – List of Participants**Cluster 3 - Niagara**

Community Consultation Niagara, August 23, 2018	GOJ Stakeholders' Consultation Montego Bay, August 24, 2018
1. Augustus Sligo – Niagara 2. Everette Thompson - Niagara 3. Vernon Rowe – RADA, St. James 4. Shauna Fowler - Mocho 5. Michelle Onfoy – Niagara/CDC 6. Elfreda Rhoden - Niagara 7. Loydia Williams – Niagara/Arcadia 8. Simeon Wallace - Niagara 9. Jennifer Mullings – Niagara/CDC 10. Alfred Brown – Niagara/CDC 11. Merlene Nisbett – Niagara/CDC 12. Earl McKay - Mocho 13. Lesrine Harvey - SDC 14. Shadane Ferguson – Niagara/CDC 15. Claudette Williams - Niagara 16. Melika Findley - Niagara 17. Heather Brown - Niagara 18. Lorna Wallace - Niagara 19. Elaine Dennis - Niagara 20. Rueben Dunkley - Niagara 21. Linis Wallace - Niagara 22. Clearlyn Morris - Niagara 23. Lamar Mullings - Niagara 24. Selena Peddie - Niagara 25. Lorraine James - Niagara 26. Anthony Robinson - Niagara 27. Jacinth Blackwood - Niagara 28. Shevel Wallace - Niagara 29. Conroy Millings - Niagara 30. Ephraim Millings – Niagara 31. Neville Milton - Arcadia 32. Glenise Johnson - Arcadia 33. Vivienne McHargh - Arcadia 34. Alrock Knott - Niagara 35. Nicholas Ferguson - Niagara 36. Micheal Woodstock - Niagara 37. Hamoy Pinnock - Niagara 38. Peter Harvey - Niagara 39. Traivaughn Findley - Niagara 40. Maurice Millings - Niagara	1. Rochelle Johnson – Forestry Dept. 2. Stephanie Cameron – Forestry Dept. 3. Elfreda Rhoden – Niagara CDC 4. Patrick Barnett – Forestry Dept. 5. Ranya Reid-Edwards - NEPA 6. Vernon Rowe – RADA, St. James 7. Ann-Marie Francis – Jamaica 4H Clubs 8. Alfred Brown – Niagara CDC 9. Elvis Grey – RADA, St. James 10. Glendon Harris – JAS 11. Lesrine Harvey – SDC 12. Tamara Woodit – NEPA 13. Neville James – SDC 14. Dennis Wauliss – South St. James Social and Economic Development Trust

Cluster 5 – Litchfield/Matheson's Run

Community Consultation Alexandria, September 4, 2018	GOJ Stakeholders' Consultation Brown's Town, September 5, 2018
1. Aguillar Brown – Cuffie Ridge 2. Hyacinth Gayle – Cuffie Ridge 3. Sherryann Hepburn – Cuffie Ridge 4. Shellyann Stephenson – Cuffie Ridge 5. Hyacinth Mills – Cuffie Ridge 6. Advira Campbell – Cuffie Ridge 7. Delisha Brown-Campbell – Cuffie Ridge 8. Valda Pryce – Cuffie Ridge 9. Azan Llewellyn – Cuffie Ridge 10. John Palmer – Cuffie Ridge 11. Susan Blair – Cuffie Ridge 12. Lovina Llewellyn – Cuffie Ridge 13. Leonara Walters – Cuffie Ridge 14. Vivienne Mills – Cuffie Ridge 15. Monique McKenzie – Aenon Town 16. Kimberly Service – Aenon Town 17. Aston Llewellyn – Cuffie Ridge 18. Susan Koenig – Windsor Research Centre 19. Dermot Mills – Cuffie Ridge 20. Mark Brown – Cuffie Ridge 21. Ventley Campbell – Cuffie Ridge 22. Brenda Campbell – Cuffie Ridge 23. Ranya Reid-Edwards – NEPA 24. Eloysia Subaran – SDC 25. Alvin Llewellyn – Cuffie Ridge 26. Owen Henriques – Aenon Town 27. Andria Laing – Aenon Town 28. Hyacinth West – Madras 29. Stacy-Ann Thomas – Cuffie Ridge 30. Marion Case – Alexandria 31. Lothal Cottes – Madras 32. Melvina Watt – Madras 33. Sakene Ellis – Madras CDC 34. Linford Hamilton – Madras 35. Lateniel Hamilton – Madras 36. Lothal Cottes - Madras	1. Stephanie Cameron – Forestry Dept. 2. Ivy Walters – CDC, Gibraltar 3. Rochelle Johnson – Forestry Dept. 4. Stacy-Ann Dyer-McIntosh – HEART Trust NYS 5. Kennrie Harrison 6. Richard Grant - JAS 7. Raphael Foster – Gibraltar DAC 8. Ranya Reid-Edwards – NEPA 9. Eloysia Subaran – SDC 10. Samuel Tomlinson – SDC 11. Michael Thomas – Forestry Dept. 12. Lyndore Howard – Gibraltar CDC 13. Anthony Charley – PDC Chairman 14. Tanesha Hall – PDC member 15. Robert Clarke – Gibraltar 16. Raquel Remy – CDFSFA, St. Ann (formerly CDA) 17. Anntonette Bernard – TPDCo 18. Jerome Barnett – Gibraltar CDC 19. Marcia Harris-Ivey – Jamaica Fire Brigade 20. Sophia Richards – Madras CDC 21. Hillory McBayne – SDC 22. Hugh Johnson – Cave Valley CDC/JAS 23. Velma Monteith – Women's Centre 24. Antoinette Legister Hall – SDC 25. Shaniquea Ormsby – BGA/MCGES 26. Misaki Nakata – BGA/MCGES 27. Abby-Gale Clarke – BGA/MCGES

Appendix 2 – Agenda: Community and GOJ Consultations



**GEF-6 Project Preparation Grant for the
Conserving Biodiversity and Reducing Land
Degradation Using an Integrated Landscape
Approach Project**



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Resilient nations.*

Stakeholder Engagement and Gender Consultations

AGENDA

Thursday August 23, 2018 (4.30 p.m.)

Niagara Primary School, St. James

Facilitators:

Nicole West-Hayles – Stakeholder Engagement Consultant

Linnette Vassell – Gender and Social Safeguards Consultant

4:00 pm	Registration
4.30 pm	Prayer
4:35 pm	Welcome
4: 40 pm	Introductions, Values and Expectations – Shelly-Ann Lawson-Francis
4: 55 pm	Meeting Objective – Nicole West-Hayles
5:00 pm	GEF-6 Project Overview and Discussion – Nicole West-Hayles
	- Core elements of the project
5:20 pm	Interactive Discussion on Gender and Biodiversity – Linnette Vassell
5:40 pm	Community Engagement Presentation and Initial Findings – Nicole West-Hayles
6:00 pm	Community Discussion, Analysis and Planning – All
6:50 pm	Next Steps/Refreshments



**GEF-6 Project Preparation Grant for the
Conserving Biodiversity and
Reducing Land Degradation
Using an Integrated Landscape Approach Project**



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Stakeholder Engagement and Gender Consultations

AGENDA

Wednesday, September 5th, 2018 (10.00 a.m.)

Social Development Commission's Office, Brown's Town, St. Ann

Facilitators:

Nicole West-Hayles – Stakeholder Engagement Consultant

Linnette Vassell – Gender and Social Safeguards Consultant

9:30 am **Registration and Coffee Break**

10:00 am **Prayer**

10:05 am **Welcome**

10:15 am **Introductions, Values and Expectations** – Linnette Vassell

10:25 am **Meeting Objective** – Nicole West-Hayles

10:35 am **GEF-6 Project Overview and Discussion** – Nicole West-Hayles

- Core elements of the project
- What is expected of major GOJ stakeholders

Question and Answer/Refreshments

10:50 am **Gender Mainstreaming in the Project** – Linnette Vassell

- Importance of gender in biodiversity
- Expectations of GOJ Partners in relation to gender outputs
- Feedback from community on gender issues

11:05 am **Community Engagement Sensitisation** – Nicole West-Hayles

Group Mapping of Stakeholder Capacity Needs

11:15 am **GROUP ACTIVITY** - Stakeholder Institutional Capacity Analysis and Identification of Capacity Needs
(Representatives of each organization to complete Organizational Capacity Assessment Questionnaire and return to the team.)

11:30 am **PLENARY** - Stakeholder Identification, Management Framework and Livelihood Possibilities - Nicole West-Hayles

12:30 pm **Gender Mainstreaming in the Project** – Linnette Vassell

1:00 pm **Summary and Next Steps/Lunch**

Appendix 3 – Organization Capacity Assessment Questionnaire

Qualitative Questions for discussion with GOJ Field Professionals

Q#	Core Question/Issues	Some Gender and Safeguards Linkage Issues
1	Based on your surveillance, oversight or regulatory systems, what are the current land use trends affecting the forest? ○ Area of Extreme Concern? ○ Special geographic concentration ○ Probable cause ○ Changes over time	○ What components of biological diversity used by women and men? Which activities by whom? ○ What resources are controlled by men/women? What kind of control? ○ In the areas of extreme concern, what are the respective activities/ roles of men and women?
2	How do these trends/actions undermine biodiversity or conflict or support local development plans/orders, zoning and planning activities?	○ Are the activities carried out by men and women sustainable? ○ What are the particular threats to sustainable use by women and men? ○ What are the underlying socio-economic, cultural and other underlying causes of such threats that influence men and women?
3	Please explain the main functions of your institution.	To what extent does your institution function within a mandate and consciousness that examines the needs and constraints faced by women and men?
4	Based on those functions and the project scope, do you believe the project objective is consistent with the needs and interests of the parish? Would you have a role in the project?	○ Do you envisage that the project objective and scope can effectively address the needs/condition and position of women in the target communities with which you work? ○ Would you/your institution have a role in ensuring this?
5	Based on the proposed actions, are there any institutional capacity needs to be considered to enhance project implementation, and at what level?	What, if any, are the specific capacity needs that your institution would have in order to address gender issues in the project?
6	From your experience, what are some of the factors, if any, that could impede the participation of any stakeholder?	What factors, if any, could impede the participation of women and/or men individually or as groups in the project?
7	Are participants aware of best practice locally, regionally or internationally in conservation and sustainable resource management from which lessons can be learnt?	○ What are the particular areas of knowledge needed by you/your organisation to effectively mainstream gender in the project? ○ Are there particular relationships, linkages and systems that need to be put in place to facilitate effective attention to mainstreaming gender in biodiversity conservation? ○ What has been the experience with addressing gender in the Protected Areas Management in Jamaica?
<i>Questions 8 – 12 in this section are to be discussed in small groups, which will report to plenary.</i>		

Q#	Core Question/Issues	Some Gender and Safeguards Linkage Issues
8	What institutional/inter-relationship arrangements (governance structure) are needed for participation and project delivery at the parish level?	How, in your view, should gender mainstreaming issues be addressed within the governance structure?
9	How do you suggest the project governance structure be set up where cluster fall across parishes?	
10	Key project staff and required skills?	How can the mandate to address gender mainstreaming be met with the human resources management structure and the overall agencies' oversight of the project?
11	What are some suitable small-scale livelihoods conservation activities that the project could invest in? (Do these fall within current capacity?)	○ Are there specific livelihoods sub-projects that can be undertaken to meet specific needs of women as crop producers, entrepreneurs, innovators? ○ Are there specific livelihood activities that should be invested in to respond to some of the particular areas of biodiversity loss?
12	Do you propose any other stakeholders?	What should be done within the project to safeguard the particular economic, cultural heritage and political interests of the Maroon communities?
13	Are there any other issues and/or specific risks that should be considered?	○ Are there particular risks to consider in taking a gender responsive approach in addressing biodiversity conservation within a landscape management approach? ○ How can these risks be mitigated?
14	Do you think that specific measures (policy, circulars, guidelines, tool kits etc) to mandate the incorporation of biodiversity considerations into development planning and sectors such as tourism, agriculture, forestry, and into biological corridor zoning?	The <i>Vision 2030 Gender Sector Action (2009)</i> and a <i>National Policy for Gender Equality, 2011</i> exist. What must be done to ensure their use in biodiversity conservation planning and management?

XII.

ANNEX 6 - KNOWLEDGE MANAGEMENT AND COMMUNICATIONS STRATEGY

Background

This Knowledge Management (KM) and Communications Strategy is being designed as a framework to bridge implicit and explicit knowledge. This Framework will form the basis for acquisition, exchange of ideas, free flow and dissemination of information as well as application of knowledge by connecting repositories of traditional knowledge with policy makers, academia, researchers and private sector through a participatory and integrated communications approach.

The Strategy will further highlight the work of the UNDP and the GEF's corporation with the GOJ in preserving biodiversity and achieving global commitments. The Strategy supports the implementation of the Conserving Biodiversity and Reducing Land Degradation Using an Integrated Landscape Approach project over the six years of implementation.

Through three distinct but complimentary components, the Project aims to enhance conservation of biodiversity and ecosystem services through mainstreaming of biodiversity into planning policies and practices into Jamaica's productive landscapes and key sectors.

The three components are:

- Component 1: Systemic and institutional capacity for integrated landscape management at national level;
- Component 2: Application of integrated landscape planning and management in key biodiversity areas; and
- Component 3: Knowledge management, gender mainstreaming and monitoring and evaluation

Component 3 assumes a fundamental result of the Project. The KM aspects of Component 3 is a critical feature of the Project focusing on its demonstrated ability to capture knowledge and share best practices and lessons learned from the combined results of the other components; particularly sustainable land management, climate-smart agriculture (CSA) and biodiversity conservation as well as compatible practices along with gender mainstreaming.

Significant gaps in understanding of terrestrial and aquatic/fresh water habitats, both at the institutional and community levels; impacts of poor land management and exploitative practices as well as the risks posed by loss is not well understood. Management of land, forest and biological resources data continues to be limited. While much information is generated through "projects", this information is likely to continue to be compartmentalised and not widely shared outside of the close circle of project implementers.

Knowledge, understanding and appreciation of the relationship between biodiversity conservation, protected areas and sustainable forest and land management and human welfare is low and priorities for information collection will likely not fully consider gender, maroon communities and vulnerable people concerns.

This Plan is designed to articulate Outcome 3 - Knowledge Management and Monitoring and Evaluation Support and Contribute to Equitable Gender Benefits and Increased Awareness of Biodiversity Conservation; and it three specific outputs:

- Output 1 - Knowledge Management and Communication, Gender Mainstreaming and Evaluation Strategies Developed and Implemented
- Output 2 - Harmonized Information Management Systems to Integrate Lessons from the Biological Landscapes and User-friendly Operational Guides/Manuals
- Output 3 - Knowledge Management and Project Experiences Contributes to Learning and Facilitates Replication and Scaling-up of Integrated Biodiversity Management Approaches Elsewhere in Country

KM and Communications Objective

The overall objective of the KM and Communications Strategy is, therefore, to enhance project sustainability through improved knowledge and information collection and management systems to enhance awareness about best practices on conservation of terrestrial and aquatic/fresh water habitats and their associated biodiversity and ecosystems through communication, documentation and dissemination.

This will be achieved specifically, by:

- Promoting fact-based gender-responsive and socially inclusive land use, Climate Smart Agriculture (CSA), forest management biodiversity conservation best practices, etc.
- Enhancing collaboration/coordination and sharing of lessons learned to boost integration and innovation across landscape
- Advancing effectiveness and benefits of adoption along the entire spectrum of identified value chains
- Publicising project results and impact and other visibility strategies

Audience, Message and Media Matrix

Audience Type	#	Audience Segment	Key Messages	Media
Primary	1.	Farmers	1. Biodiversity-friendly production practices 2. Benefits of experimenting with modern/CSA practices 3. Impact of climate change and other unsustainable practices on productive capacity, livelihoods	• Demonstration sites/farm-field schools • Mini videos • Targeted meetings
	2.	Poachers	1. Alternative livelihoods opportunities 2. Specie and forest conservation 3. Impact of non-compliance	• Site signs • Dialogue • Incentive programme
	3.	Women	1. Women-focused value chains/sustainable livelihoods opportunities	• Community meetings • Women-focussed meetings/events
	4.	Youths	1. Youth-focused value chains and sustainable livelihoods opportunities 2. Modern technological approaches 3. Social and economic benefits to be derived from project	• Social media • Youth-focussed meetings/events, eg. school visits; sporting/outreach
	5.	Project Staff	1. Knowledge assets/repositories 2. Gender mainstreaming in biodiversity conservation/gender impacts on and caused by biodiversity 3. Productive systems across landscape 4. Entry points for gender and biodiversity mainstreaming	• Manuals • Guidebook • Newsletters • Workshops • Meetings •
	6.	Beneficiary CBOs	1. Administrative/financial management 2. Business development/community enterprise management 3. Group dynamics 4. Effective biodiversity-friendly agriculture, forestry, tourism and income generation and livelihood activities 5. Profitable biodiversity compatible and sustainable activities 6. Scaling business ventures	• Workshops • Group meetings • Monitoring missions • Mini videos
	7.	LFMCs	1. Land management techniques 2. Sustainable agricultural practices 3. Mainstreaming gender in biodiversity management	• Workshops • Field trips • Manuals

Audience Type	#	Audience Segment	Key Messages	Media
				• Mini videos
	8.	Extension Services	1. Climate-smart agricultural (CSA) planning and practices 2. Opportunities and barriers to CSA adoption 3. Women and youth friendly agricultural opportunities	• Workshops • Field trips • Manuals • Website
	9.	Project landscape/ Cockpit Country NGOs	1. Local, regional, international policies, frameworks and other commitments to biodiversity conservation 2. Project success, best practices for adaptive management approach for the proposed Cockpit Country landscape that progressively identifies threats to biodiversity and natural resources and associated challenges 3. Integrated landscape planning/cluster planning and local ownership 4. Post-project sustainability 5. Entry points for gender/social inclusion and biodiversity mainstreaming	• Workshops • Group meetings • Manuals • Website • Mini videos • Field visits
	10.	Cockpit Country residents/ Maroons	1. Biological, cultural, historical, environmental, medicinal and social values of CC, individual and collective benefits 2. How to protect the value of CCPA, individually and collectively 3. Project activities, opportunities, benefits and participation 4. Harnessing of traditional knowledge, land use, etc. 5. Local level management, monitoring, 'policing' of conservation activities	• Site signs • SMS • Video • Story telling • Consultations • Workshops • Television • Radio (national and community) • School visits • Policy
	11.	National Environment and Planning Agency	1. Enabling national support and consensus to achieve project outcomes 2. Project roles	• Meetings • Status reports
	12.	Forestry Department	1. Enabling national support and consensus to achieve project outcomes 2. SFM best practices	• Meetings • E-mails • Internet
Secondary	13.	Rural Agricultural Development Authority	1. Land management needs for biodiversity and sustainability 2. SLM best practices	• Meetings • E-mails • Internet • Workshops
	14.	Tourism Product Development Company	1. Cultural, historical, biological values 2. Eco-tourism best practices 3. Impact of ecosystems loss on Industry, lives and livelihoods	• Outreach workshops
	15.	Jamaica Agricultural Society	1. SLM best practices 2. Best practices for replication and scaling up	• Meetings • Workshops • Manuals/guides
	16.	Social Development Commission	1. Project roles and responsibilities 2. Enhanced community participation 3.	• Workshops • Meetings • E-mails
	17.	Municipal Corporations	1. Integrating environmental sensitivity into effective planning	• Workshops • Meetings • E-mails

Audience Type	#	Audience Segment	Key Messages	Media
	18.	Jamaica National Heritage Trust/Institute of Jamaica	1. Institutional support to identify, preserve, value and communicate about biodiversity, cultural, historical assets	- Individual meetings - E-mails
	19.	Technical Working Group	- Integrated biodiversity conservation approaches - Institution and coordination arrangements - Biodiversity conservation advocacy - Integrated landscape planning - Entry points for social inclusion/gender and biodiversity mainstreaming	- Working meetings/retreat - E-mails - Website
Tertiary	20.	General Public	- Ecosystems enhancement awareness - Benefits derived from the Cockpit Country - How to access knowledge and communication products - Project objectives, success - Top five reasons to conserve Cockpit Country and its biodiversity	- Radio - Television - Internet/website - Social media - IEC materials - Promotional items
	21.	Project Steering Committee	- Supportive project framework - Integrated biodiversity conservation approaches - Policy, regulatory and institutional framework to protect biodiversity - Enabling support to meet project objectives	- Meetings - Field trips - E-mails - Website - Reports
	22.	Planning Institute of Jamaica	1. Project support, roles and responsibilities	- Meetings - Status reports
	23.	UNDP, GEF, SGP	- Project outputs, outcomes, successes, best practices, lessons learned - Enabling support to meet project objectives	- Meetings - Status reports - Monitoring missions - Website
	24.	Co-financiers (JSIF, Digicel Foundation, etc.)	1. Social and economic benefits of participation	- Meetings - Reports - Website
	25.	Media	- Cockpit Country significance/value/benefits - Top five/ten reasons to preserve CC - What can be done individually/collectively to make positive change	- Project launch/closure seminars - News release - Interviews - Monitoring missions - Media workshops

Methodology and Approach

There is be a systematic process of assessing knowledge and communications gaps; identifying existing assets or generating; disseminating and utilising knowledge, best practices and lessons learned that results in tangible improvements to the biodiversity and natural resources status and that may be replicated. However, due care is to be taken in the documentation and treatment of Maroon and other traditional knowledge to prevent exploitation, or loss.

All three branches of communications; advocacy, targetting the decision-makers; social marketing and behaviour change are being used to design the Strategy and boost dissemination. Therefore, the communications outcomes are to be reinforced by knowledge management models and merged with behaviour and social mobilisation models inclusive of local participation and action as well as the integration of traditional knowledge to improve access to, and, enhance adaptation of project knowledge.

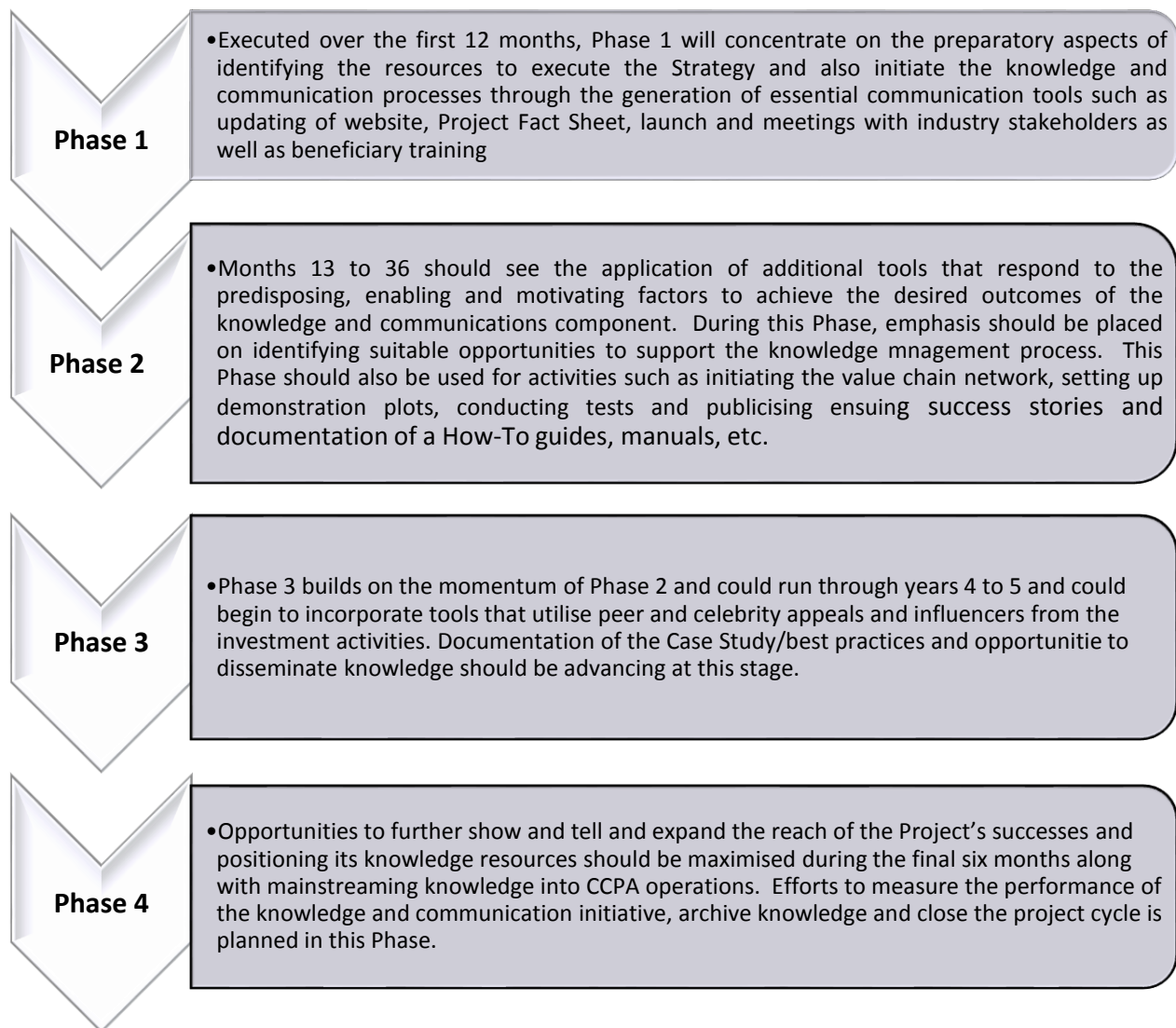
The overall approach should be compliant with UNDP's Communications Standards, guidelines for social inclusion and participatory stakeholder engagement. Messages are to be culturally appropriate, geographically relevant, current and appropriate for easy understanding and assimilation without losing its technical values. Messages will reflect the collective needs of the beneficiaries while addressing the predisposing, enabling and maintenance factors. Both rational and emotional appeals may be used in message design; but messages are to be tested within the select target groups prior to dissemination.

Data capture and storage are crucial aspects of this Strategy. While field officers are encouraged to capture data using cameras, cellular phones or other means, this should be undertaken under the careful guidance of experts who will be contracted to conduct activities such as the Case Study so that relevant data is captured. Likewise, footage for the video production is best achieved by a professional. Schedules should be set up to allow timely capture of field activities.

A select staff from within the PMU will manage the coordination of knowledge and communication activities. At the same time, the capacity of Local Implementation Teams (LITs) to undertake this process should be developed or strengthened and be fully integrated by project mid-term. LITs should be able to connect the Cluster with others in meeting the objectives of the project; becoming agents of change in promoting sustainable natural resource management, climate risk management and biodiversity conservation.

This Strategy is expected to be dynamic and subject to modifications over the implementation of the Project in order to continue being relevant to current needs. The Strategy is further expected to define the framework for the project and will detail the various tactics to be utilised, tools for identifying gaps, accessing, storing and sharing knowledge, best practices and lessons learned.

Therefore, a 4-phased plan is proposed.



Knowledge and Communications Tools

Based on the proposed actions in Components 1 and 2, a multi-faceted approach utilising a mix of channels and tactics targeting individual and group knowledge and behaviours will be undertaken that links and support all project components. The following tools spanning the knowledge management spectrum from generation to dissemination are proposed to complement the knowledge and communication outcomes of the Project:

- **Project Launch/Closure Seminars/Knowledge Conference** – These events are to be organised to attract the highest levels of participation from Government and stakeholders at the community, parish and national levels.

The Launch should be a high-profile event proposed for a central location that is convenient to ensure full participation and which has the technological capacity to support an outside broadcast by a select media, preferably national radio. An appropriate Media Kit should be assembled with Frequently Asked Questions and other project facts.

The project closure event may take the format of a knowledge conference that chronicles the events of the projects; from the start-up to stories of failures and successes, exhibits from farmers, Maroons and partners, technical presentations, testimonials, the unveiling of to-do guides, traditional knowledge that supports an integrated landscape approach, etc.

- **Demonstration Plots/Field Missions/Farm Meetings** – On-farm sessions are recommended among the first line of communication for farmers and other primary audience. Farmers, beneficiary CBOs will be able to experiment and increase knowledge while boosting productivity at the same time. Experienced agronomists or other suitable experts should lead this process but supported, where possible, by entities such as the JAS, RADA or other technical agency.

Activities such as these will provide suitable opportunities for the capturing of knowledge, particularly Maroon and other traditional or cultural practices and the process of merging with new knowledge for sustainability on biodiversity management, proper land use management, CSA, water harvesting, medicinal plants and restoration of mined out lands, etc.

- **Case Study/Lessons Learned/Best Practices** – Case Study, providing a critical analysis and best practices from the project's demonstration plots will be documented in print and/or video for dissemination. The Study should examine both negative and positive outcomes and make recommendations for the most suitable solutions and how the experience may be up-scaled and replicated. A brief lesson learned document is to be generated from any case studies originating from the demonstration plots and other identified sources.
- **Manuals and Guidelines** – A more technical to-do manual that serves as a reference point is to be produced. Development of gender-responsive policy guidelines and policy framework that mainstreams social inclusion into biodiversity and sustainable value chains are specific outputs under the project. While these are useful, bearing in mind the diversity of the target audience, these are to be translated in user-friendly formats to be beneficial to some users. (See video below)
- **Mini video** – A series of interactive training/information mini videos for a maximum duration of ten minutes each highlighting success stories, testimonials, how-to, best practices and lessons harnessed from Components 1 and 2 such as integration of gender into Biodiversity; merging traditional and explicit knowledge/modern technologies in land use management, forestry management, etc. sustainable/women-focused value chains such as basketry; species conservation, endemic species, flora and fauna, rescue and relocation is to be produced.

The video is to be produced professionally optimising use of sound and sight, graphics and special effects to reinforce the messages. This Video may be published on the internet or dubbed to be suitable for WhatsApp, compact discs, etc. Five to six chapters/modules

may be produced with each independent to allow viewers to interact with just the topic of interest.

- **SMS** - SMS text messages are an excellent way to reach farmers and other segments of the target audience, especially given the limited penetration of/access to internet in the project area. SMS may be used as reminders to reinforce best agronomic practices, talking points on benefits of biodiversity, etc. Messages are to be sent at a time when recipients would be most ready, for eg. messages to farmers could be sent early morning prior to going to the field.
- **Outside Broadcast** – Consideration for the utilisation of Outside Broadcasts from a leading radio station to cover the launch and closure events is recommended to capitalise on the possibility of expanding the reach of the event and spark further interest.
- **Banners** – Another visibility action is the production of banners. Feather, pull-up and repeat banners are proposed. Feather banners are to be used at the various expos and outdoor events with the support of the repeat banner where space allows. Pull-up banners are easy to travel with and can be used by field officers at various meetings and other events to provide some amount of visibility.
- **Website/Social Media** – An online repository for the hosting and sharing of knowledge as well as general information is to be developed. A new site could be created and dedicated to the management and promotion of the project's knowledge. However, for maintenance purposes, it may be best anchored to sites currently being used by UNDP, GEF or established NGOs within Cockpit Country.

The online knowledge portal could be branded for the Cockpit Country. The versatility of the website could further allow for technical blogs with high-quality content to be written and posted. The site is to be integrated with social networking tools such as Disqus or Buffer, to allow for feedback on all publications. Online comments may be monitored, coded and form a part of the project evaluation system.

Additionally, social media such as WhatsApp, YouTube and Facebook could be combined to facilitate ease of information sharing and boost reach with timely and concise information. Moreso, the process of developing a mail list (Listserves) could begin where persons could subscribe or be added from contacts to receive information once posted. In addition to driving traffic to the site, an avenue to boost engagement and findability is created as persons may not always remember to check the website, so an e-mail or message serves as a reminder.

It is further useful to include search engine optimisation and analytical tools such as Buffer or Google Analytics that can track and measure engagement and findability. The site should bear links that suggest and directs readers to other suitable knowledge sources and extend reach. This Website can also serve as marketing tools for eco-tourism activities being promoted or invested in by the Project.

- **Stakeholder Meetings** – Various sessions by way of technical workshops, seminars, outreach events and consultations are to be had with beneficiaries, interested parties, industry stakeholders and GOJ representatives. These events serve to ensure the requisite system capacity is established for a shared vision and policy framework to support the value chain and also to transfer the knowledge developed under the Project to technical and regulatory arms of the Government and supporting institutions as well as to the community level.
- **Newsletters** – A brief quarterly newsletter could be considered for internal communications that keep Project staff and wider stakeholders up to date with the latest developments, progress and challenges during project implementation. Project staff, etc. should be invited to make content and editorial contributions that incorporates stories submitted by Local Implementation Teams.
- **Media Releases** – As needed, the public may be updated on newsworthy items from the project through one-page releases that highlights project outputs and outcomes and provides general visibility. Releases will be widely circulated to national and regional media and posted on websites of project actors.
- **Workshops and Training** – Workshops are to be planned and hosted at the community, parish and national levels to facilitate transfer of knowledge, and other capacity building exercises for LITs and GOJ actors that support implementation and achievement of desired conservation goals while informing replication. Pre and post-tests to evaluate change in knowledge, practices and behaviors are to form part of the event execution.
- **Celebrity Endorsement** – Romain Virgo, Usain Bolt, Veronica Campbell-Brown, Dalton Harris are among celebrities from, in and around the Cockpit Country. Their images may be used to support the call for conservation with a mix of rational/emotional appeal messages recalling their fond memories of life in Cockpit Country, their wish and how each Jamaican benefit from conservation.
- **Radio/Internet Interviews/Podcasts** – Cockpit Country is home to at least one community radio station, Abeng FM. The project can capitalize on this opportunity by targeting messages to the residents within its band width. Additionally, national radio programs sensitive to conservation could be targeted to expand the reach of messaging. Interviews may also be sought on television or online sources such as podcasts, examining any topic from the key messages.

Radio interviews and discussions are useful ways of keeping the public engaged. These opportunities should be optimised by not using them for the basic issues but rather concentrate on the more technical value-added subjects that require fulsome discussions and may be fully articulated giving listeners an opportunity to call in and join the discussion.

- **Feasibility/Baseline/Mid-term/Endline/Impact Assessment** – The framework for measuring project results is being developed through feasibility studies and baseline KAP which makes the basis for formative evaluation and process evaluations. Data will be disaggregated by sex, social and other demographic variables.
- **Signs/Interpretation Centre/Story Boards** – Story boards on Maroon heritage, Cockpit Country biodiversity, conservation, cultural, historical and other benefits may be designed and strategically placed for the information of locals and visitors. These boards should be site-appropriate, all-weather finish and reflective for night vision.
- **Knowledge Repository** – A central/online repository for storing and sharing of knowledge generated from the project is essential (see website above). The Repository may be best anchored to tools currently being used such as the Institute of Jamaica's Clearing House Mechanism or the GEF-Small Grants Programme's Grantee Exchange Network.

Knowledge and Communication Metrics

In collaboration with the monitoring and evaluation team, the baselines for delivery and indicators for measurement of the impact and effectiveness of the Knowledge and Communication Strategy are to be assessed and aligned with the timelines of knowledge generation in Components 1 and 2 and the overall project's results framework.

The following indicators, disaggregated by sex and other demographics where possible; are suggested to inform the results of the project:

- # of opportunities created for knowledge exchange
- % change in KAP
- # of farmers adopting new technologies
- # of knowledge/communication tools developed/disseminated
- % increase in productivity/income
- # of persons successfully completing training
- # of best practices identified for replication

Workplan

This Knowledge Management and Communications Strategy will be implemented over a 6-year period. A summary work plan is proposed based on anticipated resources committed to allow full implementation. The work plan is to be revised in keeping with actual resources and priorities at the time of execution and the beginning of each Phase. Each activity is to be further broken down by the implementation team into smaller actions, setting critical milestones and assigning tasks to known individuals.

Activity	Duty	Start	End	Status %	Y 1	Y 2	Y 3	Y 4	Y 5	Y 6
Review, update stakeholder contacts, KM and Communications Plan	PMU			0%						
Project Fact Sheet and visibility items	PMU			0%						
Inception workshop	PMU			0%						
Roll out project communication activities	PMU									
Design and conduct capacity building trainings	Consultant PMU			0%						
Identify and establish demonstration sites	PMU			0%						
Conduct field visits/monitoring missions	PMU Consultant			0%						
Case Study/Best Practices	Consultant			0%						
Manuals/Guidebooks	Consultant			0%						
Stakeholder engagement/targeted group meetings	PMU Consultant									
Knowledge Conference	PMU Consultant			0%						
Production of IEC (Information, Education, Communication) materials	PMU Consultant			0%						
Media activities	PMU			0%						
Knowledge curation/archiving	PMU			0%						

Key: Y = Year

ANNEX 7- FRAMEWORK FOR PARTICIPATORY LANDSCAPE PLANNING AND INTEGRATED LANDSCAPE MANAGEMENT FOR COCKPIT COUNTRY LANDSCAPE

1. Background

Integrated landscape management (ILM) is an approach that is increasingly successfully adopted in Central and South America, although it is relatively uncommon in the Caribbean.⁷⁷ The approach treats landscapes as multifunctional systems, integrating agricultural production, ecosystem and biodiversity conservation, human livelihoods, and institutional planning and coordination in order to achieve the dual goals of enhanced biodiversity conservation and increased income for rural communities. A study of ILM projects in 2014 found that ILM projects with more, broader objectives were more successful than more restricted ones.⁷⁸ Projects and plans that have

This GEF-6 project focuses on the Cockpit Country and environs landscape (CCEL), which includes the proposed Cockpit Country Protected Area (CCPA), Stephney-John's Vale Forest Reserve and the associated conservation corridors/connectivity areas (Figure 1). This area is the ideal place to demonstrate ILM in Jamaica because it has outstanding levels of biodiversity and very important ecological functions, which are currently threatened by many human activities. In 2017, the Government of Jamaica declared its intention to create the Cockpit Country protected area, which would be off-limits to bauxite mining. The proposed area includes both public and privately owned lands. ILM is essential to the success of this type of protected area.

2. Objectives

The overall objectives of participatory ILM in the CCEL are:

- To engage stakeholders to enhance conservation of the biodiversity and ecosystem services of the CCEL;
- To increase the economic well-being and quality of life of the people of the area;
- To test the application of the concept of ILM in Jamaica, and to develop demonstration approaches that can be scaled-up and applied nationally
- To integrate ILM into the management planning process for the proposed CCPA.

3. Approach

The basic approach is to engage the widest possible group of stakeholders in participatory processes to identify priorities, develop strategies and implement them by integrating top-down and bottom up approaches to planning. This process will support and overlap with the development of the management plan for the CCPA. The target identification, prioritization and mapping phases will support both processes. The CCPA management plan will be

⁷⁷ Estrada-Carmona, N., Hart, A., DeClerck, F., Harvey, C. & Milder, J. 2014. Integrated landscape management for agriculture, rural livelihoods and ecosystem conservation: an assessment of experience from Latin American and the Caribbean. [Landscape and Urban Planning 129 \(2014\) 1–11](#)

⁷⁸ Ibid.

nested into the CCEL ILM management strategy and plan, and will provide for the detailed management of the biodiversity in the conservation zones.

The main steps of the ILM planning process will include:

- Introduce the concept of ILM and define the vision and scope of the ILM project and identify conservation and human welfare targets. This will be done at an initial workshop, which will engage a broad spectrum of project stakeholders at the national and CCEL levels;
- Select conservation targets: This will be done at a small workshop of experts, including scientists and community members;
- Prioritization, mapping, gap assessment, field assessments, threats assessment and zoning;
- Development of plans and strategies at CCEL and cluster levels;
- Implementation of plans and strategies; and
- Monitoring and assessment.

3. Define vision and scope for the CCEL

In order to ensure that all the stakeholders have a shared understanding of the project it will be necessary to get agreement from the major stakeholders on its vision and scope. The **vision** is a short, memorable statement that sums up the desired state of the CCEL at the end of the project. It should be relatively general, (sums up the full range of project activities), visionary (sets out the desired state of the project targets), and brief (so all participants can easily remember it). The **scope** is the geographical area to be covered (the suggested area is the CCEL and connectivity areas) and they types of activities to be included. These things have already been broadly decided in the project development phase, but it will still be important to establish agreement as implementation begins.

4. Prioritize the CCEL Landscape⁷⁹:

The main steps in prioritization are as follows:

- Identify conservation priorities (including priority species or groups of species, considered to be specially important because of their global conservation status, endemism or economic or cultural significance; representative ecosystems; ecological services);
- Map the distribution of the high priority species and ecosystems, based on literature plus new surveys as necessary. Mapping will be done at two scales CCEL and cluster level;
- Identify, assess, rank and map threats to biodiversity;
- Assess spatial patterns of socio-economic dependence on biodiversity
- Identify existing and potential sustainable uses of biodiversity and areas that are suitable for such uses, in order to enhance local livelihoods and increase economic viability of local communities; and
- Identify existing conservation activities
- Develop draft zoning plan.

4. Establish species and ecosystems conservation targets

- **Agree conservation targets**, which may be ecosystems, species or ecological processes, selected because of their globally threatened status, endemism, representativeness and economic importance. Under the Parks in Peril Project (2007), TNC identified the following targets Limestone Forest, Karst Freshwater Ecosystems, Cave Communities (terrestrial, Black- and Yellow-billed Parrots, Giant Swallowtail Butterfly.⁸⁰ The first step will be to update the literature review, then to convene a group of experts and selected

⁷⁹ This process will also support a broader objective of the project – the development of a national integrated database of biodiversity information.

⁸⁰ John, K., and N. Newman. 2006. Cockpit Country Conservation Action Plan: A Summary. The Nature Conservancy Jamaica Programme.

community members with practical knowledge of the Cockpit Country at a workshop to review the list of priorities and review the viability of the selected targets.

5. Establish spatial conservation priorities and opportunities

- **CCEL mapping**

The next step will be mapping at the CCEL and cluster scales. The outputs will be CCEL maps of the main physical, biological and socio-economic features, threats, opportunities for sustainable land use, conservation zones, and connectivity zones. These will be used for planning the project, development of the management plan, SEAs and SEIAs, and will support revision of Development Orders and decision-making at the national and parish levels. Hard copy maps will be generated at 1:25,000 scale for the CCEL and 1:12,500 for clusters. Parish planners will be involved in this process as part of their training exercise and their offices will be provided with computers, servers and plotters to support this process.

The mapping exercise will require an inter-disciplinary team comprised of spatial planners, biologists, social scientists, village representatives, GIS specialists, and other relevant experts based on the specific land uses and resource threats within the CCEL. This would be sourced out through contracting services agreements, with technical and specialized support from the sectoral agencies (NEPA, RADA, FD, Tourism, etc.) guiding this exercise.

- **Database development, gap assessment and fieldwork**

This will involve assembling a searchable database of existing current and historical layers of the CCEL and relevant literature, including physical features (including topography, soils, geology, land use capability, slope, rainfall, climate and climate change, hydrology), biological features (distribution of target species [including migration} terrestrial and aquatic habitats, habitat changes etc.), socio-economic activities and infrastructure⁸¹, starting from the database assembled by TNC. Once existing data have been identified, obtained, standardized and assembled in a database, the next step will be the identification of gaps. Some of these gaps (including the mapping of forest ecosystems and of selected species will be carried out under the project.

- **Cluster mapping and collection of socio-economic data**

The cluster communities have been broadly identified but they need to be precisely defined in order to support implementation. It will be necessary to validate this and further confirm areas within the CCEL where unsustainable resource use and development activities significantly compete with the biological and ecological needs of the key species or the conservation of the prioritized or critical ecosystems. This would enable the identification of areas within the CCEL where conservation action is necessary (such as set-asides) and sieve out those areas of the landscape where conservation actions might not be priority and where sustainable resource use and livelihood opportunities are best located. The process of refining the cluster will start with participatory mapping (also known as community-based mapping), which is a process that engages community members in a series of workshops through which they map the physical, biological, socio-economic, historical and cultural their own communities and establish their priorities for land use.⁸² It is a very useful way of getting essential information from community members while engaging them in the process.

Socio-economic data on current and planned land and resource uses will be collected, and \ an analysis of the stakeholder groups undertaken (including land and resource dependents and owners) associated with them. It would help define the location, type and intensity of resource use, production potential (crop, agriculture, mining, grazing, etc.) and resource degradation, livelihood and resource dependencies, and development activities that occur within the CCEL. This information would be used to identify areas where human activity significantly threatens the survival of the key species and biodiversity and/or the integrity of the CCEL unit as a whole. It would entail the

⁸² E.g. Liernert. J. 2018. Participatory Mapping for Decision-making. Sswm.info.

mapping of village locations within and adjacent to the CCEL along with attributes such as demography, agronomic, and livelihood/cultural patterns, human development elements, and resource use dependencies. The resource use patterns would include information on types of resources extracted, quantity and method of extraction, use purpose (subsistence or commercial), periodicity and seasonality of resource use, etc. In addition, this exercise would also help identify existing and proposed development activities that currently or potentially may adversely impinge or impact on the long-term sustainability of the biological values and well being of the people in the CCEL. As with the case of the biological characterization of the CCEL, this information should be expressed spatially, so that it could be used in subsequent steps towards re-zoning of the CCEL, to the extent this is necessary. The mapping of the socio-economic (production and livelihoods) and development activities could be a rapid assessment using secondary information and broad village level consultations) that would be subsequently revised and updated as more information becomes available through the community participatory mapping and planning process and other more comprehensive socio-economic analyses.

6. Analysis of the GIS and other baseline data to identify priorities and zones

The maps will be overlaid to identify critical areas for biodiversity conservation (within and adjacent to the CCEL), including HCV forests, critical biological linkages, critical species conservation locations and locations of high pressure and vulnerability to threats. It can also be used to refine protected area boundaries to improve ecological viability and conservation management, identify connectivity zones and areas for sustainable resource use and forest restoration, land use suitability for agriculture and locations of community livelihood and income activities. A decision support tool such as Marxan⁸³ may be used to support the selection and prioritization of conservation zones.

7. Outcomes of the prioritization exercise:

The final outcomes of the prioritization exercise would be maps at two scales – the CCEL and the clusters. These would include:

- (a) A series of **maps showing priority areas** for conservation, compatible development, and presence of competing or conflicting interests based on threats and opportunities; and
- (b) Recommendations for **conservation strategies** to be considered (e.g. set-asides, HCV areas, private conservation areas, connectivity areas in need of restoration, reduction of threats from incompatible exploitative activities, etc.),
- (c) Recommendations for **sustainable land uses** (with biodiversity friendly opportunities linked to forest, agriculture and tourism) and biodiversity-compatible livelihood activities suitable for different areas of the CCEL.

The prioritization workshop will review and verify the above outputs.

8. Development of strategies, plans and zoning

Once the mapping has been completed and priority areas identified, the next step will be the development of strategies, plans and zones for the CCEL and detailed planning for the clusters. The greatest challenge in prioritizing areas within the CCEL for conservation is in reaching agreement on strategies, plans and areas required for maintaining biological and ecological values, while addressing human needs for land and resource use. This is important both at the CCEL scale (where it supports the CCPA Management Plan, as well as ILM planning and the revision of the development orders among other processes. These participatory stakeholder sessions will be a critical step in the zoning exercise for CCEL defining (i) priority or set-aside areas for conservation (redefinition of CC PA boundaries, HCVFs, KBAs etc.) where threats are small or manageable and where the conservation/restoration potential is the greatest; (ii) zones where there is a conflict between development and conservation interests, and where activities for improving forest management and restoration, sustainable agricultural use, ecotourism and biodiversity-friendly livelihood and sustainable resource management interventions can contribute to reduction of threats to biodiversity and ecosystems; and (iii) low priority areas for conservation where intensive or semi-intensive

⁸³ Marxan.net

human use can be permitted (likely to be in the buffer zones). The outcome of this step would be characterization of the CCEL by zones of varying conservation and resource use potential.

a. Identification of strategies for Implementation at CCEL level: The series of next steps in the CCEL management planning process entails developing and identification of strategies for improving opportunities for conservation, and supporting conservation friendly sectoral interventions and improved livelihoods and incomes of local communities living within the CCEL as well as identifying areas where and how human activities can or cannot be developed (zoning). This will be done by the Project Field Coordination Unit with the support of the respective Parish Cluster Planning and Implementation Teams under the guidance of the Technical Working Group.

This phase will include a strategies workshop (which will probably be integrated with the verification workshop), at which a broad cross-section of stakeholders, including decision-makers, technical staff, NGOs, CBOs and community members will be assembled. There will be two tracks; one dealing with the overall strategies for the clusters and the other will deal with the conservation areas at the CCEL scale. The challenge will be to bring these two strands together to get agreement on overall strategies. This could be part of the development of the landscape framework or part of the management planning for the protected area.

The desired output of this step is integrated CCEL management strategy that has multi-stakeholder and multi-sector support regarding appropriate best practices for different priority areas/zones of the CCEL (conservation set-asides, forest restoration and resource use areas, sustainable agriculture, tourism and other economic development activities). The outcome of this step would be (i) a CCEL integrated management strategy, with maps, and indicating agreements with each of the stakeholders regarding land use and conservation practice for the different zones or parts of the CCEL, which would also form part of the CCPA management plan; and (ii) identification of clear and measurable actions/activities to mitigate or manage threats within each zone.

The negotiated CCEL integrated landscape management strategy statement will provide:

- A decision support (multi-sectoral, multi-stakeholder coordination and governance) framework for CCEL level planning for biodiversity objectives;
- A platform for integration of multiple CCEL level objectives for biodiversity conservation and sustainable natural resource use
- An understanding of the trade-offs between conservation, resource use and socio-economic development objectives; and
- Definition of roles and responsibilities of key stakeholders within the CCEL.

During the formulation of the CCEL integrated landscape management strategy, the key steps will include:

- **Undertaking a number of CCEL workshops** to develop the common strategy. These workshops will include:
 - Review of Information generated through the mapping exercise is presented to the stakeholders using charts and maps;
 - A participatory situation analysis;
 - Stakeholder negotiation and agreements are reached on compromises and trade-offs for conservation actions within the respective parts of the CCEL BR landscapes. This process should transparent and reflect the interests, expectations, needs, priorities, strengths and weaknesses of each stakeholder group so as to lay the foundation for achieving broad consensus.
 - An agreement on zonation of the CCEL for different and compatible uses;
 - Identification of uses within each of the zones within the CCEL, its intensity and extent, including the development of guidelines for each zone and criteria for selecting projects for each zone; and
 - Identification of broad approaches/strategies for each of the zones for management of land uses and threats within the CCEL.

- **Compilation of agreements** on zonation, land uses and approaches from each of the CCEL/community workshops to provide a composite map of zonation and land use for each of the CCEL;
- **Developing strategy statements** for the CCEL based on the agreements and information emanating from the CCEL/community workshops and decisions; and
- Identifying the need for **guidelines and screening processes** for community-based activities.

b. Implementation of strategies at CCEL level

- **Negotiation of agreements on implementation of the strategy at the CCEL level** (#3: CCEL Based Collaborative Planning, resulting in an Integrated CCEL management strategies). The intent of this step is to obtain broad agreement with the stakeholders (including relevant parishes, sector agencies, private land owners, Maroon community and local communities) for conservation or compatible development action within the CCEL. This would necessitate a negotiation process between landowners, resource users and parish administration and sector agencies with management authority over priority areas in the CCEL. The outcome of the negotiation process is to ensure that critical biological requirements developed through the biological mapping process (step 1) are maintained. This has to be achieved through a negotiation process that would require compromise, given that it may not always be possible to find complete agreement on a single strategy with all stakeholders or development sector representatives that operate within the CCEL.

b. Implementation arrangements for integration of local communities into CCEL activities: Funding for CCEL planning will be channeled through NEPA. The project will finance a Field Coordinator and a Participatory/Gender Specialist that will work at each Parish with a Parish Cluster Planning and Implementation team that will consist of Parish level technical specialist from NEPA, RADA, FD, SDC and others to support the planning and implementation of project investments within the respective clusters. Technical resources such as mapping and information collection (including access to the database) as well as capacity building will be provided at the project level and coordinated through the NEPA PMU in Kingston.

c. Participatory Community-based Cluster Planning (#4: Site-based planning to guide implementation): The CCEL integrated management strategy will provide the basic framework for site-specific planning, in terms of defining locations for informing on-the-ground actions to support biodiversity conservation and sector specific activities (e.g. best practices in forestry, mining, tourism and agriculture) that can be designed and implemented in a biodiversity-friendly manner. This step aims to develop consensus among the community on the following: (i) areas to be set-aside for conservation and appropriate conservation measures to be implemented in these areas; (ii) how they intend to manage their natural resources; (iii) what economic/social/cultural benefits they want to receive from management of resources; (iv) traditions and practices they want to maintain, enhance, or change; and (v) what type of livelihood and resource management development they want to see in the future based on their established livelihood practices and vision for (alternative) natural resources use. This process will start with participatory mapping (see above) followed by holding small group meetings to draw best practice ideas and options and development of a single multi-year implementation plan for each commune that defines priority on-the-ground best practices to be implemented, defining roles and responsibilities of community members to plan implementation, assessing the costs of implementation of such plans (to be met through the project through direct grant transfers to the communities) and community responsibilities and agreement to implementation and monitoring of plan implementation.

d. Implementation of cluster management plans: The Project Field Coordination Unit with the support of the respective Parish Cluster Planning and Implementation Teams will help communities through their respective community organizations to access project funds through simple procedures for implementation similar to the GEF small grants program procedures that funds NGOs, CBOs, etc. Thus the process used by the GEF SGP community site-specific plan proposal will also include a plan for community-based monitoring and evaluation of the implementation activities and results indicators.

MOUs will be developed and signed between NEPA and community groups will spell out the agreed parameters and criteria for investments and community involvement in the activity. During early project implementation, the project

will develop a checklist or questionnaire reflecting the criteria listed above to screen requested investments to ensure that they are technically feasible, have positive environmental impact and are part of a holistic approach to the local ecosystem management, likely to generate supplementary income, comply with sound social and environmental principles and are sustainable.

9. Monitoring of impacts or performance: In order to assess if the strategies/plans that are being implemented in the CCEL are working, a monitoring program will be developed and implemented. Each community management plan will include a monitoring plan, both with process-level indicators for implementation activities and results-level indicators. A close partnership between the community group and the Project Field Coordination Unit and respective Parish Cluster Planning and Implementation Teams to ensure that project indicators are integrated as far possible target cluster interventions.

Steps 8 and 9 are discussed in further detail in Annex __ (Project Participatory Framework for planning, implementation and monitoring of community management plans).

10. Knowledge management

Plan to generate support for the above actions through knowledge management, including increasing environmental awareness to engage the decision-makers and community in conservation and sustainable activities and documenting activities and promoting appropriate activities.

Table 11: Proposed timeline for activities

Phase	Activity	Y1	Y2	Y3	Y4	Y5	Y6
Start up	Initiation workshop, establish shared vision and scope						
Prioritization	Experts workshop establishes conservation targets						
	Assembly and standardization of information and gap assessment of GIS information on physical attributes, biodiversity, threats, infrastructure, human activities and socio-economics in the CCEL						
	Field assessments of ecosystems, species and socio-economics						
	Participatory mapping of clusters						
	GIS analysis leading to draft zoning maps						
Strategy development	Workshop for verification and to drafting of strategies						
	Development and review of ILM strategy for the CCEL and agreement on overall zoning of the CCEL						
	Workshop to review ILM strategy and proposed activities						
	Development and review of ILM strategies for clusters						
	Cluster-level workshops to develop (6) and review (6) cluster strategies and plans						
Strategy implementation	Activities at CCEL and Cluster levels, integrated with the Protected Area Management Plan.						
Monitoring of impacts and performance							

ANNEX 8 - PROJECT PARTICIPATORY FRAMEWORK FOR COMMUNITY-LEVEL PLANNING, IMPLEMENTATION AND MONITORING

This Framework outlines the procedures and mechanisms that should be followed to ensure the full participation of local communities, including indigenous/traditional and marginalized groups and communities. Through an informed, transparent and inclusive process in the planning and implementation of activities of the project, the Framework presents a self-managed and governed system that boosts buy-in/ownership and enables sustainability after completion of the project.

This Framework, more specifically describes the participatory process by which: (a) specific components of activities at the community-level will be planned and implemented; (b) the criteria for eligibility of investment are determined; (c) the measures to assist local community members improve conservation, sustainable natural resource and land management as well as climate risk management practices are chosen; and, (d) the appropriate and non-exploitative use of natural resources for livelihoods activities are implemented.

It also more specifically incorporates details of the institutional arrangements for planning at the community level, the association and relationship within and between various community groups/institutions, Government and non-government institutions in the planning, implementation and monitoring of the community investments and reciprocal commitments to conservation.

Target clusters for project interventions have been selected based on the following criteria: (i) clusters located within, adjacent or at the periphery of the CC⁸⁴; (ii) clusters located in adjacent to biodiversity rich areas or areas with recognized potential for meaningful ecosystem restoration; or (iii) clusters within identified areas where opportunities exist to demonstrate conservation and sustainable natural resources management and biodiversity-friendly livelihoods. Within the selected target clusters, the project will work with selected districts and their households based on the following criteria: (iv) households located with biodiversity rich areas, set-asides or KBAs; (v) households that are greatly dependent on forest resources for their livelihood or that conduct such actions which are a direct threat to biodiversity or are higher risks of climate change; (vi) households that are already organized into collective user groups; (vii) households that are recognized as belonging to traditional, historical and cultural significance to the CC; (viii) households that are willing and ready to participate in collective conservation action; etc.

It is envisaged that around 33,000 persons would benefit directly from project interventions.

⁸⁴ CC – Cockpit Country areas designated for protection

The project upholds human rights principles, by ensuring inclusiveness and equitable distribution of natural resources opportunities and livelihood benefits, including women, and marginalized groups, in particular the traditional and cultural norms that have been practiced by the Maroon people. The project will ensure free, prior and informed consent (FPIC) before decisions are made in terms of conservation, natural resources and livelihood investments applying the existing “Participatory Community Consultative and Planning Framework” developed during the PPG Stage (Annex 8). The application of this framework will ensure that effective consultation takes place prior to defining the nature of project investments and will ensure that existing tenure/community rights arrangements and traditional and cultural practices are maintained. In addition in particular for the Maroon communities, a “Special Interest” Peoples Plan for Maroon Community Engagement (Annex 16) was developed during the PPG stage and will be used to ensure that local cultural norms and practices are maintained and promoted while protecting natural resources.

The project Participatory Framework for planning, implementation and monitoring of activities at community level includes the following contents:

1. Institutional arrangements for integration of local communities into landscape, biodiversity conservation and sustainable natural resource use activities in clusters communities

In the CC project area, implementation of the integrated project activities in the project area will be undertaken by the Cockpit Country Field Coordination Team (FCT). The FCT will be staffed by two Project staff (Field Officer and Participatory/Gender Specialist funded by the project on a full-time basis. The field team will work very closely (as a single team) with the respective Project Area Implementation Support Team (PAIST) to plan and implement the project at the ground level.

The PAIST, through existing structures such as the Inter-Agency Networks (IANs) major GOJ entities such as RADA, NEPA, FD, SDC, JAS, TPDCo., PDC, etc.), an overarching body that that oversees the operations of the entire project area (Cockpit Country/(St. Elizabeth, St. James, St. Ann, Trelawny, Clarendon) will work closely with the Field Coordination Unit and the wider PMU to plan and implement the project activities within target clusters, in particular to participate in the planning of community investments and provide technical and extension support for implementation of project activities at the community level.

This teams will be responsible for: (i) undertaking *situational analysis* in the context of conservation and livelihoods, climate risks, information dissemination, social mobilization, strengthening of local or community-level institutions and if required formation of new collectives/institutions; (ii) designing and conducting *biological field surveys* as well as social and resource utilization inventory; (iii) *mapping of existing user rights* and facilitation of dialogue to resolve or manage use rights; (iv) formulation of *management strategies for integrated conservation through sustainable natural resources management (forests, mining, agriculture, ecotourism, NTFP), climate risk management and livelihood improvement* at community levels in conjunction with the individual community organizations and their respective households; (v) formulation of *community development, livelihood and value chain strategies for improved sustainable incomes*; (vi) supporting *participatory monitoring of community, livelihood and conservation activities*; (viii) facilitating *resolution of conflicts* over resource use; (ix) and planning for any follow-up *small-scale infrastructural facilities (mainly value addition and processing)* for the community livelihood improvement proposed in the project.

With the help of sector agencies, the Project Field Coordination Unit will facilitate planning, capacity building and technical support for biodiversity conservation, natural resources management, climate adaptation and livelihood development activities. This team will also coordinate with NGOs, line departments, private institutions, research and development organizations, various specialists and service providers as well as the private sector to provide specialized services as well as to facilitate integration and convergence of parish development financing and program support within the project area.

All sustainable resource management, conservation, climate adaptation and community livelihood investments at the local level will be detailed in a legally binding Memorandum of Understanding (MOU) between the Community

organization or similar active community institution, as appropriate depending on the situation. The Project Field Coordination Unit will also ensure that social and environmental screening and appropriate mitigation action are planned and implemented at the commune-level and that local communities have access to technical support and capacity development in the implementation of livelihood or resource management strategies.

Planning and implementation of reciprocal commitments to conservation at the community-level will be implemented through the community organizations. Relevant households in each community will be organized into user groups; such groups will be collectively responsible for formulation of Community Management Plans, prioritizations of investments, ensuring community reciprocal commitments and participatory monitoring of biodiversity and socio-economic impacts.

Specific eligibility criteria (described later in this Annex) would help prioritize community level investments and ensure their direct linkage with conservation objectives and reciprocal community commitments. Local and national NGOs with appropriate expertise would be contracted to assist with community management plan development and technical support for investment activities, to the extent necessary, capacity building at the community level as well as for independent monitoring of social and economic impacts of the project interventions. Overlapping or conflicting claims to resources and rights are likely to surface during the participatory biophysical and socio-economic resource mapping and planning exercises.

If such disputes cannot be settled by the Project Field Coordination Unit and respective PAIST membership, the project will pursue resolution as relevant or arbitration under an arrangement that is allowed in the ProDoc or acceptable local customs. In terms of rights, the Project Field Unit and respective PAIST and respective government institutions will initiate action with the concerned agencies for settlement of these rights, within the context of existing mechanisms that are available for this purpose.

2. Planning and Implementation of project activities at community level

The steps of the bottom-up participatory community planning process are as follows:

Step 1: Identification of priority communities for project investment: The mapping and stakeholder consultative process (see Annex 3) is expected to inform options for prioritizing communities within the target clusters for investment. The project will work only with a selected number of communities (and households) in each target cluster because of budgetary constraints and use these communities to demonstrate viable participatory conservation, sustainable resource management and livelihood practices.

Priority communities for project investments will be selected based on the following criteria: (i) proximity to, CCL boundaries, biodiversity rich areas and identified set-aside areas; (ii) where there is a high dependency on forest and biomass resources and/or where such dependencies are a major threat to biodiversity; and (iii) communities where there is interest and support for conservation and sustainable forest management. Within the selected communities, the project will work with selected households based on the following criteria: (i) households located adjacent to biodiversity rich areas or areas that provide critical linkages to KBAs; (ii) households that are greatly dependent on forest resources within the CCL for their livelihood or that conduct such actions which are a direct threat to biodiversity or where threats of climate change are high; (iii) households that are already organized into collective district, user groups, women's groups, water user groups, etc.; (iv) households that are recognized as belonging to ethnic minorities or disadvantaged; and (v) households that are willing to participate in collective conservation action; etc.

Step 2: Community orientation and mobilization: As a first step, the project objectives and approach will be disseminated to the local communities in the priority communities by Project Field Coordination Unit and respective PAIST through various means, including meetings, notices, etc. In addition to dissemination of the project objectives and approach, orientation meetings would seek to more accurately identify the perceptions of the local communities and other stakeholders regarding existing resource management practices, options for their better management, opportunities for livelihood and income improvements, as well as identify key representatives of the community or resource user groups for participation in subsequent resource mapping.

In these meetings, basic information on the environmental, biodiversity, physical and socio-economic profiles of the communes will be obtained from the stakeholders in a format that can be easily retrieved as input into the mapping exercise and later analytical review. This information will be quantitative as well as qualitative. The quantitative information will be further validated from various line departments and research institutions.

Step 3: Mapping of conservation value of community resources: The mapping and stakeholder consultative process at the CC project level (Output 2.1) in identifying critical areas of biodiversity conservation and locations of high pressure and vulnerability provides the over-arching framework for planning and investment at the individual commune level. Based on the CC project area integrated management strategy developed under Output 2.1, a simple community-level mapping exercise within the target clusters will be carried out to help determine appropriate management options for the individual components (biodiversity rich areas and set-asides, forest and marine resources areas, tourism areas, agricultural and grazing lands, forest rehabilitation areas, etc.) of the district/community/parish landscape.

This district/community mapping exercise would provide the basis for further refining options for the management of resources within the commune, including specific options for sustainable resource use, livelihood improvement and diversification and value chain products and services that are relevant for development or enhancement.

Step 4: Mapping of community resources and community rights in natural resource utilization and wise exploitation and community vulnerability to climate risks: The participatory resource mapping (Step 3) will constitute an input to the planning of activities within the communities and will help establish the baseline for future monitoring. The socio-economic mapping will include the mapping of rights and resource dependencies of communities in the surrounding forests and natural habitats within the commune. Special efforts would be directed at mapping resource utilization and dependencies of ethnic or minority groups as well as poor households. Information generated through this participatory mapping exercise will be used to facilitate the formulation of community management plans.

The mapping will draw on participatory resource appraisal and planning (PRAP) techniques, and provide information on (a) scale and seasonality of specific forms of resource utilization within the commune (e.g. agriculture, grazing, fuel wood collection, non-timber forest resource collection, etc.); (b) key stakeholder analysis to identify the number, location and circumstances of the individual stakeholders' utilizing of specific resources, (c) customary rights and conflicts in resource use by different stakeholders within the commune landscapes, (d) climate associated socio-economic risks; (e) specific resource use and dependencies of ethnic or minority groups and poor households; and (f) possible solutions analysis.

In terms of customary rights the mapping would provide information on: (i) location and size of the area and condition of resource; (ii) primary users, including those belonging to ethnic and vulnerable groups and poor households, that currently use or depend on these common lands; and (iii) secondary users and types of uses. This would provide the basis for confirmation of rights within the commune on the basis of existing legislation and regulations. Specific attention will be paid to any possible cross-district/community/parish practices of resources use on common lands, including in the proposed CC PA and associated forest reserves.

Step 5: Strengthening/formation relevant community level community organizations: During the orientation meetings and community mobilization process, the interest, capacity and skills of the communities would be accessed, including the functionality of their community institutions. The project would also provide training in resource mapping, natural resource management evaluation, improved knowledge on climate change risks and adaptation, integrated resource planning, construction supervision, maintaining of minutes of commune meetings and basic account keeping, and monitoring of activities implementation as per terms of partnerships or agreements.

Most training will be on the job training as well as exchange visits to other sites where relevant solutions to problems have been implemented. Special efforts would be undertaken to ensure that ethnic and minority groups and poor households are well represented and integrated into the local institutions.

Step 6: Development of community conservation, sustainable and wise exploitation and livelihood strategies:

Meetings will be held with individual communities to prepare the social and community resource utilization maps and to agree on its implications regarding natural resource and conservation strategies, resource access and control/monitoring, mitigation and/or compensatory measures. During the planning exercise, the Project Field Coordination Unit and respective Parish Cluster Planning and Implementation Teams will pay special attention to ensuring that the needs and dependencies of ethnic and minority groups, as well as poor households and women, are specifically addressed in the community management plans.

To the extent necessary, depending on the dependency of ethnic and minority groups, poor households and women on natural resources in particular communes, the community management plans, would identify specific investments for these groups and women.

Community participation and contributions to conservation, sustainable resource use and livelihood diversification and development activities, including value chain products and services/activities, that are selected for project support will be based on the following pre-requisites:

- All Community investments must be based on some *minimum level of cost sharing* by local communities.
- *A clear and transparent linkage must exist between improving conservation and sustainable resource use and the proposed investment*, so that the MOUs representing agreements between commune communities, user groups and NEPA support sustainable practices by creating adequate incentives for local communities to take measurable action that supports conservation of natural resources and their sustainable use; and
- All community investments, including restrictions on resource access (if any) must *evolve through a common understanding and consensus* amongst the local communities, and not be imposed on them.

To be eligible for inclusion as investments opportunity eligible for the community funding, activities should comply with the following criteria:

- *Be identified as priorities through the community management planning process, and thus be assured of having been identified through a participatory process.*
- *Conserve and sustainably use land and other natural resources* either directly or indirectly by creating sufficient incentives to commit local people to specific, measurable actions that improve the sustainability of resource use.
- *Provide equitable share of benefits to local communities, including ethnic groups, minorities, poor households and women, and mitigate any negative impacts* to women, poor and disadvantaged groups who are currently most dependent on the land
- *Be socially sound and institutionally feasible* ensuring that associated activities are culturally acceptable and do not impose an unnecessary heavy burden on individuals, and that local institutional capacity is adequate to organize resource management, distribute benefits from common resources, provide physical maintenance, meet community and household agreements to resource use and/or access restrictions, ensure alternative livelihood benefits to affected households and monitor project impacts;
- *Ensure application of principles of the Gender Mainstreaming Strategy and Action Plan* to incorporate equitable share of benefits to local communities and mitigate any negative impacts to genders and vulnerable peoples;
- *Be low cost and financially feasible* so that costs are within local norms, and, for all investments intended to produce cash revenue or benefits that can be monetized, market linkages are adequate, cash flow requirements are viable, and returns are sufficient to compensate for any resource use limitations as well as compare favorably with business as usual or other alternative investment options.
- *Be technically feasible and innovative* so that inputs and technical advice are adequate, physical conditions are suitable and the activity is technically sound.
- *Be environmentally sustainable in support of global environmental objectives.*
- *Improve community resilience to climate change by diversification of livelihood, improving soil and water conservation, crop disease management and improved knowledge and awareness*

- *Be selected and owned by local communities* as ensured by a budgetary constraint mechanism, agreed community contribution or co-financing investment, and a commitment by the community to bear maintenance costs of any infrastructure component
- *Be supported by training and capacity development* for strengthening all households, and
- *Be supplemental or incremental in nature* to ensure that activities supported under the project are not a substitution for what should be supported by the government as part of their development responsibilities.

Lessons learned from other participatory integrated conservation and development initiatives has validated the importance of requiring some form of cost sharing for investments intended to benefit local people, including extremely poor households, since it builds commitment and ownership on the part of stakeholders and strengthens the likelihood of sustainability. Therefore, the project would establish clear and transparent contribution requirements and will also promote creation of district or user group level revolving funds.

To this end, the following norms are suggested:

- Participating households will contribute to the costs of regular community investments to be deposited in district or community revolving fund.
- There will be no upper limit to the amount a household can contribute and deposit in the revolving fund;
- Household contributions will be matched up to a given amount per district/community group, with the upper limit being decided at the initiation of the program;
- The total investment cost would be calculated as the sum of all resources, cash and non-cash; the value of labor, and other in-kind contributions would be calculated on the basis of local market value;
- To build ownership and long-term sustainability, all commune investments would flow through the revolving funds, thereby encouraging the beneficiary community to seek co-financing and leverage funds through the provision of loans for approved community investments and other needs. Over time, this financing management system can continue to build and sustain community fiscal resources.

The Project Field Coordination Unit and respective PAIST, with the help of provincial sector institutions, will come out with various norms for household contribution to various support activities provided under the project. This will enhance the ownership of the people in the project initiatives as well as improve sustainability and replicability during and after the end of the project.

Procedures (based on the above-mentioned criteria and the SESP) would be established at the beginning of the project to screen resource development or income generating investments to ensure that they are technically feasible, socially acceptable, have positive environmental and biodiversity conservation impact and are part of a holistic approach to the local ecosystem management, likely to generate supplementary income, comply with sound social and environmental principles and are sustainable. The Project Field Coordination Unit will be primarily responsible for such environmental and social screening.

Decisions regarding the priority investments will be made by mutual consent of the Project Field Coordination Unit and respective Parish Cluster Planning and Implementation Teams, and the participating districts/communities and user groups, with subsequent endorsement by NEPA. If required by budgetary or implementation capacity constraints, proposed activities will be prioritized based on their expected positive impact on global environmental objectives, the conservation and sustainable utilization of the land and sustainable livelihood activities. The activities also need to be implemented in such a way that they create a learning situation and results that are of policy relevance.

Examples of appropriate land management and livelihood activities might include: improved agricultural practices, climate risk management, improved grazing management, forest management and rehabilitation, including community forestry, environmentally friendly minor infrastructure rehabilitation (district irrigation and drinking water supply systems, minor erosion control structures, etc.), medicinal and non-timber product development, processing of agricultural raw products, alternative livelihood options (handicrafts/handlooms enterprises,

agricultural product processing and development, marketing support, skills development, ecotourism related eco-stays, guest houses, guide services, and natural resource conflict management.

Step 7: Implementation of Community Management Plans: Activities discussed and agreed with the participating communities/districts and user groups would form the basis of the community management plans. Once approved, an agreement would be signed with the relevant community organization and NEPA for carrying out the proposed activities. With technical support from the respective Project Area Implementation Support Teams (PAIST) through each parish sector agency extension staff as well as NGOs, the community will implement the activities.

The Project Field Coordination Unit and respective Parish Cluster Planning and Implementation Teams will convene periodic meetings (quarterly) to review implementation progress (including social and environmental compliance and action) and resolve any specific issues arising from monitor project implementation progress, outcomes and impacts. In each district, local communities, through their respective community-based organizations will be playing key role in overseeing implementation and monitoring of the activities.

Step 8: Monitoring and Evaluation: A monitoring and evaluation system will also be designed early in project implementation to provide for continuous learning and adjustment of approach, and will involve participatory monitoring based on self-defined indicators, input and output monitoring data. The M&E system will include description of the institutional arrangements and processes incorporating participatory monitoring and learning systems, selection of indicators, sampling methods, interval and intensity of sampling and mechanisms for feedback and project improvement. The tools of monitoring the activities and outputs of the project will be formed so that both quantitative and qualitative information is captured regularly.

Three areas of significance for monitoring and achievement of project objectives will (i) the ecological aspects of field activities for biodiversity conservation and landscape management; (ii) community participation in conservation, sustainable use and livelihood improvement, community compliance with conservation and resource use agreements, and economic outcome of livelihood activities; (iii) effectiveness of climate risk management and adaptation measures, and (iv) institutional aspects at the community level and modalities for conflict resolution and new community-based agreements on resource use.

Arrangements for micro-grant allocation for Community Management Plan investments: Specific criteria and grant management mechanisms are proposed under the project. In particular, grant financing for community investment implementation would be performance-based and designed on the basis of ensuring transparency and extensive consultations with local communities and other relevant stakeholders, be well coordinated and promoted through effective technical support, regular review of implementation arrangements and the use of monitoring and evaluation information to adjust and refine the system in consultation with the stakeholders.

Grants would be typically based on the following principles:

- Competitive assessment and tender-based assignment of grants to selected beneficiaries, in particular to participating communities/districts and user groups;
- Project investments should evolve through a transparent participatory process that have a *clear and transparent linkage with improving conservation and sustainable resource use*;
- All project investments must be based on some *minimum level of cost sharing* by participating households and/or user groups.
- Investments must be meet criteria as discuss earlier in this Annex to be eligible for funding under the project.
- Investments to be supported must be included in a community management plan that is approved by NEPA.
- All participating communities/districts will be encouraged to establish revolving funds in a banking institution with clearing designated signatories to the fund, including a representative from the NEPA ?? and specific rules and regulations for operation of the revolving fund.
- All participating household members will pay a token amount of registration fee to join the revolving fund.

- The project will support the strengthening of the institutional capacity of the participating districts/communities and user groups in financial management of the revolving funds, book-keeping and financial reporting.
- A MOA/MOU would be signed between the participating communities/districts and NEPA that lays out (a) responsibilities of each party; (b) activities that are eligible for funding under the project; (c) outputs to be produced; (d) performance criteria for release of future grant tranches; (e) reporting arrangements for activities and expenditure.
- NEPA?? will be responsible for (a) ensuring the approval of the community management plans and subsequent annual plans; (b) establishing the MOA/MOU with the participating districts and user groups; (c) managing the release of funds into the revolving funds; and (d) monitoring and reporting on the implementation of grant activities and results.
- Initial release of funds or upfront payment as a percentage of payment will be defined in consultation with stakeholders.
- Balance or subsequent payments would be made on successful completion and verification of work by the Project Field Coordination Unit
- Efforts will be made to try to identify additional funding support for the revolving funds from existing Government, local development programs and NGOs. The convergence of Government resources would be sought through the support of Parish Councils and line agencies.

At the beginning of the project, a consultant will be hired to develop detailed rules and procedures for establishing revolving funds at either the individual district or used group level that would then serve as the basis for channeling of funds for project-related activities.

Attachment 1

Indicative list of possible community investments and livelihoods⁸⁵

Type of investment	Potential list of investments
Soil and water conservation	➤ Surface and rainwater collection and storage ➤ Land degradation control and soil conservation using contour farming, vegetation strips, intercropping, etc. ➤ On-farm water management ➤ Soil fertility improvements ➤ Agricultural land leveling ➤ Climate-resilient and equitable water storage and micro-irrigation
Integrated pest management	Integrated pest management for ➤ Control of crop diseases, ➤ Insect pests, ➤ Rodents and ➤ Weeds of crops
Home gardens	➤ Kitchen gardening, vegetable production ➤ Fruit production, ➤ Orchard development with suitable species ➤ Orchard and management • Fruit trees training • Pruning, • Budding, grafting and layering practices
Improved agricultural practices	➤ Improved productivity and climate resistant seed and planting varieties ➤ Integrated technical measures of seed, fertilizer, plant protection and site-management

⁸⁵ The grazing improvement, new fodder varieties, soil and water conservation, IPM, home gardens, improved agricultural practices, forest conservation, sustainable agriculture and fisheries, etc. will all contribute to improve climate resilience among these BR communities

Type of investment	Potential list of investments
	➤ Straw and mulching cover for crops, no tilling or minimum till farming techniques ➤ Crop rotation ➤ Contour farming ➤ Inter-cropping ➤ Soil amendments and fertility improvements ➤ Organic high value crop farming ➤ Diversification of crops ➤ Community based vegetable and crop farms
Establishment of forest & fruit plant nurseries	➤ Establishment of Nurseries • Fruit plant nurseries • Medicinal and aromatic plant nurseries • Forest tree nurseries
Sustainable fodder tree uses	➤ Sustainable lopping, trimming and management of forest and fodder trees
Forest conservation and protection	➤ Forest conservation and protection through forest conservation and protection committees ➤ Sustainable NTFP harvest techniques e.g. medicinal plant collection, protection of threatened flora
On-farm agro-biodiversity management	➤ On-farm agro-biodiversity management ➤ Access to knowledge on agro-forestry and integrated farming methods
Sustainable Tourist Enterprise projects	➤ Homestays ➤ Tour guides and guiding services ➤ Handicrafts ➤ Green labeling ➤ Zoning for tourist use and development ➤ Low impact tourism ventures ➤ Bird watching/ Wildlife watching ➤ Agro-based tourism initiatives, endemic fruits and flowers, “forgotten” vegetables, etc. ➤ Marine tourism: snorkeling and diving
Crop processing and storage	➤ Grain/Fruit storage techniques ➤ Crop/Fruit processing after harvesting as per market requirements and to increase shelf life ➤ Crop and fruit storage improvement
Improved sanitation and solid waste management	➤ Improved sanitation ➤ Solid waste management
Promotion of wood alternatives	➤ Promotion of LPG ➤ Energy efficiency cooking stoves
Market linkages and Value Addition	➤ Market linkages for the enterprises and crops ➤ Product development and value addition ➤ Micro-finance and access to affordable credit ➤ Community revolving funds
Extension and Training	➤ Improved knowledge on conservation and climate adaptation measures ➤ Field testing and piloting ➤ Extension services ➤ Demonstrations

In 2017, the Prime Minister of Jamaica announced his intention to support the establishment of the Cockpit Country protected area (CCPA) (Figure 1). One of the main purposes of this was to formalize the boundaries of the area in which no bauxite mining would be allowed. This announcement followed recommendations for the creation of a CCPA, going back to the 1960s, proposals that the area should be declared a World Heritage Site (e.g. Eyre 1994) and intense discussions of the area that would be placed off limits to mining (Webber & Noel, 2013). Forestry Department has already started work on the detailed definition of the boundaries. The inclusion of the CCPA in this project presents an important opportunity to support the Government of Jamaica's intention to declare the CCPA and to do the preparations necessary to get the area declared as a World Heritage Site.

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DESCRIPTION OF THE PROJECT INVESTMENT IN THE CCPA⁸⁶

The project investment is expected to take the form of support for:

1. Integrated Land Use Planning

Preparation with input of all major stakeholders and communities of a detailed GIS-based landscape level plan for land use in the CCPA, its buffer zones and conservation corridors. These areas are shown at the broadest indicative scale in Figure 2. The integrated land use plan will be used to guide the cluster plans. This will ensure that the cluster activities contribute to the conservation goals of the CCPA and its buffer zone.

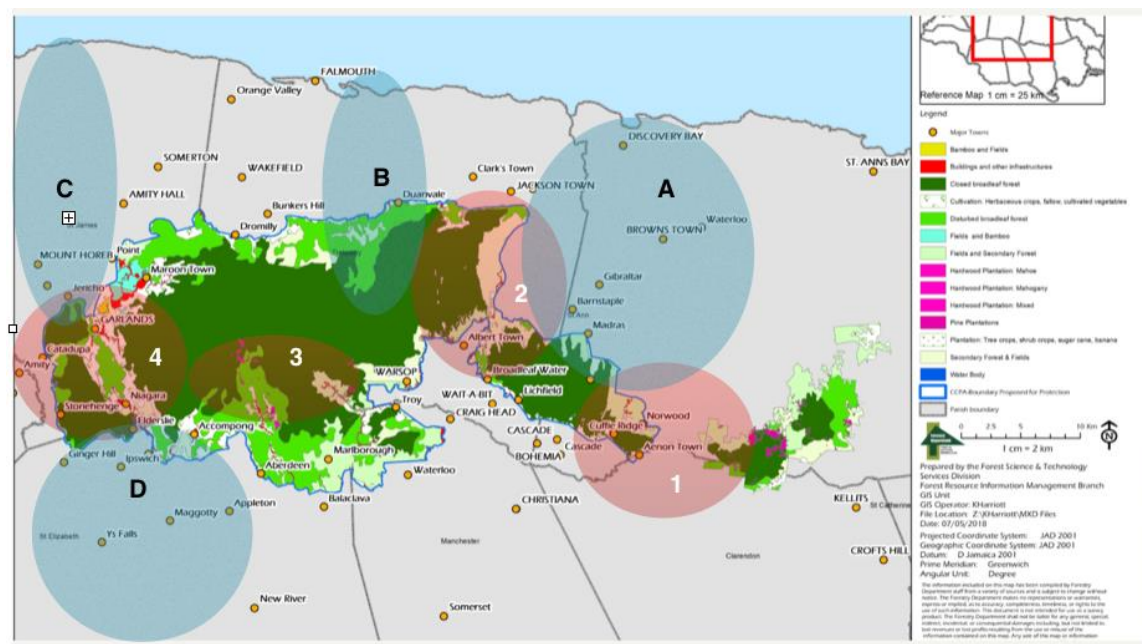


Figure 2: Indicative areas for proposed clusters and corridors in and around the CCPA

2. Development of a participatory management plan for the CCPA
3. Implementation of conservation measures in the CCPA that are recommended in the management plan e.g. specific conservation measures for habitats and species, as well as activities that are also part of the integrated landscape approach and cluster activities under other headings.
4. Development of new approaches to conservation on private lands.

MANAGEMENT PLANNING FOR THE CCPA

The main steps toward developing the CCPA management plan will include:

1. Developing a leadership team to move the project forward
2. Carrying out a literature search

⁸⁶ This is based on the assumption that the Government of Jamaica (GoJ) will find additional resources to fund the establishment and operation of the CCPA.

3. Baseline surveys of:

- Key habitats and target/indicator species
- Threats assessment
- Socio-economic assessment (including patterns of human dependence on the CC forests and their resources)
- Knowledge, Attitudes and Practices baseline survey.

4. Assembly of the Management planning team

5. Preparation of a management plan, using participatory processes.

SUPPORT FOR BIODIVERSITY CONSERVATION MEASURES THAT SUPPORT THE IMPLEMENTATION OF THE MANAGEMENT PLAN IN THE CCPA, BUFFER ZONE AND CONSERVATION CORRIDORS

These will include but are not restricted to:

- Establishment of the legal framework for management (including development of specific regulations for the CCPA)
- Establishment of interim management structure
- Determination of final management structure
- Species conservation measures to be identified from the baseline surveys, and expert opinion in the management planning processes
- Pilot of new approaches to minimize the impacts of mining and fill non-dynamic gaps in forest cover through the use of native species.
- Pilot of new approach to conservation (as distinct from forestry) on private lands of high priority for biodiversity (possibly referred to as sites of special scientific interest or micro-reserves) identified through the planning process (including a new management regime, and new incentives and support framework (to be developed under the project). The balance of
- Trial of rewilding in abandoned agricultural lands
- New approaches to integrating landscape level planning and conservation planning into Development Orders (including incorporating the zoning recommendations of the CCPA Management Plan). This is the broadest scale of measures and is the main one that will apply to the conservation corridors as well as the project area.
- New approaches to monitoring and enforcement (including use of innovative approaches such as SMART and Cybertracker)
- An education and awareness plan designed to promote awareness and support for the CCPA biodiversity and the need for the CCPA at central government, local government and community levels (including a schools programme and a programme for conservation volunteers)
- Upgrade of existing interpretation facilities at Flagstaff and Litchfield
- Declaration of additional National Heritage Sites
- Development of an *ex situ* conservation facility for rare plants that are particularly range restricted (e.g. known from only one hilltop)
- Identification and development of pilot projects for realistic approaches to small-scale tourism development that involves the community and is within the carrying capacity of the community
- Development of strategies to address key threats including invasive species, ingress of farmers displaced by bauxite mining, limestone quarrying, poaching of high value threatened species, conflicts with endemic species considered as pests, and implementation of strategies, where feasible.

OUTLINE OF THE PROCESS OF ESTABLISHING THE COCKPIT COUNTRY PROTECTED AREA:

Note that the engagement in the planning process of the Cockpit Country Maroons, municipal corporations, and other stakeholders including local communities and all government agencies that operate in the area is essential for success.

The main steps will include:

1. Establish planning team:

The protected area planning team will consist of a **core team** of 3-5 persons who will lead the process of development and implementation of the management plan. They will lead the f team: team leader, process facilitator, advisors (scientific committee) and key stakeholders.

2. Establish consulting team

This will include: team leader

legal specialist; GIS specialist; protected area planner; biodiversity specialist(s); socio-economist; history and culture specialist; tourism specialist; agronomist; public education and outreach specialist; business development specialist; public education specialist; human resources management specialist; gender specialist; budget and financing specialist.

3. **Develop education and awareness programme** to support development of management plan (including mass media, social media and community outreach, to promote engagement in planning process)

4. Determine scope of protected area

- **Geographic area of CCPA:** This is the area proposed by the Government of Jamaica in 2017, which is currently being demarcated by Forestry Department. The project will support the establishment of boundaries, including review of the criteria for location of the boundaries and stakeholder consultations on the location of the boundaries in 6 clusters plus Warsop, Catadupa and Flagstaff (9 total).
- **Buffer zones and conservation corridors:** The project will also support the assessment of the need for a buffer zone and the definition of the buffer zone and conservation corridors.

4. **Description of baseline conditions** including literature search, field assessments, viability assessments, expert opinion and participatory workshops

These will include:

- Ecological assessment and mapping of plant communities in Cockpit Country
- Updated GIS mapping of natural and anthropogenic aspects of the CC
- Status and distribution of selected species (including threatened plants, parrots, bats and butterflies)
- Assessment of ecosystems and ecosystem services, Red list species, other economically and culturally important species
- Socio-economic scope

5. Threats assessment and mapping

6. Stakeholder assessment and social context (study)

7. **Development of conservation targets and identification of strategies** to achieve them (through workshops and analyses) including: zoning; biodiversity conservation (including management of species, natural and anthropogenic ecosystems; cultural and heritage conservation; recreation and tourism; infrastructure management; enforcement and compliance; public education and outreach; governance and administration (including consideration of a range of sustainable financing mechanisms including GoJ budget support, payments for ecological services/transfer payments, user fees and licences; local and international donors, debt-for-nature swaps, etc.); ecosystem-based/adaptive management, research and monitoring.

CONSERVATION ON PRIVATE LANDS

The proposed protected area includes extensive Forest Reserves (managed by Forestry Department) surrounded by large areas of private lands (Figure 3).

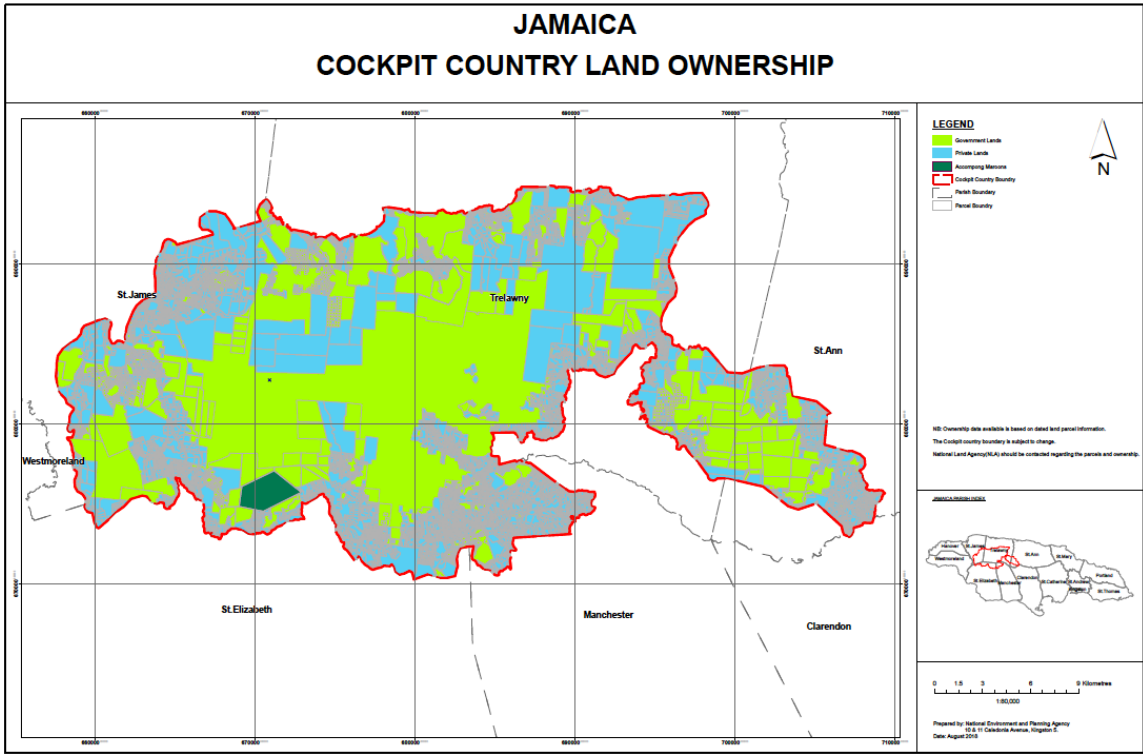


Figure 3: Land ownership in the CCPA (map provided by National Land Agency/NEPA)

Conservation on private lands will therefore be a very important aspect of the conservation programmes. Currently the main options to formalize conservation on private lands are declaration of a private forest reserve under the Forest Act (which is mainly focused) on forest management or declaration of a Protected National Heritage Site (or Monument) under the National Heritage Trust Act. A proposal for conservation easements has also been developed. Neither of these focus primarily on biodiversity conservation and. Neither have they had substantial uptake, mainly because the incentives they offer are not interesting to most landowners.

Activities to promote conservation on private lands that will be supported by the project will include:

1. **Assessment of the contribution of private lands** to conservation of important biodiversity and the prioritization of lands for conservation and restoration of connectivity
2. **Discussions with landowners to identify attractive incentives** to support conservation on their lands (this can include a range of measures, from simple recognition of the importance of a site e.g. as a site of scientific importance, to support for conservation measures or payments for conservation).
3. **Testing of a new regime**, including support for development, implementation and monitoring of property level management plans, supported by small grants or loans.

The matrix below presents the main outcomes, outputs, actions/activities and objective indicators for the promotion of privately managed PAs, including micro-reserves

Outcome 1: Promotion of privately managed protected areas, including micro-reserves

OUTPUTS	ACTIONS/ACTIVITIES	OBJECTIVE INDICATOR (S)
1.1 Awareness created of the natural, economical, historical, and cultural features of protected areas n.b. this is applicable to all types of protected areas, public and private.	Creation of awareness of the value and importance of the resources in protected areas	Signage and other educational tools developed and implemented on site at strategic locations
	Collect baseline information on the level of knowledge of culture and actions	Target groups identified base on baseline information collected
	Development and implementation of a public education program	Public educational program developed and implemented
	Utilization of popular culture and personalities to deliver message	Advertisement messages developed and popular personalities used to deliver the same to various audiences
	Establishment of community-based biodiversity conservation groups to enforce forest laws by protecting critical areas of biodiversity interest	Protected areas policed by community groups Reduction in the number of enforcement actions taken
1.2 A regime of incentives/ disincentives developed to promote conservation of forest areas	Establishment of a regime of incentives and disincentives, including legal, financial and non-financial instruments, to drive the conservation of forested areas and restoration with native species	Privately managed protection areas utilizing the package of incentives and disincentives in an optimal manner
	Development of a package of financial and management support for privately managed protection areas provided	Privately managed protection areas access financial support for conservation of forested areas and restoration with native species, including subsidies for planting materials and grant funds for investments
1.3 Prioritization of areas for inclusion in the program	GIS mapping to support identification of priority private lands	Number and area of private lands in effective conservation management
1.3 Technical support provided for the conservation of forested areas and restoration of degraded areas	Development and implementation of a package of technical support for the conservation of forested areas and restoration of degraded areas	Technical support provided in areas determined as critical to the conservation of forested areas and restoration with native species

DEVELOPMENT OF AN APPLICATION FOR WORLD HERITAGE SITE STATUS

1. Preparation and submission of national tentative list (including Cockpit Country) by Jamaica, which is a state party to the World Heritage Convention.
2. Preparation of Nominations file (with assistance from the World Heritage Centre). This will include detailed documentation and maps
3. Review by two Advisory Bodies mandated by the World Heritage Convention – the International Union on Monuments and Sites (ICOMOS) and the International Union for Conservation of Nature (IUCN) or the International Centre for the Study of the Preservation and Restoration of Cultural Property.
4. Decision by World Heritage Commission that meets once per year. To qualify a site must meet at least one out of the ten selection criteria that describe outstanding cultural and biological aspects of the site.

LITERATURE CITED

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ANNEX 10 - PLANNING AND MANAGEMENT TECHNIQUES FOR DISTURBED BROADLEAF FOREST FOR SFM BENEFITS

The intent of applying of planning and management techniques for restoration of disturbed broadleaf forest and lands is to promote biodiversity friendly land and forest restoration activities as well as improve ecological integrity and connectivity in the biological landscape. In this context, a forward-looking and dynamic approach was taken, focusing on strengthening the resilience of landscapes and creating future options to adjust and further optimize ecosystem goods and services as societal needs change or new challenges arise. The process is based on and integrates a number of guiding principles, including:

- **Focus on landscapes** – The activities will take place within and across entire landscapes, representing mosaics of interacting land uses and management practices under various tenure and governance systems. This will certainly allow for the balancing of ecological, social and economic priorities. Notwithstanding, priority sites to be restored will be those that are in or those close to, or those that could adversely affect key biodiversity areas and connectivity within the identified target clusters.
- **Maintain and enhance natural ecosystems within landscapes** – The efforts will be aimed at enhancing the conservation, recovery, and sustainable management of forests and other ecosystems.
- **Engage stakeholders and support participatory governance** – The project will actively engages stakeholders at different scales, including vulnerable groups, in planning and decision making regarding land use, restoration goals and strategies, implementation methods, benefit sharing, monitoring and review processes.
- **Tailor to the local context using a variety of approaches** – The restoration efforts will be site specific and therefore, will utilize a variety of approaches that are adapted to the local social, cultural, economic and ecological values, needs, and landscape history. The efforts will draw on latest science and best practices, and traditional and indigenous knowledge, and applies that information in the context of local capacities and existing or improved governance structures.
- **Restore multiple functions for multiple benefits** – The interventions are aimed at restoring multiple ecological, social and economic functions across the landscape and generate a range of ecosystem goods and services that will enhance livelihoods, and therefore benefit multiple stakeholder groups.
- **Manage adaptively for long-term resilience** – The restoration efforts will seek to enhance the resilience of the landscape and its stakeholders over the medium and long-term. Restoration approaches will be to enhance species and genetic diversity that could be adjusted over time to reflect changes in climate and other environmental conditions, knowledge, capacities, stakeholder needs, and societal values. It is anticipated that as the restoration progresses, information from monitoring activities, research, and stakeholder guidance will be integrated into management plans.

As a critical part of the planning and management techniques for restoration of disturbed broadleaf forest, riparian forests and lands the following sequential steps will be undertaken:

- **Confirmation of priority areas for recovery measures** based on the following criteria: (i) disturbed forest areas either within or adjacent to Cockpit Country Areas; (ii) areas that can provide significant biodiversity conservation benefits and enhance connectivity; (iii) areas that have potential for recovery based on soil conditions, level of disturbance; (iii) availability of seed sources; and (iv) community support for restoration.
- **Conduct workshops, seminars and focus group discussions** and subsequently **mobilize stakeholders**, and seek their cooperation for forest restoration;
- **Confirmation of the key drivers of both forest degradation and ecosystem restoration**, and exploration and testing of different restoration options appropriate for the disturbed areas;
- **Development of a forest and land restoration management plan for each cluster area**, with direct and active participation of stakeholders. This should involve agreement on shared goals and responsibilities of

forest restoration as well as to optimize the conservation and sustainable livelihood benefits of forest restoration;

- **Provision of technical support and the development of capacity** to ensure that on-going and proposed forest restoration programmes are **better integrated into the overall sustainable forest management and benefit sharing** guidelines and practices;
- **Participation of stakeholder in consultations on forest restoration**, including for the establishment and maintenance of a suitable mix of protection and other sustainable conservation and maintenance measures such as social fencing to reduce grazing, choice of species, silvi-cultural techniques, wood collection and sustainable NTFP extraction; fire control, etc.;
- **Provision of support to various tenure arrangements, in particular for Maroon communities**, such as certificates of stewardship contracts, community based forest management or conservation agreements, and also where appropriate collaborative forest management agreements including co-management and partnership arrangements;
- **Provision of support for the implementation of restoration and protection plans**, including soil moisture improvements, weed clearance, water harvest and erosion control, protection and maintenance, etc.;
- **Monitoring of forest restoration progress and impacts**, including assessment of biological, ecological and community benefits; and
- **Investigation of potential for collaboration** in forest restoration through complementary national, sub-national and private owner initiatives including testing of a new approach to management of conservation on private lands based on ecological assessment, management planning and technical support.

The planning and management techniques for restoration will particularly focus on following four areas:

- ***Sustainable forest and land management of degraded and steep areas***, using appropriate setbacks and native species for river bank stabilization and flood protection;
- Range of ***other effective conservation measures*** to accord improved connectivity within the KBAs (through forest restoration and biodiversity compatible production systems) within the Cockpit County landscape;
- ***Sustainable forest management (ANR) approaches for restoration of disturbed broad leaf forests*** in priority clusters within the Cockpit County landscape covering 400 hectares using a range of native species; and
- ***Restoration of 200 hectares of degraded lands, including mined out lands*** (including options for agriculture and agroforestry) as a pilot to test options for biologically compatible ecological restoration and exploration of additional partnership options for involvement of mining companies in restoration efforts.

In the context of the above, a number of activities are proposed for implementation under the four areas of focus, which are presented in the matrix below.

Action Area 1: Sustainable forest and land management of degraded riparian and steep areas

DESCRIPTION	ACTIONS/ACTIVITIES
1.1 Management techniques to assist in managing riparian areas	Promotion of grazing management practices to effectively improve and maintain desired conditions on riparian areas.
	Introduction of forestry treatment opportunities to include silvi-cultural manipulations of all woody species to improve riparian vegetation age class, physical structure, distribution, diversity, canopy, succession, understory composition, edge, and the ultimate creation of additional niches
	Promotion of vegetation plantings to re-establish native plant communities and physical conditions that will stabilize and allow the system to function properly

	Promote the utilization of physical structures to control erosion and/or degradation of a site, which are placed to dissipate energy, spread water, and stabilize banks, etc.
	Promotion of bank treatments (log, and rock riprap or gabion treatment) to markedly reduced water velocities and promote the collection of sediment
1.2 Monitoring of degraded riparian and steep areas	Promotion of a monitoring system to assess management effectiveness and progress towards meeting the objective sustainable forest and land management of degraded riparian and steep areas

Action Area 2: Promotion of effective conservation measures to enhance improved connectivity within the KBAs (through forest restoration and biodiversity compatible production systems) of the Cockpit County landscape

DESCRIPTION	ACTIONS/ACTIVITIES
2.1 High priority areas to improve conservation and increase habitat connectivity through forest restoration	Selection of large patches which are among the most relevant to maintain the functional connectivity of the landscape
2.2 Effective conservation measures to improve connectivity	Collaboration with the private sector/landowners to restore forest cover relevant to maintain the functional connectivity of the landscape
	Development and implementation of measures to restore forest in selected areas that are critical to the functional connectivity to include abandoned agricultural lands, river banks and cave entrances
	Expansion of facilities for the propagation of native plants
	Development of plan for and the conduct of species inventories for caves within the limestone forest of the clusters

Action Area 3: Sustainable forest management (ANR) approaches for restoration of disturbed broad leaf forests in priority clusters

DESCRIPTION	ACTIONS/ACTIVITIES
3.1 The restoration of disturbed broad leaf forests covering 400 hectares (ha) within the Cockpit Country accomplished through sequential steps	Confirmation of priority areas for recovery measures based on defined criteria
	Evaluation of current/potential benefits from forest restoration for local communities and for biodiversity
	Evaluation of and rationalization of land ownership/tenure
	Identification and mobilization of key stakeholders for participation in restoration and management activities
	Stakeholders cooperation for restoration through participation in workshops, seminars and focus group discussions
	Development of forest and land restoration management plan for each cluster area, with direct and active participation of stakeholders
	Implementation of forest and land restoration plan comprised of restoration roadmap, technical options, steps and phases, and monitoring systems
	Determination of governance mechanism with clearly defined roles and responsibilities
	Identification and promotion of an incentive regime for restoration
	Development and implementation of a participatory monitoring plan for the restoration and share lessons

3.2 Interventions at a site level that focus on biodiversity restoration and multiple benefits that considers factors of cost-effective and ecological perspective	Development of a tree planting plan (spatial and temporal) for the priority areas to include infrastructure, capacity building and resource needs.
	Passive Restoration Approach where the land and forest is not greatly degraded, forest restoration can be achieved by simply protecting the site from existing disturbances and allowing natural colonization and successional processes to help restore ecosystem biodiversity and structure
	Enrichment Planting to supplement biological diversity by reintroducing certain key species to hasten the process of natural recovery
	Direct Seeding in cases where the rate of natural succession can be limited by the slow dispersal of seed across degraded landscapes
	Scattered Tree Plantings to foster the structural complexity that attracts seed- or fruit-dispersing fauna into the degraded landscape from nearby intact forest
	Encouragement of understorey development of native plants and shrubs
3.3 Support for the implementation of forest and land restoration plan	Land-use planning for restoration at landscape-level (readiness, barriers), incl. the benefits, seed and plant supply in light of climate change
	Local to national institution and capacity-building for implementing restoration, to strengthen cluster-wide initiatives, collaboration and cost-effective technical innovations and approaches
	Land tenure and legal reform for better tenure arrangements, in particular for Maroon communities
	Implementation of restoration and protection plans, including plant nursery management, soil moisture improvements, weed clearance, water harvest and erosion control, protection and maintenance, etc.
	Collaboration in forest restoration through complementary national, sub-national and private owner initiatives including testing of a new approach to management of conservation on private lands based on ecological assessment, management planning and technical support.
Financing sustainable landscape	Coordinated public-private investment and financing for restoration
	Private sector engagement through restoration sensitive value chains
	Viable and responsible restoration business and finance models that ensure fairness and connect local producers to (inter)national markets and finance in design phases
Measuring restoration progress	Technology and innovation for measuring and monitoring public and private performance at landscape level, including on - and off-site economic and ecological benefits
	Building capacities in to measure progress at the landscape level, incl. indicators for restoration targets and safeguards

Action Area 4: Restoration of 200 hectares of degraded lands (including options for agriculture and agroforestry) as a pilot

DESCRIPTION	ACTIONS/ACTIVITIES
4.1 National, regional and sectoral frameworks of laws, regulations and public policies to foster biologically compatible ecological restoration and exploration of partnership	Strengthening of the land use planning (which is fragmented across sectors and agencies) and enhancing the appreciation of the long term importance of sustainable land management in the interest of biodiversity ecosystem services and rural communities to de-prioritization the support of bauxite mining over other land uses
	Strengthening the enforcement of the 1947 Mining Act (Amendments to the Mining Regulations in 2004), including the guidelines for the rehabilitation of mined out bauxite lands, and enhancing the capacities to sustainably manage natural resources.

options for the involvement of mining companies in restoration efforts	Increasing the restoration bond penalty for Non- compliance.
	Increasing the quality and rate of reclamation of bauxite lands and certification of the same.
	Strengthening the legal power/rights to prevent further degradation of bauxite lands by revising and amending the stipulation under the Jamaica Law that mining rights supersedes all others
	Increasing the requirement with respect to the depth of the topsoil to 12" from the current 6" to better support a wide range of agricultural pursuits
	Promoting the mainstreaming of biodiversity and ecosystem services considerations into the mining sector planning
4.2 Use of mitigation measures to prevent soil loss during clearing, mining and stockpile storage	Application of mitigation measures, including, building of structures to retain and control runoff water; storage of topsoil and overburden on areas with shallow side slopes to prevent erosion and soil degradation; and timely revegetation of used/backfilled areas and soil stockpiles with soil binding grass species
4.3 Agroforestry and sustainable livelihoods as climate smart agriculture options for the restoration of mined out bauxite lands	Promotion of agroforestry in which woody perennials are deliberately integrated with crops and/or livestock on the same land management unit
	Implementation of Shade house technologies (aquaponics, hydroponics and greenhouses) for improving water use efficiency and minimizing losses of water evaporation in the production of crops, as well as for mitigating the 6" depth of the reclaimed bauxite lands.
	Promotion of rain water harvesting systems, as well as the construction of mini/ micro dams in the areas to make water available for home consumption and agricultural pursuits.
	Capacity building in the installation and management of the water harvesting facilities.
	Promotion of the small ruminant Industry_on mined out lands_through_the application of modern appropriate technologies and_management and production systems for sheep and goat production (improved breeds and breeding programmes, improved housing, improved herd health management systems, improved feeds and feeding methods, management systems and capacity building, and improved the processing and marketing of products)
	Capacity building of farmers and extension officers in modern goat and sheep production systems.
	Improvements in the methods for the slaughtering and storage of meat, and value-addition
	Promotion of grass/legume crops as feedstock for the sheep and goats, through grazing in pastures and/or through cut and carry system (zero grazing), including the making of the making of hay and silage. This is expected to reduce the cost of feeding the animals, through reduction in the use of expensive quantities of grains.
4.4 Public-Private Partnerships (PPPs) for involving the mining companies in the reclamation efforts	Strengthening and improving the PPPs for improved management, technical support financing of viable investment opportunities, and enhancement of corporate social responsibility.
4.5 Grant Facility	Establishment of grant facility to catalyse and make resources available for the rehabilitation of mined out bauxite lands

ANNEX 11 - PROCEDURES FOR PLANNING OF SUSTAINABLE LAND MANAGEMENT (SLM) AND REHABILITATION OF DEGRADED AGRICULTURAL LANDS (INCLUDING CLIMATE CHANGE DIMENSIONS OF SLM)

The project will support a broad range of activities that are aimed at improving community livelihoods and benefits. These activities will include, but not limited to:

- Policy and sector work related to SLM, SFM and Rehabilitation of Degraded Agricultural Lands (including Climate Change dimensions of SLM);
- Research and technology development through established demonstration sites;
- Knowledge sharing and extension, and adoption;
- Determination of expenditure priorities for investments; and
- Provision of incentives and grant financing in compliment with other sources of funding for the adoption of demonstrated and traditional technologies.

In this context, the project will focus on the implementation of agricultural and land and forest improvement practices and biodiversity-friendly livelihood and business enterprise development programmes, that are expected to result in the diversification of sources of income and improvements in farm and non-farm productivity. The project will, therefore, provide technical assistance, training and support to the formalization and implementation of the cluster plans. The cluster plans will be used by local communities to improve and diversify livelihoods, enhance sustainable management of natural resources (agriculture, non-timber forest products, non-consumptive uses, etc.), support small business development, promote climate resilience and the conservation of biological resources. Through the implementation of the 6 target cluster plans, the project intends to improve the sustainable management of a total of 2,500 ha of biodiversity rich habitats and restore productivity of 600 ha of degraded agricultural lands (of which 200 ha are mined out bauxite lands).

A preliminary menu of conservation, sustainable resource use, livelihood and small business development investment options is provided in below. However, because the project envisages a fully participatory process, the portfolio of options will be finalized during the participatory target cluster planning process so that project investments will be fully defined by community needs and priorities. Notwithstanding, under the project, the SLM, SFM and agricultural development actions will include support for: (a) management of conservation areas; (b) community-based biodiversity-friendly land management interventions; (c) biodiversity-friendly livelihood and small business enterprises, and (d) community based agricultural improvement and farming systems. In particular, the project will support the following key activities:

- **Promotion of biodiversity friendly agro-forestry and climate resilient agriculture**, including adaptive agricultural practices for short-term crops, multiple storey (agroforestry and inter-cropping approaches); sustainable fertilizer use and IPM, living yam sticks, vanilla, water and soil conservation and climate resilient crops and cropping techniques;
- **Drought mitigation** through improved water conservation and management, improved water harvesting techniques (solar pumps, gravity flows and drip irrigation), improved drainage and water storage, etc.;
- **Promotion of alternatives to slash and burn agriculture** through soil fertility improvements, forest fire prevention and management, outreach and demonstration and technical support;

- **Promotion of small business enterprises that are economically viable culturally acceptable**, based on value chain analyses that were conducted to include: fruits, vegetables and fish grown under Aquaponics technology; vegetables and fruits grown under hydroponics technology; traditional goods and crafts of the maroons (including thatch, brooms, bamboo, etc.); apiculture; agro-processing based on herbs and spices; floriculture; and small ruminants (sheep and goats). These value chain based enterprises were selected based on the following criteria: (i) value chain growth potential (current/potential market demand for products, consumer requirements, challenges faced by marketers/customers, profitability analyses, competitive advantages etc.); (ii) availability of modern and appropriate technologies; and (iii) livelihood development potential (e.g. percentage of the communities that can be engaged in the value chain, and additional income that can be generated from value chain).
- **Implementation of project interventions for value chain promotion** to address gaps in the value chain and complement and enhance ongoing interventions by other stakeholders such as the government, other donor agencies, etc. These interventions to include: (i) capacity building of stakeholders in the value chain, training and skill development to producers and service providers to help understand customer requirements, increase productivity, learn necessary business skills and other specific needs as per the value chain, including developing new products and services. Systems and processes will be developed to capture adequate data and monitor the functioning of the value chain; (ii) support for community based producer organization and management; (iii) collaboration with national, sub-national and private sector institutions to provide producers and service providers with both technical and infrastructure (small processing, storage and marketing facilities); (iv) seeking opportunities for branding and marketing based on the cultural heritage of the maroons that will allow producers and service providers to gain maximum value for their goods and services; and (v) GI registration to the extent relevant; The project will provide support through further feasibility studies, technical assistance, extension, marketing and demonstration that can have potential for scaling up and replication.
- **Sustainable ecotourism initiatives** in terms of developing and implementing mechanisms for improving community-based ecosystem services and products in support of community livelihoods and conservation efforts through public-private partnership for sustainable eco-tourism ventures that could entail community engagement (e.g. provision of homestays, tourism facilities and services, ecotourism based enterprises, cottage industries, etc.); and
- **Community based activities to address threats to forests and biodiversity posed by invasive species**. This will require (i) an assessment of the scale and impacts of threats posed by invasive alien species of plants in selected areas (especially Burnt Hill/Barbecue Bottom road); (ii) identification of the best ways of eradicating these species, including techniques that have already been developed and tested in Jamaica or elsewhere and, where no existing techniques can be identified, development and testing of new techniques; and (iii) use of community labour to eradicate selected species in selected areas. This could be a significant source of employment in some areas.

As mentioned above, the final determination the these community activities is to be accomplished through a consultative and participatory process that ensures that community needs and priorities are recognized based on the principle of free, prior and informed consent (FPIC) and will ensure that women and disadvantaged groups, such as the Maroons will actively participate and benefit from these activities. The promotion of women and disadvantaged group participation in project decision-making and activities is central to the implementation of planned SLM, SFM and agricultural development activities under the project.

Grant financing for the community cluster plan investments would be performance-based and designed by ensuring transparency and extensive consultations with local entities and other relevant stakeholders. It will be well

coordinated and promoted through effective technical support, NGO oversight, regular review of implementation arrangements and the use of monitoring and evaluation information to adjust and refine the system in consultation with the stakeholders. Grants will be a typical cash for work payments based on the following principles: (i) competitive assessment to select community institutions /beneficiaries; (ii) selection of beneficiaries in accordance with transparent criteria (to be defined early in the project); (iii) upfront payment (percentage of payment to be defined in consultation with stakeholders); and (iv) balance payment on successful completion and verification of work. While, the target cluster plan investments will be supported under the project, complementary financing will be also sought through parish, local, sector, and NGO and donor programmes to ensure broader financial support and long-term commitment to improving the economic well-being of local communities. The convergence of government resources to support biological landscape activities will be sought through the support of parish and local governments and by co-opting parish, local and agency staff into Target Cluster Planning and Implementation efforts.

In addition, the project will evaluate the feasibility of establishment of revolving funds at the community-level or cluster-level that will help to financially sustain and expand investments beyond the project period. The project will support improvements in the capacity of local communities (including maroon communities) to manage such revolving funds, meet financial reporting requirements and be accountable for effective management of such funds. The project will also facilitate linkages with rural banks and microfinance institutions, to the extent feasible and desirable by the communities.

In the context of the above, the actions/activities are proposed for implementation are presented in the matrix below.

1: Biodiversity friendly agro-forestry and climate resilient agriculture promoted

DESCRIPTION	ACTIONS/ACTIVITIES
1.1 Agricultural practices that preserve and enhance productive capacity of the land (for crops, livestock, watersheds, forests)	Develop appropriate soil nutrient and cropping systems that minimize the need for chemical fertilizers
	Implement manure management activities through the collection and preservation of animal dung and urine (farmyard manure)
	Demonstrate the production of compost (humus – a form of organic fertilizer) from leaves, weeds, manure, household waste and other organic materials in the clusters
	Introduce fertilizer use efficiency techniques for reducing the amount of fertilizer required for plants to grow effectively
1.2 Tillage and residue management practices to help in the adaptation and mitigation of climate change	Capacity building for farmers in the benefits of tillage and techniques for implementing it in order to reduce soil disturbance, stabilize soil structure and organic matter, increase water infiltration, prevent erosion, and conserve soil moisture
	Establish site to demonstrate the use of crop residues placed along contour lines to slow down surface runoff, reduce soil erosion, improve water infiltration, and avoid the burning of residue
1.3 Good agronomic practices to improve soil quality, enhance water use efficiency, and improve the environment through better fertilization	Establish site to demonstrate the use of cover crops and green manure, intercropping, alley cropping, contour stripping, and crop rotation techniques on selected farms in the clusters
	Introduce improved high yielding crop varieties that are pest resistance, drought tolerance varieties
1.4 Integrated pest management (IPM) as a	Establish demonstration site to monitor, identify pests, establish the plant's tolerance level, develop a pest management strategy, and evaluate the results

<i>strategy to prevent and suppress pests with a minimal impact on human health, the environment and other organisms</i>	Establish site to demonstrate the various IPM methods to farmers to include cultural, biological, physical and chemical
1.5 Agroforestry <i>attributes and benefits for livelihoods, and climate adaptation and mitigation are</i>	Expose cluster residents to agroforestry practices to include dispersed trees on cropland, buffer zone agroforestry, alley cropping, live fences and hedges, the planting of crops between tree seedlings during the first few years after planting, shifting cultivation, fodder lots and fodder banks, trees in grazing lands, biomass transfer, trees along streams (riparian buffers), windbreaks, and trees on soil conservation structures
1.6 Soil and water management <i>benefits for livelihoods, and climate adaptation and mitigation</i>	Establish demonstration site for improved irrigation involving the efficient utilization of water for agricultural purposes
	Establish demonstration site for the use of diversion ditches and drainage channels to remove excess water from the land
	Establish demonstration site for the use of terrace on hillsides with substantial erosion hazards
	Establish demonstration site for the use of planting basins and pits to harvest runoff water and increase the rate of water infiltration in the soil
1.7 Grant fund	Establish grant facility for the adoption of biodiversity friendly agro-forestry and climate resilient agriculture technologies

2: Drought mitigation measures implemented to include water conservation and management, water harvesting techniques and drainage and water storage systems

DESCRIPTION	ACTIONS/ACTIVITIES
2.1 Supported the design and installation of an irrigation system in the Allsides area of the Quickstep Cluster	Provide technical support for the rehabilitation of a community tank in the Allsides area for the extraction of water from the tank to support on-farm irrigation. The irrigation system will be comprised of solar powered submersible pumps, conveyance systems, water storage plastic tanks for holding water from the rehabilitate tank, water tanks for rainwater harvesting on farms, and irrigation pipes. This is in collaboration with the Rural Water authority
2.2 Rain Water Harvesting <i>as climate smart agriculture technology</i>	Promote rain water harvesting technology in the clusters
	Establish field sites in two selected areas of the Cockpit Country to demonstrate the utility of drought stress tolerant improved varieties, sustainable intensification practices (SIPs), conservation agriculture technologies (CATs), sustainable water management and conservation practices, and slope agricultural land technology (SALT)
	Build capacity in rain water harvesting technology
2.3 Grant fund	Establish grant facility for the adoption of drought mitigation technologies

3: Alternatives to slash and burn agriculture promoted

DESCRIPTION	ACTIONS/ACTIVITIES
3.1 Alternatives to slash and burn <i>agriculture</i>	Assessment, evaluation and determination of sustainability of alternative systems to slash and burn
	Determination of the key socioeconomic and policy constraints to the adoption of slash-and-burn alternative.

	Development of a portfolio of alternative policies for encouraging the adoption of sustainable agriculture. Mechanisms for effective implementation of alternative policies and the adoption of the alternative technologies.
	Conduct of workshops in each cluster to present research findings and to build awareness, consensus and buy-in for proposed alternatives to slash and burn
	Incentivized the adoption of alternative systems to slash and burn through policy instruments of incentives and disincentives and the provision of a small grant

4: Small business enterprises that are economically viable culturally acceptable promoted

DESCRIPTION	ACTIONS/ACTIVITIES
4.1 Aquaponics technology as climate smart agriculture for the growing of vegetables (mainly leafy vegetables) and the rearing of fish in combination	Establishment of location specific efficient variants of three aquaponics technologies {Nutrient Film Technique (NFT), Deep Water Culture (Floating Raft System), and Media System} in the Cockpit Country
	Conduct evaluations of the three (3) Variants of Aquaponics Technologies introduced to determine profitability, productivity and suitability to different ecological zones
	Establishment of three (3) rainwater harvesting facilities at the three demonstration/ training sites to ensure the availability of water for the systems
	Training workshops conducted in rain water harvesting and the use of aquaponics technology for fish and vegetable production, with a focus on the design and installation, operation and maintenance of aquaponics systems, aquaponics production and management (including rain water harvesting), and agribusiness development and management including costing and record keeping
4.2 Hydroponics technology as climate smart agriculture for the growing of vegetables	Establishment of two (2) hydroponics facilities, one each at Niagara and Accompong, as demonstration sites for the training of farmers in modern technology for vegetable production
	Establishment of two (2) rainwater harvesting facilities at the two demonstration/ training sites to ensure the availability of water for the systems
	Training workshops conducted in rain water harvesting and the use of hydroponic technology for vegetable production, with a focus on the design and installation, operation and maintenance of the systems, and production and management practices
4.3 Greenhouse technology promoted as climate smart agriculture for the growing of vegetables, fruits, floriculture plants/ cutting, and herbs and spices	Establishment of two (2) greenhouses, one each at Litchfield and Accompong, as demonstration sites for training in the production of crops under shade house conditions
	Establishment of two (2) rainwater harvesting facilities at the two demonstration/ training sites to ensure the availability of water for the systems
	Training workshops conducted in rain water harvesting and the use of greenhouse technology for vegetable production, with a focus on the design and installation, operation and maintenance of the systems, and production and management practices
4.4 Capacities and capabilities for the commercialization of the	Undertake the establishment of Information and Knowledge platform for the development of the industry, including the determination of the development potential of the herbal industry in the Cockpit Country through the conduct of the necessary assessments

Herbal sector in the Cockpit Country	Establishment of an incubator facility for demonstration of feasibility, technologies and management systems
	Build capacity and capability for the development of the herbal industry through the establishment of the necessary framework and mechanism as well as the technical base for the sustainable exploitation of the herbal and spice resources
	Promote and facilitate the commercialization of herbal products in order to improve the business and market competitiveness and generate additional trade, income and employment from the herbal industry, thereby contributing to the overall prosperity of stakeholders
	Increase the public awareness of the potential of the herbal industry
4.5 Apiculture/ Beekeeping technology in three (3) clusters in the Cockpit Country (Burnt Hill, Niagara, and Accompong) with the adoption of best proven, climate smart production technologies	Undertake habitat restoration, forestation and reforestation of flowering plants, fruit trees, and endemic species through SLM, SFM and improved agricultural activities
	Promote the establishment of rain water harvesting facilities at all apiaries to ensure the availability of water for bees
	Promote access to appropriate beekeeping equipment
	Enhancing the portfolio of best practices in honey production through the development of evidence-based technologies for applications at the farm level
	Building Beekeepers capacity for the application of climate smart practices in the Apiculture industry
	Strengthening of the marketing system for hive products both locally and internationally
4.6 Small ruminant Industry through improvements in the management and production systems for sheep and goat production in all clusters of the Cockpit Country	Expand present operations through improved breeds and breeding programmes (Improved genetic materials introduced from outside the Cockpit country)
	Improve production and productivity on farms through appropriate technologies, management systems housing, herd health management, feeds and feeding systems (zero grazing through the production of hay and silage) and capacity building
	Improve the processing and marketing of products
4.7 Research in the feasibility of using Bamboo Trees and Biomass Briquette as biofuel substitute to coal and charcoal	Conduct research in the production of biomass briquettes from green waste and other organic materials, including rice husk, bagasse, ground nut shells, municipal solid waste, agricultural waste
	Training workshops conducted to promote biomass briquette as a biofuel substitute to coal and charcoal
4.8 Grant fund	Establish grant facility to catalyse the uptake of technologies in the establishment of micro and small business enterprises

5: Interventions to address gaps in value chain and complement and enhance on-going measures implemented

DESCRIPTION	ACTIONS/ACTIVITIES
5.1 Gaps in the value chain and ongoing interventions by other stakeholders such as the government, other donor	Conduct capacity building workshops for stakeholders in the value chain to address critical gaps identified along the chain to increase productivity
	Develop systems and processes to capture adequate data and monitor the functioning of the value chain
	Provide support for community based producer organization and management

<i>agencies complemented and enhanced</i>	Strengthen the level of collaboration with national, sub-national and private sector institutions to provide producers and service providers with both technical and infrastructure (small processing, storage and marketing facilities)
	Explore opportunities for branding and marketing based on the cultural heritage of the maroons that will allow producers and service providers to gain maximum value for their goods and services

6: Sustainable ecotourism initiatives aimed at improving community-based ecosystem services and products in support of community livelihoods and conservation efforts implemented through public-private partnership

DESCRIPTION	ACTIONS/ACTIVITIES
6.1 Mechanisms to improve community-based ecotourism services and products in support of community livelihoods and conservation efforts	Strengthen and/or improve the ecotourism infrastructure, physical/natural and cultural tourism assets, market access and marketing, product development, decision-making structures, community capabilities, access to financial resources, and community interest
	Strengthen the linkages between community-based ecotourism operations in the Cockpit Country and the informal sector
6.2 Local Communities skills set improved and access to resources increased to enhance their participation in the scaling up of Community-based tourism	Conduct capacity building workshops in community-based tourism for local stakeholders conducted to address critical gaps skill set
	Establish a Small Community-based tourism Grant Fund Facility to promote the participation of the local communities in ecotourism in the Cockpit Country
6.3 The cultural heritage experiences of the maroon are promoted as unique and authentic experiences, with most of the benefits accruing to the local communities	Address the issues of safety, sustainability and interaction with local people in the Cockpit Country, with the broad context of Community-based tourism
6.4 Grant Fund	Grant fund provided to improve community-based ecosystem services and products in support of community livelihoods and conservation efforts and to catalyse public-private partnership financing

7: Community based activities to address threats to forests and biodiversity posed by invasive species promoted

DESCRIPTION	ACTIONS/ACTIVITIES
7.1 Evidenced-based techniques developed and applied in the eradication of invasive alien species	Conduct an assessment of the scale and impacts of threats posed by invasive alien species of plants in selected areas (especially Burnt Hill/Barbecue Bottom road)
	Develop a plan for the eradication of alien invasive species, to include best practices in eradicating these species, with techniques that have already been developed and tested in Jamaica or elsewhere taken into consideration
	Utilize community labour to eradicate selected species in selected areas

ANNEX 12 - MATRIX OF KEY CONSULTANTS AND CONSULTANCY SERVICES FOR SLM, SFM AND SUSTAINABLE AGRICULTURAL DEVELOPMENT AND BIODIVERSITY CONSERVATION

At this point, consultancies described below were kept separate to provide clear guidance to what services are required under each Component/Outcome and Output. However, the intention is to condense the consultancies as much as possible. For example, using a firm with diverse expertise instead of individual consultancies to undertake specific work within the project.

Consultancy Assignment	Main Tasks	Required Qualification	Inputs Man days	Total Costs (USD)
Outcome/Component 1				
Output 1.1 Integration of ILM into policy, legislative and administrative framework				
International Consultant	International Consultant to develop a framework for ILM for Jamaica at national, sub-national and local scales (position paper, workshops, MOUs)	- At a Master's degree or tertiary level certification in Management with a major in Institutional Analysis and Planning. - At least 10 years professional experience in institutional analysis, policy and planning, with some experience in natural resources /environmental institutional policy and planning.	25	15,000
Contractual Services	To prepare position paper on ILM, establish planning framework for implementing ILM (including review of decision-making processes, SEAs, SEIAs, EIAs, Development Orders, etc. assessment of gaps in policy, regulations and institutions and	- Team all with MSc Degree or higher and/or experience in field with close relevance to the assignment At least 12 years relevant professional experience in relation to the assignment; - Profound and up-to-date knowledge on best practices globally, regionally and nationally relevant to the assignment . - Specific skills: Experience working with Jamaica's planning processes, EIAs, SEAs, SEIAs, development orders, planning legislation and	60	30,000

		environmental policy development and mainstreaming.		
Output 1.2: Strengthened Policy, regulatory, guidelines and planning frameworks				
International Consultant	- To strengthen the institutional mechanisms for coordination and management of SLM, SFM and SAD practices - To mainstream SLM, SFM and Agricultural Development practices into policies, strategies, plans and budgets	- At a Master's degree or tertiary level certification in Management with a major in Institutional Analysis and Planning. - At least 10 years professional experience in institutional analysis, policy and planning, with some experience in natural resources /environmental institutional policy and planning.	50	30,000
International consultant	International Consultant for the development, review and production of guidelines and standards for information collection on biodiversity, threats, species and ecosystem change detection; and surveillance and monitoring	- At a Master's degree or tertiary level certification in Management with a major in biodiversity or related subject - At least 10 years professional experience in biodiversity and threat analysis and data collection methodologies	20	12,000
National Consultant	To provide technical and workshop support in facilitating review and development/ update of policies and legislation and strengthening of institutional mechanisms for coordination and management for SLM, SFM and SAD initiatives and mainstreaming into policies, plans strategies and budget (to work with international consultant) (Output 1.2) - 100 man days x USD400 per day = USD40,000;	- At a Master's degree or tertiary level certification in Management with a major in Institutional Analysis and Planning. - At least five years professional experience in institutional analysis and planning, with some experience in institutional planning at environmental/ natural resources	100	40,000

		and/or agricultural sectors in Jamaica		
National Consultant	To establish knowledge and information management platform for monitoring of SLM, SFM and agricultural development	- Master Degree in information management or related field - At least 8 years engagement and experience in Developing Knowledge Management strategy, Knowledge Management implementation planning, Benchmarking Knowledge Management capability, Designing and facilitating Knowledge sharing events; Creating Knowledge Management toolkits, frameworks and training programmes, Launching and sustaining Communities of Practice and Networks, Building capability in Organizational Learning	55	22,000
Output 1.3 Capacity building for ILM and biodiversity conservation				
International Consultant	Technical Adviser	- At a Master's degree or tertiary level certification in biodiversity or natural resources management related subject - At least 10 years professional experience in provide technical backstopping for biodiversity and natural resources	LS (12,000/year) to cover travel and per-diem only	72,000

		management projects		
Contractual services	(to review adequacy, availability, standardization and use of spatial information, review of existing biodiversity, LD, AIS and threat monitoring and conduct training of staff of relevant agencies at national and parish levels for effective data collection, verification, monitoring and management for informed decision making and adaptive management	Team including people with MSc or higher in GIS development and other fields relevant to biodiversity conservation and protected area management e.g. application of GIS data to biodiversity conservation, training of monitors, development of biological and socio-economic monitoring programmes, analysis of monitoring information and application of monitoring data to adaptive management.	200	100,000
Contractual services	Establish national framework for ILM	MSc Degree or higher in field with close relevance to the assignment; At least 12 years relevant professional experience in relation to the assignment; Profound and up-to-date knowledge on best practices globally, regionally and nationally relevant to the assignment including analysis and development of policy, legislation, planning and institutional development of ILM. skills;	50	21,000
Contractual Services	Contractual services (firm) for baseline ecological assessment of Stephney-John's Vale, provision of training to forestry department, conduct NRV and basic training to other relevant agencies	Firm with experts with extensive experience in economic assessments of natural resources or related aspects, experience in design of training materials and conduct of training in related subject	100	50,000
National Consultant	National consultant to facilitate mainstreaming of gender in development planning,	MSc degree in social sciences with a t least 10 years working experience	125	47,000

	provision of training in gender related aspects and guiding gender aspects relating to Cluster Conservation Planning	Individual with extensive experience and working knowledge of tools and approaches for gender inclusion and mainstreaming in development work		
National Consultant	National Consultant to support the development, review and production of guidelines and standards for information collection on biodiversity, threats, species and ecosystem change detection; and surveillance and monitoring	- Master's Degree in information management or related field - At least 8 years engagement and experience in designing and facilitating information collection on biodiversity, species and ecological processes	40	16,000
Output 1.4 Biodiversity conservation and integrated gender sensitive landscape planning and management capacities strengthened at national, parish and local levels				
National Consultant	National Consultant to conduct capacity needs assessment, develop program for field learning centers, improve capacity at National History Museum and capacity building for baseline assessment to support biodiversity management and monitoring	- Master's Degree in biodiversity or natural resources management field. - At least 8 years engagement and experience in designing and facilitating information collection on biodiversity, species and ecological processes	500	22,500
Outcome/Component 2				
Output 2.1: Development of integrated landscape strategy				
Contractual services	To determine biodiversity conservation targets, verification of the cluster boundaries and development of guidelines and criteria for project investment, ground truthing, data entry and analysis, and conduct GIS overlays	Biodiversity planning, GIS, interpretation of satellite imagery, land use planning, agriculture, biodiversity, socio-economics, workshop facilitation, etc. with MSc Degrees higher in field or with close	120	48,000

	and draft zoning arrangements	relevance to the assignment		
Output 2.2: Improved Management Effectiveness of proposed Cockpit Country Protected Areas				
International Consultant	To undertake satellite tracking study of parrots to determine habitat use/need	- At a Master's degree or tertiary level certification in biodiversity or natural resources management related subject - At least 10 years professional experience in design and undertaking monitoring of avian fauna, with preference on parrot studies	10	6,000
Contractual services	- To purchase satellite imagery (purchase of 300 SQ. M) - To analyse changes in forest cover (software)	Firm with experience of large procurements, particularly with good understanding of the types and applications available under satellite imaging	LS	145,000
Contractual Services	Contractual contract – firm to development monitoring framework, develop baselines and conduct species monitoring to facilitate assessment of project impacts (e.g. mammals, bats, pigeon and parrots, endemic birds, butterflies etc.)	- Consultants with MSc degree in biology or related field - Extensive experience in research and field monitoring of key species and threat - Proven experience in similar consultancies	100	50,000
National Consultant	Preparation of participatory management plan for CCPA and conservation corridors	Individual persons the following skills: protected area planning, participatory planning, socio-economics, GIS mapping, forest restoration, enforcement, biodiversity conservation and species recovery planning, zoning, pollution, training needs assessment, environmental assessment, nature	Various	50,000

		interpretation, ecotourism planning and implementation, institutional development, monitoring etc. with MSc or higher		
Output 2.3: Ecological Restoration of degraded and fragmented areas to enhance biodiversity, ecosystem services and forest connectivity developed, tested and implemented				
Contractual services	▪ To Develop guidelines for sustainable management practices of riparian areas within forest estates ▪ To identify incentives to promote sustainable management of degraded riparian and steep slopes on private lands ▪ To help identification and confirmation of priority areas for recovery measures based on the defined criteria; assessment of current/potential benefits from forest restoration for local communities and for biodiversity; ▪ Evaluation of land ownership/tenure and identification of involved stakeholders; ▪ Conduct workshops, seminars and focus group discussions and subsequently mobilize stakeholders, and seek their cooperation for forest restoration; development of options for improving governance and incentives for forest restoration; development and implementation of forest and land management plans ▪ To provide materials, equipment and operational support to advance privately managed protected	▪ Firm with experience of in forest restoration practices, including forest silvicultural practices, assessment of soil management practices and development of restoration plans	LS	233,000

	areas, through the provision of incentives for the declaration of privately-owned closed broadleaf forest lands as forest reserves or forest management areas			
Contractual services	▪ To facilitate identification of appropriate restoration/rehabilitation of other degraded and denuded lands through the implementation of sustainable agro-forest management approaches ▪ Evaluation of land ownership/tenure and identification of involved stakeholders; ▪ Conduct workshops, seminars and focus group discussions and subsequently mobilize stakeholders, and seek their cooperation for restoration activities; development of options for improving governance and incentives for land management restoration; development and implementation of land management plans ▪ To provide materials, equipment and operational support to advance management practices	▪ Firm with experience of land restoration practices, including forest and agro-forestry silvicultural practices, assessment of improved soil management practices and development of restoration plans	LS	246,000
Output 2.4: Promoted Community-based Sustainable land management, sustainable agriculture, sustainable livelihoods, responsible tourism and business enterprise solutions				
National Consultant	▪ To develop and encourage a portfolio of alternatives to <i>Slash and Burn</i>	▪ Master Degree in forest management and related sector ▪ Excellent knowledge and minimum 5 years of demonstrable	30	12,000

		experience in forestry management and gender analysis at the regional and international level ▪ Proven track record of undertaking similar consultancies		
International Consultant	▪ To strengthen the Capacities and capabilities for the commercialization of the Herbal sector in the Cockpit Country	▪ At least a Master Degree in either chemistry, agro-processing, natural resources management and/or related sector ▪ Excellent knowledge and minimum 8 years of demonstrable experience in the herbal industry in the Caribbean, process design and optimization for herbal extraction, herbal extract manufacturing, quality standards and assurance, and patent search, and publication	40	24,000
International Consultant	▪ To support the introduction of Apiculture/ Beekeeping technology with the adoption of best proven, climate smart production technologies	▪ University degree or equivalent in apiculture, including husbandry and genetics and breeding, biological/agricultural sciences or related fields. ▪ At least 10 years of extensive practical experience in the field of the apiculture industry in general, and the at least 5 years in honey production in particular, in similar ecological, socioeconomic and cultural contexts.	30	18,000

National Consultant	To research the feasibility of using Biomass Briquette and other inputs as biofuel substitute to coal and charcoal	- Master's Degree in forest management and related sector - Excellent knowledge and minimum 5 years of demonstrable experience in forestry management at the regional and international level - Proven track record of undertaking similar consultancies	50	15,000
Contractual services	To implement initiatives to improve community-based ecotourism services and products in support of community livelihoods and conservation efforts	Contract with agency with experience in community-based tourism development	36	18,000
Contractual services	To develop evidenced-based techniques and applied in the eradication of invasive alien species	Contract with agency with experience in eradication of invasive alien species	LS	18,000
Output 2.5 Capacity for development, implementation and management of sustainable landscapes developed				
National Consultant	National Consultants to develop plan for sustainable community-based tourism in partnership with communities and businesses, including heritage sites, trail networks, interpretation centers, the development of training materials for guides	- Master's Degree in tourism management and related sector - Excellent knowledge and minimum 5 years of demonstrable experience in community-based tourism ventures - Proven track record of undertaking similar consultancies	40	20,000
Contractual services	To develop plan for sustainable community-based tourism in partnership with communities and businesses, including heritage sites, trail	Individual consultants or consulting teams including persons with the following skills: tourism planning, nature interpretation and design of	40	20,000

	networks, interpretation centers, the development of training materials for guides	interpretation materials and facilities, guide training, app development, graphic art, carrying capacity assessment all with MSc degree or higher.		
Contractual Services	Contractual Services to support team Jamaica Training for community-based tour operators, licenses and start-up activity, forest trails, training of history guides one application/guide for visitation, development of history guide for CC PA, installation of signage	- Tourism consultancy firm with experience in tourism promotion and management - At least 10 years' experience supporting community-based ventures - Proven track record in undertaking similar assignments	LS	75,000
Outcome/Component 3				
<i>Output 3.1 Knowledge Management and Communications, Gender Mainstreaming and Monitoring and Evaluation strategies developed and implemented</i>				
National Consultant	National Consultant for Knowledge Management and Monitoring and Evaluation Support and Contribute to Equitable Gender Benefits and Increased Awareness of Biodiversity Conservation	- Master's Degree in social or KM related fields - Excellent knowledge and minimum 5 years of demonstrable experience in communications, gender management and environmental awareness - Proven track record of undertaking similar consultancies	120 (20 days/Year for 6 years)	48,000
Contractual Services	Contractual Services with agencies/NGOs/CBOs for executing community outreach support services to promote the engagement of women and youth	NGO with proven track record for undertaking community outreach and communications	LS	60,000
Contractual Services	Contractual services firm for supporting National Knowledge Management and Communications to promote outreach and increased public awareness of biodiversity conservation	- Firm with individuals with qualifications and experience in KM and communication skills - At least 10 years' experience in KM and communications - Proven track record in undertaking similar assignments	180 (30 days/year for 6 years)	68,365

managed by Forestry Department with the support of several Local Forest Management Committees. Forestry Department operates from the Head Office in St. Andrew and two Zonal Offices, Western and Eastern, both have 2 regional offices. The western Zone office is in Moneague, the south west region office is in Litchfield, and the north west region office is in Catherine Hall (Montego Bay). Forest Reserves are also Game Reserves under the Wild Life Protection Act, which is enforced by the National Environment and Planning Agency. NEPA also has a Watershed Officer working in the area. There is a Forest Management Plan for the Cockpit Country Forest Reserve and the surrounding Forest estates 2012 (Forestry Department) adapted from the draft Forest Management plan for Cockpit Country/Martha Brae WMU (Windsor Research Centre 2006; John *et al.* 2007;). The Catadupa Key Biodiversity Area Conservation Action Plan was developed by Windsor Research Center in 2015.

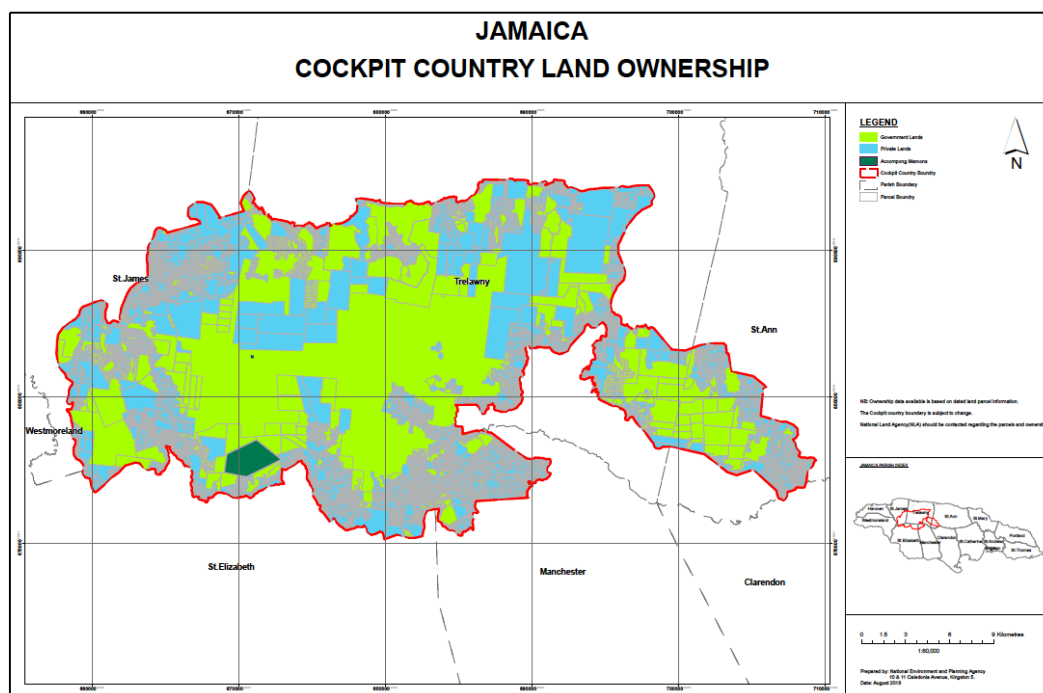


Figure 5: Land

Ownership in the proposed Cockpit Country protected area (Source: National Land Agency/NEPA)

Physical characteristics

The Cockpit Country is an area of karstified White and Yellow limestones, surrounded by alluvial clays and the Central Inlier. Elevations range from about 200 m near Windsor to more than 700 m near Litchfield. Rainfall follows the bimodal pattern typical of Jamaica. It is highest in the core area, which receives 250-380 cm rainfall p.a. but the periphery is drier (175-250 cm). The north is drier than the south. Climate change is expected to result in a slight increase in rainfall in the 2020s but this will decline in the 2030s (Climate Studies Group 2015). The majority of the area is classified as unsuitable for agriculture because of its steepness and poor soils (Figure 3). Deep soils are only found in the cockpit bottoms, while the hillsides are mostly talus, with very thin basic soils and the hilltops have acidic soils (Koenig 1996).

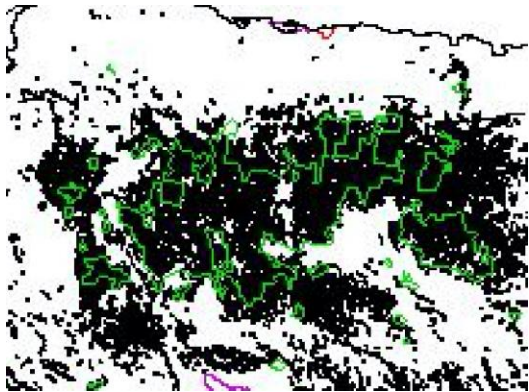


Figure 6: Topography of Cockpit Country, showing lands that should be left in forest because of steeply sloping terrain (in black). Boundaries of Forest Reserves are shown in green. (Source The Nature Conservancy).

Hydrology

“The Cockpit Country includes the upper parts of three important watershed management units (Great River, Black River and Martha Brae) and abuts on the Montego River and Rio Bueno WMUs , recharging aquifers in St Elizabeth, St. James and Trelawny. The sources of two of the largest rivers in Jamaica (the Black River and its tributaries, and the Great River) are in the Cockpit Country. The Martha Brae rises from the edge of the Cockpit Country, near Windsor. Karst springs well up from the limestone aquifer predominately in the northern, lower elevation areas of the Cockpit Country. The rivers originating from the Cockpit Country account for approximately one-quarter of Jamaica’s exploitable surface water runoff” (Koenig 2000). The details of the relationship between the Cockpit Country forests and the recharge of aquifers is the subject of controversy.

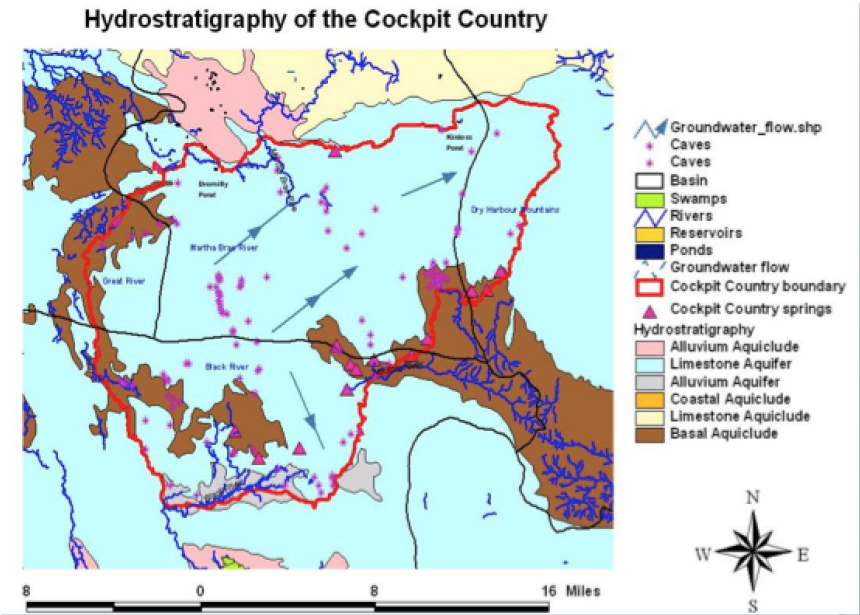


Figure 7: Hydrostratigraphy of the Cockpit Country (Source: Water Resources Authority 2005)⁸⁷

⁸⁷ Note that this map pre-dates the 2017 announcement of the boundary of the Cockpit Country and the boundary shown is incorrect. Please refer Figure 1 for the current boundary.

Landscapes and vegetation – main types, key characteristics and conservation

The karst limestone formation of the Cockpit Country, which was formed by differential erosion of a limestone plateau originally formed under the sea, has produced a characteristic landscape of small, steep-sided hillocks that enclose small bowl-shaped valleys, so that from the air the area resembles an egg box. Each hillock is effectively an island. Many caves have been documents but there are more to be described (Stewart *et al.* 2005). The limestone is very porous, therefore most flow is sub-surface. There are very few surface water features such as rivers, springs or blue holes (DAndrea 2003).

Forests: The Cockpit Country is one of the largest remaining intact blocks of Closed Broadleaf Forest (CBLF) surrounded by Disturbed Broadleaf forests. The main habitat type in the Cockpit Country is the CBLF [Jamaican moist forest], which may include at up to 9 undescribed sub-types of forest (Figure 5). The forests of the adjacent cretaceous inlier to the east and west have been almost completely replaced by agriculture. To the north, the forests of the alluvial plains have also been totally replaced by sugar cane but large areas of the dry forests on limestone (also known as North Coast forests) persist because they are inhospitable and unsuitable for agriculture. To the south the some connections remain to the Black River Morasses. The connectivity of the east-west spinal forest and the north-south conservation corridors are very important for endemic species (including birds and bats), which have daily or seasonal migrations between coastal and inland habitats.

COCKPIT COUNTRY FOREST COMMUNITY TYPES

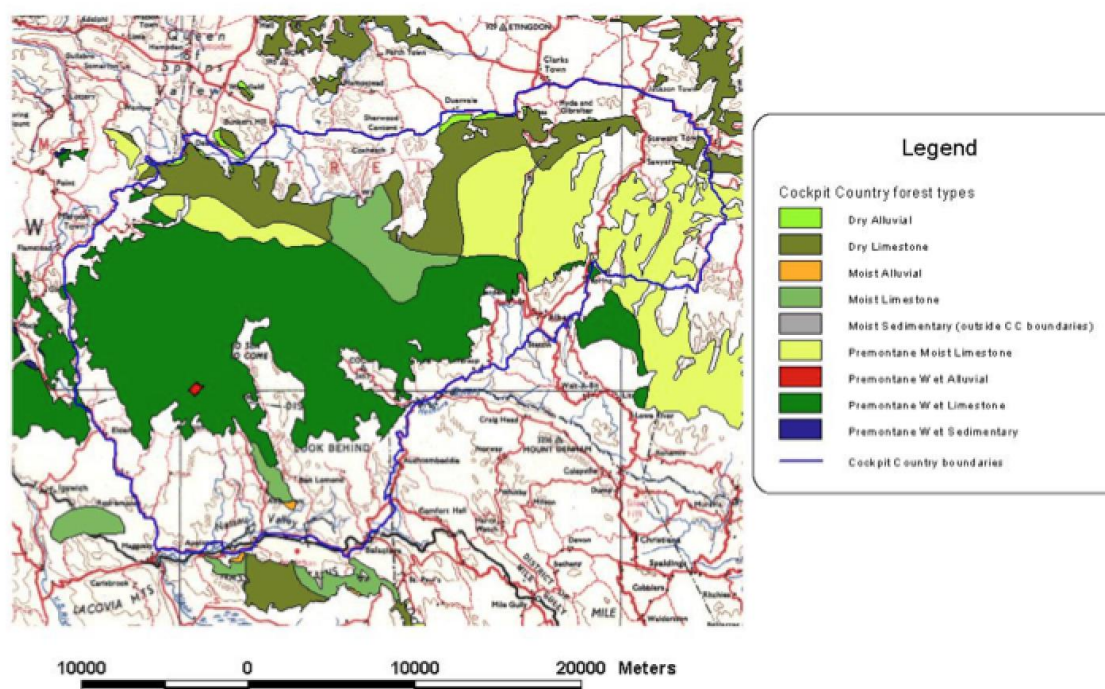


Figure 8: Cockpit Country forest community types (Source: The Nature Conservancy)⁸⁸

Caves: Caves are scattered across the whole Cockpit Country landscape. An inventory of the caves was carried out by the Jamaica Caving Organization (Stewart *et al.* 2005). Caves support ecologically and economically important

⁸⁸ Note that this map pre-dates the 2017 announcement of the boundary of the Cockpit Country and the boundary shown is incorrect. Please refer to 2017 Figure 1 for the current boundary.

populations of bats as well as many endemic species of invertebrates. Reptiles and amphibians also depend on the caves. Windsor Cave is particularly important because of its large population of bats. It is managed by Windsor Research Centre, which maintains a monitoring program there. Bats are important to landscape level conservation because they fly over large areas to feed. They are important in seed dispersal of forest trees and pollination of many agricultural crops, including bananas, avocados, papaya and many others.

Freshwater ecosystems: The extensive freshwater ecosystems of the Cockpit Country include blue holes, springs and short rivers, as well as the sources of the Black River and Martha Brae and most of the other major rivers and springs that supply western Jamaica. However there is little evidence at the surface because most of the flow is underground. Freshwater ecosystems support an endemic turtle, endemic fish, crabs and invertebrates (DAndrea, 2003). The ecology of the deep underground aquifers has not been assessed, but they might support endemic fish and other species. Freshwater ecosystems are among the least well covered by the existing protected area system. No rivers are protected from source to sea, despite the importance of their longitudinal and lateral connectivity (NEGAR 2009).

Anthropogenic habitats: Within the karst landscape, the main human activities are slash and burn agriculture, extraction of timber and yam sticks, grazing and charcoal production. Agriculture and grazing may be followed by the establishment of invasive species, producing non-dynamic gaps in the forest. Harvest of timber and yam sticks changes the structure of the forest, and removes ecologically important species (such as large emergent trees). The surrounding areas are dominated by yam cultivation.

Fauna and flora – key species and conservation status

Studies of Cockpit Country biodiversity are incomplete. Only about a quarter of the most accessible of the estimated 5,000 hills in the Cockpit Country have been studied, and wherever studies are carried out, new species are found. The area is particularly rich in endemic species. Many species are only known from very limited areas in the Cockpit Country. Many plants are known only from a single hill. The numbers of Red Listed vertebrate species is shown in Table 1 and plants in Table 2. These lists are incomplete because many range-restricted species have not been assessed by IUCN.

Herpetofauna: At least 37 out of 51 Jamaican endemic species of amphibians and reptiles are found in the Cockpit Country, This is about two-thirds of the species in Jamaica. Nine of these species have more than half of their populations in the area. New species are still being found. Two tiny endemic frogs are only known from the area north of Quickstep. At least one frog species *Eleutherodactylus jamaicensis* is of particular concern because of its rarity (Koenig 2000).

Avifauna: Twenty-nine of Jamaica's 30 species of endemic birds (and possibly one additional species that may be extinct) survive in the Cockpit Country. Many species, such as Plain Pigeon and White-crowned Pigeon have seasonal movements that take them outside the Cockpit Country. Others, such as the two endemic parrots, make diurnal trips to feed outside the area. Birds play important roles in pollination, seed dispersal, and ecotourism. Many migratory species of birds also depend on the Cockpit Country for habitat (Haynes-Sutton, *et al.* 2009).

Mammals: The endemic Jamaican Hutia *Geocapromys brownii* is known to survive in the Quickstep area, but its distribution elsewhere has not been recently assessed. In the 1980s a project to reintroduce hutias to various areas in the Cockpit Country, initiated by the Jersey Wildlife Preservation Trust, was unsuccessful. Twenty-one species of bats occur in Jamaica of which four are endemic. There are several major bat caves including Windsor Great Cave and Marta Tick Cave. Like some species of birds, some bats have diurnal and seasonal movements that take them beyond the boundaries of the Cockpit Country. For example the Jamaican Mustached Bat *Pteronotus parnelli* commutes along flyways associated with the vegetation and flies from Windsor as far as the Coral Spring-Mountain Spring Protected Area, about 6 km to the north-east (www.cockpitcountry.com).

Table 12: IUCN Red List Vertebrates found in the proposed CCPA

CRITICALLY ENDANGERED	ENDANGERED	VULNERABLE
<i>Eleutherodactylus fuscus</i>	<i>Celestus barbouri</i>	<i>Amazona collaria</i>
<i>Eleutherodactylus griphus</i>	<i>Eleutherodactylus grabhami</i>	<i>Chilabothrus subflavus</i>
<i>Eleutherodactylus junori</i>	<i>Eleutherodactylus jamaicensis</i>	<i>Geocapromys brownii</i>
<i>Eleutherodactylus sisypodemus</i>	<i>Eleutherodactylus jamaicensis</i>	<i>Lasiurus degelidus</i>
<i>Hypsirhynchus ater</i>	<i>Eleutherodactylus luteolus</i>	<i>Patagioenas caribaea</i>
<i>Natalus jamaicensis</i>	<i>Nesopsar nigerrimus</i>	<i>Tachycineta euchrysea</i>
<i>Siphonorhis Americana</i>	<i>Osteopilus crucialis</i>	<i>Trachemys terrapen</i>
	<i>Osteopilus marianae</i>	
	<i>Osteopilus wilder</i>	
7	9	7

Invertebrates: There are also very high levels of endemism in invertebrate groups, including butterflies, lampyrid fireflies, sesamid crabs and land snails. At least 95 of the 136 species of butterflies known from Jamaica occur in the Cockpit Country. This includes at least one new endemic species *Troyus turneri*. Other species of particular importance are the Homerus Swallowtail *Pterourus homerus* and Panton's Fritillary *Atlantea pantoni* (Turner and Turland 2017; V. Turland pers. comm. 2018). Forest dependent species cannot venture far from the forest edges. Auchtembeddie in south central Cockpit Country has one of the highest densities of endemic land snails in the world.

Flora – key species and conservation status

At least 1,600 of Jamaica's approximately 3,000 native plant species, including 106 local endemics, are found in the Cockpit Country (Raz and Davenport 2006). At least 70 of these species are classified as threatened on the global Red List (CEPF 2017 unpublished data) (Table 2). Many are site endemics, and some are only known from single hills. There is a north-south gradient of plant endemism, with more endemic plants on the south. Many endemic plants are found in areas on the periphery, especially isolated limestone hills surrounded by other geological formation. However as it is more accessible, the periphery has received more attention from botanists. Most endemic plants are endemic vines, shrubs or epiphytes that depend on trees to survive (Koenig 2000).

Table 13: IUCN Red Listed plants found in the proposed CCPA

CRITICALLY ENDANGERED	ENDANGERED	VULNERABLE
<i>Ardisia byrsonimae</i>	<i>Bernardia trelawniensis</i>	<i>Acidocroton verrucosus</i>
<i>Cassipourea subcordata</i>	<i>Cassipourea brittoniana</i>	<i>Alvaradoa jamaicensis</i>
<i>Dendropanax filipes</i>	<i>Eugenia eperforata</i>	<i>Brunfelsia splendida</i>
<i>Dendropanax grandiflorus</i>	<i>Eugenia sachetae</i>	<i>Bursera aromatica</i>
<i>Eugenia aboukirensis</i>	<i>Eugenia schulziana</i>	<i>Buxus arborea</i>
<i>Exostema orbiculatum</i>	<i>Manilkara excisa</i>	<i>Calliandra comosa</i>
<i>Guettarda longiflora</i>	<i>Mitranthes nivea</i>	<i>Calypttranthes capitata</i>
<i>Mitranthes macrophylla</i>	<i>Ocotea staminoides</i>	<i>Calypttranthes nodosa</i>
<i>Spathelia coccinea</i>	<i>Phyllanthus axillaris</i>	<i>Clusia clarendonensis</i>
<i>Ternstroemia bullata</i>	<i>Pimenta richardii</i>	<i>Coccoloba troyana</i>
	<i>Podocarpus purdieanus</i>	<i>Colubrina obscura</i>
	<i>Pseudorhipsalis alata</i>	<i>Comocladia cordata</i>

	<i>Psychotria clarendonensis</i>	<i>Cordia harrisii</i>
	<i>Psychotria siphonophora</i>	<i>Erithalis quadrangularis</i>
	<i>Rondeletia amplexicaulis</i>	<i>Erythroxylum jamaicense</i>
	<i>Rondeletia clarendonensis</i>	<i>Eugenia heterochroa</i>
	<i>Scolosanthus howardii</i>	<i>Eugenia lamprophylla</i>
	<i>Sebastiania spicata</i>	<i>Eugenia laurae</i>
	<i>Sebastiania spicata</i>	<i>Guarea jamaicensis</i>
	<i>Sophora saxicola</i>	<i>Hamelia papillosa</i>
	<i>Ternstroemia calycina</i>	<i>Jatropha divaricata</i>
		<i>Lasiocroton harrisii</i>
		<i>Lunania polydactyla</i>
		<i>Malpighia harrisii</i>
		<i>Malpighia obtusifolia</i>
		<i>Palicourea wilesii</i>
		<i>Peperomia simplex</i>
		<i>Pimenta obscura</i>
		<i>Portlandia harrisii</i>
		<i>Psychotria plicata</i>
		<i>Rocheportia acrantha</i>
		<i>Rondeletia adamsii</i>
		<i>Samyda glabrata</i>
		<i>Schefflera troyana</i>
		<i>Schoepfia harrisii</i>
		<i>Strempeliopsis arborea</i>
		<i>Varronia clarendonensis</i>
		<i>Viburnum arboreum</i>
		<i>Xylosma proctorii</i>
10	21	39

Socio-economic aspects and gender considerations

Historically the Cockpit Country was the domain of the Maroons, who formalized their presence through a series of treaties with the British. Today the implications of the treaties are unclear and a source of dispute. The main Maroon settlements are in Accompong, Aberdeen, Quickstep and Flagstaff.

The proposed CCPA spans five parishes in west central Jamaica (St. Ann, Manchester St. Elizabeth, St. James and Trelawny). It encompasses at least 17 villages (Figure 1). The Socio-economic Survey of the Cockpit Country conducted by Forestry Department, which was done in 2013, using the “Ring Road” as the boundary; indicated that the majority of residents have lived within the area from birth, with over 84.3% having residency of over 15 years. The majority of occupants are private owners rent-free tenants on family lands or Government-owned lands. Formal ownership is reported at 49.2% with the aggregate holding between one and five acres. Agriculture accounts for 70% of the household income and occupation. The remaining residents sought employment outside of the CC (Ring road) area or pursued other small commercial activities. Individual monthly income is estimated at USD 225 based on the average of USD 150.

In terms of education and training, persons had access to early childhood, primary and secondary education opportunities within the CC. Vocational and tertiary education has to be sought outside the ring road, which proves economically challenging for some. The quality of life is mixed. Most of the residents do not have access to potable water but some could afford to construct large catchment tanks for distribution throughout their houses. Others used drums or the nearby river. There was a mix of flushed and pit toilets. The majority has access to electricity.

The majority of residents in the area depend on agriculture, including small farming based on slash and burn cultivation in the forests, livestock production (chickens, pigs, goats and cows). Yam cultivation is carried out wherever there are suitable soils. Other sources of income and subsistence include legal and illegal extraction of timber and yam or tomato sticks, charcoal production, collection of medicinal plants, poaching of game birds, parrots, butterflies, orchids, harvest of wild yams, collection of thatch for roofing, hunting wild hogs, and extraction of craft materials including wicker.

Tourism is mostly focused in a few areas. Including Accompong (Maroons and Maroon culture), Albert Town (Cockpit Country Adventure Tours - home stays, tours, hikes and cave visits), Flagstaff (interpretation centre and community-based tours), Windsor (cave visit and birding), Ipswich (caves) and Bunkers Hill, and Burnt Hill/Barbecue Bottom road (birding). Currently tourism is not a major source of employment or revenue in the area.

Generally there is a decline in dependence on the forest and its resources, due to out migration, ageing populations, changes in aspirations among young people and increased enforcement by Forestry Department (Vassell 2018).

“Major issues facing livelihoods/wellbeing of the communities and the impact on men and women were discussed at four community consultations that poverty is having a severe impact on the people of the Cockpit Country and there is a desperate need for economic development that protects the forest but also enhances the quality of life of residents. Residents are quick to emphasize that they are not looking for riches but are focused on having a “decent,” or “comfortable” life.” Problems include unemployment, lack of water, poor roads, lack of opportunities, and training, lack of access to suitable land for farming, and problems with marketing of farm products. Many of these problems disproportionately affect women (Vassell 2018).

Since 1999, the Forestry Department has carried out pioneering work with community participation through establishing the Local Forest Management Committee . They have had some success, but some LFMCS have experienced problems with sustaining their efforts (Brown 2016).

Heritage and culture

The Cockpit Country is a major focal point of Jamaican culture because of its association with the Maroons. For this reason, many people who do not know the area still feel strongly about its preservation. There are many archaeological and historical sites worth of preservation and interpretation (Jamaica National Heritage Trust 2009). The linkages between human and natural heritage are an important feature of the area, which influenced the decision on the boundary of the CCPA. They can also support livelihoods as part of the sustainable, community-based tourism product. The Cockpit Country has been suggested as a World Heritage Site (e.g. Eyre 1994. 1995).

Threats to biodiversity and ecosystems

The main threats to biodiversity in the CCPA are summarized in Table 3. The most important is the potential indirect impacts of bauxite mining and limestone quarrying and exploration, in the proposed CCPA and adjacent areas, closely followed by conversion of forest and invasive species.

Table 14: Summary of impacts of major threats on conservation targets (Source: TNC Conservation Area Plan 2006)

Threats Across Systems		Limestone Forest	Karst Freshwater Ecosystems	Cave Communities (Terrestrial)	Black-billed and Yellow-billed Parrots	Giant Swallowtail Butterfly	Overall Threat Rank
Project-specific threats							
1	Mining/quarrying (potential)not in the area to be protected as the CC	High	High	Very High	-	High	Very High
2	Conversion of forest	High	Medium	Very High	Low	Medium	High
3	Non-native invasive species	High	Medium	Very High	-	-	High
4	Inappropriate garbage disposal	-	Medium	Very High	-	-	High
5	Incompatible agriculture practices	High	High	High	-	-	High
6	Amateur/scientific collecting and hunting (food, pet trade, sport)	Medium	-	High	Medium	High	High
7	Inappropriate septic systems	-	High	Medium	-	-	Medium
8	Timber extraction	High	-	-	Low	-	Medium
9	Non-dynamic gaps (trails, tracks & roads)	High	-	-	-	-	Medium
10	Recreational Tourism	-	-	High	-	-	Medium
11	Guano Extraction	-	-	High	-	-	Medium
12	Human-caused fire	Medium	-	-	-	-	Low
13	Dams	-	Medium	-	-	-	Low
14	Yam stick harvesting	Medium	-	-	-	-	Low
15	Over-pumping of groundwater	-	Low	-	-	-	Low
16	Introduced Diseases	-	-	-	Low	-	Low
Threat Status for Targets and Site		Very High	High	Very High	Low	High	Very High

Conservation opportunities

The designation of the area to be protected as the CC offers many opportunities to enhance and strengthen conservation in the area and to demonstrate new approaches. These include i) strengthening the national framework for landscape level planning through testing new approaches to integrating protected area planning and implementation, including strategic environmental assessment of proposed bauxite mining surrounding the CCPA,

restoration of forest connectivity (Figure 5), increased integration of private lands into implementation of conservation strategies ii) laying the ground work for the new CC including development of regulations and preparation of a management plan using participatory processes iv) active participation in the management of the CC and improved enforcement through strengthening of LFMCS, with particular emphasis on women v) increased ecosystem based management, baseline studies, conservation management plans and monitoring vi) increased awareness of the economic importance of biodiversity conservation and the role communities can play in supporting it.

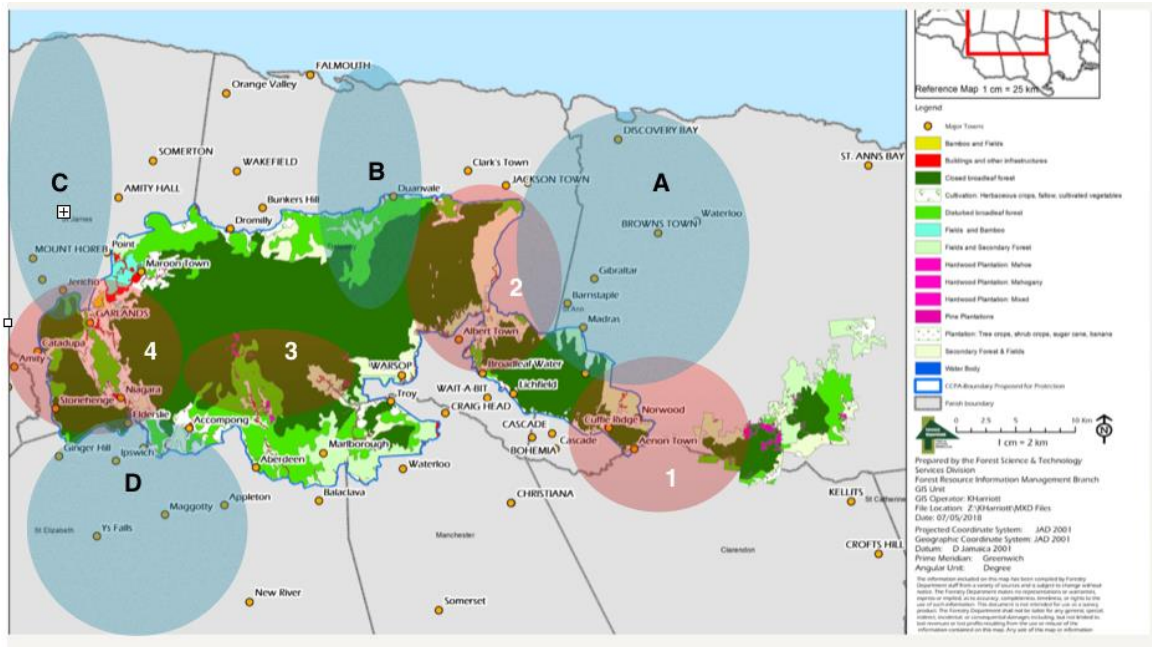


Figure 9: Priority areas for restoration of forest connectivity to support Cockpit Country biodiversity (within the CC 1-4 shown in red) and outside it (A-D shown in blue)

Table 15: Some high priority objectives and activities to support biodiversity conservation in the CC

OBJECTIVES	ACTIVITIES
Determine the relationship between Cockpit Country forests and aquifer recharge	Hydrological assessment of impacts of bauxite mining on hydrology in lands adjacent to the CC
Monitor impacts of climate change on biodiversity and agriculture	Install 2 extra automatic weather stations in forested areas
Provide information for zoning and restoration	Ecological assessment of CC, including vegetation classification
Develop new approaches to restoring mined out lands outside of the CC and abandoned agricultural lands to natural forest	Require restoration of forest or protection of an equivalent area or value.
Reduce the impact of invasive species on natural forests	Carry out an assessment of the extent and impacts of invasive species. Develop a strategy for reducing the impacts, identify priority areas and test approaches.
Reduce the impact of garbage disposal on forests	Determine the root causes and address them

OBJECTIVES	ACTIVITIES
Support planning and zoning for CC, guidance for clusters and reestablishment of N-S and E-W connectivity	Develop a Cockpit Country GIS data atlas, including up to date information on the status and distribution of habitat types, species, relationships to ecosystem services and connectivity
	Develop a Cockpit Country integrated landuse/connectivity plan to inform activities in clusters and buffer zone and updates to Development Orders
	Ensure that all remaining high quality forests (CBLF & DBLF) and river corridors are identified and zoned as conservation areas in the appropriate development orders..
Conservation on private lands	Identify and prioritize blocks of privately owned forests that need to be zoned for conservation, either to preserve species or to restore connectivity and work with private landowners to conserve them either as private forest reserves or Forest Management Areas, or under new categories of private conservation area or micro-reserve to be developed under the project.
Integrate conservation with agriculture	Promote food (orchards) forests ⁸⁹ , shade coffee; develop new approaches and guidelines for conserving biodiversity in agricultural plots and gardens. New policy that mined out lands outside the CC should be restored to previous condition (i.e. natural forests will be restored to forest)
Threat reduction	Licensing regime for transporting yam sticks Promote living yam sticks Increase enforcement capacity of Forestry Department and NEPA, including using SMART Increase capacity for monitoring forest cover (e.g. using drones) Increase effectiveness of enforcement using SMART or similar software
Aquatic	Establish river conservation corridors to link CC to Black River and Martha Brae Improve agricultural systems and waste water treatment to reduce run off and chemical use Increase awareness of proper waste disposal
Caves	Ensure the forest surrounding important bat caves is protected through zoning Ensure tourism development does not threaten cave biotas,
Flora	Map known ranges of endemic plants; use this to identify gaps that need to be surveyed and to ensure all ranges of endemic and rare species are zoned for protection. Establish an ex situ conservation site for range-restricted plants Prepare a list of CC plants to be listed for protection once Wild Life Protection Act has been revised Prepare a recovery action plan for threatened CC plants
Fauna	Promote research into invertebrate groups with high levels of biodiversity (e.g. moths, lampyrid fireflies)

⁸⁹ A food forest is not a plantation or an orchard, but a managed forest in which food is grown in the form of tree crops, vines and herbs in a structure that closely resembles to structure of native forests. This approach has long been used by traditional Jamaican agricultural practices used by small farmers in the mountains. Such practices have recently received international recognition, e.g. by the Permaculture movement.

OBJECTIVES	ACTIVITIES
	Carry out research into patterns of habitat dependency of species that migrate across the landscape (e.g. butterflies, bats, birds)
	Assess status and distribution of the Jamaican Hutia
	Increase enforcement to prevent poaching
	Design and implement monitoring programs for selected indicator species (e.g. Parrots, columbids, bats, Homerus Swallowtail)
Education and awareness	Develop an environmental ethic among decision-makers, resource users and communities
	Increase support for biodiversity conservation
	Engage communities through community monitoring and junior ranger programs

2. *Stephney-John's Vale Forest Reserve*

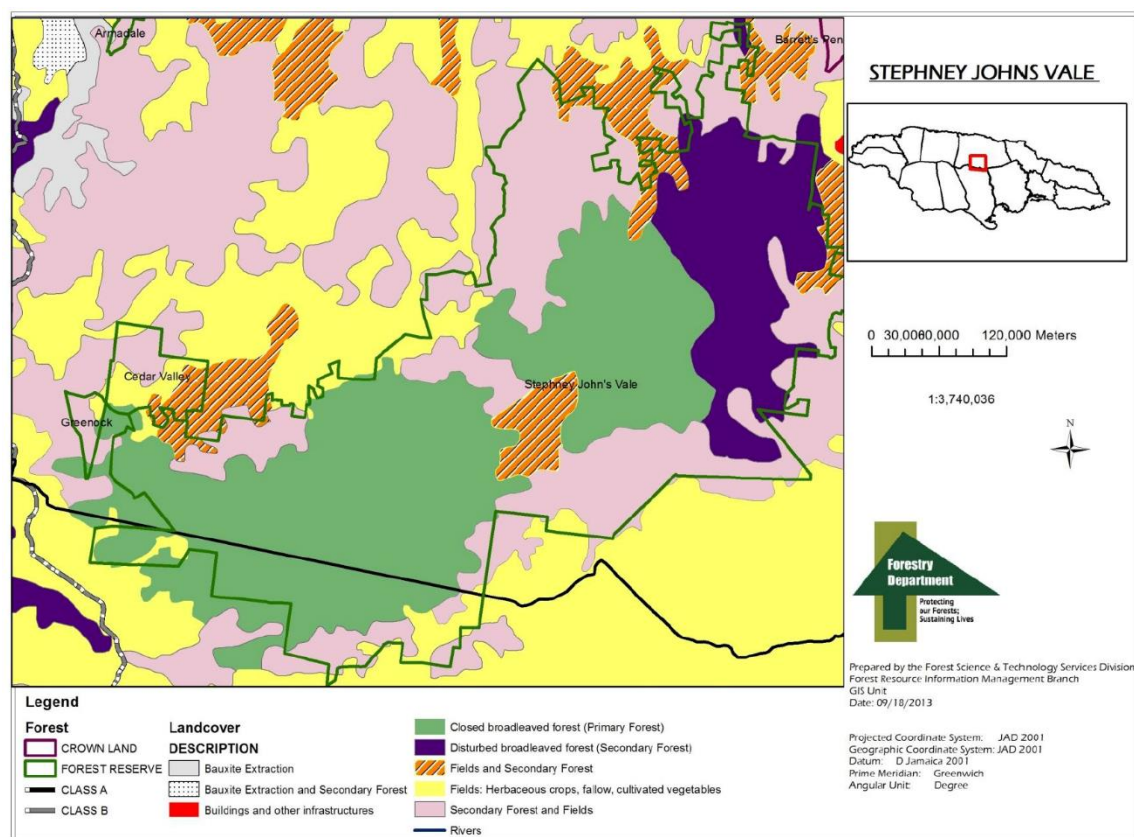


Figure 10: Map of Stephney-John's Vale Forest Reserve and environs (Source Forestry Department 2014)

Background

Stephney-John's Vale lies to the south east of the Cockpit Country, and forms an important link between it and the remaining spinal forest to the west. It straddles the boundary between St. Ann and Clarendon but most of the area is in St. Ann.

Legal status and present conservation management

The Stephney-John's Vale Forest Reserve is owned by the Commissioner of Lands and managed by Forestry Department. It was declared in 1950. The area of the forest reserve is 6,712 ha. The Stephney-John's Vale KBA includes 11,800 ha. Conservation management is guided by a forest management plan (Forestry Department 2014). The Stephney-John's Vale Forest Reserve is the third largest contiguous block of forest managed by Forestry Department. Three Local Forest Management Committees (LFMCs) were launched in 2014, in Grants Mountain, Hessen Castle and Stephney to assist with forest management (Forestry Department 2014).

Physical characteristics

The area lies at an elevation of approximately 650 m. Its geology is limestone karst. The main soil type is Bonnygate Stony Loam and St Ann Clay. There are extensive reserves of bauxite. The only surface water features are near Douglas Castle

Landscapes and vegetation – main types, key characteristics and conservation

Forests: The forests have been characterized as closed broadleaf - Dry Limestone Forest. The Douglas Castle area is known to support site endemic plant species.

Anthropogenic habitats: The flatter lands were cleared hundreds of years ago for cultivation of coffee and bananas. Tree planting started in 1951. All mature Caribbean Pine and hardwoods were reaped in the 1990s and since then small farmers (many of whom are squatters) have used the land for production of vegetables, particularly cabbages and root crops. Twelve percent of the Forest Reserve is taken up with agriculture. There are some forest plantations - Mahogany (36.04 ha), Mahoe (2.28 ha) and Caribbean Pine (335.06 ha).

The Forest Management Plan (Forestry Department 2014) identified at least 3,504 ha of closed broadleaf forest, and 1,573 ha of disturbed broadleaf forest in the area. This may include rare relicts of *Podocarpus purdieanus* forests are one of the most threatened forest types in Jamaica.

There are several caves, including some with freshwater springs or rivers. Their faunas have not been assessed.

Fauna and flora – key species and conservation status

No comprehensive ecological studies have been done in this area. At least 14 Red Listed animals and 7 plants are thought to occur there (Table 4) (CEPF, Unpublished data). Species of special interest include the endemic conifers, *Podocarpus urbanii* and *Podocarpus purdieanus*. Other species of interest include *Hernandia* spp. as this is the food plant of the threatened Homerus Swallowtail butterfly.

Table 16: IUCN Red List Fauna and Flora of Stephney-John's Vale

CRITICALLY ENDANGERED	ENDANGERED	VULNERABLE
<i>ANIMALS</i>		
<i>Eleutherodactylus junori</i>	<i>Eleutherodactylus grabhami</i>	<i>Patagioenas caribaea</i>
<i>Natalus jamaicensis</i>	<i>Eleutherodactylus jamaicensis</i>	<i>Tachycineta euchrysea</i>
<i>Hypsirhynchus ater</i>	<i>Osteopilus crucialis</i>	<i>Amazona agilis</i>
	<i>Osteopilus marianae</i>	<i>Amazona collaria</i>
	<i>Osteopilus wilderi</i>	<i>Geocapromys brownii</i>
	<i>Celestus barbouri</i>	
3	6	5
<i>PLANTS</i>		
<i>Mitranthes nivea</i>		<i>Jatropha divaricata</i>
<i>Podocarpus purdieanus</i>		<i>Erythroxylum jamaicense</i>
		<i>Peperomia simplex</i>
		<i>Malpighia harrisii</i>
		<i>Colubrina obscura</i>
2	0	5

Socio-economic aspects and gender issues

“This Forest Reserve is surrounded by twelve communities namely; Alexandria, Calderwood, Cedar Valley, Douglas Castle, Grants Mountain, Hessen Castle, McKenzie, Murray Mountain, Nine Mile, Prickly Pole, Stephney, Sterling and John’s Vale (district). These communities directly impact the forest through use of lands for illegal agricultural activities and extraction of forest products such as yam sticks and fence posts.” (Forestry Department 2014).

Residents depend on farming as their main source of income that results in encroachment on forest areas. Forty-one percent are self-employed, 47% unemployed and the remaining seek employment in small establishments such as food and entertainment facilities. Low skill levels and limited opportunities for higher education keeps income on the lower end. Approximately 90% of the residents owned or rented the land they occupied with a minority occupying lands informally. Just over 72% of the residents report completing either primary or secondary education but literacy levels remain low and only eight percent went on to vocational or tertiary education. These institutions are located outside of the communities and attendance proves costly for the majority of the residents.

Individual monthly income is estimated at an average of USD 185. Over 90% of the residents have access to electricity with only 8.6% having access to piped water. Almost 85% collected rainwater for household use, others purchased from trucks while some had no access to water for weeks. Fifty eight percent used pit toilets and two percent reported having no toilet facilities. The majority of the houses were in fair condition with less than 10% showing extreme damages to structure, roof and doors (Forestry Department 2013).

Threats to biodiversity and ecosystems

The main threats to the area include the direct and indirect impacts of bauxite mining as farmers displaced by bauxite mining in the peripheral areas continue to move into the forested areas of the reserve. Other threats to forest cover include the impact of droughts and storms associated with climate change, marijuana production, animal trespassing, fire, politics and the lack of inter-agency collaboration on the use of forest lands. Invasive Guinea Grass *Megathyrsus maximus* is a problem in disturbed areas (Forestry Department 2014).

Conservation opportunities

The Forest Management Plan (Forestry Department 2014) identified detailed objectives for restoration of forest cover, management of forest resources, research and resource assessment and forest management. The Forest management plan also identified the need for improved enforcement, increased cooperation between agencies, a new forest inventory, public education (including use of water resources), improved Silviculture management of plantations, increased support for agroforestry, best practices and non-forest based alternative livelihoods. The current project will support a Natural Resource Valuation for the area, to assist with justification for further conservation of the area. Prerequisites for this valuation include development of the necessary baseline information including a detailed ecological assessment of ecosystems (including forest classification, species assessments for plants, and selected groups of fauna, caves and freshwater aquatic systems), and hydrology.

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ANNEX 16 - SPECIAL INTEREST” PEOPLES PLAN- MAROON COMMUNITY ENGAGEMENT

Executive Summary of the Plan

This engagement plan responds to the position of the Accompong Maroons who are a special community of interest because of their history and positioning within the Cockpit Country, which is their traditional home.

The plan describes the basis of their position as a special interest group, their positioning within the structures of decision-making throughout the process of the project preparation and into its implementation. The Plan describes how a Grievance Redress Mechanism can be operationalized to ensure that the Accompong Maroons, as well as other stakeholders, can have the opportunity to utilize a framework to resolve conflicts and promote partnership building that is critical for overall project success.

Description of the Project

The project- ‘*Conserving biodiversity and reducing land degradation using an integrated approach*’ – is focused on the Cockpit Country as the pilot landscape site. The details of the project are defined in Section IV (“Results and Partnerships” of the UNDP project document. This is an extensive area in the northwestern section of the country, rich in endemism as discussed in the Project Document.

Description of the Special Community

The Maroons of Jamaica had escaped enslavement and established communities in the interior following the capture of the island from the Spanish by the British in 1655. Organized and persistent, the Maroons had engaged the British colonizers in open warfare and by 1734, under their leader Captain Cudjoe had established themselves on the edges of the then impenetrable Cockpit Country. Their threat to the economy and social stability of the slave colony led to the 1739 treaty between the Leeward Maroons and in 1740-1741 with the Windward Maroons and the British. The 1739 treaty, among other things provided “*that they shall enjoy and possess, for themselves and posterity for ever, all the lands situated and lying between Trelawny Town and the Cockpits, to the amount of fifteen hundred acres, bearing north-west from the said Trelawny Town*”.⁹⁰ The land has been the foundation of their stability and identity, not as indigenous peoples, but as a special community with customary rights. Although there are persons of Maroon heritage living in various communities across the Cockpit Country, the largest concentration are located in the self-styled ‘Sovereign State of Accompong’, located in the parish of St. Elizabeth.

Substantive Rights and Legal Framework.

By Convention, the Accompong Maroons are exempted from paying property taxes and are governed internally by the Maroon Council that is elected by Maroons living in and outside of the community. As citizens of Jamaica, they enjoy all the rights and obligations as other Jamaicans and vote in national and local elections for parliamentary and Municipal Government representatives. While the Jamaican Constitution makes no specific mention to the status of Maroons, their history of resistance to their enslavement, and strong cultural heritage and national and international profile strengthen their identification as a significant stakeholder group in any planned development initiatives. Alongside this is the reality of ambivalence among sections of the Jamaican population about their collaboration with the enslavers against the interests of other fighters for freedom from slavery. This lingering controversy persists⁹¹. However, the Maroons of Accompong have a strong confidence in their identity and when asked what they value about themselves and their community, men and women were eager to share. Women and young girls in particular, valued the security and safety they experience in the community; men placed emphasis on the history of the struggles alongside other attributes: which like women they lauded. Responses include:

- *The freedom we have*
- *Peaceful. The people are united. Little crime.*

⁹⁰ Richard Hart, *Slaves who abolished slavery, Volume 2 . Blacks in Rebellion*, Social and Economic Studies, University of the West Indies, 1985, pp.118-119)

⁹¹ See Shalman Scott, *Are the Maroons mentioned in the Jamaican Constitution?*? Sunday Observer, November 4, 2018, pp. 32, 34, 35-36. http://www.jamaicaobserver.com/news/are-the-maroons-mentioned_148444?profile=0

- *Like the climate*
- *The legacy of the Ancestors- the land...handed down through generations for the born and the unborn*
- *The beauty of the Cockpit*
- *History and legacy of Cudjoe*
- *Crime free, cool and nice. Peace and quiet*
- *Unique ambience, a free people apart (who) possess the right to self-government and never get into the hands of foreigner, aliens.*
- *History and fight for justice*
- *Natural cultural history.*

There was much pride in recounting the history of their annual celebrations and the special place of men in the preparation of food and pork in particular for celebrations under the Kinda Tree....*"The males cook the pig, a black, male pig...cooked without salt...with natural herbs and spices...every meat cooked must be male"*.

The customs and norms associated with the women were adjudged as also very significant for daily life, the past and into the present and future, with much economic and social potential for development. In this aspect, women's roles as healers; their role in preserving the history through dance, drama and culinary arts, their use and knowledge, equally with the men, of the value of the natural herbs, were adjudged significant and priceless. These positive perspectives were expressed, despite the many challenges identified, because many saw the potential for transformation in the richly endowed community.

Summary of Social and Environmental Assessment and Mitigation Measures

The Cockpit Country is source of water for some 40% of Jamaica's exploitable water resources and is home to large populations of endemic plants and animals. For example, of 106 species of vascular plants found in the area, 101 are endemic. The forests are an integrated whole; each locale is dependent on adjacent forests. Whether owned by the Jamaican State, Maroons and private landowners, the forests and lands, and hence the biodiversity resources all face common threats. The project therefore provides opportunity for collaboration and partnership to address land degradation and biodiversity conservation. The project embeds this collaboration as a key strategy through *"Strengthening the role of communities (including Maroon communities), local parish institutions, community based organizations and non-governmental organizations and increasing their potential for becoming agents of change in promoting sustainable natural resource management, climate risk management and biodiversity conservation"*.

Accompong has been selected as one of the six target clusters within which the project will be implemented and for consideration will include the following.

- The Accompong Target Cluster remains dependent on forest resources but usage has declined over the years due to aging farmers and youth migration.
- However, the forest is still used to obtain lumber, trap birds, fire sticks and recreational activities with agriculture being the main source of income.
- Livelihoods projects proposed by residents include eco-tourism investments, agro-processing and spring water production.
- The challenge with potable water is a matter of great concern.
- Research and documentation of Maroon Heritage by the community members is also proposed.
- Older residents are highly knowledgeable of the value of the forest and of conservation activities.
- The issue between the Government of Jamaica and the "Sovereign State of Accompong" over land boundaries persist but this is not seen as an obstacle in this project, that is focussed as it on biodiversity conservation and arresting land degradation- issues that do not aggravate the boundaries' issues.
- While reforestation will likely take place on Maroon lands, this would be done more by the community,
- Older residents are highly knowledgeable of the value of the forest and of conservation activities and this is seen as an asset that can be used to create new or expand on existing livelihood activities.
- Livelihood projects proposed by residents include eco-tourism investments, agro-processing and spring water production.
- Research and documentation of Maroon Heritage by the community members is also proposed.

Participation, Consultation and FPIC Process

The Stakeholder Engagement Plan for the Project states:

“As a community living in the Cockpit Country with special rights, their endorsement of planning and programs and participation is essential, with their cultural practices respected. All project interventions will be carried out based on the principle of free prior and informed consent (FPIC). They will participate and be beneficiaries of all project investments in sustainable land management, sustainable agriculture, livelihoods and ecotourism”.

Through the following measures, the statement has taken on life and the principle of Free Prior and Informed Consent (FPIC) has been rigorously applied in dealing with the Maroons as a special community:

- Consultative meetings were held with the Maroon Council for the development of the Project Concept.
- The Stakeholders’ consultation process across Cockpit Country communities, included two community meeting with the residents of Maroon Town itself. Small group discussions were held with men and women separately.
- The Maroon Council is represented on the Technical Working Group (TWG). The TWG has been active in reviewing and directing the project design process and participated in two Validation meetings. In all these processes, the Maroon Council was well represented and actively involved.
- The TWG will be transformed into the Project Board or the Project Steering and this will be the highest body for the airing of any concerns. This body will also include agencies (National Environment and Planning Agency and the Forestry Department) which are under the jurisdiction of the Ministry of Economic Growth and Job Creation (MEGJC), which also opens access to any voicing of concern. Addressing issues of concern, if and when they arise, will take place throughout project implementation.
- The sustained participation of the Maroon representatives in the various fora for decision-making has served to promote understanding and agreement that biodiversity conservation and livelihoods promotion are the priority objectives that must be assiduously pursued within the partnership. The Maroons have been affirmed as important guardians of the biodiversity and other aspects of the cultural heritage of the Cockpit Country. .

Appropriate Benefits

The Accompong (Maroon) Cluster, like the others, will decide on the specific conservation and livelihoods activities that will be undertaken, based on feasibility studies and consensus among the community members. On this approach, the Accompong Cluster will be enabled to access allocations from the budgetary resources being designated for these components of the project.

In addition, pilot initiatives in climate smart agriculture, in land rehabilitation and in the use of innovative technologies will be made available to the community.

Capacity Support

An extensive program of capacity building through training, partnership building and organizational strengthening will be engaged. Focus will be placed on issues such as biodiversity resource identification and management, gender analysis and planning, entrepreneurship, partnership building, resource mobilization and monitoring and evaluation. The use of participatory methodologies will see the involvement of young women and men and children in producing and dissemination of knowledge and information.

Targeted organizations will include:

a). The Accompong Maroon Council which will

- Strengthen community participation, growth and development
- Coordinate livelihoods investment opportunities
- Participate in training and capacity building programs, for example, around support in mainstreaming gender and biodiversity management, social enterprise development and partnership building.

b). The Maroon Youth Culture Group

- Strengthen its organization and management, community outreach and visibility

A major activity which could garner broad community participation will be research and preservation of Maroon culture/heritage, traditions and history and utilising the proposed knowledge management awareness strategies.

Grievance Redress

While the Accompong Maroon Council has spoken of disagreements with the State particularly through the Forestry Department on the matter of the boundaries of Maroon and State lands, the view has been expressed that the process of engagement from the earliest days of project conceptualization has been participatory and transparent. The Council, through the Colonel, has affirmed that the Accompong community has been enabled to offer free, prior and informed consent to the planned activities in the forest areas. Where disputes of any nature do arise, it is proposed that a Grievance Redress Mechanism (GRM) be engaged. This process would apply to disputes which arise from any stakeholder and in particular from Maroon interests in respect of project implementation.

The GRM will involve the following steps:

1. Grievance officially lodged by stakeholder, for ease of access, at any level of the governance process, namely from:
2. (a) At the community cluster level
(b) At the level of the Parish Cluster Planning and Implementation level
(c) At the Project Management Level
(d) At the Project Board/Steering Committee level

Grievance is acknowledged, assessed and assigned by the leadership to the appropriate body responsible for considering the matter and proposing a response.

3. A response is proposed. This can be (a) a direct response or action by the organization; (b) an engagement with the stakeholder; (c) referring the matter to another mechanism; or (d) deciding that the grievance is without merit.
4. Seeking agreement on the response.
 - If there is agreement
5. Implement the agreement
 - Then grievance is resolved, closed.
 - If there is no agreement on the response:
6. Review the process and decide whether to revise the approach, refer to grievance body, or close the grievance.
7. Grievance referred or closed out.

The importance of the GRM lies in its directness and accessibility, and the fact that definite actions are proposed for each stage. That a GRM exists would be part of the administrative arrangements that would be put in place and information would be shared within the project. This mechanism will serve to engender trustworthiness among actors at all levels.

Monitoring, Reporting and Evaluation

- i. Accompong Maroons have their own local organization at the cluster level that will be actively engaged in project implementation, including in monitoring and evaluation. They are to be represented at all levels of the governance system and as such will participate in and have information on the monitoring and evaluation process governing the project.

- ii. Participatory gender responsive monitoring and evaluation will involve the wider community members as well as address the critical issues facing men and women to be addressed through the project.

Institutional Arrangements

The Accompong Maroons will be represented at all levels of the Governance Framework.

- i. At the community cluster level their own organization will be the hub for project execution in partnership with other groups.
- ii. At the intermediate governance level, the Accompong Maroons will be working directly with technical staff of various Ministries who will participate and support implementation of the several projects.
- iii. At the level of the Project Board, the Accompong Maroons are part and parcel of the institutional arrangements that govern the entire project.

12. Budget and Financing.

Incorporated into Budget Table

ANNEX 17 - CRITERIA FOR SELECTION OF CLUSTER AREAS

The six target clusters within the Cockpit Country landscape for intensive project investment were selected based on the following criteria:

- Extent of coverage of KBAs (high biodiversity areas), that are defined as areas that represent a suite of vulnerable, endangered and rare species and habitats (based on species irreplaceability, habitat connectivity, ecological permanence and having representative bio-indicators).
- Sites where there exists clear and present dangers, including land-use changes and land-use conflicts; and
- Sites where there is demonstration potential in terms of conflict reduction, enabling policy environment, political and social support, socio-cultural considerations and potential for trade-offs.

Tier	Criteria	Quickstep/ Crown Lands	Accompong	Niagara	Burnt Hill/Ramgoat Cave/Barbecue Bottom	Windsor/ Duanvale	Litchfield- Matheson's Run- Peckham
Tier 1	Diversity, endemism, irreplaceability ecological services						
		Very high levels of endemism, threatened species, including endemic frogs, butterflies and Jamaican Hutia. The two adjacent sites are biologically distinct.	High. Important ecosystem services include springs that provide water to the community.	Very high. This area is of particular importance for butterflies whose dependence on the landscape is not well understood. The forest is also important because of its role in recharging the Black River aquifers and rivers. White Rock Hill has at least 4 site endemic plants. Catadupa to the north supports at least 27 endemic species. Red Gate to the south also supports local endemic plants.	Very high. The habitats beside this road are of outstanding importance for endemics. It is the type locality and only known locality for at least 4 species of endemic plant and one sub-species of lizard. It is also one of the places most visited by tourists including bird watchers.	Very high. Old growth forest. The area includes one of the most important bat caves in Jamaica, breeding areas for many endemic birds and Yellow snakes, and habitat for range restricted frogs. The proximity of Windsor Research Station with its >100 year history of research is also very important.	High. Endemic birds and rare endemic butterflies are present. Other species have not been assessed. Peckham Woods, although very small has more than 10 site endemic species.
	Number of globally threatened plants	>70	No data specifically for this area	No data specifically for this area	>70	>70	Litchfield Matheson's Run >51; Peckham Woods >48

Tier	Criteria	Quickstep/ Crown Lands	Accompong	Niagara	Burnt Hill/Ramgoat Cave/Barbecue Bottom	Windsor/ Duanvale	Litchfield- Matheson's Run- Peckham
	Connectivity	Prevention of further deforestation is important to prevent further fragmentation at the core of the CC forest.	Restoration of forests on lands that are not high priority for agriculture would help restore connectivity on the southern borders of the CC.	Niagara is currently isolated from the CC by a narrow band of agriculture corresponding to geological formations.	The disturbance along the road and adjacent hills is currently a barrier to east-west connectivity and a north south corridor for the spread of invasive species.	The Martha Brae River originates near Windsor providing an important corridor to the North Coast Forest and the coast. Some of the most important groups of species e.g. bats, columbids and parrots, depend on food resources outside CC year round or seasonally.	This area is very important for connectivity of the spinal forest and this would increase if it could be joined to CC in the west and Stephney-John's Vale in the east.
	Representativeness N.b. because of the uniqueness of each hillock, the concept of representativeness is hard to define for CC. There are differences between N and S, E and west, and with altitude but these are not described or mapped.	Very high. Best accessible old growth forests in the SE central CC	Medium. Representative of disturbed forest in various stages of regrowth.	High. SE CC forests. Another area where old growth forests are accessible.	Medium. NW forests and secondary forests and cliffs still provide habitat for many range restricted endemic species.	Very high. N Central forests.	High. SW forests.
	Habitat types	Excellent old growth forests, plantations	Disturbed forests, agriculture, freshwater springs, caves	Old growth forests, plantations, settlements and agriculture	Old growth forest, secondary forest, agriculture, abandoned pasture and fields. Cliffs. Caves.	Old growth forests, very important cave system, river.	Old growth forests and springs, surrounded by agriculture
	Aquifer recharge/surface water flows	Aquifer recharge	Surface water	Surface water/aquifer recharge	Aquifer recharge	Surface water	Aquifer recharge/surface water

Tier	Criteria	Quickstep/ Crown Lands	Accompong	Niagara	Burnt Hill/Ramgoat Cave/Barbecu e Bottom	Windsor/ Duanvale	Litchfield- Matheson's Run- Peckham
	Physiographic features	Cliffs, caves, magotees	Maghotees, springs, caves	Maghotees, springs, caves	Maghotees, caves, NS valleys and cliffs	Maghotees, rivers, caves	Maghotees, springs, caves
Other natural characteristics							
	Uniqueness	Very high	Moderate	High	Very high	Very high.	LMR - Very high. PW - Very high.
	Integrity: the degree to which the area is a functional unit - an effective self- sustaining unit	The CC forests are an integrated whole - no area is self- sustaining but each is dependent on adjacent forests.	The CC forests are an integrated whole - no area is self- sustaining but each is dependent on adjacent forests.	The Niagara forests have been isolated for some time, thus they can be assumed to have some level of sustainability. This is likely to decline with climate change.	The CC forests are an integrated whole - no area is self- sustaining but each is dependent on adjacent forests.	The CC forests are an integrated whole - no area is self- sustaining but each is dependent on adjacent forests.	The area has been isolated for a while. The extent to which this has affected its integrity has not been assessed. No assessments have been done to determine whether there are movements of threatened species between this and adjacent forested areas.
	Productivity in terms of contributing to biological and economic well- being	This is an area in which a few people are still highly dependent on the forest for timber, sticks, charcoal and non-timber products (medicinal herbs, craft materials [wiss], illegal harvest of wildlife).	Maroon culture and economy depend on forest ecosystems and farming in the area, illegal bird trapping for sale, harvest of lumber, firewood and medicinals, tourism.	People live close to the forest but the extent to which they depend on the forest is yet to be assessed.	An unknown number of people farm and reap forest products in the vicinity of the road. Other activities include yam stick harvest, bird shooting, and bird watching.	Water from this part of the CC sustains major tourist areas. Forest- based activities in this area include tourism and scientific research.	Large number of surrounding communities depend on the forest as a source of yam sticks, bird hunting and trapping, thatch, medicinals, tree ferns, lumber, charcoal, tourism (caves), orchids, water.

Tier	Criteria	Quickstep/ Crown Lands	Accompong	Niagara	Burnt Hill/Ramgoat Cave/Barbecue Bottom	Windsor/ Duanvale	Litchfield- Matheson's Run- Peckham
	Vulnerability to degradation either through natural or human induced processes	The existence of the road means that the area is vulnerable to timber extraction and other activities.	This is the largest settlement within the boundaries of the proposed CCPA. Remaining forests are vulnerable to human disturbance.	The area is fragmented and close to human habitation. The majority is privately owned. Thus it is highly vulnerable. There are bauxite resources in the area.	This area is particularly vulnerable to human disturbance including clearing for agriculture, extraction of pot sticks and fire. The opening of the forest means that there is increased vulnerability to the impacts of climate change. Barbecue Bottom is vulnerable to flooding.	Interest in farming in this area appears to be declining as the population ages.	Highly vulnerable due to the large number of people living in and near the area. Bauxite mining in adjacent forests to the north is another major threat.
	Opportunities for linkages with other protected areas	Central location and proximity to other important areas for biodiversity including Crown Lands.	None	High. It is connected to the YS River system to the south, which has been proposed as an extension to the Black River Ramsar site. Thus reconnecting this area to the CC would provide a corridor from the centre of the island to the sea.	This area should be linked to forest reserves in Hyde and Gibraltar and may be affected if mining expands there. People are already moving further into the forests as they are displaced by bauxite mining.	Important link to other proposed protected area including the North Coast forests.	Important link to the rest of the spinal forest.
Tier 2	Threats to biodiversity						

Tier	Criteria	Quickstep/ Crown Lands	Accompong	Niagara	Burnt Hill/Ramgoat Cave/Barbecu e Bottom	Windsor/ Duanvale	Litchfield- Matheson's Run- Peckham
		The main threats are historical and present conversion to agriculture and plantation forestry, extraction of lumber and sticks from private lands and forest reserves. This is the area most at risk from logging, charcoal burning and removal of forest produce. Invasive species are not a major threat. There are various disputes about land ownership, include Maroon claims to land at Quickstep. Garbage disposal is another issue. Ganja cultivation in remote areas.	Agriculture and unsustainable use of forest resources, including hunting, Invasive species including plants, dogs and cats are likely to be a bigger problem than in other areas. Solid waste and sewage disposal are an issue. Ganja cultivation in remote areas.	This area is vulnerable to poaching of wildlife. Snakes are killed on sight. Extraction of yam sticks, fish pot sticks charcoal burning and ganja cultivation is additional threats. Villages lack sewage disposal.	Threats include historical and present clearance for agriculture. Fires are often followed by invasive species of ferns that interfere with natural succession. The invasive tree <i>Calliandra callothursus</i> was planted along the road and has become a major threat to endemics, agriculture and tourism. <i>Brachiaria</i> grass and invasive acacia species Lack of clarity about the extent of private inholdings makes enforcement difficult. Illegal bird shooting and poaching are also rampant in this area. Burnt Hill has a high level of illegal logging and extraction of forest produce. Dumping of solid waste on roadsides is a danger to health and is unsightly. Ganja cultivation in remote areas.	The threat of bauxite mining appears to have receded. Poaching of parrots and butterflies and killing of snakes continue to threaten wildlife. Tourism in the caves could threaten biodiversity if not controlled however it is currently managed by Windsor Research Station. Bird shooting is a problem.	Invasive species, illegal harvest of wildlife, hunting, extraction of yam sticks and timber. Other problems include lack of sewage treatment and ganja cultivation.

Tier	Criteria	Quickstep/ Crown Lands	Accompong	Niagara	Burnt Hill/Ramgoat Cave/Barbecu e Bottom	Windsor/ Duanvale	Litchfield- Matheson's Run- Peckham
Tier 3	National significance						
	Geographic representation	N Elizabeth, St	N Elizabeth, St	St. Elizabeth, St. James?	Trelawny, St Ann?	Trelawny	Trelawny, St Ann Clarendon
	Geographic linkages	N Elizabeth,, St.	N. Elizabeth, St. Maggotty, Appleton Valley	N St Elizabeth,	Eastern Trelawny. Upper St Ann, north coast forests	N Trelawny and north coast forests.	E Trelawny, S St. Ann. N Clarendon,
	Watershed	Black River, Martha Brae	Black River, Martha Brae	Black River, Great River	Rio Bueno	Martha Brae rises near Windsor.	Rio Bueno, Rio Minho
	Institutional capacity - Forestry Department	Forest officers based in Quickstep and Crown Lands office in Litchfield	Forest officer in Accompong. Office in Litchfield	Office in Catherine Hall (Montego Bay)	Office in Litchfield (S) and Catherine Hall (N)	Office in Litchfield	Forestry Department office in Litchfield,
	Institutional capacity NEPA	NEPA watershed officer	NEPA watershed officer	NEPA watershed officer	NEPA watershed officer	NEPA watershed officer	NEPA watershed officer
	Institutional capacity - other (Maroons, SDC, RADA etc.		Accompong State does not have environmental officer.	RADA - active SDC- new officer appointed JAS - active	RADA		RADA - active JAS - active
	Stakeholder groups/CDOs	South West LFMC; Quick Step CDC; Aberdeen CDC	Maroons not currently participating in LFMC	Niagara CDC, Mocho PMO, Sweet Water Agricultural Cooperative, LFMC	South Trelawny Environmental Agency; Sawyers LFMC	Cockpit Country LFMC; Windsor Research Centre; Shurduan CDC; Bunkers Hill JAS Group	Aenon Town CDC, LFMC
	Forestry Department cluster	Cockpit Country	Cockpit Country	Fyffe and Rankine et al.	Cockpit Country	Cockpit Country	Litchfield et al. and Peckham et al.
	Parish Development Committee/Development Area	Trelawny	St. Elizabeth	St. James/St. Elizabeth	Trelawny	Trelawny	Trelawny/St. Ann/Clarendon
	Policy environment and conflicts	Belmore Castle ownership dispute. Maroons	Conflicts over extent of land ownership and Maroon "state"	Mining in adjacent areas.	Mining in adjacent areas. Resentment around ecotourism activities	Issues about visits to caves and benefits to the community. Note a public sector body is	Mining in adjacent areas

Tier	Criteria	Quickstep/ Crown Lands	Accompong	Niagara	Burnt Hill/Ramgoat Cave/Barbecue Bottom	Windsor/ Duanvale	Litchfield- Matheson's Run- Peckham
		claim ownership.			bypassing the communities.	working on guidelines re the above.	
	Legal status	CC Forest Reserve, Maroon? And private?	CC Forest Reserve and Maroon	Forest Reserve and Private	Forest Reserve and Private	Forest Reserve and Private	Forest Reserve and Private
	Land ownership	Commission er of Lands and Private	Maroons and Commission er of Lands (boundaries disputed)	Commissioner of Lands and Private	Commissioner of Lands and Private	Commissioner of Lands and Private	Commission er of Lands and Private
	Level of dependence of community on forest	High	High	Medium/low?	High	Low	Very high?
	Number of people in community	c. 2,200	c. 5,000	c. 4,300	S and W c. 8000, N (Clarks Town, Stonehenge) not assessed.	c. 5,000	c. 8,500
Demonstration value							
Likelihood of having an impact	Level to which interventions can benefit biodiversity and community	High because of active Forestry Department presence and need	High if an agreement with the Maroons can be reached.	High, especially if railway link is reinstated. High if community investments are realised.	High because of accessibility	High depending on the boundaries of the cluster. The population of Windsor itself is small, though many people visit for recreation. There are projects that need support in adjacent areas such as Duanvale and Bunkers Hill.	Low because of large number and extent of threats
Likelihood of community engagement	Level of support for project	Challenging due to internal disputes between groups. Weak/or non-existent organizations	High if an agreement with the Maroons can be reached.	Good prospects for community engagement and high interest.	Need for extensive community organizing but high interest.	Much depends on interest, as well as existing and potential partnership.	High because of existing community interest

Tier	Criteria	Quickstep/ Crown Lands	Accompong	Niagara	Burnt Hill/Ramgoat Cave/Barbecue Bottom	Windsor/ Duanvale	Litchfield- Matheson's Run- Peckham
Importance for biodiversity monitoring of indicator species	Level to which monitoring can be carried out effectively	Very high because of presence of important indicator species	Medium - if indicators can be restored	Very high because of presence of important indicator species	Very high because of presence of important indicator species	Very high because of presence of important indicator species, presence of WRC and long history of scientific research	Medium - if indicators can be restored
Educational value	Level to which people can learn from activities at site	Medium because of remoteness	Very high because of high profile of Maroons	Medium	High because of visibility of site and links to STEA	High because of links to N coast	High because of large number of people in surrounding communities
Opportunities for demonstration activities							
	Small scale agriculture, techniques, new or diversified crops	High	High	High	High	Low	High
	Forestry and forest replanting and "restoration"	High because of active Forestry Department presence and need	High but relationship between Maroons and Forestry Department is strained	High	High because of need and potential visibility	Low need	Very high
	Conservation on private lands	High because of presence of private lands in high biodiversity areas	? Complicated	High need because of need to reestablish spinal forest connectivity but challenging because of land ownership and interspersio n of central inlier	High because of presence of private lands in high biodiversity areas	High because of presence of private lands in high biodiversity areas	High need because of need to reestablish spinal forest connectivity but challenging because of land ownership and interspersio n of central inlier
	Tourism	Low because of remoteness	Very high because of links to Maroons	Very high when railway link to Appleton restored	Very high because of accessibility from N and S coasts	High because of accessibility from N coast	Low because of accessibility

Tier	Criteria	Quickstep/ Crown Lands	Accompong	Niagara	Burnt Hill/Ramgoat Cave/Barbecue Bottom	Windsor/ Duanvale	Litchfield- Matheson's Run- Peckham
	Increased enforcement	High	Difficult	High	High	High	Low because of accessibility
	Educational programs	Low	High	High	High	Medium because of low population	High. Forestry Department has an office and interpretation center
	Removal of invasive species	Low because few invasive present	High	Not assessed	Very high because of the presence of invasive that are affecting tourism and agriculture	Low because few invasive present	High
Challenges to economic and social activities							
	Potable water sources	Low	Low	Low	Medium - some areas have good supply but not all.		Low
	Access to land	Low	High	High	Medium		High
	Access to services	Low	Medium	Low	Medium		Medium
	Roads	Low	Medium	Low	Medium		Low
	Praedial larceny	Low	Low	Low	Medium		High
	Gender-related issues	Medium	Medium	Medium	High		Medium

ANNEX 18- POTENTIAL LIST OF DEMONSTRATION OF AND INVESTMENTS IN SLM, SFM AND AD PRACTICES BY CLUSTER

Category of Investment	Purpose	Type of Investment	Cluster					
			Quickstep	Burnt Hill	Accompong	Niagara	Windsor	Litchfield
Biodiversity and Climate Resilient Agriculture	To demonstrate good practices in BDC and CSA	Demonstration sites	Yes		Yes		Yes	
Drought Mitigation Measures	To demonstrate drought mitigation measures	Water harvesting technologies. Drought tolerant varieties SIPs, CATs, sustainable water management and conservation practices, and SALT		Yes		Yes		
Alternatives to slash and burn agriculture	To determine alternatives to slash and burn	Research and development	Yes	Yes	Yes	Yes	Yes	Yes
Grants Facility to incentive the uptake of best practices	To promote the implementation of best practices derived from demonstration sites	Grant funds available to all Clusters	Yes	Yes	Yes	Yes	Yes	Yes
Small business enterprises that are economically viable and culturally acceptable	To promote smart business opportunities	Demonstration sites for Aquaponics	Yes				Yes	Yes
		Demonstration sites for hydroponics			Yes	Yes		
		Demonstration sites for greenhouses				Yes		Yes
		Demonstration sites for Beekeeping		Yes	Yes	Yes		
		Improved breeds of small ruminants	Yes	Yes	Yes	Yes	Yes	Yes
		Rainwater Harvesting Facilities for sites	Yes	Yes	Yes	Yes	Yes	Yes
	To promote the commercialization of the Herbal sector	Establish Information and Knowledge platform	Yes	Yes	Yes	Yes	Yes	Yes
		Establish an incubator facility	Yes	Yes	Yes	Yes	Yes	Yes
	To research the feasibility of using Biomass Briquette as substitute to charcoal	Establish research facility			Yes		Yes	

Sustainable ecotourism initiatives	To implement initiatives to improve community-based ecotourism services and products	Ecotourism infrastructure. Market access and marketing. Product development. Decision-making structures. Community capabilities.	Yes	Yes	Yes	Yes	Yes	Yes
Management of Invasive Alien Species	To develop evidenced-based techniques and applied in the eradication of invasive alien species	Research and development Eradicate selected species in selected areas	Yes	Yes	Yes	Yes	Yes	Yes
Grant Facility for Business Options	To catalyze investments in micro and small businesses	Establish Grant Facility to support the business processes	Yes	Yes	Yes	Yes	Yes	Yes
Grant Facility for other livelihood options	To promote immediate investments in other livelihood opportunities	Establish Grant Facility to support other livelihood opportunities	Yes	Yes	Yes	Yes	Yes	Yes
Sustainable management of degraded riparian and steep slopes	To promote a number of techniques to assist in managing riparian areas and steep slopes	Fencing to exclude livestock and establish pastures. Forestry manipulation.	Yes	Yes	Yes	Yes	Yes	Yes
Conservation measures to enhance improved connectivity	To improve conservation and increase habitat connectivity in high priority areas	Develop and implement tree planting/Silviculture plans for each cluster and for selected areas	Yes	Yes	Yes	Yes	Yes	Yes
Sustainable forest management approaches for rehabilitation /restoration	To restore disturbed broad leaf forests the activities outlined in the main document and annex 10 implied that other types of forest or degraded lands were included... covering 400 hectares (ha)	Develop and implement forest and land rehabilitation this does not apply to DBLF!!/ restoration management plan for each cluster See comments in the main document and annex 10	Yes	Yes	Yes	Yes	Yes	Yes
Privately managed protected areas, including micro-reserves	To create awareness created of the natural, economical, historical, and cultural features of protected areas	Public awareness/ education programme Regime of incentives/ Disincentives Technical and financial support	Yes	Yes	Yes	Yes	Yes	Yes

Restoration of 200 hectares of degraded lands, including mined out lands outside the CC	To strengthen frameworks of laws, regulations and public policies and partnership options	Mitigation measures. Agroforestry. Shade houses. Water harvesting Small ruminants. Pastures. PPPs.						Yes
Institutional mechanisms	To strengthen relevant institutions	Institutional strengthening	Yes	Yes	Yes	Yes	Yes	Yes
	To establish database system for the collection, storage and generation and use of information	Database	Yes	Yes	Yes	Yes	Yes	Yes

ANNEX 19 – QA ASSESSMENT : DESIGN & APPRAISAL

Kindly see below link for the Approved QA :

<https://intranet-apps.undp.org/ProjectQA/Forms/Design?fid=4136&year=2019&ou=JAM&pid=00118745&fltr=PROJECT>

ANNEX 20 – UNDP Risk Log

Project Title: Conserving biodiversity and reducing land degradation using an integrated approach	Award ID:	Date: January 15, 2019
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#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
1	Risk 3: Lack of capacity in government and communities to meet obligations related to project	01/15/2019	Operational	If capacity is not enhanced for integrated landscape planning and management, sector agencies will continue to work within their institutional silos preventing collaborative efforts at resource management and communities will not benefit from proposed cost-effective integrated resource management P=2, I=2	Need assessment of capacity of government and local communities will inform the project on training and capacity building needs. Training activities will be tailored to meet specific requirements of the different stakeholders to ensure that they have the skills to participate in relevant aspects of the project. Communities participating in sustainable natural resource management, forest restoration and livelihood will be provided on-the-ground training, and training programs would be evaluated for their effectiveness and adjusted as appropriate to ensure their effectiveness.	Project Director	N/A	15 January 2019	No Change
2	Agencies will fail to agree on a common framework as basis for integrated planning, management and implementation of programs in the landscape.	01/15/2019	Organizational	If this risk is not managed it would be unlikely that a coordinated and integrated approach for management of the project landscape would be achieved, thus maintaining the <i>status quo</i> of costly and ineffective sector-based and individualistic	The inter-agency technical working group (TWG) that has been created to support the preparation of the project will serve as a vehicle to ensure cross-sectoral coordination and collective decision-making during the implementation phase of the project. Through this inter-agency mechanism, coordination and collaboration at the national, parish and local levels will be facilitated and inter-agency conflicts resolved.	Project Director	N/A	15 January 2019	No Change

				planning management in the landscape I =2, P=3	The Project will undertake mapping and assessments at the pilot landscape level studies to demonstrate the interrelationships and cross-sectoral impacts of various programs. The study will involve the active participation of agency staff at the central and parish levels in the landscape to engender ownership and joint analyses of results. The Project will use this information to reach broad stakeholder agreement or vision for the management of the pilot landscape that would deliver sustainable benefits. Embedded within this vision will be: • A decision support (multi-sectoral, multi-stakeholder coordination and governance) framework for landscape level planning for biodiversity objectives; • A platform for integration of multiple landscape level objectives for biodiversity conservation and sustainable natural resource use • An understanding of the trade-offs between conservation, resource use and socio-economic development objectives; and • Definition of roles and responsibilities of key stakeholders within the pilot landscape.				
3	The project's outputs addressing policy, legislation and regulations will not be approved or implemented	01/15/2019	Institutional	Delay or lack of support for change in policy, legislation and regulation to facilitate mainstreaming of biodiversity and ecosystem services ins sector and/or parish and local level planning would prevent effective	The project will support changes in legislation, policy and regulations to a large extent where this process of change is already on-going, indicating that there is already a commitment from the government. In other cases, the project will work with agencies to develop guidelines and best practices that can support conservation and sustainable resource uses.	Project Director	N/A	15 January 2019	No Change

				integrated ecosystem based landscape planning and management I=2, P=3	However, with or without the adoption of these instruments, the project will impact conservation and land use planning at the landscape level. The activities supporting landscape and cluster planning will be developed and institutionalized, thereby systematically impacting decision-making at the ground level. These management tools will still be essential for land management decisions, by the municipal corporations and local community organizations.				
4	Project activities to ensure conservation and sustainable natural resource use could have unintended negative consequences on endangered species or critical habitats if not planned or implemented correctly (including insufficient enforcement of protected area management rules).	01/15/2019	Environmental	Unless effective measures are taken to ensure that conservation and natural resources use is defined within sustainable and biologically benign processes, further loss of species and habitats will take place I =3, P =2	Project impacts are proposed to be managed as follows: (i) Criteria for the selection of target clusters for project intervention developed at PPG stage conformed to the project's objective of 'enhancing the conservation of biodiversity through mainstreaming of biodiversity into planning policies and practices into Jamaica's productive landscapes and located outside the proposed PA boundary. (ii) All community agriculture and production systems and livelihood activities will take place outside the boundaries of the existing and proposed PAs through appropriate zoning arrangements. (iii) The use of a screening checklist (based on SESP for project investments developed (Annex 3 of UNDP Project Document) and Project Participatory Community Consultative and Planning Framework of Annex 8 of UNDP Project Document) to screen all investments to ensure that they comply with sound social and environmental principles and is sustainable. Such a checklist would also include the identification of investment location in relation to protected areas. (iv) The planning process for PA management and cluster management (during project implementation) will entail establishing	Project Director	N/A	15 January 2019	No Change

					specific rules and regulations for location and nature of sustainable natural resources use and livelihood activities (and that ensure that these activities will not endanger habitats or species) that will be supported by building community capacity for enforcement and management of these plans. (v) Target Cluster investment plans will include specific reciprocal commitments by local communities for voluntary compliance and support for conservation actions. (vi) The project will include training to equip community members to monitor changes in local biodiversity and over use of natural resources to ensure community rules are complied with (vii) The preparation and implementation of the Stakeholder Engagement Plan and Knowledge Management Plan (completed during the PPG stage) will help promote awareness towards the key features of PA management, from local to national level, for flow of information and exchange of ideas between resource users and management staff.				
5	The Project involves forest restoration and harvesting of forest plantations that can have negative environmental consequences	01/15/2019	Environmental	If forest restoration and harvesting of forest plantations are not carried out with clear guidelines in terms of using native species and ecologically conducive silvicultural practices it is likely that the biological value of the forest would be compromised resulting in damage to the species and ecosystems within it	Mitigation measures include the following: (i) The mapping of target cluster resources and consultation with local communities will entail agreements on forest restoration; (ii) The use of a screening checklist (based on SESP) and feasibility studies to ensure that activities are within permissible limits; (iii) Monitoring of harvests of trees in plantations will be undertaken to ensure compliance with the environmental norms as identified through the screening process. If this activity is on Government lands licenses and permits are necessary, if not obtained the harvesting cannot take place. This includes specific consideration of forest	Project Director	N/A	15 January 2019	No Change

				I =3, P =3	products to be harvested. Implementation of sustainable harvest plans within the forests will be based on scientific assessment of potential harvest rates and harvest methods to avoid ecological damage; and (iv) Participatory community consultative and planning framework (Annex 8 of UNDP Project Document) will entail agreements on forest restoration modalities, species choices and protection and enforcement, that will be monitored by community groups and project staff. In terms of forest rehabilitation/restoration (Annex 10 of UNDP Project Document) specific rehabilitation/restoration methods are suggested using to the extent feasible: (i) Assisted natural regeneration processes; (ii) Promotion of restoration with native and adaptive species; (iii) Restoration based on an approved management plan, with clear targets, silvicultural practices and monitoring protocols				
6	Resistance to the creation of the area to be protected as Cockpit Country and a shift from unsustainable to sustainable biodiversity-friendly enterprises	01/15/2019	Social	Any resistance to the creation of the CC Protected Area can result in worsening relationship between the communities and government entities and undermining the achievement of the objectives of the project I =3, P =3	The risk will be managed as follows: (i) The Special Interests Peoples Plan - Maroon Community Engagement (Annex 16 of UNDP Project Document) prepared at the PPG stage outlines the measures that have been taken to ensure the fullest participation of the Maroons of Accompong in all aspects of the preparatory work. (ii) The Maroon community is represented on The Technical Working Group (TWG) and has participated in all deliberations at this level and with Government of Jamaica personnel as well as with civil society and therefore a forum to bring their grievances to. (iii) Other measures are put in place, including the following:	Project Director	N/A	15 January 2019	No Change

					(a) The use of a grievance redressal system (Section VI, Part iv of UNDP Project Document) to address this specific and any other community concerns, including in particular the Maroon community; (b) The use of a screening checklist (based on SESP) and feasibility studies to guide final selection for project investments that are in keeping with Maroon community needs; (c) Agreed strategies to deal with the possible impact of the unfinished boundary ground truthing will be completed in 2 years (2021). (d) During the community planning process (Annex 8 of UNDP Project Document), a combination of approaches to ensure there is adequate support and integration of practices by target communities, including the Maroon community for sustainable and biodiversity compatible measures will be undertaken and (e) The designation of Accompong as a distinct yet inter-related Cluster for project investment. This means. Inter-alia, that a plan of action is being developed for that community with resources to support effective implementation;				
7	The proposed Project could possibly affect land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources, in particular for special groups,	01/15/2019	Social	In the absence of tenure security and recognition of customary and property rights, there will be little incentives for community to participate in project activities and derive benefits from the project I =3, P =3	The project will manage this risk through the following measures: (i) PPG consultations with Maroon communities and further consultations and feasibility studies will be carried out early project implementation to ensure that effective consultation (through FPIC) takes place prior to deciding on specific location, nature and scope of project investments to reduce potential for conflict and ensure that these do not infringe on human rights, lands, natural resources on land claimed by the Maroon community;	Project Director	N/A	15 January 2019	No Change

					(ii) MoUs will be agreed to between the Maroon communities and project proponents on project investments before activities are implemented on the ground; (iii) Engagement of parties through under the Grievance Redressal System (Section IV, Part iv of UNDP Project Document) to address long standing conflict between the GOJ, represented by the Forestry Department and the Maroon Community of Accompong; and (iv) the use of project screening checklist (based on SESP Annex 3 of UNDP Project Document) to screen all investments, including new protected areas and other forest restoration initiatives to ensure that they comply with sound social and environmental principles, and in particular do not conflict with claims of the Maroon community.				
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8	Women and vulnerable groups among the local community may not be fully involved in planning, implementation and monitoring of project interventions and getting benefits from such initiatives, rather land owners and other influential persons at the local level may have more control on local level decision making	01/15/2019	Social	Without active participation of women in decision making and investment activities there will likely be a disproportionate sharing of benefits between men and women resulting in the inability to tap the full potential of inhabitants living in the landscape I -3, P-2	The project will manage this risk through the following measures: (i) The application of the “<i>Gender Analysis and Mainstreaming Action Plan</i>” (Annex 5 of UNDP Project Document) prepared during the PPG stage to ensure that the project contributes to gender equality and creates equitable opportunities for women and men at all levels of engagement; (ii) Promote equal representation of women in project related decisions in communities (iii) The use of a gender and socially inclusive lens to every project activity and output to further analyze impacts on the rights of women and vulnerable peoples, as well as support land reform initiatives that benefit women and indigenous groups; (iv) Special investments would be planned based on women’s requirements to ensure that they adequately benefit from project investments; (v) The use of the monitoring Plan (RFA) with gender responsive indicators to access gender dimensions, including that the project scores a Gen. 2 Marker. (v) Needs assessment followed by training and capacity building to enhance gender and socially responsive knowledge, at all levels of the project cycle and within the institutions; (vi) Guidelines and tools to strengthen gender responsiveness of local organizations to ensure the participation of women and vulnerable groups in decision—making including in respect of the allocation of resources to activities within the clusters; provision for women and youth only investment activities; (vii) Technical expertise on gender mainstreaming to support project development to implementation, monitoring	Project Director		15 January 2019	
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					and evaluation; budgets to secure gender responsiveness in the project, including the collection of sex-disaggregated data. (viii) Oversight by the Bureau of Gender Affairs (ix) The project will draw on and strengthen the experience with the Gender Focal Point personnel within Ministries, Department and Agencies, in particular the Ministry of Agriculture as well encourage attention to requirements under the National Policy for Gender Equality, adopted in 2011.				
9	The cultural identity of the Maroon community will not be respected	01/15/2019	Social	This can result in the erosion of the culture, traditional knowledge and practices of the Maroon community I=3, P=3	This risk will be managed by the following measures: (i) The effective use of the grievance redressal system Section IV, Part iv of UNDP Project Document) to address this specific concerns; (ii) The use of a screening checklist based on SESP (Annex 3 of UNDP Project Document) to screen all investments from an environmental, social and cultural perspective to ensure that these take into consideration all potential impacts and implementation would be monitored to ensure that there is no impacts on cultural heritage of the Maroon community	Project Director	N/A	15 January 2019	

					(iii) Any project related economic development initiatives proposed will rest on the maintenance of the integrity of Maroon culture, for example, in agricultural practices, eco-tourism, etc. (iv) Provision has also been made for the documentation by Maroon community stakeholders of their cultural practices to enhance biodiversity conservation after FPIC.				
10	Climate change and associated threats to environments and agricultural practices (e.g. potentially stronger cyclones, changes in rainfall, and temperature) could threaten project impacts in the longer-term.	01/15/2019	Environmental	In the absence of capacity, skills and tools to adopt to climate change impacts, communities can suffer reduction in agricultural and natural resources productivity and livelihoods leading to poverty and impoverished living condition I =3, P =2	Mitigation measures for this risk include: (i) Participatory community risk assessment and planning that will, inter alia, influence the choice of investment projects with considerations of their risks; (ii) Establishment of protected areas and other conservation and sustainable natural use practices will enhance protection of ecosystem services; (iii) Monitoring plan to ensure that the health of the eco-system is kept in focus and (iv) The knowledge management and communication strategy will rise public awareness and involvement in climate smart actions. Investments actions are aimed at further enhancing climate resilience by supporting an integrated approach to management of landscapes (and associated community resources) to help reduce stresses from water shortage and control unsustainable use of natural resources, reduce forest fires, increase and diversify incomes and productive practices, helping to increase the health of ecosystems and their adaptive capacity to cope with climatic changes. The project will also help build awareness and capacity of local communities to adapt to such threats in the longer term, including through putting in place standardized community monitoring of terrestrial habitats	Project Director	N/A	15 January 2019	

					and resources to identify when ecosystems are changing				
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**ANNEX 21 – CAPACITY ASSESSMENT OF NEPA – TO BE FINALIZED/ADDED AT PRODOC
SIGNATURE**

MICRO-ASSESSMENT REPORT

NATIONAL ENVIRONMENT AND PLANNING AGENCY

10 & 11 Caledonia Avenue, Kingston 5, Jamaica, W.I.

Telephone: (876) 754-7540 Toll Free 1-888-991-5005

Fax: (876) 754-7595/6

Email: pubed@nepa.gov.jm

Website: www.nepa.gov.jm

BACKGROUND OF THE ORGANISATION

The National Environment and Planning Agency (NEPA) was established in April 2001 as an Executive Agency under the Executive Agencies Act. NEPA was founded to carry out the technical, functional and administrative mandate of three statutory bodies. The Natural Resources & Conservation, Authority, the Town & Country Planning Authority, and the Land Development & Utilisation Commission.

The core functions of NEPA are:

Policy and Programme Development

- Development of proposals for national environment and planning policies, legislation, regulations, standards and programmes.

Conservation and Protection

- Management of species, habitats, and ecosystems; protected, watershed, coastal and marine areas management; wild fauna and flora protection, rescue and relocation.

Environmental Management

- Pollution prevention and control; pollution monitoring and assessment; pollution incident investigation and reporting.

Spatial Planning

- Development of a strategic framework for orderly and progressive development of the rural and urban areas of the archipelago and the territorial waters, the preparation of development orders and Spatial and development plans.

Application Management

- Receive and process applications to provide recommendations for decisions on licences and permits for Planning, Subdivisions, Beaches, Environment, Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); Hazardous waste export, import, or transportation; Hunter's licence; exemptions under the Wild Life Protection Act; provision of pre-application assistance.

Public Education and Outreach

- Corporate communications; documentation management; information/library services; Access to Information (ATI) management; public awareness and outreach initiatives; facilitating public consultations; developing and maintaining partnerships with stakeholders - community groups, NGOs and private companies in support of environmental and planning requirements and education.

Compliance and Enforcement

- Monitoring for compliance with planning and environmental requirements; responding to complaints; investigating incidents of non-compliance; undertaking enforcement actions and legal proceedings.

NEPA's operations are financed by recurrent budget allocations from the Government of Jamaica (GoJ) Consolidated Fund through the Ministry of Finance; and Appropriation-in-Aid through (50% of) Natural Resources Conservation Authority (NRCA) fees derived from permits and licences. Projects are financed by budget allocations from the GoJ Consolidated Fund Capital "A" and "B" and from technical assistance grants and project financing from NRCA funds, and various international donor organisations.

MICRO ASSESSMENT

The micro-assessment of the NEPA was conducted on 19 November 2015 at their head office located at 10 & 11 Caledonia Avenue, Kingston 5, Jamaica, W.I. The NEPA team which comprised Novlette Douglas (Director of Planning, Projects, Evaluation & Research), Shamika Williams (Chief Internal Auditor), Kareen Simpson (Senior Internal Auditor), Ronnette Menzies (Procurement Officer), Sherise Simpson (Manager Projects Branch) and Gladston Johnson (Manager Finance & Accounts) met with the assessment team which included UNDP contractors, Yvonne Davis and Peter Knibb, of Quality Financial & Management Services Limited.

Using the Micro Assessment Questionnaire for Implementing Partners, adopted by the United Nations Development Group (UNDG) which is incorporated in the Harmonized Approach to Cash Transfer (HACT) Framework, the team conducted a face-to-face interview with the NEPA team. The responses to the questions the partner provided during the interview were substantiated by supporting documents.

OBJECTIVE

The objective of the assessment is to review the financial management capacity of the partner to manage funds for the implementation of projects by UN Agencies. It is intended to identify the most suitable cash transfer modality under the HACT.

SUMMARY

NEPA'S legislative mandate encompasses the monitoring for compliance and undertaking enforcement actions and legal proceedings in relation to the requirements of the following Acts:

- The Natural Resources Conservation Authority Act;
- The Town and Country Planning Act;
- The Land Development and Utilization Act;
- The Beach Control Act;
- The Watersheds Protection Act; and
- The Wild Life Protection Act
- Endangered Species (Protection, Conservation and Regulation of Trade) Act

This activity is compatible with the United Nations Development Assistance Framework (UNDAF) for Jamaica 2012-2016.

MISSION & VISION STATEMENTS

The mission statement of NEPA is to promote sustainable development by ensuring protection of the environment and orderly development in Jamaica through highly motivated staff performing at the highest standard.

NEPA's vision is that Jamaica's natural resources are being used in a sustainable way and that there is broad understanding of environment, planning and development issues, with extensive participation amongst citizens and a high level of compliance to relevant legislation.

ASSESSMENT

NEPA was assessed under the following headings:

1. Implementing partner
2. Funds flow
3. Organizational structure and staffing
4. Accounting policies and procedures
5. Internal audit
6. Financial audit
7. Reporting and monitoring
8. Information systems
9. Procurement

Summary

Summary of Risks Related to the Financial Management Capacity of the Implementing Partner				
Tested subject area (see questionnaire for details of each subject area summarized below)				
	Total number of risk points	Total number of applicable questions	Overall risk assessment	Comments
1. Implementing partner:	5	5	1	Registered with formal management structure in place
2. Funds flow:	7	7	1	Mature banking arrangements
3. Organizational structure and staffing:	13	10	1	Some recent senior level turnover. One accounting position to be filled
4. Accounting policies and procedures:	49	46	1	The accounting policies and procedures are adequate.
5. Internal audit:	5	5	1	Adequate
6. Financial audit:	9	7	1	Despite the overall low risk rating, some deficiencies were noted as indicated below.
7. Reporting and monitoring:	8	8	1	Adequate
8. Information systems:	5	5	1	Systems and controls adequate.
9. Procurement:	42	37	1	Overall high standard. Some deficiencies noted as discussed below.

Summary of Risks Related to the Financial Management Capacity of the Implementing Partner				
Tested subject area (see questionnaire for details of each subject area summarized below)				
	Total number of risk points	Total number of applicable questions	Overall risk assessment	Comments
Total:	144	130	1	Overall risk rating.

Low risk

NEPA was assessed as low risk in all the areas evaluated listed above.

While organizational structure and staffing was assessed as low, NEPA should move quickly to recruit to fill the vacant position for Accountant – Disbursement and Payroll.

Accounting policies and procedures were assessed as low, however, NEPA needs to enhance existing policies to include provisions advising employees, beneficiaries and other recipients to whom they should report if they suspect fraud, waste or misuse of agency resources or property and a policy against retaliation for those who report fraud, waste or misuse of agency resources or property.

While financial audit was assessed as low, we were unable to evaluate whether or not audit recommendations for the prior three years were implemented or whether there were improvements in any recommendations contained in audit management letters, or whether or not there were any major accountability issues affecting NEPA's operations over the past three years.

While procurement was assessed as low, NEPA needs to enhance existing policies to include provisions related to anti-fraud and corruption and the tracking of the past performance of suppliers.

Moderate risk

No area was assessed as moderate risk.

Significant risk

No area was assessed as significant risk.

High risk

No area was assessed as high risk.

Risk Rating

An overall risk rating of **LOW** is applied to the NEPA with a score of 1

Recommendations:

NEPA needs to:

- Augment its accounting and other policy manuals by advising employees, beneficiaries and other recipients to whom they should report if they suspect fraud, waste or misuse of agency resources or property.

- Develop a specific anti-fraud and corruption policy.
- Adopt any points raised by the external auditors in their management letter.

UNDP Specialists/Senior Programme Assistant need to:

Liaise with National Environment and Planning Agency to ensure that the recommendations are implemented where possible.

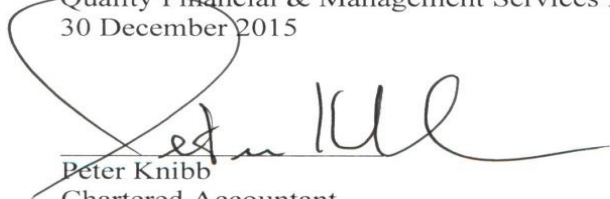
Perform quarterly programmatic monitoring.

Transfer modalities:

The recommended transfer modalities for NEPA are **DIRECT PAYMENTS, DIRECT CASH TRANSFERS** and **REIMBURSEMENT**.



Yvonne Davis
Chartered Accountant
Quality Financial & Management Services Limited
30 December 2015



Peter Knibb
Chartered Accountant
Quality Financial & Management Services Limited
30 December 2015

ANNEX 22 - GEF 7 CORE INDICATOR WORKSHEET

CORE INDICATOR 1: TERRESTRIAL PROTECTED AREAS CREATED OR UNDER IMPROVED MANAGEMENT FOR CONSERVATION AND SUSTAINABLE USE (HECTARES)

Ha (expected at PIF)	Ha (expected at CEO Endorsement)	Ha (achieved at MTR)	Ha (achieved at TE)
NA	81,712		

1.1 Terrestrial protected areas newly created

Total Ha (expected at PIF)	Total Ha (expected at CEO Endorsement)	Total Ha (achieved at MTR)	Total Ha (achieved at TE)
NA	75,000		

Figure at a given stage must be the sum of all individual PAs reported in the next table, for that stage.

Name of Protected Area	WDPA ID	IUCN Category	Total Ha (expected at PIF)	Total Ha (expected at CEO Endorsement)	Total Ha (achieved at MTR)	Total Ha (achieved at TE)
Cockpit Country Protected Area	NA	5	NA	75,000		

Name of Protected Area	METT Score at CEO Endorsement	METT Score at MTR	METT Score at TE
Cockpit Country	17		

1.2 Terrestrial protected areas under improved management effectiveness

Total Ha (expected at PIF)	Total Ha (expected at CEO Endorsement)	Total Ha (achieved at MTR)	Total Ha (achieved at TE)
NA	6,712		

Name of Protected Area	WDPA ID	IUCN Category	Total Ha (expected at PIF)	Total Ha (expected at CEO Endorsement)	Total Ha (achieved at MTR)	Total Ha (achieved at TE)
Stephney John's Vale Forest Reserve	29107	5	NA	6,712		

Name of Protected Area	METT Score at CEO Endorsement	METT Score at MTR	METT Score at TE
Stephney John's Vale Forest Reserve ⁹²	39		

XIII. CORE INDICATOR 3: AREA OF LAND RESTORED (HECTARES)

Ha (expected at PIF)	Ha (expected at CEO Endorsement)	Ha (achieved at MTR)	Ha (achieved at TE)
3,100	3,100		

⁹² For Stephney John's Vale FR only limited activities are proposed under the project including natural resources valuation studies, so anticipation of slight increase in METT scores from baseline

3.1 Area of degraded agricultural lands restored

Ha (expected at PIF)	Ha (expected at CEO Endorsement)	Ha (achieved at MTR)	Ha (achieved at TE)
2,500	2,500		

3.2 Area of forest and forest land restored

Ha (expected at PIF)	Ha (expected at CEO Endorsement)	Ha (achieved at MTR)	Ha (achieved at TE)
400	400		

3.3 Area of natural grass and shrublands restored

Ha (expected at PIF)	Ha (expected at CEO Endorsement)	Ha (achieved at MTR)	Ha (achieved at TE)
200 (degraded lands)	200		

XIV. CORE INDICATOR 11. NUMBER OF DIRECT BENEFICIARIES DISAGGREGATED BY GENDER AS CO-BENEFIT OF GEF INVESTMENT

	Total number (expected at PIF)	Total number (expected at CEO Endorsement)	Total number (achieved at MTR)	Total number (achieved at TE)
Women	NA	4,800		
Men	NA	7,200		
Total	NA	12,000		

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Notary Events

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Timestamps

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Status

Timestamps