REQUEST FOR CEO ENDORSEMENT

PROJECT TYPE: Full-sized Project
TYPE OF TRUST FUND:GEF Trust Fund

PART I: PROJECT INFORMATION

Project Title:	Sustainable Pathways -- Protected Areas and Renewable Energy (SPPARE)		
Country(ies):	Antigua and Barbuda	GEF Project ID:	5390
GEF Agency(ies):	UNEP	GEF Agency Project ID:	01078
Other Executing Partner(s):	Environment Division, Ministry of Agriculture, Lands, Housing and the Environment	Submission Date:	29/1/2015
GEF Focal Area (s):	BD, CC	Project Duration(Months)	48
Name of parent programme (if applicable):	SFM	Agency Fee (US$):	250,774

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK:

Focal Area Objectives	Trust Fund	Indicative Grant Financing ($)	Indicative Co-financing ($)
BD 1.1: Improved management effectiveness of existing and new protected areas. BD 1.2: Increased revenue for protected area systems to meet total expenditures	GEF TF	666,667	430,000
CC 3.2 Investment in Renewable energy technologies increased CC 3.3 GHG Emissions avoided	GEF TF	1,260,752	6,000,000
SFM 1.2: Good management practices applied in 3,502 hectares forests. SFM 1.3 Good management practices by relevant economic actors (Antigua Public Utilities Authority) in 3,502 hectares of watershed forests	GEF TF	586,606	1,300,000
Project Management Costs 5%		125,701	250,000
Total project costs		2,639,726	7,980,000

B. INDICATIVE PROJECT FRAMEWORK

Project Objective: Enhanced financing and management of protected areas through innovations in renewable energy capacity and arrangements						
Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount ($)	Indicative Co-financing ($)
1. Development of Sustainable Island Resource Financial Plan		Revenue for protected area systems increased by $2 million annually	Business Plan for the Systems of Parks and the Legislation Financial support for protected areas system augmented through renewable energy proceeds (see Component 3 and scaling up of Mount Obama NP financial sustainability model	GEFTF	BD: 50,000	50,000
2. Pilot expansion	TA	Improved management	A. Obama National Park (NP) gazzetted	GEFTF	BD:	380,000

of Sustainable Island Resource Protected Areas: Mount Obama National Park		effectiveness of new protected areas (1,719 ha)	and sustainably managed (1,039 hectares) – see Component 1 details B. Financial sustainabilty system piloted At Mount Obama NP .		616,667	
3. Pilot Sustainable Island Resource Financial Plan – Renewable Energy in support of Protected Areas System	TA	CO2 emissions avoided as direct impact of the pilot with immediate plans for scale up	A. Financial and Technical Feasibility for the pilot phase -Feasibility and Environmental Impact Assessment -Renewable energy dynamic fluctuations and grid integration -Reverse Osmosis as dump load - (SFM) -Grid interconnection B. Capacity Building on grid interconnection and control reverse osmosis as dump load C. Policy and regulation for feed-in by SIRF as PP to APUA D. Feasibility study for 10 to 20 MW wind power integration with storage up to 10MWh (or max) E. Initial pilot installation >1 MW capacity installed with ~1 MWh modulated reverse osmosis	GEFTF	CC: 1,260,752	6,000,000
4. Enhancement of Forest Ecosystems		Fires reduced nationwide by 20% by project end. Reduce associated invasive spread of Citronella grass in key watersheds and protected areas (3,052 hectares). Targeted restoration (160 hectares) across Body Ponds Watershed and Christian Valley Watershed (3,052 hectares) enhancing carbon stocks. Restoration efforts and avoided degradation lead to CO_2 savings	A. Stem degradation of forest ecosystems: Obama Nat'l Park Watershed, inclusive Wallings Forest Reserve through nationwide fire prevention initiative and targeted invasives control (Citronella grass) measures. B.Restoring the forest above watershed conservation areas: the Bendals Valley, Wallings and Blubber Valley through reforestation to stop erosion of soil into the reservoirs	GEFTF	SFM: 586,606	$1,300,000
			Sub-Total		2,514,025	7,730,000
Project management cost				GEF TF	125,701	250,000
Total project costs					2,639,726	7,980,000

C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, ($)

Sources of Co-financing for baseline project	Name of Co-financier*	Type of Co-financing	Amount ($)
Government	Ministry of Finance	Cash: $6,000,000	$6,000,000
	Antigua Power Utilities Department (APUA) /Water Levy	Cash: $1,600,000	$1,600,000
	Environment Division	In-Kind: $250,000	$350,000
	Environment Division	Cash: $100,000	
Implementing Agency	UNEP	In-Kind:	$30,000
TOTAL			$7,980,000

*Additional support is expected in the form of substantial in kind services from Antigua Power Utilities Department (APUA), technical support from International Renewable Energy Agency (IRENA) and Climate Technology Centre and Network (CTCN), as well as further cash support from the Public Works Department.

D. GEF/LDCF/SCCF/NPIF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY[1]

GEF Agency	Type of Trust Fund	Focal area	Country Name/Global	Grant amount ($) (a)	Agency Fee ($) (b)	Total ($) (a + b)
UNEP	GEF TF	CC	Antigua and Barbuda	$1,343,196	$127,604	$1,470,800
UNEP	GEF TF	BD	Antigua and Barbuda	$680,594	$64,656	$745,250
UNEP	GEF TF	SFM	Global	$615,936	$58,514	$674,450
Total Grant Resources				**$2,639,726**	**$250,774**	**$2,890,500**

E. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

Component	Grant Amount ($)	Cofinancing ($)	Project Total ($)
Local consultants*	162,000	1,600,000	1,762,000
International consultants	60,000	250,000	310,000
Total	**222,000**	**1,850,000**	**2,072,000**

*Local consultants are from within the Caribbean region

F. DOES THE PROJECT INCLUDE A "NON-GRANT" INSTRUMENT? No

(If non-grant instruments are used, provide in Annex E an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF/NPIF Trust Fund).

PART II: PROJECT JUSTIFICATION

- **DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN OF THE ORIGINAL PIF**

A1. National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NBSAPs, national communications, TNAs, NCSA, NIPs, PRSPs, NPFE, Biennial Update Reports, etc

NA

A.2. GEF focal area and/or fund(s) strategies, eligibility criteria and priorities.

NA

A.3 The GEF Agency's comparative advantage:

NA

A4. Describe the project baseline and the problem(s) that the intervention seeks to address:

NA

A.5. Incremental / Additional cost reasoning:

The incremental/co-financing scenario has been adjusted upwards (from $5.36M in PIF, to $7.98 M at CEO endorsement) to reflect the government's commitment to launching this project immediately. Loan parameters are under discussion through the European Investment Bank, also taking into account access to the Caribbean Investment Facility. These discussions will be concluded by the end of year one when financial and feasibility studies are completed, as per project work plan and deliverables. It is highly likely that scaling up scenario, described in project document, will be confirmed in the first year of the project in keeping with recent government discussions.

Additional co-financing in the form of technical assistance is in place from IRENA, approximated at $250,000, although letter does not quantify, so is not incorporated as a figure in total. Addtional in kind co-finance from APUA towards Components 3 and 4 has also not been quantified but is reflected in a letter of support. The Public Works Department is anticipated to be able to affix a letter of co-financing in the amount of $350,000 which will be added to component 2 (a visitors center for Mount Obama National Park). Also negotiations with CTCN are very positive and it is expected that an additional $250,000 in technical assistance for Component 3 will be confirmed before project start date.

Presentation of co-financing by focal area has shifted between SFM and BD to align with the expected income of the Water Levy in restoring and maintaining ecosystem services. This will be a benefit to both SFM and BD but is presented as consistent wtih the expected outcomes SFM 1.3.

A6. Risks, including climate change risks that might prevent the project objectives from being achieved, and if possible, propose measures that address these risks to be further developed during the project design:

Component 1: Development of Sustainable Island Resource Financial Plan

RISKS	MITIGATION MEASURES
Getting the SIRF Fund operational	Continued discussion and collaboration with the Ministry of Finance to ensure that the Fund is established
All costs not accurately assessed due to external factors such as the mounting cost of climate change	Use best estimates available based on previous studies such as Climate Change Centre and other sources plus contingency
Flow of resources to the management of protected areas not sustainable due to pressure to reduce energy costs	Profits from RE will be reinvested profitably in additional RE investments. A feasibility study coupled with a negotiated APUA agreement under output 3.4 will provide balanced guidance for the government. The SIRF fund features multiple sources of income. The Water Levy, referenced in co-financing letters, those to be defined under the Business Plan for the Systems of Protected Areas and Legislation under output 1.1 (financial projections) Sources of financing for protected areas to be identified under output 2, will complement the profits from the RE.

Component 2: Pilot expansion of Sustainable Island Resource Protected Areas: Mount Obama National Park

RISKS	MITIGATION MEASURES
Delay in getting buy-in from the private land owners	Land owners to be actively involved in the stakeholder consultations facilitated by the DCA to develop plan for MONP
Delays in construction of the MONP interpretation center due to weather and other events	Construction should start six months before the hurricane season (June – September).
Volume of visitor traffic could adversely	Management plan will provide direction

affect biodiversity	on carrying capacity to guide the level of park traffic

Component 3: Pilot Sustainable Island Resource Financial Plan – Renewable Energy in support of Protected Areas System

RISKS	MITIGATION MEASURES
Delay in placement of wind equipment due to need for better quality wind data	Output 1 must be activated as soon as initial funds are received or GIZ will be approached to upgrade the measurement campaign with a new and different consultant
Feasibility is not positive	RETScreen analysis shows the project has a positive NPV. APUA has indicated an interest in purchasing all the output from the pilot at about half of the cost of fuel in electricity production. Project options allow for achieving global benefits with equivalent technical and location options.
Proximity of RE installation to Important Bird Areas	A Preliminary EIS was conducted on the Crabbs site and shows that it is not an Important Bird Area (IBA). As per the Physical Planning Act, the siting of the RE and enhanced hydro storage would trigger an environmental impact assessment, at which time the siting of the infrastructure would be evaluated vis a vis IBAs and migratory pathways. Consistency with guidelines of the American Bird Conservancy is to be ensured with respect to siting and operation of wind turbines as documented under Risk Mitigation. Crabbs is now considered one of three sites all of which are intended for wind power development, two with pumped hydro options and Crabbs with Reverse Osmosis modulated dump load.
Government Lands are not designated in a timely manner for establishment of the wind farm	Opinion at this point is that the Government will be cooperative since the area is not highly populated by sensitive biodiversity.

Competition for up-scaled investment in RE from developers.	Upscale will account for only 30% of demand. The capital structure of the fund will enable it to offer a competitive price without any market distortion. APUA also acknowledges that proceeds from the fund will enhance protected areas a benefit not provided by developers.
Late payment by APUA	The feed-in tariff is about one half the cost of fuel in electricity production and can be reduced later in the project. The possibility of wheeling power over the grid to a large purchaser (hotel) would avoid payment from APUA as the only off-taker.
Delay in supply due to manufacturer lead time	Order will be placed to coincide with appropriate lead time
No Agreement for 10MW to be developed over long term, by the Environment Division to generate funding (through the SIRF fund) for the protected areas system.	APUA has indicated a willingness to scale up with the Fund. This is indicated in the LOI.
Intensified storms due to climate change	Retractable or protected wind turbines prioritized as technology choice. Rebuilding and strengthening dams structures for resiliency. Forest restoration enhancement efforts take into consideration resiliency.

Component 4: Enhancement of Forest Ecosystems

RISKS	**MITIGATION MEASURES**
Dry weather patterns and lack of public awareness result in increased fires in forest ecosystems, increasing vulnerability to establishment of invasives	Improved fire management integrated into protected areas management plans, will increase sustainability of forest ecosystem services and decrease the spread of invasive species into valuable forest ecosystems.
Illegal crops in intervention area present potential danger to rangers work and visitation.	Public outreach to inform all stakeholders of proposed park activities. Illegal crop activity taken into account in planning and implementation process.

A7. Coordination with other GEF financed initiatives

From ProDoc Section 2.7:

The project will be carried out in close coordination with other recently approved and relevant GEF-5 projects in the UNEP/GEF Portfolio, such as the ESD in Caribbean Buildings project. The ESD project is commencing activity in 2014, focussed on the buildings sector with energy efficiency of equipment in buildings – fans, refrigerators, air-conditioners, and lights as well as building integrated renewable energy photo-voltaic panels and solar water heaters. The project would therefore nicely complement the grid connected renewable energy proposed in this project and reinforce the increase in distributed power generation at small scale.

The SPPARE project will also work in close collaboration with the recently approved UNEP/GEF project: Building Climate Resilience through Innovative Financing Mechanisms for Climate Change (SCCF). This is a four-year project that is aimed at increasing the climate resilience of vulnerable communities and sectors in Antigua and Barbuda by improving access to innovative financing mechanisms for climate change adaptation, and implementing cost-effective adaptation interventions focused on ecosystems[1]. The SCCF project, however, has a main focus on climate change while the SPPARE seeks to also include the biodiversity and sustainable forestry management focal areas.

The project is fully integrated with the World Bank/GEF Project Sustainable Financing and Management of Eastern Caribbean Marine Ecosystem Project. The SIRF Fund will serve as the co-financing requirement and ensure access to sustainable financing for NGOs with protected area and natural resource management mandates.

There are several other regional projects being implemented in which Antigua and Barbuda is participating. These include the UNEP Integrating Water, Land, Resources and Ecosystems Management in Caribbean Small Island Developing States (IWEco); the UNEP Regional Gateway for Technology Transfer and Climate Change Action (REGATTA) and the Caribbean Community Climate Change Center (CCCCC) Global Climate Change Alliance (GCCA) Projects[2]. The outcomes of these projects will contribute to the implementation of the SPPARE project and, where possible, their successes will be further strengthened by this project.

In addition to these projects, the SPPARE can also contribute to the Biodiversity and Protected Area Management (BIOPAMA) programme being implemented by the International Union for Conservation of Nature (IUCN), the EC-JRC (European Commission Joint Research Centre) and the multi-donor ABS (Access and Benefit Sharing) Capacity Development Initiative. This programme aims to address threats to biodiversity in African, Caribbean and Pacific (ACP) countries, while reducing poverty in communities in and around protected areas. Specifically, the programme will enhance existing institutions and networks by making the best available science and knowledge available for building capacity to improve policies and

[1] ED, 2013. Project Identification Form: Building climate resilience through innovative financing mechanisms for climate change adaptation (SCCF) Project

[2] Office of the National GEF Focal Point, 2012. National Portfolio Formulation Exercise (NPFE)

better decision-making on biodiversity conservation, protected areas management and access and benefit sharing. The lessons learnt and best practices from this project can be shared with this initiative and, in such, contribute to their online repository of data and information.

The recently concluded Sustainable Island Resource Management Mechanism (SIRMM) project produced key data to the proposed national park under its Ridge To Reef Demonstration Project[3]. This included, among other things, the establishing of the proposed boundaries of the park. The SPPARE project, through its second component, will build upon the work of the SIRMM project. In addition to this, the regional OECS Protected Areas and Associated Livelihood (OPAAL) project resulted in a draft Protected Areas System Plan for Antigua and Barbuda. Component 1 of the SPPARE will seek to strengthen this plan by identifying financial strategies that can be included in the plan.

In addition to these, the UNEP has developed the UNEP Live web-based platform aimed at supporting the growing demand for substantiated, contextualized knowledge about the environment. As UNEP's information and knowledge service provider, especially in the delivery of information and evidence to support the SDGs and post 2015 agenda, UNEP is fulfilling it role by facilitate the exchange and sharing of up-to-date data, providing open access to information datasets and providing a range of visualization tools. The SPARRE project will be contributing to this initiative by providing for dissemination on this platform all data and information collected under the various components.

B. ADDITIONAL INFORMATION NOT ADDRESSED AT PIF STAGE

B.1 How stakeholders will be engaged in project implementation

There are a large number of different institutions involved in environmental management that include government ministries, statutory bodies, NGO's and CBOs. The key institutions and their involvement and responsibilities with respect to the aforementioned are described in Section 4 and 5 of the Prodoc. Stakeholders were involved in the design of the project through a consultative process, including 2 Validation Workshops. Stakeholders will have representation on both the Project Management Committee (PMC) and the Technical Advisory Committee described in Section 4 of the ProDoc.

B2. Socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund/NPIF) or adaptation benefits (LDCF/SCCF). As a background information, read Mainstreaming Gender at the GEF.":

From ProDoc Section 3.11 **Environmental and social safeguards:**

Component 2 of the project which develops the Mount Obama National Park into an eco-tourism site will have several benefits for women and other groups…… By focusing on remote rural communities and smallholders, especially women farmers as target beneficiaries, supporting sustainable production practices and linking farmers to markets, the project ensures the involvement of a high percentage of the

[3] Environment Division, 2008. Project Document: Sustainable Island Resource Management Mechanism (SIRMM) Project

marginalized population in the four selected landscapes that otherwise might not have access to subsistence income. Restoration efforts also offer gender neutral opportunities by involving women in nursery operations, and afforestation efforts, something which is already happening through specific NGO pilot operations.. Strong farmer alliances coupled with project focus on governance, capacity building, gender equity and social inclusion at all levels of organizational setup should guarantee participation of women and socio-economically marginalized individuals in decision making process as well as ensure more equitable distribution of income from marketing. Strengthening their income base, as well as their empowerment and social capital and linking them to relevant agencies and initiatives, can be seen as a social safeguard in its own right. The project will generate gender data and input gender monitoring data, especially into the delivery of Component 4 and in the detailing of annual budgets and work plans. Gender considerations, particularly in the Caribbean, are not solely a women's issue. As such the project looks at yielding advantage to whole communities and benefitting both genders and vulnerable groups. Finally, the project has the provision of farmer representation in National Steering Committee and policy making bodies thus ensuring that their voices are heard, which could serve as a strong social safeguard for beneficiaries.

B3. Explain how cost-effectiveness is reflected in the project design:

This intervention logic of this project's design breaks new grounds. Like most SIDS, Antigua and Barbuda has very limited capacity to finance and support biodiversity and ecosystem stewardship based on government funding and unpredictable international funding. The GEF investment will innovatively and concurrently address a number of environmental priorities through the SIRF Fund's ability to receive profits from renewable energy systems and increase revenue for Protected Areas System. The project will pilot, implement and scale up a unique stream of revenue generation for the SIRF Fund. Overall, the baseline would see Antigua and Barbuda unable to significantly increase or enhance their biodiversity rich Protected Areas and Forest systems work, which in turn would likely see a continuing decline in its natural resources.

The typical life-span of interventions by projects follows the usual four year term. After the four-year period, the benefits fall away due to the government's inability to take up the slack left by the project. One of the distinguishing features of this project is that it will invest in RE assets, which should in turn raise revenue to be used to conduct future activities. Unlike the four-year life cycle of projects, renewable energy assets have a 10-20 year life cycle. This will create predictable funding for the long-term. See Section 3.8 on Sustainability

Finally, the cost-effectiveness of the project is guaranteed by the involvement of the Environment Division as the Executing Agency. The Division has had much experience in managing UNEP GEF projects and has been extremely successful in project execution. In addition to this, their co-funding commitment ensures that the administrative, financial and technical oversight of the project is strengthened.

C. BUDGETED M&E PLAN

The project will follow UNEP standard monitoring, reporting and evaluation processes and procedures. Substantive and financial project reporting requirements are summarized in Appendix 7, the Costed M & E

Plan. Reporting requirements and templates are an integral part of the UNEP legal instrument to be signed by the executing agency and UNEP.

The project M&E plan is consistent with the GEF Monitoring and Evaluation policy. The Project Results Framework presented in Appendix 4 includes SMART indicators for each expected outcome as well as mid-term and end-of-project targets. These indicators along with the key deliverables and benchmarks included in Appendix 6 will be the main tools for assessing project implementation progress and whether project results are being achieved. The means of verification and the costs associated with obtaining the information to track the indicators are summarized in the Costed M&E Plan at Appendix 7 and are fully integrated in the overall project budget.

The M&E plan will be reviewed and revised as necessary during the project inception workshop to ensure project stakeholders understand their roles and responsibilities vis-à-vis project monitoring and evaluation. Indicators and their means of verification will also be fine-tuned at the inception workshop. Day-to-day project monitoring is the responsibility of the project management team comprising the project implementation unit and FD staff. However, other project partners will have responsibilities to collect specific information to track the indicators. It is the responsibility of the Project Manager/Coordinator to inform UNEP of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely fashion.

The project Steering Committee will receive periodic reports on progress and will make recommendations to UNEP concerning the need to revise any aspects of the Results Framework or the M&E plan. Project oversight to ensure that the project meets UNEP and GEF policies and procedures is the responsibility to the Task Manager in UNEP-GEF. The Task Manager will also review the quality of draft project outputs, provide feedback to the project partners, and establish peer review procedures to ensure adequate quality of scientific and technical outputs and publications.

Project supervision will take an adaptive management approach. Overall, UNEP supervision of the project is to be carried out by UNEP/DEPI-GEF staff posted in UNEP's Regional Office for North America (UNEP/RONA) in Washington DC. UNEP supervision will be further enhanced by technical staff located in UNEP's Regional Office for Latin America and the Caribbean (UNEP/ROLAC) in Panama City, Panama, and UNEP's headquarter staff in Nairobi, Kenya.

The Task Manager however, will develop a project supervision plan at the inception of the project which will be communicated to the project partners during the inception workshop. The emphasis of the Task Manager supervision will be on outcome monitoring but without neglecting project financial management and implementation monitoring. Progress vis-à-vis delivering the agreed project global environmental benefits will be assessed with the Steering Committee at agreed intervals. Project risks and assumptions will be regularly monitored both by project partners and UNEP. Risk assessment and rating is an integral part of the Project Implementation Review (PIR). The quality of project monitoring and evaluation will also be reviewed and rated as part of the PIR. Key financial parameters will be monitored quarterly to ensure cost-effective use of financial resources.

A mid-term management review or evaluation will take place on at the midpoint of project implementation as indicated in the project milestones. The review will include all parameters recommended by the GEF Evaluation Office for terminal evaluations and will verify information gathered through the GEF tracking tools, as relevant. The review will be carried out using a participatory approach whereby parties that may benefit or be affected by the project will be consulted. Such parties were identified during the stakeholder analysis (see

section above). The project Steering Committee will participate in the mid-term review and develop a management response to the evaluation recommendations along with an implementation plan.

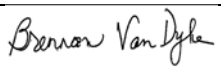
PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT(S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter(s) with this template. For SGP, use this OFP endorsement letter).

NAME	POSITION	MINISTRY	DATE *(MM/dd/yyyy)*
Diann Black Layne	GEF Focal Point	Environment Division, Ministry of Agriculture, Lands, Housing and the Environment	March 13, 2013

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for CEO endorsement/approval of project.

Agency Coordinator, Agency Name	Signature	Date *(Month, day, year)*	Project Contact Person	Telephone	Email Address
Brennan Vandyke, Director, GEF Coordination Office, UNEP		January 29, 2015	Kristin Mclaughlin Task Manager	+1-202-974-1312	Kristin.mclaughlin@unep.org

ANNEX A: PROJECT RESULTS FRAMEWORK

Project Strategy	Indicators	Baseline	Mid Term Targets	End of Project Targets	Sources of Verification	Risk and Assumptions
Project Objective: Enhanced financing and management of protected areas through innovations in renewable energy capacity and arrangements	BD METT Tracking Tools and Financial Sustainability Scorecard. CC - Investment in Renewable energy technologies increased GHG Emissions avoided, SFM – Good management practices in forests.	METT Assessment Score - 28 Financial Sustainability Scorecard – 11 LOI signed. Agreement for 6000 MWh being negotiated. No forest restoration efforts in place in the target areas.	METT Assessment Score - 32 Financial Sustainability Scorecard – 35 By end of Year 1 APUA will sign PP Agreement with the SIRF Fund. By Mid Year 2 technical study for scale up will be completed. Specific target restoration areas identified, nurseries established, work plan developed and monitoring system in place. Wildfire prevention strategy developed.	METT Assessment Score - 40 Financial Sustainability - 75 Investment in Renewable energy technologies increased by $4.5M GHG Emissions avoided, 100,000 Tonnes of CO2 with scale up to 1MtCO2 near term. Good management practices applied in 3,502 hectares forests and by relevant economic actors (Antigua Public Utilities Authority). Wildfire induced invasives decreased in and around protected areas.		
COMPONENT 1. Development of the Financial Strategy for the implementation of the Legislation and the Management of Protected areas						

OUTCOME 1 Revenue for protected area systems increased by $2million annually	The SIRF Fund Business Plan is submitted by the SIRF Fund Board for approval by the end of Year 1	SIRF Fund is created under the Finance Administration Act. No financial strategy in place. The Legislation has not yet been passed. Protected areas are funded by the Central government	The business plan is approved by Cabinet. The financial business plan is adopted by the SIRF Fund Board	The SIRF Fund begins to accept applications for funding and making small disbursements to cover 10% of recurrent costs	Cabinet minute indicating approval; Business Plan Document; Minutes of SIRF Board indicating strategy implementation. Applications to the SIRF Fund	**Risk:** Legislation is not passed **Assumption**: Consultations for the strategy and supporting legislation generate required support
Output 1.1 Business Plan for the Systems of Parks and the Legislation	By end of year 1 costs associated with the implementation of the legislation and system of parks quantified	Legislation implementation not costed	All strategies and policies to be funded under the SIRF are reviewed, approved and costed	The SIRF Fund begins small disbursements to cover 10% of recurrent costs	Minutes of consultation, Budgets and supporting work plans for parks and other areas identified	**Risk**: All costs not accurately assessed due to external factors such as climate change
	By first quarter of Year 1 the business strategy to support the system of parks and the legislation is drafted	Funding unco-ordinated. Comes from projects and the central government	Financial projections prepared and validated and incorporated in business plan	Financial projections prepared and validated	SIRF Fund Business Plan Document	**Assumption**: Consensus established for the SIRF Fund to be self-sustaining financing mechanism for Environment

COMPONENT 2. Pilot of Sustainable Island Resource Protected Areas – Mount Obama National Park						
OUTCOME 2 Improved Management Effectiveness of new Protected Areas.	• Increased financial sustainability of Mount Obama National Park • METT Tracking Tools and Financial sustainability Scores.	No model of managed protected area exists Funding levels inadequate METT Assessment Score - 28 Financial Sustainability Scorecard - 11	• Conservation areas zone. • Interpretation Centre construction begins • Management plan developed and implementation begun METT Assessment Score - 32 Financial Sustainability Scorecard - 35	50% of the implementation of the Management plan will be funded by Park receipts and the SIRF Fund by the beginning of Year 4 METT Assessment Score - 40 Financial Sustainability - 75	Management Plan document, Copy of DCA Approved Zoning Plan for MONP, Applications to the SIRF Fund, Park statistics and audited financial reports	**Risk**: Delay in required approvals

Output 2.1 Obama National Park (NP) gazzetted and sustainably managed	• Instrument for gazzettement of NP developed for parliamentary approval by middle of Year 2 • Threats from farming and grazing as a result of agricultural expansion decreased by year 2 (measured by METT Tracking Tool)	• Park is not officially declared. • No biodiversity management or monitoring plan for the area • No public awareness and education strategy • METT Assessment Score - 28 1.	• Legally declared as a protected area • A Comprehensive Biodiversity Management and monitoring plan for the MONP developed by Year 3 • Baseline established for public awareness • Education and public awareness strategy to be developed by end of Year 3 • METT Assessment Score - 32: 1.	Legally declared as a protected area. A Comprehensive Biodiversity Management, enforcement and monitoring plan for the MONP implemented Education and public awareness increased by 20% over the baseline METT Assessment Score - 40 1.	• Gazetted copy of legislation • Education and public awareness materials	
	By first quarter of Year 1 the business strategy to support the system of parks and the legislation is drafted	Funding uncoordinated. Comes from projects and the central government	Financial projections prepared and validated and incorporated in business plan	Financial projections prepared and validated. Commence implementation of biodiversity management and monitoring plan Protected Area regulations in place to control land use and activities	• Business Plan Document	

Output 2.2 Financial sustainability system piloted At MONP	• Sources of financing for protected areas identified by Year 1 • Construction of park headquarters/ interpretation center and other infrastructure begins by Year 1	• No dedicated source of financing exists • No interpretation center exists	• Dedicated revenue streams quantified. Green card product being piloted • Construction of the Interpretation Centre begins	• Green card product in operation collecting park fees and covering 10% of MONP's recurrent costs • Interpretation Centre is accepting visitors and infrastructure in place	• Vendor agreement. Consultant report on revenue streams • Project manager reports	Risk: Delays in construction due to weather and other events Assumption: Timely delivery of road and other infrastructure by the government
	• Marketing strategy and collaterals ready for deployment by the middle of year 2 • Guidelines for Protected Areas window drafted and submitted to the SIRF Fund Board	• The park is not marketed at all • No protected areas window exists	• Initial advertising of the MONP for the next tourist season. • Guidelines for protected areas window submitted to the SIRF Fund Board for approval	• MONP tour packages being sold to internal and external tour operators • Increase of tourist visitations to the site by 20% • Protected Areas window accept one application (as minimum)	• Marketing collaterals. Tour packages documentation from internal and external tour operators • Policy guideline approved by the SIRF Fund Board. MONP application document	Assumption: The SIRF Fund has financial capacity to begin disbursement
OUTCOME 3		LOI signed.	Begin negotiations	Negotiations for scale	Copy of signed PP	**Assumption**: Board and

At least 100,000 tonnes of CO2 equivalent emissions avoided as direct impact of the pilot with immediate plans for 1,000,000 tCO2.	Avoided emissions of CO2	Agreement for 6000 MWh being negotiated	for scale up By end of Year 1 APUA will sign PP Agreement with the SIRF Fund By Mid Year 2 technical study for scale up will be completed	up are complete. Reduction of 100,000 tons of CO2 emissions by project end as indicated through GHG inventory calculations	agreement. Technical reports	govt policy do not change
Output 3.1.1Financial and Technical Feasibility for the pilot phase -Feasibility and Environmental Impact Assessment -Renewable energy dynamic fluctuations and grid integration -Reverse Osmosis as dump load - (SFM) -Grid interconnection	By end of Year 1 relevant feasibility studies identified	Wind studies conducted. EIS conducted for Crabbs. Pumped hydro study conducted and recommends sea water as the first option	All technical studies are completed	N/A	Technical reports and EIS reports	**Risk**: Delay in placement of wind equipment on Mc nish and other sites **Risk:** Feasibility is not positive **Risk**: Proximity of RE installation to Important Bird Areas
Output 3.2 Capacity Building on grid interconnection and control of	Technical capacity enhanced	Process of systems control is manual. Fiber optic infrastructure in	By end of year 1 software installed and training conducted on SCADA	N/A	Invoices, screen shot, training report	**Assumption:** APUA provides several technicians to be trained and maintains documentation of the

Reverse Osmosis as dump load		place to network substations	By middle of Year 2 SCADA is part of APUA's generation operations			product and continues to upgrade SCADA **Risk**: Software integration or installation issues
Output 3.3 Policy and regulation for feed-in by SIRF as PP to APUA	Necessary agreements in place	Letter of intent. Co-finance letter	By end of Year one APUA Board signs PP Agreement with SIRF Fund with an opportunity to scale up Signed PP agreement between the Fund and APUA	Power Purchase Agreement between SIRF Fund and APUA been implemented	Letter of approval of policy by APUA Board, Signed PPA with APUA	**Risk:** Delay due to new parliamentary term **Risk**: Compatible Government Lands are not made available for siting of RE
Output 3.4 Feasibility study for 10 to 20 MW wind power integration with storage of nominally 10MWh	By end of Year 2 the full costing of scale up known including ideal energy mix	Preliminary business done using RETScreen and the Pumped Hydro study	Feasibility study completed with financing options	Agreement with APUA to proceed with scaling up	Letter of approval of policy by APUA Board, Signed PPP with APUA	**Risk:** Competition for upscaled investment in RE from developers. **Risk**: High level of RE adoption by residents and businesses
Output 3.5 Initial pilot installation **>1 MW wind power installed with ~1 MWh modulated reverse osmosis**	By the end of Year 2 RE plant is installed	No utility grade RE is been fed into the grid. Pumped Hydro study proves installing pumped hydro not feasible at pilot stage	Renewable Energy plant installed	Plant operational	Certificate of Completion. Tender documents. Activity reports from APUA. Electricity purchased from APUA, Documented fossil fuel savings	**Risk:** Delay in supply due to manufacturer lead time **Assumption**: BOT or other financing to bridge GEF Funding gap **Risk:** Intensified storms due to climate change

OUTCOME 4 Fires reduced nationwide by 20% by project end.	Fire induced invasives reduced by 20% in the pilot area CO_2 avoided	No national wildfire prevention strategy exists. SIRMM public announcements still running No forest restoration efforts in place in the target areas	Baseline for awareness of fire prevention approaches established. Wildfire prevention strategy developed in consultation with relevant stakeholders incorporating the control of invasive species. .	Awareness of Approaches to wildfire prevention increase by 25%. Forested areas sustainability managed to achieve carbon sequestration goals of CO2 savings	KAP Survey report.	**Risk**: Dry weather patterns and lack of public awareness result in increased fires in forest ecosystems, increasing vulnerability to establishment of invasive **Assumptions**: Buy-in of other relevant agencies
Output 4.1. Stem degradation of forest ecosystems: Obama Nat'l Park Watershed , inclusive Wallings Forest Reserve through nationwide fire prevention initiative	Implement fire prevention demonstrations to important target audiences by mid Year 2	Fire prevention initiatives have not been successful	Baseline of fire occurrence established and tracked. Fire prevention seminars held for 50% of farmers in the project areas. Fire and Forestry Officers trained to deliver the training	Forestry/Fire Department report a 25% reduction in wildfires in the project areas over baseline.	Seminar reports, Certificates issued	**Assumption**: Strong buy-in from farmers in the area
Outcome 4.2 Restoration efforts and avoided degradation lead to Co2 savings	CO2 savings	Forested areas are partially degraded due to damage by fires and presence of invasive species	National Watershed Management Committee established.	Intervention area re-mapped to represent the efforts achieved. Forested areas sustainability managed to achieve carbon sequestration goals.	Inventory of trees. Reports from Watershed Committee meetings	**Risk**: Lack of collaboration among agencies

				Annual tons CO_2 savings achieved		
Output 4.2 Restoring the forest above watershed conservation areas: the Bendals Valley, Wallings and Blubber Valley through reforestation to stop erosion of soil into the reservoirs	CO2 savings	No forest restoration efforts in place in the target areas	Specific target restoration area identified, nurseries established, work plan developed and monitoring system in place to address the restoration plans by end of Year 1 25% of 800-1200 trees per hectare target density for 160ha, achieved by end Year 2.	Intervention area re-mapped to represent the efforts achieved. Forested areas sustainability managed to achieve carbon sequestration goals. Annual tons CO_2 savings achieved 100 % of 800-1200 trees per hectare target density for 160ha, achieved	Inventory of trees Watershed Committee minutes	**Risk:** Delay in payment of levy by APUA

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

Comment	Response
GEF Secretariat Review April 11, 2013	
1) As mentioned in the comment 12, the final project document will need to demonstrate (a) that the Environment Fund is the sole national trust fund to support protected area management in Antigua and Barbuda, (b) that the Environment Fund will receive profits from the renewable energy instillation and direct them for the purpose of protected area management, and (c) the Environment Fund be determined to meet, to the satisfaction of the GEF Secretariat, the requirements for NPTAFs under the GEF-funded, World Bank implemented Sustainable Financing & Management of Eastern Caribbean Marine Ecosystem Project" (World Bank ID P103470/GEF # 3858).	The SIRF Fund, the only Environment Fund outlined in the Environment Management Bill is the SIRF Fund (see note at end of Annex C). The SIRF Fund will raise funds to invest in for-profit renewable energy technology initiatives. This is spelled out in the EPMB. The technologies identified to date are solar, wind and possibly ocean thermal energy conversion (OTEC). The electricity generated will be sold to the utility company (APUA), which has agreed to purchase and the proceeds of this will be channeled into the various thematic windows. The fund has received the necessary permits from APUA and the Government to generate 25MW of electricity.
2) An assessment that demonstrates how the wind farm will be profitable and financially sustainable.	Please see Appendix 21 of the ProDoc
3) Demonstration that the Environment Division has agreed develop to 10MW of wind energy over the long-term so that funding will be generated for the PAS. (We believe this is already included as a risk mitigation strategy.)	The lessons learned from the pilot arrangement will provide a template for upscaling to 20MW and a feasibility study is part of the project design.
4) We appreciate the preliminary estimates provided on CO2e . By CEO endorsement, please provide baseline information on forests at the project site (acreage, type, estimated carbon etc.) along with the extent of threat of citronella invasion. Also, a discussion on the quality of forests and carbon storage capacity within before and after citronella invasion will be helpful. The likelihood of the proportion of citronella invaded forest to be burnt by fire would help understand the emissions that would be avoided by removal of such invasive species.	The completed GEF SIRM project undertook initiatives in the past focusing on the management of the forestry resources. This project commissioned the comprehensive mapping of the southwest region of Antigua identifying key natural features both terrestrial and marine. The boundary area used for the South West Watershed (SWW) Area extends from Proctor Point near Falmouth in the south, heading north and west to the vicinity of Coco's Restaurant at Valley Church Bay. The whole area includes places such as Cades Bay Marine Reserve (CBMR), Mount Obama and Wallings Forest Reserve. The area is commonly referred to as the Shekerley Mountains, a chain of volcanic hills in the southwestern part of the island; from Sugar Loaf Mountain and Cherry Hill in the east, to Valley Church in

Comment	Response
	the west. The vegetation communities were mapped using the vegetation classification of Antigua, Barbuda and Redonda. The mapping team also used the results of a Body Ponds vegetation communities map as a foundation for mapping the wider South West Watershed. The similarity between the natural communities, resources, issues and land-uses of the Body Ponds Watershed and the wider SWW allowed for a great deal of transferability of methods and approaches. As documented under another the GEF SIRMM project, the invaded areas are critical for the watersheds and are also prohibitively expensive to restore. Approximately $390,000 USD was spent under that project to combat the eradication of the lemon grass in the Body Ponds watershed area[4]. As such the proposed project will focus on fire prevention strategy, afforestation and restoration in promising areas, and sound forest management practices.
5) An explanation in the project document of the methodology to estimate CO2e avoided and amount of carbon sequestered.	During the PPG phase of this project carbon calculations were done to estimate the projected annual carbon savings and also the estimated total carbon savings over a 30-year period using IPCC methodology. This baseline will in fact be the basis for the monitoring system (methodology described in Appendix 24) to measure carbon benefits. Once the study area has been re-mapped to reflect the reforestation efforts, similar calculations will be carried out.
The GEF Secretariat recognizes that Antigua is a SID. But we would appreciate it if additional co-financing could be raised prior to CEO endorsement, particularly private financing for the wind farm.	The co-financing foreseen at PIF stage of $5,360,000 has been increased to $8,900,000 and is expected to further increase over the course of project implementation.
GEF Secretariat Review December 12, 2014	

[4] Environment Division, 2008. Operational Work Plan – Demo One: Rehabilitation of the Body Ponds Watershed.

Comment	Response
4. BD: The project logframe and presentation of outcomes and indicators related to the achievement of improved management effectiveness and enhanced financial sustainability is unclear. This is compounded by the fact that the submission did not include the BD tracking tools. For improved management effectiveness of MONP, one baseline number should be presented based on the 30 questions in the Management Effectiveness Tracking Tool. The project logframe, and all other associated presentations of the outcome and indicator for management effectiveness, should then also include this one number along with an ambitious target for improving management effectiveness by the end of the project. In addition, we also expect clearer indicators and presentation for improving financial sustainability of the PA system and associated targets and these too should be extracted from the GEF tracking tool on financial sustainability. Please clarify the targets for the system and for MONP. Please also submit the tracking tool correctly completed as no tool was presented with the submission. **January 26, 2015** The target for management effectiveness increase is extremely modest for such a small protected area and the final score of 40 is not very ambitious particularly given that this is the only site on which the project will focus management attention. During implementation, we encourage the project proponents to aim higher with regards to strengthening management effectiveness.	The project logframe has been revised to correctly reflect baseline scores and targets for improved management effectiveness and financial score card. Reduction in threat scoring has been removed. The METT assessment score is 28 at baseline and has been revised to meet the target of 40, by project end. Apologies submission did not include the available BD tracking tool which had been fully completed by the executing agency, and is now included in the submission. Indicators and targets for the improvement of the financial sustainability of the PA system, for which the MONP is a pilot, include: "50% of the implementation of the Management plan will be funded by Park receipts and the SIRF Fund by the beginning of Year 4" "Green card product in operation collecting park fees and covering 10% of MONP's recurrent costs" "The SIRF Fund begins small disbursements to cover 10% of recurrent costs" (system wide by project end) "Increase of tourist visitations to the site by 20%" **The target will be reviewed at the Project Inception Workshop**

Comment	Response
7. BD: See comments above under question four. In addition, the project notes a series of threats to BD in MONP in paragraphs 33-39. However, the project design, does not provide a substantive analysis at all of the threats the project logframe proposes to measure as progress: "Threats from farming and grazing as a result of agricultural expansion decreased", nor is a clear strategy presented on how these threats will be addressed. In addition, please identify measurable, quantitative indicators that the project will measure of expansion decreased. Finally, in the description in paragraphs 33-39, the only real threats discussed are invasive species and introduced species, but no strategy is presented in how these will be dealt with in MONP or how progress will be measured. Please clarify. CC-M: Table A on focal area objectives has extra information on investment and emissions targets. It is not necessary to include those metrics in Table B and the numbers appear confusing when compared to the CEO Endorsement request document and the tracking tools.	At present MONP is not a legally gazzetted protected area, leaving it vulnerable to incursions from local communities for grazing and expansion at unclear boundaries. The project will address this threat by Legally declaring MONP as a protected area, developing and implementing a management with an accompanying monitoring and enforcement system, and underpinned by education, outreach and public awareness. Targets/Indicators in log frame: A Comprehensive Biodiversity Management, enforcement and monitoring plan for the MONP implemented Education and public awareness strategy to be developed by end of Year / Education and public awareness increased by 20% over the baseline The most intrusive invasive in the MONP watershed is citronella grass which is exacerbated by forest fires. The strategy for dealing with this is encompassed in Component 4 (which covers a broader area than just MONP), the target being: Fire induced invasives reduced by 20% in the pilot area. This is a very, very tough invasive, and previous restoration attempts have failed. As such, the proposed project, will develop and implement fire prevention strategy and public awareness as outlined in Component 4 . In addition we are also in discussions with FAO to test new methods of preventing citronella incursions by restoring burned areas by planting shade fruit trees, eg. mango. CC-M. Investment and emissions targets have been removed from Tables A and B of the CEO Endorsement request. The target of 100,000 tons of CO2 equivalent emissions avoided is consistent in the Annex 4 – Project Results Framework and the revised CC tracking tool.

Comment	Response
Therefore, we recommend removing them from Table B. However, if the numbers remain, please ensure exact alignment with the document and tracking tools. Some of the numbers are repeated in Table B. It is better to put these types of metrics into Annex S (projects results framework) and ensure they align with figures in the tracking tool. Please clarify all of this so it is consistent and coherent. Outputs 3.1 and 3.2 appear to conflict. One says that pumped hydro is the preferred option; the other says reverse osmosis for dump load. These are both very expensive options. Please clarify which options are identified and will be able to be funded within the project period. If the outputs are simply analytical results and not investments, please indicate. This also relates to Output 3.5, which indicates pumped hydro is not viable during the pilot stage which is also noted in the project document as an output of the PPG. It seems unhelpful and confusing to include items in the project results framework which have already been determined as non-viable in the PPG stage. Please clarify.	For the pilot, reverse osmosis is likely, APUA indicates that for most of the year they have over capacity Reverse Osmosis plant available and modulating pressure with variable speed pumps will be low cost but limited to 2 MW +/- 1 MW. However, in parallel with a view towards scale up, a pumped hydro study is to be conducted. If the latter proves feasible (see output 3.5) then the scale-up project would proceed this way otherwise other technologies will be considered. The project will try to avoid less sustainable batteries and chemical technologies. Flywheels and underwater compressed air energy storage are also being considered.
11. With regards to the relationships of renewable energy installation to Important Bird Areas, the point made at PIF stage had to do with the need to not only assess the location of the actual installation, but the siting of the infrastructure vis a vis migratory pathways. The project document does not adequately address this issue and the response in the CEO endorsement request is not adequate. Please clarify. While we understand the logic of the project that profits from renewable energy will flow	Noted, as per CEO documentation, a preliminary EIS was conducted on the Crabbs site and shows that it is not an Important Bird Area. Regarding migratory pathways, as per the Physical Planning Act, the siting of the RE and enhanced hydro storage would trigger an environmental impact assessment, at which time the siting of the infrastructure would be evaluated vis a vis migratory pathways. Consistency with guidelines of the American Bird Conservancy is to be ensured with respect to siting and operation of wind turbines as documented under Risk Mitigation.

Comment	Response
into a funding window of the SIRF dedicated to protected areas, we do not see how the sustainability of this process will be managed if, as happens in other countries, consumers will demand reduced prices for electricity. Over time, it is likely that the government owned utility will be under tremendous pressure to use the profits for lowering consumer prices, grid upgrades, maintenance, etc. Please clarify the medium and long-term risk mitigation and sustainability strategy to ensure a sustainable flow of resources to the management of protected areas.	It is fully expected that after the initial debt finance period a reduction in cost for the production of energy from renewable energy sources would result in the renegotiation of prices for electricity. This project is intended to produce a multiplicity of benefits: reduction of CO2 via RE, and eventual reduction of cost of electricity (indeed the APUA letter of support alludes to this) and a sustainable flow of resources to the management of protected areas. Several project design features and risk mitigation strategies address the concern for sustainability of SIRF and flow of resources to protected areas: • Profits from RE will be partially be reinvested profitably in additional RE investments. • A feasibility study coupled with a negotiated APUA agreement under output 3.4 will provide balanced guidance for the government. • The SIRF fund features multiple sources of income. The Water Levy, referenced in co-financing letters, those to be defined under the Business Plan for the Systems of Protected Areas and Legislation under output 1.1 (financial projections) • Sources of financing for protected areas to be identified under output 2, will complement the profits from the RE.
12. The explanation provided in the CEO endorsement request is unfortunately not very clear with regards to the requests made by the GEF vis a vis the requirements for NPTAFs under the GEF-funded, World Bank-implemented Sustainable Financing & Management of Eastern Caribbean Marine Ecosystem Project" (World Bank ID P103470/GEF # 3858). In particular, the text on page 26 in response to point 7 is unclear. Please clarify the following and rewrite the	The Sustainable Island Resources Fund (SIRF) is a comprehensive environmental fund being established under Antigua and Barbuda's Environmental Protection and Management Act for the financing of - (a) the long-term management and expansion of any system of protected areas and other activities that contribute substantially to the conservation, protection and maintenance of biodiversity including areas declared as ecotourism areas under this Act and any system of protected areas established in Antigua and Barbuda including marine protected areas; (b) programmes for the establishment or management of any area required for biodiversity conservation, or the

Comment	Response
explanation. 1. We assume that SIF fund mentioned in the first line is the SIRF. Please clarify. 2. The SIRF is actually not the "sole protected area trust fund" but rather a larger environmental fund. Please clarify the text. 3. We understand, based on other text in the submission, that a window is being created within the SIRF through which money will be channeled to the protected areas. Please clarify the operations of this window, including its governance and whether it will be established per the guidelines and best practices of trust fund establishment for protected areas applied in the GEF and consistent with requirements being placed on all Trust Funds being established through the WB project referenced above. 4. The text says "The SIRF Fund will serve as the cofinance requirement". This is inconsistent with the first sentence of the paragraph which states that the "SIRF Fund is the sole National Protected Area Trust Fund". That is, a fund can not cofinance itself. Therefore, please clarify with more precise text what will be the source of cofinance for the money provided through the WB project to the NPATF. 5. In the second paragraph, reference is made to the NCTF. Is this another fund? This acronym is not presented in the document table of acronyms. Please correct and clarify. Is it a mistake and it should be the NPATF? In sum, this entire section requires a clear rewrite and presentation of how the project design meets the requirements for CEO endorsement as presented at the time of the PIF review.	protection of any carbon sinks that may be designated for the purpose of giving effect to the United Nations Framework Convention on Climate Change or any other relevant international Convention to which Antigua and Barbuda is a party; (c) measures to assist in the adaptation and mitigation for climate change; (d) necessary and recurrent expenses incurred in the negotiation, monitoring or auditing of any code of environmental practice, including the retention of technical experts, the investigation or analysis of any matter and the undertaking of any environment monitoring or audit programme; or (e) necessary expenses incurred in the formulation of reports required to carry out this Act. Of note, the SCCF has approved a $5 million grant for advancing the Adaptation window of the SIRF Fund. The GEF/World Bank Project Sustainable Financing and Management of Eastern Caribbean Marine Ecosystem Project (Caribbean Challenge) which was PIF approved in June 2009 and CEO endorsed in July 2011 and has adapted significantly to regional and national contexts since approval. In Antigua, a National Protected Areas Trust Fund (NPATF) being established to meet the requirements of access to the Caribbean Biodiversity Fund (CBF) under the regional World Bank project. The NPATF in Antigua is being established as an independent and separate entity under the Companies Act (as is the case in St. Lucia under the same regional project). The SIRF Fund has a much broader mandate than protected areas and will be used to provide matching funds to aforementioned NPATF. The SIRF is being established by the Government of Antigua and Barbuda in order to meet the costs of meeting its obligations under the Environment and Management Act. GEF funds are not being used to set up, operationalize or directly capitalize the SIRF Fund. The profits from the RE investment under this proposal will be directed through the fund, together with other sources of financing to close the gap in financial needs

Comment	Response
January 26, 2015 Thank you for the improved explanation. However, our request for clarification on points above is not entirely satisfactory. We had asked whether there is a window being created in the SIRF for protected area management and if this was the NPATF. In the response matrix, the text reads "The NPATF in Antigua is being stablished as a non-profit entity under ." But the sentence is not concluded. It does not clearly state what the NPATF is being established "under as a non-profit entity". Thus, is the NPATF being established as a nonprofit entity that serves a window under	of the protected areas system. Revised above: In Antigua, a National Protected Areas Trust Fund (NPATF) being established to meet the requirements of access to the Caribbean Biodiversity Fund (CBF) under the regional World Bank project**. The NPATF in Antigua is being established as an independent and separate entity under the Companies Act of the Antigua and Barbuda** (as is the case in St. Lucia under the same regional project). The SIRF Fund has a much broader mandate than protected areas and will be used to provide matching funds to aforementioned **NPATF.**
15. On the carbon calculations the figures are appreciated but unclear. The key is to identify the incremental benefit attributable to the project. If one divides the total Project Annual Carbon Savings 11,786 tC by the given Growth Rate 3.32333 tC/ha this gives 3,546 ha which is greater than the total area identified (3,052 ha) not all of this area is expected to be fire impacted and therefore cannot be considered incremental. Some additional clarification on the GHG benefits is therefore necessary: 1. As the proposal is to address GHG losses through arresting fire rather than deforestation, the 3rd column should not identify deforestation rate or is this actually the fire loss rate? Footnote 15 on Page notes and increase 2011-2012 of 85% but no area figure is provided. 2. Please explain where the growth rate of 3.32333tC/ha/yr is derived from on the table in Appendix 24 â€“ it does not appear in the excerpt from the National GHG Inventory. 3. Please confirm that column 4 is the	The carbon calculations, using IPPCC Tier 1 calculation methodologies, were integrated in WORD to the Annex 24 in the original CEO submission. These are now provided separately as Annex 24A in EXCEL so as to clarify how calculations were made with exposure of formulas and assumptions in embedded notes. The calculation in questions decrease degradation to zero AND enhance restoration concurrently to arrive at incremental carbon savings benefits. These figures have been discussed and clarified with the GEFSEC SFM Reviewer. It was agreed with the GEFSEC SFM Reviewer that the SFM baseline would be re-calculated using the Ex-Ante Carbon-balance Tool (EX-ACT) during year 1 of the project for the purposes of future monitoring and reporting.

Comment	Response
maximum potential biomass increase between pre-and post- fire scenarios. Stating these levels explicitly would help clarify and would be appreciated.	
16. The figures presented in Tables A and D in the CEO endorsement request are inconsistent. Please review carefully and correct presentation of all budget numbers.	The headers for BD and CC were inadvertently switched, the figures are otherwise consistent, apologies
No BD tracking tools were included. Please include. Please note that the figures presented for the METT scores in the project logframe are incorrect. The METT score is one score and is not broken up by PA Threat and Assessment as seperate scores. The score for capacity for a PA system to become more financially sustainable is based on a potential score of 220, thus a score of 50 will be very poor by the end of the project. Please clarify. In addition, this element of the GEF biodiversity strategy is focused on reduction of the funding gap, so this should be the outcome measure for this element of the project and be reflected in the logframe accordingly. The financial sustainabilty scorecard will measure the reduction over time. SFM TT Section 1 a) needs some forest type to be identified, 1 b) is it primary, managed or degraded and 1 c) who has management control public/private? Section 3 â€“ has area of avoided deforestation 1,039 ha but no GHG value. Please explain how does this relate to the 3,052 ha noted in Appendix 24 and please also include the GHG	BD Tracking Tool is included. The PA Threat score has been removed and METT Score adjusted. The financial score card target goal has been increased to 75 by project end. Considering the baseline is 11, this is ambitious. The financial needs to meet the estimated annual operational costs of the biodiversity rich Protected Areas and Forests systems of Antigua and Barbuda is conservatively estimated at $5 million per year. The Government is currently meeting approximately $2 million of these costs per year. While the financial sustainability scorecard is very useful, the project will be aiming to reduce this large financial gap. SFM TT The SFM tracking tool has been revised to include missing data. Please note that figures reflected in tracking tool subtract carbon savings attributed to efforts in the grasslands reflected in Annex 24A.

Comment	Response
figures.	
Please provide a matrix response for the comments from Germany.	Please see below.
STAP Scientific and Technical screening – October 16, 2012	
Many risks are stated for which mitigation measures have been identified. The proposal identifies points 1 through 7 that are to be addressed during the PPG phase (page 3). In case of partial success, each of the points puts the project's success at risk. Therefore, STAP recommends identifying mitigation measures for these points.	Risk Mitigation Tables including mitigation measures, have been developed for each project component, and can be found here in the CEO Endorsement Template and in Section 3.5 of the ProDoc.
Conducting a more detailed feasibility study is essential as there remain many uncertain costs and risks involved in the concept plan, especially at the scale being mooted. The demonstration project will then be useful to confirm all the assumptions made in the analysis. The number and capacity of wind turbines to be selected could impact on the scale and cost of this demo project (e.g. is it a single 1 MW turbine or five 200 kW turbines in the demo?). It is not clear how the success of the RE system (feasibility and demonstration) will be measured.	The number and capacity of wind turbines to be selected have not been determined as yet. This will be concluded at the end of the tender process which will be premised on the financial and technical feasibility studies to be concluded at the end of year 1. A technical study for scale up will be carried out as part of the project and concluded at the end of year 2. The success will be measured by the successful installation of > 1MW by the end of year 4.
It is not clear who will develop the transmission lines to the hydro sites and the costs involved, especially if they are remote, but it states the best sites have relatively low inter-connection costs and therefore appears to have been considered.	The hydro sites have been dropped for the pilot but will be considered for the scale up feasibility. Interconnection has been costed. Pumped Hydro sites are co-located with wind sites.
Germany Comments on GEF Work Program of June 2013	
While the baseline of the project appears to be clear and the assumptions sound, some doubts in the project design remain, mainly with regards to its financial sustainability and	

Comment	Response
inclusion into national funding schemes, but also with regards to potential impacts of project on biodiversity. Recommendations:	
• In accordance with WB project, assure that Environment Fund receives profits from the renewable energy instillation and directs them towards protected area management (in compliance with the requirements for NPTAFs under the GEF-funded, World Bank implemented “Sustainable Financing & Management of Eastern Caribbean Marine Ecosystem Project").	The Sustainable Island Resources Fund (SIRF) is a comprehensive environmental fund being established under Antigua and Barbuda’s Environmental Protection and Management Act for the financing of - (a) the long-term management and expansion of any system of protected areas and other activities that contribute substantially to the conservation, protection and maintenance of biodiversity including areas declared as ecotourism areas under this Act and any system of protected areas established in Antigua and Barbuda including marine protected areas; (b) programmes for the establishment or management of any area required for biodiversity conservation, or the protection of any carbon sinks that may be designated for the purpose of giving effect to the United Nations Framework Convention on Climate Change or any other relevant international Convention to which Antigua and Barbuda is a party; (c) measures to assist in the adaptation and mitigation for climate change; (d) necessary and recurrent expenses incurred in the negotiation, monitoring or auditing of any code of environmental practice, including the retention of technical experts, the investigation or analysis of any matter and the undertaking of any environment monitoring or audit programme; or (e) necessary expenses incurred in the formulation of reports required to carry out this Act. Of note, the SCCF has approved a $5 million grant for the Adaptation window of the SIRF Fund. The GEF/World Bank Project Sustainable Financing and Management of Eastern Caribbean Marine Ecosystem

Comment	Response
	Project (Caribbean Challenge) which was PIF approved in June 2009 and CEO endorsed in July 2011 and has adapted significantly to regional and national contexts since approval. In Antigua, a National Protected Areas Trust Fund (NPATF) being established to meet the requirements of access to the Caribbean Biodiversity Fund (CBF) under the regional World Bank project. The NPATF in Antigua is being established as a non profit entity under the Companies Act (as is the case in St. Lucia under the same regional project). The SIRF Fund has a much broader mandate than protected areas and will be used to provide matching funds to aforementioned NCTF. The SIRF is being established by the Government of Antigua and Barbuda in order to meet the costs of meeting its obligations under the Environment and Management Act. GEF funds are not being used to set up, operationalize or directly capitalize the SIRF Fund. The profits from the RE investment under this proposal will be directed through the fund, together with other sources of financing to close the gap in financial needs of the protected areas system.
• Replication schemes should be included in the project proposal in order to assure sustainability and transference of know-how generated, that allow for benefit generation in other regions of Antigua & Barbuda (include replication in the operation mode of UNEP proposal).	UNEP has developed the UNEP Live web-based platform aimed at supporting the growing demand for substantiated, contextualized knowledge about the environment. As UNEP's information and knowledge service provider, especially in the delivery of information and evidence to support the SDGs and post 2015 agenda, UNEP is fulfilling it role by facilitate the exchange and sharing of up-to-date data, providing open access to information datasets and providing a range of visualization tools. The SPARRE project will be contributing to this initiative by providing for dissemination on this platform all data and information collected under the various components.
• With respect to biodiversity conservation, serious efforts to identify those locations for wind-generation infrastructure should be made, that least affect resident and migrating birds and their routes (avoid or minimize bird	A Preliminary EIS was conducted on the Crabbs site and shows that it is not an Important Bird Area (IBA). As per the Physical Planning Act, the siting of the RE and enhanced hydro storage would trigger an environmental impact assessment, at which time the siting of the

Comment	Response
strikes, provide for environmental management plan).	infrastructure would be evaluated vis a vis IBAs and migratory pathways. Consistency with guidelines of the American Bird Conservancy is to be ensured with respect to siting and operation of wind turbines as documented under Risk Mitigation. Crabbs is now considered one of three sites all of which are intended for wind power development, two with pumped hydro options and Crabbs with Reverse Osmosis modulated dump load.

ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS

A. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG FINANCING STATUS IN THE TABLE BELOW;

PPG Grant Approved at PIF: **100,000 USD**			
Project Preparation Activities Implemented	***GEF/LDCF/SCCF/NPIF Amount ($)100,000***		
	Budgeted Amount	***Amount Spent To date***	***Amount Committed***
Park Planner and Forest Specialist	24,000	24,000	
EIA Specialist	8,000	8,000	
Renewable Energy Specialist	55,000	55,000	
Project Writer	5,000	5,000	
International Travel (for pro bono expert)	8,000	8,000	
Two Validation Workshops	2,000	2,000	
Total	**100,000**	**100,000**	

During the PPG phase the following baselines were collected:

a. All of the outputs of the SIRMM project (including relevant biodiversity baselines for SPPARE project sites) were collated and reviewed;
b. A technical analysis of the potential renewable energy that the SIRF Fund could possible invest;
c. The necessary Cabinet and APUA permissions to engage with the fund;
d. Stakeholder consultations on developing the structure of the fund.

These included consultations with the Caribbean Challenge project and the ability of the ABBCAT to be integrated into the overall national fund:

- The legislation was finalized and submitted to the Attorney General Office,
- The finalization of the formal protection of the Obama Park;
- Conducted Consultations on the priority actions for Sustainable Management of Forest
- The Cabinet Agreement on a Fundraising strategy for the SIRF Fund.

An initial project consultation workshop was held in May 2014 and a Logframe Validation meeting followed in June 2014. Both events provided all stakeholders with an opportunity to review proposed design strategies and to share specific concerns or recommendations regarding the project.

During the PPG phase, the following enabling conditions were to be put in place by the Government of Antigua and Barbuda. Please find below and update:

1) Passage of the Environment Management Bill, which includes establishment of a national-level trust fund (hereafter referred to as "the national trust fund") that includes a mandate of providing support to the management of protected areas and biodiversity conservation.

The Bill has received a Cabinet Decision and is to be passed in Parliament before December 2014[5]. EPMB will provide the enabling environment for the fund and its operation. The expenditures of the fund are guided by the legislation and limited by the provisions within the legislation.

2) Agreement for the national trust fund to receive the profits from the Renewable Energy Installations and that the national trust fund will direct these resources to support of the management of protected areas.

Cabinet decision dated August 13, 2014 is appended under Appendix 12 of the ProDoc.

3) Furthermore, the Government agrees to designate sufficient lands identified for wind development and designate surrounding lands for farming or other compatible use surrounding (Crabbs Point).

Cabinet decision dated August 13, 2014 is appended under Appendix 12 of the ProDoc.

4) APUA agrees to purchase and/or wheel renewable energy generated.

Letter is under preparation and will be available at CEO Endorsement Submission.

5) APUA agrees to maintain and operate the solar, wind and pumped hydro facilities at actual cost to be negotiated.

Letter is under preparation and will be available at CEO Endorsement Submission.

6) Decisions on development within the boundaries proposed Mount Obama National Park contingent upon the approval of the local area plan to be developed by the project.

Land owners, Mount Obama management, EAG and others will be actively involved in Stakeholder consultations facilitated by DCA to identify classify areas and their uses and to develop plan. The plan will include boundaries and broad areas for conservation and sustainable use. The Decision to dedicate the area as a natioal park had been decided approximately 5 years ago and it has the complete support of the government.

7) In accordance with applicable legislation, a screening of the proposed development shall be led by the Environment Division in conjunction with the Development Control Authority.

In Antigua and Barbuda a planning application is submitted to the Development Control Authority (DCA) for issuance of a development permit. The EPMB seeks to institute the procedure that, if an environmental impact assessment (EIA) is required, the development plan is then submitted to the ED for the development of the TORs for the preparation of the EIA. The applicant shall submit the EIA on the proposed development to the ED in such form and containing such information as may be prescribed in the TORs.

The Sustainable Island Resources Fund (SIRF) is being established under Antigua and Barbuda's Environmental Protection and Management Act for the financing of -

[5] Project inception and release of first payment will be contingent on passage of Bill.

(a)the long-term management and expansion of any system of protected areas and other activities that contribute substantially to the conservation, protection and maintenance of biodiversity including areas declared as ecotourism areas under this Act and any system of protected areas established in Antigua and Barbuda including marine protected areas;
(b) programmes for the establishment or management of any area required for biodiversity conservation, or the protection of any carbon sinks that may be designated for the purpose of giving effect to the United Nations Framework Convention on Climate Change or any other relevant international Convention to which Antigua and Barbuda is a party;
(c) measures to assist in the adaptation and mitigation for climate change;
(d)necessary and recurrent expenses incurred in the negotiation, monitoring or auditing of any code of environmental practice, including the retention of technical experts, the investigation or analysis of any matter and the undertaking of any environment monitoring or audit programme; or
(e) necessary expenses incurred in the formulation of reports required to carry out this Act.

Of note, the SCCF has approved a $5 million grant for the Adaptation window of the SIRF Fund.

The GEF/World Bank Project Sustainable Financing and Management of Eastern Caribbean Marine Ecosystem Project (Caribbean Challenge) which was PIF approved in June 2009 and CEO endorsed in July 2011 and has adapted significantly to regional and national contexts since approval. In Antigua, a National Protected Areas Trust Fund (NPATF) is being established to meet the requirements of access to the Caribbean Biodiversity Fund (CBF) under the regional World Bank project. The NPATF in Antigua is being established as a non profit entity under the Companies Act (as is the case in St. Lucia under the same regional project). The SIRF Fund has a much broader mandate than protected areas and will be used to provide matching funds to aforementioned NPATF.