REQUEST FOR CEO ENDORSEMENT

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

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PART I: PROJECT INFORMATION

Project Title: Standardized Methodologies for Carbon Accounting and Ecosystem Services Valuation of Blue Forests			
Country(ies):	Global	GEF Project ID:[1]	4452
GEF Agency(ies):	UNEP	GEF Agency Project ID:	00659
Other Executing Partner(s):	GRID-Arendal, UNEP-WCMC, IUCN, Duke University, Conservation International, Blue Ventures, Indonesian Government, WWF-CEA, AGEDI	Submission Date: Re-submission Date:	24 Dec. 2014 27 Jan 2014
GEF Focal Area (s):	International Waters	Project Duration(Months)	48
Name of Parent Program (if applicable): For SFM/REDD+ ☐ For SGP ☐ For PPP ☐		Project Agency Fee ($):	450,000

A. FOCAL AREA STRATEGY FRAMEWORK[2]

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Grant Amount ($)	Cofinancing ($)
IW-3	Outcome 3.2: On-the-ground modest actions implemented in water quality, quantity, fisheries, and coastal habitatdemonstrations for "blue forests" to protect carbon. Outcome 3.3: IW portfolio performance enhanced from active learning/KM/experience sharing.	Demo-scale local action implemented, to restore/protect coastal "blue forests" Active experience/sharing/ learning practiced in the IW portfolio	GEF TF	4,500,000	23,268,215
		Total project costs		**4,500,000**	**23,268,215**

[1]Project ID number will be assigned by GEFSEC.
[2]Refer to the Focal Area Results Framework and LDCF/SCCF Framework when completing Table A.

B. PROJECT FRAMEWORK

Project Objective: To apply methodologies and approaches for carbon accounting and ecosystem service valuation in Blue Forests so as to provide evidence-based experience that supports replication, up-scaling and adoption of Blue Forests concepts by the international community and the GEF.						
Project Component	**Grant Type**	**Expected Outcomes**	**Expected Outputs**	**Trust Fund**	**Grant Amount ($)**	**Confirmed Cofinancing ($)**
Component 1: Development of guidance for carbon accounting and ecosystem services valuation for blue forests ecosystems.	TA	Outcome 1.1) Improved knowledge of coastal and marine ecosystem managers and stakeholders in selected regions on carbon sequestration, storage, possible greenhouse gas emissions as well as ecosystem services in blue forests ecosystems and on possible policy/economic instruments that may be applied to sustainable coastal habitat management.	Output 1.1.1) Three project-level Advisory Panels established to focus on: 1) scientific and technical aspects related to carbon sequestration, storage, emission and fluxes; 2) blue forests policy options, and; 3) valuation of ecosystem services other than C, to fine-tune methodologies and approaches for regionally adapted implementation.	GEF TF	475,000	1,097,509
Component 2: Application of blue forests methodologies for carbon accounting and ecosystem services valuation.	TA	Outcome 2.1) Improved understanding of ecosystem services, carbon sequestration, storage, avoided emissions and management in at least 3 ecosystem types (mangroves, seagrass, saltmarsh) in 5 sites (including 2 GEF-IW project sites) covering at least	Output 2.1.1) Application of blue forests methodologies and approaches in five documented small-scale interventions focusing on both carbon storage and sequestration and on ecosystem services valuation at each site (Y4 of the project).	GEF TF	2,335,000	17,948,686

		368,400 ha. Outcome 2.2) Improved capacity and ecosystem management as a result of the application of methodologies and approaches advanced under Component 1 in the same 5 sites (including other GEF-IW project sites) covering at least 354,400 ha. Outcome 2.3) Approaches, experiences and recommendations are made available for the replication and up-scaling of interventions (Y4 of the project).	Output 2.2.1) Blue forests methodologies and approaches incorporated into ecosystem management in all five small-scale intervention sites. Output 2.3.1) A Global Blue Forests Data Toolis developed, focusing on both carbon storage and sequestration and on ecosystem services valuation and additional evidence-based experiences resulting from existing baseline initiatives are documented (incl. 2 GEF-IW project sites)			
Component 3: Improving the understanding of carbon storage and sequestration and ecosystem services of blue forests.	TA	Outcome 3.1) Improved understanding of ecosystem services and carbon storage, possible greenhouse gas emissions, sequestration and fluxes for blue forests ecosystems through targeted research and peer-	Output 3.1.1) At least 6 papers with equal attention to carbon storage and sequestration and ecosystem services valuation submitted for peer-review in high impact scientific journals, enabled	GEF TF	680,000	1,957,500

		reviewed literature, with a particular focus on ecosystems lacking knowledge (seagrass and salt marshes).	through targeted support of research in order to fill key knowledge gaps (Y4).			
Component 4: Options for the adoption of methodologies and approaches by the international community	TA	Outcome 4.1) Improved acceptance of blue forests methodologies and approaches through independent and internationally recognized institutions responsible for ensuring quality standards for carbon accounting and ecosystem service valuation, such as international climate frameworks (IPCC, UNFCCC, LULUCF/AFOLU processes) and ecosystem service markets. Outcome 4.2) Increased stakeholder awareness of the ecosystem services and carbon values of blue forests ecosystems.	Output 4.1.1) At least 1 carbon acounting and ecosytem services toolkit is produced (for GEF IW and international application); at least one blue forests policy options report is produced; at least one documented global carbon and ecosystem services report is produced; all in support of advancing blue forests methodologies, policies and approaches (Y4) Output 4.2.1) At least two policy briefs are produced (Y1-Y4); one media and communications strategy is developed and implemented (Y1); and at least two stakeholder engagement workshops are held (coordinated with IW:LEARN) to share lessons learned and promote carbon storage and sequestration and	GEF TF	530,000	954,520

			ecosystem services in natural resource management (Y1 and Y4)			
Component 5: Project monitoring, networking and knowledge management	TA	Outcome 5.1) Effective project monitoring and evaluation. Outcome 5.2) Improved access to and sharing of information in cooperation with IW:LEARN in integration of climate change adaptation and climate resilience into IW projects as well as capacities to facilitate knowledge exchange.	Output 5.1.1) Project performance reviewed and reported, including IW Tracking Tool, in a timely manner, and MTE and FE completed and submitted on time. Output 5.2.1) With 1% of the project resources in support of IW:LEARN; Improved knowledge management through documented cooperation and knowledge exchange, including: a dedicated project website connected with IW:LEARN (Y1-Y4); development of joint strategy with IW:LEARN and STAP (Y1-Y4); at least 1 special session on blue forests at a high-profile science symposium and at the GEF IW Conference (Y4) .	GEF TF	255,000	270,000
Subtotal					4,275,000	21,902,809
Project management Cost (PMC)[3]				GEF TF	225,000	1,040,000
Total project costs					**4,500,000**	**23,268,215**

[3]PMC should be charged proportionately to focal areas based on focal area project grant amount in Table D below.

C. SOURCES OF CONFIRMED COFINANCING FOR THE PROJECT BY SOURCE AND BY NAME ($)

Please include letters confirming cofinancing for the project with this form

Sources of Co-financing	Name of Co-financier (source)	Type of Cofinancing	Cofinancing Amount ($)
GEF Agency	UNEP	In-kind	1,630,409
Others	Duke	In-kind	1,264,520
CSO	IUCN	In-kind	900,000
Foundation	GRID-Arendal	Cash	440,000
Foundation	GRID-Arendal	In-kind	440,000
CSO	Conservation International	In-kind	439,730
CSO	WWF-Coastal East Africa (CEA)	In-kind	500,000
National Government	US Forest Service	In-kind	677,000
National Government	Indonesia Marine and Fisheries Ministry	In-kind	2,000,000
CSO	Blue Ventures	Cash	408,000
CSO	Blue Ventures	In-kind	150,000
National Government	Environment Agency Abu Dhabi[4]	In-kind	5,515,000[5]
Foundation	UNEP-WCMC	In-kind	440,000
GEF Agency	UNEP-ROLAC	In-kind	1,396,968
Foundation	The Ocean Foundation	In-kind	250,000
Others	Kenya Marine and Fisheries Research Institute	In-kind	536,588
Others	South African Institute of International Affairs	In-kind	100,000
National Government	US NOAA	In-kind	5,500,000
Others	Stockholm University	In-kind	340,000
Others	Charles Darwin University	In-kind	340,000
Total Co-financing			**23,268,215**

D. TRUST FUND RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY[1]

GEF	Type of	Focal Area	Country Name/	(in $)

[4] Aka Abu-Dhabi Global Environment Data Initative (AGEDI).

[5] Total amount of AGEDI co-finance is $5,515,000: $1,800,000 applied towards **Component 2e (Appendix 21)** (Activities 2.1.1.5 and 2.2.1.5), representing the Abu Dhabi Blue Carbon Demonstration Project as a featured small-scale intervention; and $3,715,000 towards Sub-Activity 2.3.2.1.5 of **Component 2 (Appendix 16)**, representing other Abu Dhabi blue carbon activities contributing to the global baseline for blue forests (e.g., blue carbon discussions at the 2011 Eye on Earth Summit, the Oceans and Blue Carbon Special Initiative, and the regional feasibility assessment.

Agency	Trust Fund		Global	Grant Amount (a)	Agency Fee (b)[2]	Total c=a+b
UNEP	GEF-TF	International Waters	Global	4,500,000	450,000	4,950,000
Total Grant Resources				**4,500,000**	**450,000**	**4,950,000**

[1] In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table. PMC amount from Table B should be included proportionately to the focal area amount in this table.

[2] Indicate fees related to this project.

F. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

Component	Grant Amount ($)	Cofinancing ($)	Project Total ($)
International Consultants	1,170,437	4,957,976	6,333,449
National/Local Consultants	0	0	0
Total	1,170,437	4,957,976	6,333,449

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

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

PART II: PROJECT JUSTIFICATION

A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN OF THE ORIGINAL PIF[6]

Modifications to the project design from the PIF are a result of analysis and discussions during the PPG phase. This reflects the current understanding of the application of blue forests methodologies and approaches and the benefits of more involvement from the international community in the work of the project to further assist up-scaling/replication. Significant additions to the project and refinement to the project structure, which enhance the expected impact of the GEF Blue Forests Project, are presented below. Minor changes have also been made to component titles presented in Table B (Project Framework) and in Annex A (Project Results Framework). A further justification of these changes and changes to component budgets are presented in Annex B2.

Component 1

A greater focus on project-level support to the small-scale interventions. The PPG phase identified that additional effort would be needed to provide technical guidance on carbon storage and sequestration and ecosystem service support to the small-scale interventions (Component 2). Specifically it was recognized that the scale of the focus of the current International Blue Carbon Science and Policy Working Groups would not fit the needs of project-level implementation guidance for this project. This support is now to be provided through three Project-level Advisory Panels. It was also recognized that since the creation of the PIF the development of blue forests related carbon methodologies has occurred (e.g., through efforts of the Clean Development Mechanism (CDM), Intergovernmental Panel on Climate Change (IPCC), Voluntary Carbon Market (VCM), US Forest Service, and International Blue Carbon Scientific Working Group). Accordingly, Component 1 focuses on the assessment of methodologies and their coordinated application in the small-scale interventions.

The external or international level of outputs of Component 1 (at the PIF stage) has been transferred to the activities of other project components (including Component 4 and the Global Blue Forests Data Tool of Component 2).

Component 2

The incorporation of the Abu Dhabi Blue Carbon Demonstration Project. This entirely co-financed project presents the world's largest 'blue carbon' and ecosystem services project ($1.8 million USD) has been incorporated as one of the Blue Forests Project's featured interventions. This has released GEF funds to support the other small-scale interventions and other project components. Positive contributions to international capacity building between the interventions have already been realized through the Abu Dhabi Blue Carbon Demonstration Project as field scientists from Indonesia and Madagascar worked directly with international experts and local scientists in the mangrove, salt marsh, and (unique to Abu Dhabi) the algal flats and coastal Sabkha carbon surveys. In addition, the timing of the Abu Dhabi project will also ensure that valuable lessons learnt relating to project implementation and execution can be applied to the other inventions

Involvement and coordination with the mangrove carbon projects of the Kenya Maritime and Fisheries Research Institute (KMFRI). KMFRI's Gazi Bay mangrove carbon project (Mikoko Pajoma) represents the world's first potential project where payments for carbon in blue forests ecosystems will be realized. The Gazi Bay project is expected to receive payments in 2013. The Blue Forests Project

[6] For questions A.1 –A.7 in Part II, if there are no changes since PIF and if not specifically requested in the review sheet at PIF stage, then no need to respond, please enter "NA" after the respective question.

will greatly benefit from information, knowledge and experience sharing with KMFRI through Component 2.

Increased inclusion of the international community in the Blue Forests Project through an expansion of project partners, which reflects the greater international interest and investment in blue forests projects since the time of the PIF. Additional project partners include AGEDI, KMFRI, the blue carbon projects and initiatives of The Ocean Foundation, South African Institute of International Affairs, US Forest Service, and United States National Oceanic and Atmospheric Administration (NOAA). This additional involvement has resulted in the expected co-financing increasing from $18,590,000 USD to $23,268,215 USD (an increase in total co-finance to the project of $4,678,215 USD). The inclusion of these partners will increase both the geographical and institutional reach of the GEF project, giving blue forests ecosystems more prominence as an important area of focus and reinforcing the global significance of these ecosystems. The Blue Forests Project will benefit from learning and cross-training with these existing global baseline initiatives through Component 2.

The increased area of Outcomes 2.1.and 2.2, which reflects the greater international interest and investment in blue forests projects since the time of the PIF and adds significant value to GEF funds investment. The area under Outcome 2.1 (improved understanding) was increased from the PIF by 168,400 ha, from at least 200,000 ha to a new total of at least 368,400 ha. The area under Outcome 2.2 (improved ecosystem management) was increased from the PIF by 154,400 ha, from at least 200,000 ha to a new total of at least 354,400 ha. GEF funds support activites in Outcomes 2.1 and 2.2 covering and area of 192,000 ha and 178,000 ha respectfully, with an additional 176,400 ha supported in each Outcome through 100% cofinance (the U.A.E. intervention).

The inclusion of capacity building in Outcome 2.2, which addresses the risks identified in the matrix numbered 5 and 6 in section A.6. To address these risks it was recognized in the PPG phase that capacity building activities would need to be further strengthened within the small-scale interventions. This will be achieved through the engagement of the Advisory Panels (Component 1) with the small-scale intervention project partners, through the carbon science and ecosystem services capacity building activities and workshops (Component 2), and through the local and national scale policy and management engagement activities of the small-scale interventions.

Component 3

Changes to Component 3 reflect the advances in scientific research and understanding of blue forests ecosystems since the preparation of the PIF. During the PPG phase a review of blue forests research identified knowledge gaps to be addressed by this component. Component 3 will deliver six targeted research papers called for in the PIF and will support the small-scale interventions through coordinated research activities where applicable.

Component 4

The addition of further tangible products to Component 4. The PPG phase identified that Component 4 would require additional resources to effectively enable the replication and up-scaling opportunities of the blue forests methodology and approaches. This is accomplished through an increase in GEF-funds for Component 4 to deliver key products including, policy briefs, GEF-IW applicable toolkit, etc. and for increasing the visibility of Blue Carbon within the International Community.

Component 5

Component 5 has an increased focus on knowledge management. Component 5 has been restructured to enable the overall outcome to be achieved with an increased focus on knowledge management issues and to incorporate all the PIF outcomes related to improved knowledge management from other project components under one outcome.

A.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NBSAPs, national communications, TNAs, NCSA, NIPs, PRSPs, NPFE, Biennial Update Reports, etc

N/A

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

This project is a direct response to an urgent priority identified in the Global Environmental Facility 5 Programming Document under the International Waters Focal Area which states that "*stopping the loss of the ocean's —blue forests (which some studies show exceed carbon absorption of the land) is an urgent priority for coastal management to protect these important carbon sinks'. Objective 3 under the International Water programme a core output is identified as 'demo-scale local action implemented… to restore/protect coastal —blue forests"*. There is a clear need to fill our gaps in knowledge concerning the carbon fluxes, storage, possible greenhouse gas emissions from habitat degradation and ecosystem service values of these ecosystems, to develop standardized methodologies to measure these values consistently, to advise international policy in order to create international mechanisms for protecting these values and to ensure that GEF International Waters projects have tools available for understanding the values of coastal ecosystems. This presents a new opportunity for evaluation of carbon storage and sequestration as well as wider ecosystem services that is consistent with the priorities of the GEF International Waters Focal Area.

The project will build on the commitments of countries to meet their obligations under the UNEP Regional Seas conventions and action plans, as well as the UNEP Global Program of Action for the Protection of the Marine Environment from Land-Based Activities and provide tools for them to attain regional marine conservation targets.

It also speaks to the decisions and targets of major international conventions such as the Convention for Biological Diversity concerning coastal ecosystem services and the United Nations Framework for Climate Change Convention Cancun Agreement concerning climate change mitigation targets. The CBD, along with the UNFCCC, the UNCCD, the Ramsar Convention and CMS recognize the findings of the Millenium Ecosystem Assessments and promote the evaluation and protection of coastal ecosystem services by member states. Furthermore, mangrove ecosystems are eligible for REDD+ (Reducing Emissions from Deforestation and Forest Degradation in Developing Countries) financing, and many countries are currently looking for support to develop their REDD+ readiness plans to cover mangroves.

The Manado Oceans Declaration, signed by countries in 2009 and supported by the GEF International Waters Focal Area, also recognizes "*that healthy and productive coastal ecosystems, already increasingly stressed by land-based and sea-based sources of pollution, coastal development, and habitat destruction, have a growing role in mitigating the effects of climate change on coastal communities and economies in the near term and invites scientific community/institutions to continue developing reliable scientific information on the roles of coastal wetlands, mangrove, algae, sea-grass and coral reef ecosystems in reducing the effects of climate change*" and stresses '*the need for national strategies for sustainable management of coastal and marine ecosystems, in particular mangrove, wetland, seagrass, estuary and coral reef, as protective and productive buffer zones that*

deliver valuable ecosystem goods and services that have significant potential for addressing the adverse effects of climate change', clearly stating the need for international action on blue forests for their valuable ecosystem services.

A.3 The GEF Agency's comparative advantage:

Bridging the science-policy gap. UNEP has unparalleled access to national governments who are UN member states through global platforms such as the Regional Seas Programme (access to 186 governments through conventions and action plans) or the Global Program of Action for the Protection of the Marine Environment from Land-Based Activities (the only intergovernmental initiative directly addressing the link between watersheds, coastal waters and the open ocean). UNEP also has a wide range of expertise and partners ranging from scientific and technical know-how to policy expertise and a history of working on market-based carbon credit schemes with various branches, divisions and centres dedicated to advising governments on market-based tools (including UN-REDD and the UNEP-Riso Centre, among others). UNEP has access to high quality and detailed Blue Forest data-sets through the Division of Early Warning and Assessment as well as the UNEP World Conservation Monitoring Center, an internationally recognised Centre of Excellence committed to the synthesis, analysis and dissemination of global biodiversity knowledge, providing authoritative, strategic and timely information for conventions, countries, organizations and companies to use in the development and implementation of their policies and decisions.

Experience with REDD, mangroves and carbon sequestration projects. UNEP is currently working on mangrove conservation projects in West Africa (Guinea Bissau) using Lifeweb and CCLME funding to develop standardised protocols for carbon accounting in mangrove ecosystems under REDD. UNEP is also coordinating the Carbon Benefits project, a GEF-funded project on developing standardised protocols for measuing and monitoring carbon sequestration in different terrestrial soil types. Lessons from this research and methodology development could be carried across to blue forest ecosystems.

A strong programmatic baseline on blue forests. UNEP created a strong programmatic baseline by publishing the report 'Blue Carbon' in collaboration with partners, as well as contributing to the IUCN publication 'The management of coastal carbon sinks'. As a follow up to the reports, UNEP (in collaboration with IOC-UNESCO and IUCN) organized a workshop in Paris bringing together experts in the field of blue forests in order to discuss possible research agendas and gaps in our current knowledge of blue forests. A major output from this workshop is a special edition of the journal *Ocean and Coastal Management* dedicated to blue forest science, economics and policy which UNEP is currently coordinating. The current UNEP Carbon Benefits project also highlights UNEP's capacity for developing standardized methodologies for measuring, reporting, verifying and monitoring carbon sequestration.

Through its multiple partners and programs, UNEP is thus globally recognized as a source of credible science and policy advice. Furthermore, UNEP (in collaboration with the World Meteorological Organization) established the Intergovernmental Panel on Climate Change (IPCC), and maintains close ties to date. UNEP's previous work on Blue Forests (Blue Carbon and IUCN reports, expert workshop in Paris, special edition of 'Ocean and Coastal Management'), convening power, technical expertise, international credibility, global influence and clout with national governments thus makes it the ideal institution for coordinating the Blue Forest project, consolidating global methodology development,

analysis and policy efforts, and making results readily available for informing international and national policy decisions.

UNEP also brings expertise in bridging science to policy through its science-to-policy platforms such as the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) whose purpose is to provide a scientifically sound, uniform and consistent framework to enable emerging scientific knowledge to be translated into policy action at the appropriate levels as to contribute to more effective and sustainable decision-making that secures human well-being. To do so, the platform harnesses existing networks of scientific experts as well as policy communities. The platform remains scientifically independent and credibility, relevance and legitimacy are core objectives but also provides knowledge on biodiversity and ecosystem services for collaboration and coordination for common and shared knowledge bases.

A.4. The baseline project and the problem that it seeks to address:

The project aims to address the current rate of destruction of blue carbon ecosystems and, through informed decision-making, ensure significant steps are made towards their long-term term sustainable conservation and management. The PPG stage has allowed for the further refinement of the baseline for this Project to be undertaken.

Scientific baseline: The importance of carbon storage and ecosystem services provided by coastal ecosystems, and thus their importance in climate change mitigation and adaptation, was brought to the attention of the international community through the publication in 2009 of two reports by UNEP and IUCN that presented the baseline science, identified the major problems that need to be addressed and identified gaps in knowledge and policy. These reports (Nellemann et al, 2009[7]; Laffoley and Grimsditch, 2009[8]) stressed that significant amounts of carbon are captured by coastal vegetated habitats (i.e. mangroves, salt marshes and seagrasses). These so-called 'blue forests', which cover less than 0.5% of the seabed, have rates and stocks of carbon sequestration and storage that are comparable and often higher than carbon-rich terrestrial systems such as peat or tropical rainforest. However, the rate of loss of these coastal ecosystems is among the highest of any ecosystem on the planet due to land conversion, over-harvesting, urbanization, land-based activities, pollution, eutrophication and diversion of fresh water flow among other threats. Furthermore, coastal ecosystems are extremely valuable to coastal communities as they provide regulating, provision, supporting and cultural ecosystem services that underpin livelihoods of billions of people (e.g. providing food security from fisheries or providing protection from storms and flooding).

The reports, however, highlighted the considerable uncertainty surrounding estimates and the level of understanding of carbon sequestration and storage in these ecosystems, including the emissions of greenhouse gases from degraded habitats and the value of ecosystem services associated with blue forests. The reports further highlighted as critical impediments to moving forward the following: 1) the sparse knowledge of the carbon storage and sequestration and ecosystem services potential of

[7]Nelleman et al., 2009. Blue Carbon. The Role of Healthy Oceans in Binding. Carbon. UNEP, GRID-Arendal

[8]Laffoley, D.d'A. &Grimsditch, G. (eds). 2009. The management of natural coastal carbon sinks. IUCN, Gland, Switzerland. 53 pp.

blue forests ecosystems; 2) the lack of internationally standardized and independently approved protocols for carbon accounting and ecosystem services valuation for blue forests ecosystems; 3) the lack of adequate and appropriate management actions as critical impediments in moving forward. The project aims to address these problems at source by focusing on these areas and therefore ultimately contribute to, and support others, in the long-term global conservation and management of blue carbon ecosystems.

Over the period from 2009 to 2012 a number of synthesis publications advancing policy, economics and science of blue forests have been published, that have identified priority actions for science, including The World Bank (Crooks et al, 2011[9])), Duke University (Sifleet et al, 2011 Murray et al, 2011[10]; Gordon et al, 2011[11]), UNEP-WCMC (Epple, 2012[12]), NOAA (NOAA, 2011[13]) and Climate Focus (Climate Focus, 2011[14]). These reports have all produced reports that clearly identify the gaps in knowledge and policy opportunities that will guide this project.

The latest global synthesis, published in 2012 in the peer-reviewed journal PLoS (Pendleton et al. 2012[15]) calculated global emissions from converted and degraded coastal wetlands at 0.15 – 1.02 billion tons CO_2 released annually. These emissions are equivalent to 3 – 19% from deforestation globally or the total emissions of the countries of Venezuela (low estimate) or Japan (high estimate) respectively. Mangroves, salt marshes and seagrass beds continue to decline at global annual loss rates of 1-2% per annum. This destruction of a global resource of vital importance to coastal communities is what the GEF project aims to reverse.

As well as the global syntheses, international working groups have been set up for science and policy by CI, IUCN and IOC-UNESCO. The International Blue Carbon Scientific Working Group has had several meetings since 2010 to develop methodologies for carbon accounting and is currently developing a manual to guide field practitioners in measuring carbon storage and fluxes in the three blue forests ecosystems. Through the Project-level Advisory Panels, this project will provide the opportunity to apply this technical guidance in small-scale interventions around the world. These panels will be able to address the specific needs of the local communities and work at a grass roots level. Experience from the interactions between the advisory panels and the interventions will ensure the advisory panel experts appreciate the practicalities of the interventions and areas of priority for further collaboration and support. The International Blue Carbon Policy Working Group has also met several times since 2010 and has identified entry points and produced recommendations for blue forests in the international policy arena, thus also providing a policy framework for the project. However, an

[9]Crooks, S. et al. 2011. Mitigating Climate Change through Restoration and Management of Coastal Wetlands and Near -shore marine Ecosystems. Challenges and Opportunities. Environment Department Paper 121, World Bank, Washington, DC, USA.

[10]Murray B.C., Pendleton L., Jenkins W.A., Sifleet S. 2011. Green Payments for Blue Carbon: Economic Incentives for Protecting Threatened Coastal Habitats. Nicholas Institute for Environment, Duke University, Durham, North Carolina

[11]Gordon D, Murray BC, Pendleton L, Victor, B., (2011) Financing Options for Blue Carbon: Opportunities and Lessons from the REDD+ Experience. Report NI R 11-11, Nicholas Institute for Environmental Policy Solutions, Duke University, Durham. Duke University website.

[12]Epple, C. (2012): The climate relevance of ecosystems beyond forests and peatlands – A review of current knowledge and recommendations for action. UNEP-WCMC

[13]NOAA, 2011. Opportunities to use carbon services to advance coastal habitat conservation. Report to NOAA Ocean and Coastal Council (http://www.ecosystemcommons.org/sites/default/files/coastal_blue_carbon_report_to_nocc_061311.pdf)

[14]Climate Focus. 2011. Blue Carbon Policy Options Assessment. Washington, DC, USA.

[15]From Pendleton et al. 2012: Estimating global "blue carbon: emissions from conversion and degradation of vegetated coastal ecosystems, PLoS ONE 7(9): e43542

international blue forests working group for ecosystem services is not well established and this is a gap that the GEF project will help address, through the Project-level Advisory Panel focused on the valuation of ecosystem services of Component 1 (Pro-ESAP).

Through the Pro-ESAP and other project activities, the project builds on the baseline for the valuation of blue forests ecosystem services including the efforts of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), Marine Katoomba, Forest Trends' Marine Ecosystem Services (MARES) Program, TEEB for Oceans, Valuation and Accounting of Natural Capital for the Green Economy (VANTAGE), Wealth Accounting and the Valuation of Ecosystem Services (WAVES), and Marine Ecosystem Services Partnership (MESP). All are included into the project through potential expert-level membership of the Pro-ESAP and a few are already included through co-finance activities of project partners (e.g. Forest Trends is part of the U.A.E. intervention, UNEP and GRID-Arendal are partners of TEEB for Oceans, and Duke University manages the MESP.

Furthermore, as interest in carbon and ecosystem services in blue forests has increased in the last few years, so has the development of methodologies for assessing carbon stocks and accessing the international carbon markets. In 2011, the CDM board approved a baseline and monitoring methodology for afforestation and reforestation of degraded mangrove habitats. Voluntary carbon market methodologies for coastal wetlands are also currently being developed under the Verified Carbon Standard, the Gold Standard and Plan Vivo, all international carbon market verification standards. The VCS, one of the largest verification standards for the voluntary carbon market, has recently announced guidelines that allow the trading of carbon credits based on blue forests, and is now working to develop very specific methodologies for carbon accounting in this context. The Gold Standard has also recently acquired the Carbonfix standard and will accept credits from forestry projects, including mangrove ecosystems. Plan Vivo has already approved a pilot mangrove project in Kenya (and is included as part of co-finance to the Blue Forests Project). In addition, new IPCC guidance on estimating anthropogenic emissions and removals from wetlands and organic soils is under preparation. The first order draft of the "2013 Supplement to the IPCC Guidelines on National Greenhouse Gas Inventories: Wetlands" underwent expert review in 2012. In 2012, CIFOR developed 'Protocols for the measurement, monitoring and reporting of structure, biomass and carbon stocks in mangrove forests', a practical guide for scientists on the ground. Further resources include a blue carbon manual being produced by the International Blue Carbon Scientific Working Group and a blue carbon guidance manual produced by UNEP. Each of these methodologies and manuals will provide avenues for the small-scale intervention projects to potentially access carbon markets and will provide guidance for their activities. Action within these markets will send signals to the international community of the importance of blue forests (coastal carbon as well as associated ecosystem services) and therefore position GEF as a leading organization in this area. This will be particularly important, as blue forests is a relatively new and innovative science.

Several blue forests projects on the ground are also attempting, with varying success, to employ these methodologies. There are various projects around the world (e.g. Abu Dhabi, Indonesia, Vietnam, Kenya, Senegal and Bangladesh among others) that are reforesting mangrove areas in attempts to accrue carbon credits, mitigate global climate change and also improve the livelihoods of coastal

populations and help them adapt to climate threats. However similar numbers of projects do not exist for non-mangrove blue forests ecosystems, i.e. seagrass and saltmarsh.

Habitat specific baseline: A baseline value for mangrove, seagrass and salt marsh habitats can be generally inferred by estimating a monetary value for the various serviced they provide[16]. Focusing more specifically on carbon for which data is more reliable, Pendleton *et al.* 2012[17] estimate the total social costs incurred when carbon is released into the atmosphere due to habitat destruction. This "social cost of carbon" is defined as "the marginal value of economic damages of the climate change attributable to an additional ton of CO_2 in the atmosphere in 2020 (using 2007 USD). This cost is an estimate of the of the environmental damages that can be avoided by reducing emissions but does not necessarily equal the price that the market will pay for reducing emissions…". The per metric ton social cost of carbon value applied in Pendleton *et al.*, 2012 is USD 41 per tCO_2.

Mangroves: In the case of mangrove habitats, any "carbon value" is inherently affected by the service potential of the habitat which in this case is influenced primarily by the size of area of habitat available. From Pendleton *et al.* 2012[18], global mangrove coverage is estimated at between 13.8 and 15.2 million hectares (central estimate of 14.5 from 2005 data). The current conversion rate (which essentially means lowering of the service potential) is estimated at between 0.7 and 3.0 % per annum (central estimate of 1.9). The change in value over time can thus be inferred from the perspective of the "social cost of carbon" as described above.

When attempting to evaluate the full range of ecosystem services of mangroves, our knowledge is still limited to only a handful of services and a few parts of the globe. As a result, it is difficult to provide a good baseline assessment of the ecosystem services provided by most mangrove ecosystems. De Groot *et al.*, 2012 provide an estimate of the monetary value of ecosystem services (not including the climate regulation services associated with storage) provided by coastal wetland habitats (dominated by mangrove) of USD 193,845 per hectare per year (2007 price levels)[19], but this estimate is a very coarse average that includes coastal ecosystems that are intensively used or are near large coastal populations. Ecosystem services valued in the context of mangroves for this study included provision services (food, water, raw materials, genetic resources, medicinal resources), regulatory services (climate regulation (capture), disturbance moderation, waste treatment, erosion prevention, nutrient cycling), habitat services (nursery services, genetic diversity) and cultural services (recreation)[20].

Seagrasses: As is the case for mangrove, for seagrass habitats, any value is inherently affected by the service potential of the habitat which in this case is influenced primarily by the size of area of habitat

[16] We note that valuation is not exclusive to monitory values and can include other means for values of blue forests to be recognized and result in improved ecosystem management. This could include carbon finance or other payment for ecosystem service (PES) schemes, conservation agreements, recognition of ecosystem values in policy and management language and regulations that result in a conservation action, cultural values for ecosystems, or other mechanisms.

[17] From Pendleton et al. 2012: Estimating global "blue carbon: emissions from conversion and degradation of vegetated coastal ecosystems, PLoS ONE 7(9): e43542

[18] Pendleton et al. 2012: Estimating global "blue carbon: emissions from conversion and degradation of vegetated coastal ecosystems, PLoS ONE 7(9): e43542

[19] From De Groot *et al*., 2012: Global estimates of the value of ecosystems and their services in monetary units, Ecosystem Services, Volume 1, pp50-61.

[20] For the purposes of the current analysis, it is important to note that the values compiled by De Groot *et al.* 2012 may not be representative of the habitats found in the project sites. Furthermore, these estimates provide average values while the annual changes estimated as part of the current analysis are marginal values. This means that, even if the starting values listed in De Groot et al. 2012 were correct, the realistic conversion of those values into tangible financial capital would be much lower.

available. From Pendleton *et al.*, 2012, global seagrass coverage is estimated at between 17.7 and 60 million hectares (central estimate of 30 million hectares from 2005 data). The current conversion rate (which essentially means lowering of the service potential) is estimated at between 0.4 and 2.6 % per annum (central estimate of 1.5). The change in value over time can thus be inferred from the perspective of the "social cost of carbon" as described above.

There are currently no reliable global estimates of Carbon mitigation values for seagrasses as work to achieve such results has only just started. However, De Groot *et al.*, 2012 evaluated the following ecosystem for coastal systems that include seagrasses, estuaries and the physiographic continental shelf area: provision services (food, raw materials), regulating services (climate regulation, erosion prevention), habitat services (nursery services, genetic diversity) and cultural services (recreation, spiritual experience, and cognitive development). They derived a per hectare monetary value of USD 28,917 (2007 price levels) [18].

Salt water marsh: In the case of salt water marsh habitats, any value is inherently affected by the service potential of the habitat which in this case is influenced primarily by the size of area of habitat available. From Pendleton *et al.*, 2012, global salt water marshes coverage is estimated at between 2.2 and 40 million hectares (central estimate of 5.1 from 2005 data). The current conversion rate (which essentially means lowering of the service potential) is estimated at between 1.0 and 2.0 % per annum (central estimate of 1.5). The change in value over time can thus be inferred from the perspective of the "social cost of carbon" as described above.

There are currently no reliable global estimates of Carbon mitigation values for salt marshes (and equivalent) as work to achieve such results has only just started. However, the evaluation carried out by De Groot *et al.* 2012[21] of coastal wetlands includes salt water marshes. It should therefore be noted that the depicted monetary value of USD 193,845 per hectare per year (2007 price levels) would represent the highest per hectare value for salt water marshes[22].

Additional potential blue forests ecosystem types: Two potential associated blue forests ecosystems are found in the U.A.E. and are explored through the Abu Dhabi Blue Carbon Demonstration Project. They appear to be unique to the Gulf States and are described as follows:

> *Coastal Sabkha* - on higher ground away from the water's edge in areas of extremely high salinity (2-4 times greater than seawater) there are extensive areas of salt flats known as coastal Sabkha that are occasionally flooded by extreme high tides and are hostile to all but the hardiest forms of life. Their potential as a blue forests ecosystem type and for carbon storage and sequestration is unknown and will be explored through the small-scale intervention located in the U.A.E. in Component 2.

[21] From De Groot et al, 2012: Global estimates of the value of ecosystems and their services in monetary units, Ecosystem Services, Volume 1, pp50-61.

[22] For the purposes of the current analysis, it is important to note that the values compiled by De Groot et al. 2012 may not be representative of the habitats found in the project sites. Furthermore, these estimates provide average values while the annual changes estimated as part of the current analysis are marginal values. This means that, even if the starting values listed in De Groot et al. 2012 were correct, the realistic conversion of those values into tangible financial capital would be much lower.

Intertidal cyanobacterial mats- Intertidal cyanobacterial (blue-green algal) mats associated with areas of sheltered intertidal mud are the present day representation of the earliest known forms of life identified in rock records, dating back 3.2 billion years.

The potential of these unique and regional ecosystems as a blue forests ecosystem type is unknown and will be similarly explored through the U.A.E. small-scale intervention in Component 2 (this intervention is brought to the project through 100% co-finance).

International policy baseline: On the international policy front under the UNFCCC, parties commit to sustainable management, conservation and enhancement of sinks and reservoirs in natural systems. UNFCCC explicitly recognizes the role and importance of marine ecosystems sinks and reservoirs. The Subsidiary Body for Scientific and Technological Advice SBSTA provides information and advice on scientific and technological matters relevant to the convention, including on the role of afforestation, reforestation, avoided deforestation and forest degradation in climate change mitigation (REDD+). It has been recognized by parties and observers that, while the bodies of the UNFCCC have developed strategies and mechanisms to enhance terrestrial carbon sinks, less attention have been given to marine and coastal ecosystems. Following the 35th session of SBSTA, parties and organizations have made submissions to enhance the dialogue on coastal marine ecosystems. Although carbon sequestered and stored in coastal ecosystems is not a specific negotiating item at the UNFCCC for the moment, with procedural tensions slowing down its inclusion, there are avenues for advancing blue forests through processes such as REDD+, AFOLU, LULUCF, NAMAs, CDM and the IPCC.

Furthermore, the Convention on Biological Diversity (CBD) cross-cutting issue on biodiversity and climate change was included in the work under the Convention in 2004 through decision VII/15. At its seventh meeting, the COP encouraged parties to take measures to manage ecosystems so as to maintain their resilience to extreme climate events and to help mitigate and adapt to climate change. CBD COP decision X/33 invites Parties to address the impacts of climate change on biodiversity, ecosystem services and biodiversity-based livelihoods, implement ecosystem-based approaches for adaptation and mitigation, and enhance the benefits for, and avoid negative impacts on, biodiversity from reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.

Following Rio+20, "The Future We Want" outcome document recognizes that oceans, seas and coastal areas form an integrated and essential component of the Earth's ecosystem. Of particular relevance to blue forests are paragraphs: 25 underscoring that combating climate change requires urgent and ambitious action; 71 which encourages existing and new Green Economy partnerships; 97, which acknowledges the regional dimension of sustainable development; and 100, which welcomes regional and cross-regional initiatives.

There is encouraging progress and increasing international recognition of blue forests and the role they can play in climate change mitigation and adaptation. However, few on-the-ground applications exist that are fully functional and international efforts remain uncoordinated. This GEF intervention will also improve coordination between initiatives and provide support to on-the-ground implementation and international uptake.

A.5. Incremental /Additional cost reasoning: describe the incremental (GEF Trust Fund/NPIF) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF/NPIF financing and the associated global environmental benefits (GEF Trust Fund) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project:

Business as usual scenario: In the absence of the GEF intervention, there is a significant amount of expected degradation to blue carbon ecosystems alongside the simultaneous loss of the ecosystem services those systems provide, at the international scale including GEF IW project sites. The ecosystem services of mangroves, tidal marshes, and seagrasses are already well documented to include the provision of water filtration, shoreline protection, fish spawning and nursery grounds, and flooding abatement among others. These ecosystem services create a link between the human and natural environments, and without them there is a substantial cost to the livelihoods of coastal communities where these systems are found. The proposed GEF intervention presents a unique opportunity for expanding and more importantly, coordinating, blue carbon demonstrations, but without it there is going to be a clear and damaging impact to environment and human life. GEF is therefore well positioned through the Blue Forests Project to impact conservation and sustain these critically needed ecosystem services through the prevention of coastal damage.

Without the proposed GEF intervention, blue forests ecosystem stakeholders, including GEF projects, would likely spend far more resources trying to identify appropriate opportunities, protocols, and methods for securing payments for marine and coastal ecosystem services. It is unlikely that any kind of standardized and internationally-recognized methodologies for carbon accounting and ecosystem services valuation would emerge quickly – lessening the chance that such payments become long-term and institutionalized and widely applied around the world. The existing blue forests research, methodology development and small-scale interventions would certainly continue but these are currently not orchestrated to produce applicable and standardized methodologies for estimating changes in carbon stocks and ecosystem services in blue forests ecosystems. Without the coordinated international GEF Blue Forests interventions, it is expected that investor confidence for coastal carbon markets and related international climate change policy goals will continue to take longer to achieve.

Without proper, coordinated and comparable protocols for carbon accounting and ecosystem services valuation in these ecosystems, blue forests stakeholders would continue to be unable to access carbon or ecosystem services-related international financing. Furthermore, many protocols and methodologies need to be approved by independent and internationally-recognized institutions, for example the Verified Carbon Standard in order to enable possible financing and influence international climate frameworks such as the UNFCCC and the IPCC.

More concretely, from the baseline section above, we can infer that without the current GEF intervention, at the global scale the world will continue to witness a 0.7-3.0% (central estimate of 1.9%) loss of to the global mangrove cover per annum; a 0.4-2.6% (central estimate of 1.5%) loss of the global seagrass coverage per annum; and a 1.0-2.0% (central estimate of 1.5%) loss of the global

salt water marsh coverage per annum. From Pendleton et al. 2012[23], we note that the global social cost of carbon with respect to inaction is valued at:

Mangrove: 3.6 – 18.5 (central estimate of 9.8) Billion USD per annum,
Seagrass: 1.9 – 13.7 (central estimate of 6.1) Billion USD per annum,
Salt marsh: 0.64 – 9.7 (central estimate of 2.6) Billion USD per annum, with the
Total cost: estimated at between 6.1 and 41.9 (central estimate of 18.5) Billion USD per annum.

From the figures above, we provide for discussion purposes only (see Table 1), an estimation of potential lost beneficial economic value related to inaction. Although the table includes large numbers, these represent potentially significant global benefits (economic, environmental, and social), especially if the existing estimated global values can be more clearly quantified for policy purposes.

Habitat by intervention	Central estimate of 2005 global coverage (from UNEP-WCMC)	Total estimated monetary value for 2005 coverage (using values from De Groot et al 2012)	Annual conversion rate (central estimate)	Estimated value lost after year 1 (assuming no conservation measures)
Mangrove	14.5 Million hectares	Billion USD 2,810	1.9%	53 Billion USD
Seagrasses	30 Million hectares	Billion USD 867.5	1.5%	13 Billion USD
Salt Marsh	5.1 Million hectares	Billion USD 988.6	1.5%	15 Billion USD
TOTAL		**> USD 4,500 Billion**		**>81.2 Billion USD**

Table 1: Example change in ecosystem service value from baseline habitat coverage year, 2005 to 2006.

Without the GEF intervention, the uncoordinated approach would remain and although methodologies might be submitted for international approval, they would not be comparable or standardized appropriately and would not be applied as widely in GEF projects and in interventions around the world, thereby limiting the ability of coastal communities to protect the natural resources linked to their livelihoods. Critical gaps in our knowledge of carbon storage and sequestration and the economic value of ecosystem services would remain and the methodologies would not be implemented in GEF projects as well as by national governments.

Incremental Cost Reasoning: The Blue Forests Project will bring various ongoing initiatives together in a coherent coordinated "Blue Forests Initiative" and provide the needed information for the IW Focal Area to use in future coastal projects to estimate with some rigor carbon as well as monetary benefits of goods and services. In doing so, the project will reduce the cost to states of developing their own approaches, will reduce global costs by improving synergies, reducing redundancy, and by enabling countries to develop the right set of protocols, methods and approaches through knowledge sharing

[23]Pendleton et al. 2012: Estimating global "blue carbon: emissions from conversion and degradation of vegetated coastal ecosystems, PLoS ONE 7(9): e43542

and evidence based experiences (the small-scale interventions). The Blue Forests Project will also significantly shorten the time needed to get coastal and marine ecosystem services incorporated into policy, including making policy and management based on those values, including payments for ecosystem services a reality. This, in itself, will potentially have very large (and estimable) economic benefits to the coastal communities, project partners, other GEF projects, and global society.

The project outcomes will be delivered through the five inter-linked components of the Blue Forests Project:

Component 1 - *development of guidance for carbon accounting and ecosystem services valuation for blue forests ecosystems* - supports the interventions with scientific guidance and capacity building through three Project-level Advisory Panels of experts in carbon science, policy, and the valuation of ecosystem services. The Advisory Panels will provide guidance on the application of the methodologies at the intervention sites and to other project components.

Component 2 - *application of blue forests methodologies for carbon accounting and ecosystem services valuation* - are on-the-ground demonstrations of conservation and restoration activities or better management practices being supported via carbon and ecosystem services valuation (e.g., carbon market, conservation agreements or payment for ecosystem services valuation). The interventions will provide an evidence-based experience that supports replication, up-scaling and international adoption of blue forests concepts.

Component 3 - *improving the understanding of carbon storage and sequestration and ecosystem services of blue forests* - addresses critical needs in our understanding of blue forests through targeted research. One high priority target is lesser-known blue forests ecosystems, such as the flux of carbon associated with degraded seagrass ecosystems. Component 3 will primarily support the interventions through research at the intervention sites.

Component 4 - *options for the adoption of methodologies and approaches by the international community* - aims for the uptake of blue forests methodologies by the international community and to increase stakeholder awareness of the blue forests concept. Lessons and experiences gained through the interventions will support the adoption of blue forests policy options and methodologies in international climate change mitigation frameworks and markets (facilitated by the carbon science and policy Advisory Panels). Project results and experiences will be disseminated in a consistent and easily understandable manner allowing for replication in other project sites and mainstreaming into international community and related polices (e.g., UNFCCC, CBD).

Component 5 - *project monitoring, networking and knowledge management* - is an essential GEF component providing monitoring of the interventions and other project activities, and providing communications and networking between the interventions, the other project components, and IW:LEARN and other GEF knowledge management systems.

Building on the baseline, the first component will be the furthering of implementation-oriented carbon accounting and ecosystem services valuation methodologies and tool-kits by working groups of

experts. The second component will implement the methodologies developed through at least five small-scale interventions, including at least two GEF International Waters projects. The third component of the project will fill in critical gaps in our knowledge of ecosystem services and carbon sequestration, storage and possible greenhouse gas emissions from habitat degradation. The fourth component will be the exploration of the adoption of the developed methodologies by the international community and international financing schemes. Through the existing GEF knowledge management activities, such as IW:LEARN, it is expected that more GEF funded project will adopt the developed methodologies and policy instruments in their project implementation so that the projects can accrue enhanced global environmental benefits, particularly in relation to climate change mitigation and payments for ecosystem services. Furthermore, if the methodologies and protocols are approved by independent bodies (e.g. the Verified Carbon Standard) then they can have a major role in influencing international climate frameworks such as the IPCC and the UNFCCC, thus possibly influencing National Inventory Submissions and greenhouse gas reporting under the LULUCF (Land Use, Land-Use Change and Forestry) or AFOLU (Agriculture, Forestry and Other Land Use) processes. Furthermore, GEF intervention through UNEP will also ensure that scientists and governments from developing countries form an active part of the process in developing, standardizing and applying the methodologies for measuring, verifying and reporting carbon in blue forests ecosystems, thus ensuring the sustainability and universal applicability of these methodologies.

A.6. Risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and measures that address these risks:

Risk	**Rating**	**Risk management strategy**
1. Blue forests methodologies and approaches might not fully or adequately be implemented.	Medium	The establishment of three Project-level Advisory Panels, which provide guidance on the application of blue forests in carbon science, ecosystem service valuation and policy; The development of strong partnerships with existing baseline initiatives and other GEW IW projects as a means of facilitating the implementation of blue forests methodologies and approaches and for establishing a sustainable assessment process at the global level.
2. Methodologies and approaches to be applied in the small-scale interventions do not clearly show benefits to major partners (inter-governmental organizations, regional organizations, governments and private sector) to secure their participation in the interventions.	Low	The partnerships arrangements to be formalized with each intervention project partner will clearly identify the role of each participant in such a manner that the benefits in the interventions will be highlighted for each partner, local coastal community, national government and other stakeholders.

Risk	Rating	Risk management strategy
3. The small-scale interventions might be too rapid, narrowly focused and uneven in their assessment of the three blue forests systems.	Medium	Committed partners, and a strong project coordination mechanism are needed to best harness the work done by all entities and ensure a meaningful comprehensive assessment; All three blue forests systems are focused on the small-scale interventions with saltwater marshes assessed through Component 3 (targeted research).
4. Participating partners insist on using their own methodologies and approaches that are currently employed at the intervention sites, limiting their ability to achieve the overall objectives of the proposed project (e.g., data gathering and results that can be compared across the interventions).	Medium	Active involvement of intervention partners in the Project-level Advisory Panels from the beginning of the project implementation; Linking to ongoing related blue forests work of:(a) relevant assessment programmes of UN and other international agencies, including other GEF projects; and (b) existing global baseline organizations (of Component 2); Active monitoring coordination of implementation by the PCU
5. Limited influence of national and regional stakeholders in promoting and sustaining blue forests approaches.	Medium	Capacity building with national scale stakeholders through the small-scale interventions (e.g., engagement and workshops on carbon science, ecosystem service valuation, and policy and management engagement activities); Cooperation with regional and national organizations to support blue forests approaches; Capacity building of influential regional stakeholders for the adoption of blue forests approaches and to promote their buy-in of the project; Use of media and targeted political messages to encourage the engagement of influential stakeholders.
6. Limited capacity of stakeholders to implement the results of the interventions in order to improve blue forests ecosystem management.	Low	Capacity building of intervention-scale stakeholders for implementing the results of the interventions, both at the local and national scale (e.g., engagement and workshops on carbon science, ecosystem service valuation, and policy and management engagement activities).
7. Discontinuation of involvement of project partners, withdrawal of support by key partners (financial support, data	Low	Continuous contact, interaction and consultation with project partners.

Risk	Rating	Risk management strategy
and information, etc.)		
8. Difficulty in securing the multilateral national engagement required to ensure long-term blue forests implementation.	High	A successful project that demonstrates benefits to donors and countries, as well as engaging these parties throughout the project.
9. Difficulty in securing long-term incremental funding for additional interventions.	Medium	A successful project that demonstrates benefits to donors and countries, as well as engaging with these parties throughout the project.
10. Competing economic interests and land-uses may jeopardize the intended outcomes for the interventions.	Low	Active involvement of intervention partners (with local setting knowledge) in the identification of the interventions; Each intervention includes national-scale policy and stakeholder engagement.
11. The rate of loss for blue forests ecosystems at the intervention sites may stay the same or even increase due to sea level rise or other impact unforeseen in project planning.	Low	Multiple interventions across a broad geographic range minimize the effect of local potential impacts to the overall project objective.
12. Funding from carbon markets, PES schemes or other financial mechanisms based on ecosystem services does not materialize due to lack of buyers or lack of political will.	Medium	Expectations of national stakeholders will be managed in order to avoid disappointments. The risks of carbon markets, PES schemes or other financial mechanisms based on ecosystem services will be analysed and clearly articulated. Furthermore, improvements in coastal management will be based not only on opportunities for sustainable financing, but will also be based in improvements in knowledge of carbon and ecosystem services. Improved knowledge can improve targeted management and investment. Finally, financial sources and 'buyers' will be identified and negotiated with before project activities begin on the ground, in order to improve the opportunities for financing further down the line.

A.7. Coordination with other relevant GEF financed initiatives

Outputs from the proposed Blue Forests Project are expected to be an integral part of future GEF initiatives by providing important economic information to key decision makers within countries. This will strengthen and promote an integrated, ecosystem-based approach to natural resource management of coastal and marine habitats. In-country capacity will be strengthened by the project through a number of modalities – via capacity building workshops in carbon science and the valuation ecosystem services for each Blue Forests Project small-scale intervention. This will be achieved

through policy and management meetings and engagement at the local and national scales for each small-scale intervention, through cross-training and learning workshops and engagement with global baseline initiatives in 'blue carbon' and ecosystem services, through meetings and engagement with existing and proposed GEF International Waters projects (examples below), and through outreach and engagement in carbon and ecosystem services relevant international policies and communities of practice.

The project will be very closely coordinated with GEFIW:LEARN. The IW:LEARN project aims to strengthen global portfolio experience sharing and learning, dialogue facilitation, targeted knowledge sharing and replication in order to enhance the efficiency and effectiveness of GEF IW projects to deliver tangible results in partnership with other IW initiatives. The valuation of ecosystem services is a growing focus within the IW community and also a theme for GEF IW Conference in 2013.

Given IW:LEARN's position within the GEF IW portfolio, it is clearly a very appropriate mechanism to disseminate not just lessons learned and experience notes to the greater GEF IW community, but also the most cost-effective way for results on blue forests policy, management, and targeted research to be disseminated to the larger international community of coastal and marine natural resource practitioners through current and future GEF IW projects. Additionally, the project will result in methodologies and a blue forests data tool that can serve as a valuable toolkit to the GEF IW focal area for making quantifiable estimates of carbon storage and sequestration and ecosystem services valuation for future GEF IW coastal and marine projects.

In addition to IW:LEARN, the Blue Forests Project will focus coordination with other GEF financed initiatives. This will include the GEF-funded UNEP Carbon Benefits project which has developed methodologies for measuring and monitoring carbon storage and sequestration in different soil types in several countries. The GEF-funded Project for Ecosystem Services (ProEcoServ) is developing methodologies for bundling the evaluation of ecosystem services in a variety of terrestrial ecosystems. Other on-going GEF funded projects such as work in the South China Sea, the Canary Current Large Marine Ecosystem (CCLME), Carbon Benefits Project: Modeling, Measurement and Monitoring, coastal/marine projects in Madagascar, Mozambique (SAPPHIRE) and Indonesia (COREMAP, PEMSEA), Western Indian Ocean" (WIO-LaB), and the Guinea Current Large Marine Ecosystem (GCLME), etc. will provide opportunities for sites for future small-scale interventions and implementing the methodologies. UNEP is also working on the valuation of ecosystem services in a project in Southeast Pacific countries and through the MDG-funded 'development of eco-taxation scheme which focuses on forests in Senegal. Lessons learnt from these projects will also be of benefit to the Blue Forests Project.

Further, ongoing GEF IW projects sites that overlap with activities of the GEF Blue Forests Project are located in Indonesia, Kenya, and Honduras, Guatemala, and Nicaragua. Through capacity building via the small-scale interventions at the national level, technical government staff will be empowered to build off current and past GEF IW interventions to strengthen ecosystem-based management. This activity will be coordinated with and receive guidance from the Pro-PAP of Component 1. The following two ongoing GEF IW projects are located in countries where the Blue Forests Project will improve blue forests knowledge and understanding:

The 'Demonstration of Community-based Management of Seagrass Habitats in Trikora Beach East Bintan, Riau Archipelago Province, Indonesia' national scale GEF IW project (project ID 3188) located in Indonesia, the site of one of the Component 2's small-scale interventions. The project aimed to establish an integrated management system for a total of 1,500 ha of the coastal and marine environment including seagrass and associated habitats, through ensuring a cross-sectoral and participatory approach to addressing the threats, and the root-causes of current and future habitat degradation.

The 'Kenya Coastal Development Project' national scale GEF IW project (project ID 3313) located in Kenya, the site of one of the Component 2's replication and up-scaling activities. This project is executed by the Government of Kenya through Kenya Marine & Fisheries Research Institute (KMFRI). This project aims to strengthen conservation and sustainable use of marine and coastal biodiversity and to support climate change mitigation initiatives.

Additionally, the Blue Forests Project offers significant collaboration potential with the following three proposed GEF IW projects:

The proposed GEF IW project titled 'Enhancing the conservation effectiveness of seagrass ecosystems supporting globally significant populations of Dugong across the Indian and Pacific Oceans Basins' project (Short Title: The Dugong and Seagrass Conservation Project). This project's area includes activities in Indonesia, Madagascar, and Mozambique, sites of three of Component 2's small-scale interventions. The project aims to enhance the conservation effectiveness of protected and non-protected areas hosting significant populations of Dugong across the Indian and Pacific Oceans Basins, through sustainable community-led stewardship and socio-economic development. Discussions regarding coordination of activities with The Dugong and Seagrass Conservation Project were undertaken with the UNEP/CMS Dugong MoU Secretariat (the project's Implementing Agency) during the Blue Forests Project's PPG process.

The proposed GEF IW project titled 'Capturing Coral Reef & Related Ecosystem Services' (CCRES). This project focuses on demonstrating the fundamental relationships between the ecological value of intact coral reef, seagrass and mangrove ecosystems and the economic value and market potential of their ecosystem services, how these are tied to healthy, resilient systems and the routine distribution of economic benefits that can bring transformational change in sustaining the welfare of coastal communities. This project's area includes countries in the Coral Triangle (Indonesia and the Philippines in particular, and some Western Pacific PICs). The project includes an exploration of coastal and marine ecosystem services, including blue carbon. Discussions regarding coordination of activities with CCRES were undertaken with the World Bank (the project's Team Lead and Project Implementing Agency) during the Blue Forests Project's PPG process. Coordination of activities is expected to focus on the valuation of carbon and ecosystem services in Indonesia. CCRES' potential pilot sites in Indonesia include Biak, located near the northern coast of Papua (Eastern Indonesia), Raja Ampat, located off the northwest tip of the island of New Guinea (Eastern Indonesia), Selayar, an archipelago part of South Sulawesi province (Southern Indonesia), and Wakatobi, an archipelago and regency located in an area of Sulawesi Tenggara (South Eastern Indonesia), and are all geographically distinct

from the sites of the Blue Forests Indonesian Intervention which include Tomini Bay, located in northeastern part of Sulawesi (Central Indonesia) and the Derawan Islands, located in the province of East Kalimantan on the eastern portion of Borneo (Northern Indonesia).

A proposed project related to SAP implementation of the 'Sustainable Management of the Shared Marine Resources of the Caribbean Large Marine Ecosystem (CLME) and Adjacent Regions' regional and global scale GEF IW project. The PIF is intended to be submitted to Nov 2013 Council. Engagement with this project will be included in Component 2's replication and up-scaling activities.

Coordinated engagement with at least two GEF IW projects will support an improved understanding of blue forests methodologies and approaches through the sharing of experiences from different places and projects. It will also increase world wide awareness of the Blue Forests Project, which will support the replication and up-scaling of the interventions and to ensure that knowledge and best practices are disseminated to appropriate GEF IW project stakeholders.

B. ADDITIONAL INFORMATION NOT ADDRESSED AT PIF STAGE:

B.1 Describe how the stakeholders will be engaged in project implementation.

There are a number of national and international stakeholders focused on blue forests ecosystems and many will be engaged in project implementation. The following Table gives an indication of the various stakeholder clusters, examples of particular stakeholders and identifies how they will be engaged in project implementation.

Stakeholder cluster	Examples	Engagement in project design and implementation
Resource users	Local coastal communities living around blue forests that depend on them for livelihoods and food security.	Engaged through 'local governance and management and engagement' and capacity building activities in all GEF funded small-scale interventions of Component 2. This will include local scale stakeholder engagement and capacity building.
Private sector	*Tourism / recreation* – Coastal tourism and ecotourism, hotels, cruise ship industry that gain revenue from healthy blue forests ecosystems; (such as Sustainable Travel International, an NGO which facilitates sustainable travel initiatives for the tourism business sector, the United Nations World Tourism Organization (UNWTO), and the Abu Dhabi Tourism Development & Investment Company	Engaged through the PPG stage and during project implementation, where applicable, through the small-scale interventions of Component 2 (e.g., local and national stakeholder engagement activities, ES valuation activities, and 'carbon finance feasibility assessment' related activities for all interventions), Component 2's 'additional documented evidence-based experiences resulting from existing baseline initiatives', and Component 4's stakeholder engagement

	(TDIC)); *Fisheries / food security* – fisheries organizations and food security stakeholders that rely on blue forests ecosystem health (e.g., FAO, Acadian Seaplants ltd., Seaweed Energy Solutions Ltd., etc.); *Flood / storm protection* – insurance agencies, disaster relief agencies (such as Aviva, a multinational insurance company and the primary sponsor for the project's co-finance activities in Kenya (KMFRI's Gazi Bay project)); *Carbon market* - companies and bodies that buy carbon credits or pay for ecosystem services or facilitate such markets (such as Livelihoods Fund, Plan Vivo Foundation, Gold Standard, VCS, Sustainable Travel International, and Abu Dhabi National Oil Company (ADNOC)); *Development / investment* - bodies involved in other aspects of coastal development that may impact blue forests ecosystems such as Mubadala Development Company (engaged through the U.A.E. intervention).	and communication activities. Private sector stakeholder engagement will include, where applicable, the tourism and recreation, fisheries and food security, flood and storm protection, carbon market, and development and investment sectors. For example the Kenyan Gazi Bay Project is scheduled to be certified to payments from the private sector for mangrove carbon in 2013 (under the Plan Vivo framework).KMFRI has brought to the project under 'additional documented evidence-based experiences resulting from existing baseline initiatives' of Component 2 and will share their experiences of working with the private carbon sector with all small-scale intervention partners through a cross training workshop.
Science and academia	International Blue Carbon Science Working Group (managed by IOC-UNESCO, Conservation International and IUCN).	Engaged through the PPG stage and 'project-level training and capacity building in blue forests concept' and 'carbon finance feasibility assessment' activities in all GEF funded small-scale interventions of Component 2.
	Indonesian Blue Carbon Scientific Working Group.	Engaged through the PPG stage and the Indonesia Blue Forests Project of Component 2.
	Wetlands Technical Working Group (managed by Restore America's Estuaries).	Engaged through 'media and communication' activities of Component 4 and the 'project portal' of Component 5.

	UNEP Blue Carbon Initiative.	Engaged through the PPG stage and the 'additional documented evidence-based experiences resulting from existing baseline initiatives' activity of Component 2.
	IPCC Wetlands group for the Supplement to the 2006 Guidelines for National Greenhouse Gas Inventories: Wetlands.	Engaged through the PPG stage and in implementation through Component 2 (the U.A.E. intervention and 'additional documented evidence-based experiences resulting from existing baseline initiatives' sub -activity activity), potential Advisory panel membership of Component 1, and through 'policy engagement' activities of Component 4.
Policy and decision-making	International Blue Carbon Policy Working Group (managed by UNESCO-IOC, Conservation International and IUCN).	Engaged through the PPG stage and the Pro-PAP of Component 2 (managed by IUCN) and the 'policy engagement' activities of Component 4.
	Blue Climate Coalition (managed by Blue Climate Solutions, a project of The Ocean Foundation).	Engaged through the PPG stage and the 'additional documented evidence-based experiences resulting from existing baseline initiatives' activity of Component 2.
	UNEP Blue Carbon Initiative.	Engaged through the PPG stage and the 'additional documented evidence-based experiences resulting from existing baseline initiatives' activity of Component 2.
	UN-REDD.	Engaged through the PPG stage and the 'policy engagement' activities of Component 4.
	NOAA Blue Carbon working group.	Engaged through the PPG stage and the 'additional documented evidence-based experiences resulting from existing baseline initiatives' activity of Component 2.
	National Governments (e.g., USA, Kenya, Indonesia, and UAE).	Engaged through the PPG stage and the 'policy engagement' activities of Component 4.
	UNFCCC.	Engaged through 'policy engagement' activities of Component 4.
Economics	Nicholas Institute for Environmental Policy Solutions, Duke University; Forest Trends.	Engaged through the PPG stage and the 'analysis of global market opportunities for the blue forests concept' targeted research activity of Component 3.

Project developers	Coastal Madagascar (managed by Blue Ventures); Coastal Indonesia (managed by the Indonesian Blue Carbon Scientific Working Group); Saloum Mangrove Reforestation, Senegal (managed by Face the Future and WAAME); Blue Carbon - Arabian Peninsula Project (managed by AGEDI Abu Dhabi and facilitated by GRID-Arendal); Mikoko Pamoja, Kenya (managed by KMFRI); Capacity of tropical seagrass meadows as blue carbon sinks, East Africa (managed by Stockholm University and the University of Gothenburg); Rehabilitating Blue Carbon Habitats (RBCH Programme), Indonesia and Australia (managed by UNEP, Mangrove Action Project (MAP), Operation Wallacea, Charles Darwin University, and the Alfred Wegner Institute (AWI)); Central Africa mangroves and REDD+ research (managed by UNEP); Bangladesh (Danone Livelihoods Fund).	Engaged through the PPG stage and the small-scale interventions and 'additional documented evidence-based experiences resulting from existing baseline initiatives' activity of Component 2; through the targeted research activities of Component 3; and through 'media and communication' activities of Component 4 and the 'project portal' of Component 5.

A stakeholder engagement strategy will be developed as part of the project inception phase. The strategy will identify specific activities for engagement with each stakeholder cluster and will be presented to the PSC. Additionally, the experiences of engagement with international partners that contribute to the global baseline for the blue forests concept will be documented through component 2 and included in a project report.

B.2 Describe the 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):

The project will significantly advance efforts to protect and sustainably manage coastal ecosystems. As a result, implementation of project derived methodologies will benefit the environment by resulting in the conservation, restoration, and management of coastal ecosystems. These ecosystems,

in turn, support the provision of ecosystem services including carbon storage and sequestration, shoreline protection, fisheries, and other sustainable uses of coastal ecosystems that will benefit and strengthen the socio-economic conditions of local communities. Coastal communities rely heavily on these ecosystem services to provide the basis of their livelihoods, such as subsistence fisheries, harvesting timber for shelter, protection from floods, severe wave action, and storms, and for water filtration in marsh areas. The absence of coordinated blue forests projects in many coastal communities may lead to increased hardship and loss of livelihoods.

Socio-economic benefits will also accrue for local/national communities through better appreciation of the value and markets for carbon – as well as benefits to ecosystems from protection. A major global environmental benefit delivered by this project will be the furthering of consensus for standardized methodologies and the development of implementation-focused tool-kits to properly assess carbon storage and sequestration as well as ecosystem services provided by blue forests ecosystems that can be readily applied across a wide range of International Waters GEF projects, international conventions and frameworks (UNFCCC, IPCC) and by national governments around the world. If appropriate, the standardized methodologies could be used to access international financing mechanisms. Furthermore, because many blue forests ecosystems are transboundary ecosystems, developing and applying tools for evaluating their value will also lead to transboundary benefits such as cooperative management for sustainable use.

The successful development, application and replication/up-scaling of the methodologies and approaches from this project on blue forests carbon storage and sequestration and ecosystem services valuation offer significant additional global environmental benefits. These benefits would accrue through the utilization of these important ecosystems through further protection of blue forests ecosystems for climate change mitigation as well as other valuable ecosystem services.

With this GEF project, the blue forests concept would become a major global driver of marine ecosystem protection and management. It would also provide the global community with innovative, important and hitherto overlooked tools with which to combat climate change and mitigate atmospheric carbon dioxide emissions, while protecting valuable ecosystem services important for climate change adaptation (coastal protection), food security (fisheries) and revenue (tourism, fisheries) of some of the most vulnerable and valuable ecosystems in the world. However the potential of this concept has not yet been robustly established and the GEF Blue Forests Project is an indispensable step in beginning to realize the potential. The proposed methodology development directly addresses this issue and will guide decisions on the development and implementation of any system of incentives based on the ecosystem services and carbon values for marine and coastal ecosystem management.

Gender disaggregated indicators will be applied to the individual sub projects. UNEP will ensure that the Executing Agency reports on gender disaggregated data.

B.3. Explain how cost-effectiveness is reflected in the project design:

The project will build off a robust baseline of blue forests methodologies. To successfully provide the incremental cost necessary to leverage this baseline, the proposed project has already had a catalytic effect by mobilizing 18 financing partners globally. This growing partnership and high level of co-finance secured, provides opportunities for additional activities to be undertaken and/or to increase the depth of planned activities.

The project also seeks to increase cost effectiveness and add value in the following specific ways:

- Building on the foundation of ongoing blue forests initiatives, established partnerships among UN agencies and other organizations carrying out regular coastal conservation projects will result in significant cost-effectiveness**,** compared to a situation where the project is initiated *de novo* without this foundation.
- Effective central coordination from a UNEP collaborating centre[24] as the execution agency will avoid duplication of effort, streamline communication, and provide good information, data, and project management.
- Focusing on small-scale interventions that have the in-country and organizational capacity to execute activities of this project.
- Maximizing the efforts of cross-cutting global Advisory Panels for their expertise and support pertaining to all intervention sites.

C. DESCRIBE THE 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 8 of the project document. Reporting requirements and templates are an integral part of the UNEP legal instruments to be signed by the executing agencies and UNEP.

The project M&E plan (Appendix 7 of the Project Document), is consistent with the GEF Monitoring and Evaluation policy. The Project Results Framework presented in Annex A (and Appendix 4) includes Specific, Measurable, Achievable, Relevant and Time-bound (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 of the project document 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 Appendix 2 of the project document. Other M&E related costs (presented below and in Appendix 7 of the Project Document) are fully integrated in the overall project budget.

The M&E plan will be presented to the first meeting of the Project Steering Committee (PSC) to ensure all project stakeholders understand their roles and responsibilities vis-à-vis project monitoring and evaluation. The PSC will be responsible for proposing any necessary amendments to the M&E plan during project implementation. Indicators and their means of verification may also be fine-tuned by

[24]GRID-Arendal focuses on environmental information management and assessment, capacity building services, and outreach and communication tools, methodologies and products.

the PSC. Day-to-day project monitoring is the responsibility of the PCU working with other project partners who will have responsibilities to collect specific information to track the indicators.

The PSC will receive periodic reports on progress and will make recommendations 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 for documents delivered by the project (e.g., the targeted research papers) to ensure adequate quality of scientific and technical outputs and publications.

A mid-term management review will be conducted by the Task Manager in consultation with the Project Manager and the outcomes reported to the PSC. An independent terminal evaluation will take place at the end of project implementation. The Evaluation and Oversight Unit of UNEP will manage both the mid-term and terminal evaluation processes. The standard terms of reference for the terminal evaluation are included in Appendix 9 of the project document. These will be adjusted to the special needs of the project.

The GEF tracking tools are will be completed at the start, mid-term and at the end of the project and will be made available to the GEF Secretariat along with the project PIR reports. The mid-term review and terminal evaluation will also verify the information of the tracking tool.

Indicative Monitoring and Evaluation Work plan and corresponding Budget:

Type of M&E activity	Responsible Parties	Budget US$	Time frame
Project Steering Committee Meetings and Inception workshop	▪ Project Coordinator ▪ Project Team (PCU) ▪ UNEP Task Manager ▪ Partner executing agencies	1st PSC Meeting will be convened as an inception workshop and PSC meeting. USD 105,000 GEF resources (USD 75,000 in Component 4 for Project Inception Workshop including travel and DSA costs, and USD 30,000 in Component 5 for coordination of PSC meetings)	1st PSC Meeting will serve as Inception workshop and will be held within first four months of project start up.
Inception Report	▪ Project Coordinator ▪ Project Team (PCU) ▪ UNEP Task Manager ▪ Partner executing agencies	Included in PCU costs as detailed in Project Management component	Immediately following inception workshop
Measurement of indicators set in the Logframe (Project Progress and Performance to be measured on an annual basis)	▪ UNEP Task Manager ▪ Project Coordinator	Costs to be determined as part of the Annual Work Plan's preparation.	Annually prior to APR/PIR and to the definition of annual work plans
APR and PIR	▪ Project Coordinator and Project Team (PCU) ▪ UNEP Task Manager	Included in PCU costs as detailed in Project Management component	Annually

Type of M&E activity	Responsible Parties	Budget US$	Time frame
	▪ Partner executing agencies ▪		
Periodic status reports	▪ Project team (PCU)	USD 30,000 GEF resources (project monitoring, reporting and review in Component 5)	To be determined by Project team, UNEP and EAs
Technical reports	▪ Working Groups ▪ Task force ▪ Hired consultants as needed	USD 515,000 GEF resources (80,000 GEF resources in Component 1, USD 215,000 in Component 2, USD 170,000 in Component 3, USD 50,000 in Component 4)	To be determined by Project Team, UNEP and GRID-Arendal
Mid-Term Review	▪ Project Coordinator and Project Team (PCU) ▪ UNEP Task Manager ▪ Partner executing agencies ▪ External consultant	USD 30,000 GEF resources in Component 5	Halfway through project cycle
Final External Evaluation	▪ Project team (PCU) ▪ UNEP Task Manager ▪ Partner executing agencies ▪ External Consultants (i.e. evaluation team)	USD 50,000 GEF resources in Component 5	At the end of project implementation
Terminal Report	▪ Project team (PCU) ▪ UNEP Task Manager ▪ Partner executing agencies ▪ External Consultant	Included in PCU costs as detailed in Project Management component	At least one month before the end of the project
Lessons learned	▪ Project team (PCU) ▪ UNEP Task Manager ▪ Partner executing agencies	Included in PCU costs as detailed in Project Management component	Yearly as part of the PIR
Audit	▪ UNEP Task Manager ▪ Project team (PCU) ▪ External Auditor	Included in PCU costs as detailed in Project Management component	Yearly
TOTAL indicative COST *All costs are embedded in components 1, 2, 3, 4 and 5*		USD 740,000 in GEF resources	

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 form. For SGP, use this OFP endorsement letter).

N/A

NAME	POSITION	MINISTRY	DATE*(MM/dd/yyyy)*

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**
Maryam Niamir-Fuller, Director, GEF Coordination Office, UNEP		01/27/2014	Isabelle Van der Beck	+1-202-974-1314	Isabelle.vanderbeck@unep.org

ANNEX A: PROJECT RESULTS FRAMEWORK

(SMART indicator type: P = Process; SR = Stress Reduction; ES = Environmental Status)

	Objectively Verifiable Indicators				
	Indicators	**Baseline**	**Target**	**Sources of Verification**	**Assumptions**
PROJECT OBJECTIVE: To apply methodologies and approaches for carbon accounting and ecosystem service valuation in blue forests so as to provide evidence-based experience that supports replication, up-scaling and adoption of blue forests concepts by the international community and the GEF.	Better appreciation of the value/benefits of globally important coastal and marine ecosystems through the application of blue forests methodologies and approaches in 5 small-scale intervention sites, covering at least 368,400 ha. By end of Y3, relevant GEF IW projects applying tools and methods of Blue Forests GEF	Blue forests emerges as a new concept receiving increasing attention.	Incorporation of blue forests methodologies and approaches in coastal zone management is backed by evidence from in-situ implementation and best practices by Y4 of the project	PCU monitoring against baseline, field visits, reports and project files;	Continuous and rising interest in blue forests concepts; Sustained interest of partners and key stakeholder groups to support project objectives; Continuous organizational support and stable mandates in the countries with small-scale interventions.
		Scientific concepts are being established.	Methodologies and approaches for three different blue forests ecosystems are applied and at least 1 best practice per small-scale intervention is developed and widely disseminated by Y4 of the project	Steering Committee (SC) minutes; Utilization of project website; Mid-Term and Terminal Evaluations	Sustained interest of partners and key stakeholder groups to support scientific concepts.
		Coordination is lacking and can be improved.	Formalized network of partners that agree to conduct future periodic blue forests assessments by Y4 of the project	Signed agreements between project partners; Utilization of website.	Partners will sign agreements, given the continued interest in the project during the course of the PPG phase.
		Regionally applicable tools for different blue forests ecosystem types are scarce.	Methodologies and approaches for three different blue forests ecosystems are applied and toolkits for replication are disseminated by Y3 of the project	PCU monitoring against baseline, field visits, reports and project files;	Political support for the further exploration of BF concepts and the application of BF tools.
		Implementation of coastal zone management that incorporates blue forests concepts is in its infancy.	Methodologies and approaches for three different blue forests ecosystems are applied and at least 1 management and policy target per small-scale intervention is achieved and widely disseminated by Y4 of the project	PCU monitoring against baseline, field visits, reports and project files;	Political support for the further exploration of BF concepts and the application of BF tools.

Outcomes and Outputs	Objectively Verifiable Indicators			Sources of Verification	Assumptions
	Indicator [SMART indicator type]	Baseline	Target		
Component 1:Development of guidance for carbon accounting and ecosystem services valuation for blue forests ecosystems					
Outcome: 1.1 Improved knowledge of coastal and marine ecosystem managers and stakeholders in selected regions on carbon sequestration, storage, possible greenhouse gas emissions as well as ecosystem services in blue forests ecosystems and on possible policy/economic instruments that may be applied to sustainable coastal habitat management.	Project-level methodology guidelines adopted and published by each Advisory Panel (AP) that that will strengthen national and international capacity to implement sound policies that lead to improved ecosystem condition [P, ES]	No project-level guidance currently exists	At least 1 guidance document per AP for all BF ecosystem (3 in total) by Y2 of the project	AP meeting minutes and reports; PCU reports	Partners and scientific community continue to be interested in tools that integrate BF concepts into coastal zone management
	Requests for and application of BF methodologies, tools and practice by external parties [P, SR]	Coordinated global scale guidance for projects does not exist	At least 5 applications within the project and a further 2 external requests by Y4 of the project	# of information and tool requests either directly or via IW:LEARN and similar online knowledge platforms	Methodologies available for all three selected BF ecosystems
Outputs: 1.1.1 Three project-level Advisory Panels established to focus on: 1) scientific and technical aspects related to C sequestration, storage, emission and fluxes; 2) blue forests policy options, and; 3) valuation of ecosystem services other than C, to fine-tune methodologies and approaches for regionally adapted implementation.	AP meet regularly and interact with small-scale intervention sites [P]	0	Active engagement of APs with small-scale interventions; at least 1 meeting per year (on site or remote) by Y1-4 of the project	AP reports and PCU reports	Mechanisms for feeding information to IW projects and platforms are conducive
	Publications available for distribution [P]	Project-level guidance documents do not exist	At least 1 published product per AP for blue forests coastal ecosystems are produced and broadly distributed by Y2 and Y4	PCU reports	
	AP and PSC feedback on support provided by PCU [P]		Technical support for methodologies and guidance is provided by the PCU in an efficient and coordinated manner by Y1-4 of the project	AP reports and PCU reports	Mechanisms for feeding information from the APs to other project components and the PCU are conducive

Outcomes and Outputs	Objectively Verifiable Indicators	Sources of	Assumptions

	Indicator [SMART indicator type]	Baseline	Target		
Component 2 Application of blue forests methodologies for carbon accounting and ecosystem services valuation					
Overall outcome **Improved and replicable ecosystem management based on improved understanding of the values blue forests ecosystems at the site level and international uptake through Component 4**					
Outcomes: 2.1 Improved understanding of ecosystem services, carbon sequestration, storage, avoided emissions and management in at least 3 ecosystem types (mangroves, seagrass, saltmarsh) in 5 sites (including 2 GEF-IW project sites) covering at least 368,400 ha.	BF methodologies are referred to in national planning instruments as exemplary for replication [P] BF methodologies incorporated into relevant national policy [P, SR]	BF methodologies exist, but require on-the-ground application in different BF ecosystems	BF tools successfully integrated in management approaches in 5 sites and for three different BF ecosystem types (≤368,400 ha) by Y4 of the project BF methodologies incorporated in at least 1 country's relevant national policy by Y4 of the project	Small-scale intervention reports (ICU reports) and PCU reports National policy instruments	Small-scale interventions are sufficiently resourced to be completed as planned. Institutional stability allows for continued participation of key stakeholders in small-scale interventions Willingness of countries and IW projects to consider replication of BF best practices Mechanisms for feeding information from the interventions to other project components and the PCU are conducive
2.2 Improved capacity and ecosystem management as a result of the application of methodologies and approaches advanced under Component 1 in the same 5 sites (including GEF-IW project sites) covering at least 354,400 ha.	ES management tools applied by the BF small-scale interventions lead to maintaining ES and C storage and sequestration potential in the targeted ecosystems [P, ES, SR] BF methodologies incorporated into relevant national policy [P, SR]	Few ES management tools or practices are currently including BF	At least 1 report and best practice study on BF-based ES management per small-scale site by Y4 of the project BF methodologies incorporated in at least 1 country's relevant national policy by Y4 of the project		
Outputs: 2.1.1 Application of blue forests methodologies and approaches in five documented small-scale interventions focusing on both carbon storage and sequestration and on ecosystem services valuation at each site (Y4 of the project).	BF methodologies are applied in-situ [P, SR, ES]	0	At least 5 assessments (see activities) carried out, reported and communicated (1 for each small-scale intervention site)by Y4 of the project		
	AP and PSC feedback on support provided by PCU [P]	0	Technical support for improved understanding is provided by Y1-4 of the project		
2.2.1 Blue forests methodologies and approaches incorporated into ecosystem management in all five small-scale intervention sites.	BF methodologies are included in planning tools for the small-scale interventions [P]	0	The 5 small-scale interventions receive scientific guidance (at least 1 formal on-site OR remote intervention per year per site) and are capable of applying these in site management and policy formulation by Y2-4 of the project		
	AP, ICU and PSC feedback on support provided by PCU [P]	0	Technical support for improved ecosystem management is provided by Y1-4 of the project		

Outcomes and Outputs	Objectively Verifiable Indicators			Sources of Verification	Assumptions
	Indicator [SMART indicator type]	Baseline	Target		
Component 2 Application of blue forests methodologies for carbon accounting and ecosystem services valuation					
2.3 Approaches, experiences and recommendations are made available for the replication and up-scaling of interventions (Y4 of the project).	Experiences and lessons learned are captured/disseminated [P]	0	At least 1 overall report on BF experiences published by Y4 of the project	Small-scale intervention reports (ICU reports) and PCU reports National policy instruments	Small-scale interventions are sufficiently resourced to be completed as planned. Institutional stability allows for continued participation of key stakeholders in small-scale interventions Willingness of countries and IW projects to consider replication of BF best practices Mechanisms for feeding information from the interventions to other project components and the PCU are conducive
2.3.1 A Global Blue Forests Data Tool is developed, focusing on both carbon storage and sequestration and on ecosystem services valuation and additional evidence-based experiences resulting from existing baseline initiatives are documented (incl. 2 GEF-IW project sites)	Global Blue Forests Data Tool published by project interventions (by Y2) and by external initiatives (by Y4) [P]	A Blue Forests Data Tool is being developed for the UAE (as part of co-finance)	Blue Forests Data Tool is to be published by Y2 of the project		
	At least 3 additional initiatives are linked to BF activities [P]	0	At least 1 best case scenario per initiative is linked with BF small-scale interventions by Y4 of the project		
	AP, ICU and PSC feedback on support provided by PCU [P]		Technical support for replication and up-scaling of BF methodologies and approaches is provided by Y1-4 of the project		

Outcomes and Outputs	Objectively Verifiable Indicators			Sources of Verification	Assumptions
	Indicator [SMART indicator type]	Baseline	Target		
Component 3 Improving the understanding of carbon storage and sequestration and ecosystem services of blue forests					
Outcomes: 3.1 Improved understanding of ecosystem services and carbon storage, possible greenhouse gas emissions, sequestration and fluxes for blue forests ecosystems through targeted research and peer-reviewed literature, with a particular focus on ecosystems lacking knowledge (seagrass and salt marshes).	Identified knowledge gaps are addressed through targeted research publications that will strengthen national and international capacity to implement sound policies [P]	0	Knowledge on C storage, emissions, sequestration and fluxes as well as ES management in at least three different BF ecosystems is increased by Y4 of the project	Project reports and publications and PCU reports	Science networks open to engage with the BF project and to address knowledge gaps Opportunities to engage scientists, decision makers and inform, amend or revise key instruments and policies continue to persist throughout the project life Opportunities to incorporate best practice examples in relevant documents and policy instruments continue to persist during project implementation
Outputs: 3.1.1 At least 6 papers with equal attention to carbon storage and sequestration and ecosystem services valuation submitted for peer-review in high impact scientific journals, enabled through targeted support of research in order to fill key knowledge gaps (Y4).	Targeted research papers comply with intl. standards and are published (Y4) [P]	0	At least one publication for each of the identified priority knowledge gaps 6 distinct research publications by Y4 of the project	Publication processes and PCU reports	
	AP and PSC feedback on support provided by PCU [P]	0	Technical support for improved understanding is provided by Y1-4 of the project	PCU reports	Mechanisms for feeding information from the targeted research activities to other project components and the PCU are conducive

Outcomes and Outputs	Objectively Verifiable Indicators			Sources of Verification	Assumptions
	Indicator [SMART indicator type]	Baseline	Target		
Component 4 Options for the adoption of methodologies and approaches by the international community					
Overall outcome **Improved acceptance and awareness of blue forests values, methodologies and approaches in international policy and markets related to climate change and ecosystem service valuation**					
Outcomes: 4.1 Improved acceptance of blue forests methodologies and approaches through independent and internationally recognized institutions responsible for ensuring quality standards for carbon accounting and ecosystem service valuation, such as international climate frameworks (IPCC, UNFCCC, LULUCF/AFOLU processes) and ecosystem service markets.	# of international processes acknowledging BF methodologies [P]	3 (VCS, CDM and IPCC WG on coastal wetlands)	At least 1 additional. MEA or science-policy platform includes the importance of coastal ecosystems for climate change mitigation and adaptation by Y4 of the project	Records, official and information documents of the relevant international processes and platforms	Intl. processes responsive to submissions and tools developed Opportunities to incorporate best practice examples in relevant projects, documents and policy instruments continue to persist during and beyond project implementation Mechanisms for feeding information from improved acceptance activities to other project components and the PCU are conducive
4.2 Increased stakeholder awareness of the ecosystem services and carbon values of blue forests ecosystems.	# of requests for BF publications and outputs [P]	4 Govt. (Indonesia, UAE, USA, Kenya) 1 (IPCC WG on coastal wetlands	At least 3 additional targeted stakeholders (natl. governments) and 1 intl. policy instrument show measurable increase in including BF in ES management considerations by Y4 of the project	# of requests and downloads of BF tools and output documents	
Outputs: 4.1.1 At least 1 carbon accounting and ecosystem services toolkit is produced; at least one blue forests policy options report is produced; at least one documented global carbon and ecosystem services report is produced; all in support of advancing blue forests methodologies, policies and approaches (Y4)	BF approaches are considered by intl. institutions and policy platforms (Y4) [P]	3 (VCS, CDM and IPCC WG on coastal wetlands)	At least 3 methodologies or approaches prepared for independent approval by Y4 of the project	BF publications	
	Blue Forests Options reports published [P]	0	At least 1 additional policy options report approved and published by Y4 of the project	BF policy options publications	
	Documented global C and ES report published [P]	0	At least 1 documented global C and ES report by Y4 of the project	Documented global C and ES report publication	

	AP and PSC feedback on support provided by PCU [P]	0	Technical support and coordination for increased stakeholder awareness is provided by Y1-4 of the project	PCU reports	
4.2.1 At least two policy briefs are produced (Y1-Y4); one media and communications strategy is developed and implemented (Y1); and at least two stakeholder engagement workshops are held (coordinated with IW:LEARN) to share lessons learned and promote carbon storage and sequestration and ecosystem services in natural resource management (Y1 and Y4).	Outreach material published [P]	0	At least 2 policy briefs by Y3 and 4 of the project	Published BF policy briefs	Intl. processes responsive to submissions and tools developed Opportunities to incorporate best practice examples in relevant projects, documents and policy instruments continue to persist during and beyond project implementation Mechanisms for feeding information from ordination for increased stakeholder awareness activities to other project components and the PCU are conducive
	Publications and materials reach targeted audience [P]	No communication strategy	Media and outreach strategy developed (Y1) and used to engage with target audience	Press releases, reports, and presentations	
	Active stakeholder participation in BF workshops [P]	0	1 stakeholder engagement workshop (Y1) and 1 showcase workshop (Y4)	WS records	
	AP and PSC feedback on support provided by PCU [P]	0	Technical support and coordination for increased stakeholder awareness is provided by Y1-4 of the project	PCU reports	

Outcomes and Outputs	Objectively Verifiable Indicators			Sources of Verification	Assumptions
	Indicator [SMART indicator type]	Baseline	Target		
Component 5 Project performance monitoring of activities					
Overall outcome **Effective project monitoring and evaluation and improved information exchange in cooperation with IW:LEARN**					
Outcomes: 5.1 Effective project monitoring and evaluation	PSC approval of workplan and budget [P]; Timely establishment of AP and project oversight structures [P]	N/A	Project management structures (PCU, PSC, AP, ICUs) are established by Y1 of the project; Successful rating in PIRs and in mid- and end-term evaluations (Y1-4)	PCU and PSC reports	Successful recruitment of experts to resource PCU Approval of PCU activities by PSC Continued opportunities to engage with IW:LEARN and online knowledge platforms
5.2 Improved access to and sharing of information in cooperation with IW:LEARN in integration of climate change adaptation and climate resilience into IW projects as well as capacities to facilitate knowledge exchange.	# of references to BF in other IW and CC fora and online platforms [P]		BF methodologies and best practices are referenced and sought after via knowledge management platforms (Y1-4)	PIRs	
Outputs: 5.1.1 Project performance reviewed and reported, including IW Tracking Tool, in a timely manner, and MTE and FE completed and submitted on time.	PIR submissions; M&E missions conducted [P]		Reporting is on time and M&E missions are positive (Y1-4)	Mid-term and final evaluations	
5.2.1 Improved knowledge management through documented cooperation and knowledge exchange, including a dedicated project website connected with IW:LEARN (Y1-Y4); development of joint strategy with IW:LEARN and GEF-STAP (Y1-Y4); at least 1 special session on blue forests at a high-profile science symposium and at the GEF IW Conference (Y4).	Fully functioning and useable website [P]		Website regularly updated and maintained (Y1-4)	Project website	
	Joint knowledge management strategy [P]		Joint strategy on knowledge management developed with other relevant initiatives (Y1)	IW:LEARN and similar knowledge management platforms	
	BF participation in at least GEF IW science conference [P]		At least 1 special session on blue forests at a high-profile science symposium and at the GEF IW Conference by Y4 of the project	PCU reports	

Activities in Component 1

Component 1: Development of guidance for carbon accounting and ecosystem services valuation for blue forests ecosystems **Sub-Component 1.1:** Improving the knowledge of coastal / marine ecosystem managers and stakeholders on carbon storage and sequestration and ecosystem services in blue forests small-scale interventions sites	
Output 1.1.1: Three project-level Advisory Panels established to focus on: 1) scientific and technical aspects related to C sequestration, storage, emission and fluxes; 2) blue forests policy options, and; 3) valuation of ecosystem services other than C, to fine-tune methodologies and approaches for regionally adapted implementation.	
Activities	**Objectively verifiable indicators**
Activity 1.1.1.1 Formation and operation of the Project Level Carbon Scientific and Technical Advisory Panel (Pro-CSTAP)	
Sub-Activity 1.1.1.1.1 Pro-CSTAP Project Support	ICU and PSC reports noting received support
Sub-Activity 1.1.1.1.2 Pro-CSTAP meetings (Y1-4)	Meeting reports produced for all Pro-CSTAP meetings during project cycle
Sub-Activity 1.1.1.1.3 Coastal Carbon Technical Science Workshop (Y1)	1 Workshop report is produced within specific timeframe
Sub-Activity 1.1.1.1.4 Assessment of carbon methodologies and approaches	1 assessment is produced within specified timeframe
Sub-Activity 1.1.1.1.5 Production of carbon methodologies and approaches synthesis/toolkit necessary for the interventions (Y2)	1 synthesis/toolkit developed and made available within specific timeframe and in agreed upon format
Activity 1.1.1.2 Formation and operation of the Project Level Ecosystem Services Advisory Panel (Pro-ESAP)	
Sub-Activity 1.1.1.2.1 Pro-ESAP Project Support	ICU and PSC reports noting received support
Sub-Activity 1.1.1.2.2 Pro-ESAP meetings (Y1-4)	Meeting reports produced for all Pro-ESAP meetings during project cycle
Sub-Activity 1.1.1.2.3 ES Approaches Workshop (Y1)	1 Workshop report is produced within specific timeframe
Sub-Activity 1.1.1.2.4 Assessment of ES methodologies and approaches	1 assessment is produced within specified timeframe
Sub-Activity 1.1.1.2.5 Production of synthesis/toolkit necessary for interventions (Y2)	1 synthesis/toolkit developed and made available within specific timeframe and in agreed upon format
Activity 1.1.1.3 Formation and operation of the Project Level Policy Advisory Panel (Pro-PAP)	
Sub-Activity 1.1.1.3.1 Pro-PAP Project Support	ICU and PSC reports noting received support
Sub-Activity 1.1.1.3.2 Pro-PAP meetings (Y1-4)	Meeting reports produced for all Pro-PAP meetings during project cycle
Sub-Activity 1.1.1.3.3 Policy Workshop (Y2)	1 Workshop report is produced within specific timeframe
Sub-Activity 1.1.1.3.4 Assessment of policy approaches	1 assessment is produced within specified timeframe
Sub-Activity 1.1.1.3.5 Production of synthesis of policy approaches necessary for the interventions (Y3)	1 synthesis/toolkit developed and made available within specific timeframe and in agreed upon format
Activity 1.1.1.4 Facilitating knowledge management for Project Level Advisory Panels	Advisory Panels and PSC reports noting received support

Activities in Component 2

Note: Outputs 1.2 and 2.2 for Component 2 are presented together for each intervention site.

Per Small-scale Intervention - Intervention Site 1 - Ecuador	
Component 2: Application of blue forests methodologies for carbon accounting and ecosystem services valuation **Sub-Component 2.1:** Improving the understanding of blue forests carbon storage and sequestration and ecosystem services	
Output 2.1.1: Application of blue forests methodologies and approaches in five documented small-scale interventions focusing on both carbon storage and sequestration and on ecosystem services valuation at each site (Y4 of the project).	
Activities	**Objectively verifiable indicators**
Activity 2.1.1.1 Small-scale intervention 1 – improved understanding Ecuador (41,000 ha)	
Sub-Activity 2.1.1.1.1 Ecosystem Services Assessment	1 preliminary assessment report is produced within specified timeframe and in agreed upon format 1 terminal, national scale report produced by end of intervention cycle in agreed upon format
Sub-Activity 2.1.1.1.2 Mangrove Concessions	1 evaluation report
Sub-Activity 2.1.1.1.3 Communication and Outreach	1 communications and outreach strategy document is produced; ICU and PSC meeting reports noting implementation progress; Communication and Outreach package produced in agreed upon format
Sub-Activity 2.1.1.1.4 Project-level Training and Capacity Building in Blue Forests Concept	Training and Capacity Building reports produced within specified timeframe and in agreed upon format for each relevant effort
Sub-Activity 2.1.1.1.5 Coordination and Reporting	ICU and PSC reports noting coordination and reporting efforts
Sub-Component 2.2: Improving blue forests capacity and ecosystem management.	
Output 2.2.1: Blue forests methodologies and approaches incorporated into ecosystem management in all five small-scale intervention sites.	
Activity 2.2.1.1 Small-scale intervention 1 – improved capacity and ecosystem management Ecuador (41,000 ha)	
Sub-Activity 2.2.1.1.1 Carbon and ES Mangrove Policy and Management Engagement and Report	1 terminal, national scale report produced by end of intervention cycle in agreed upon format
Sub-Activity 2.2.1.1.2 Replication Strategy	1 replication strategy document produced within specified timeframe and agreed upon format

Per Small-scale Intervention - Intervention Site 2 - Mozambique		
Component 2: Application of blue forests methodologies for carbon accounting and ecosystem services valuation **Sub-Component 2.1:** Improving the understanding of blue forests carbon storage and sequestration and ecosystem services		
Output 2.1.1: Application of blue forests methodologies and approaches in five documented small-scale interventions focusing on both carbon storage and sequestration and on ecosystem services valuation at each site (Y4 of the project).		
Activities		**Objectively verifiable indicators**
Activity 2.1.1.2 Small-scale intervention 2 – improved understanding Mozambique (25,000 ha)		
Sub-Activity 2.1.1.2.1	Mangrove Carbon Assessment	1 detailed assessment report produced within specified timeframe and in agreed upon format
Sub-Activity 2.1.1.2.2	Mangrove Mapping and Change Analysis	1 assessment completed with report and data provided in agreed format
Sub-Activity 2.1.1.2.3	Ecosystems Services Assessment	1 national scale report produced by end of intervention cycle in agreed upon format
Sub-Activity 2.1.1.2.4	Carbon and Ecosystem Services Market Feasibility Analysis	1 feasibility analysis report produced within specified timeframe and in agreed upon format
Sub-Activity 2.1.1.2.5	Communications and Outreach	1 communications and outreach strategy document is produced; ICU and PSC meeting reports noting implementation progress; 1 Communication and Outreach package produced in agreed upon format
Sub-Activity 2.1.1.2.6	Project-level Training and Capacity Building in Blue Forests Concept	Training and Capacity Building reports produced within specified timeframe in and format for each relevant effort
Sub-Activity 2.1.1.2.7	Coordination and Reporting	ICU and PSC reports noting coordination and reporting efforts
Sub-Component 2.2: Improving blue forests capacity and ecosystem management		
Output 2.2.1: Blue forests methodologies and approaches incorporated into ecosystem management in all five small-scale intervention sites.		
Activity 2.2.1.2 Small-scale intervention 2 – improved capacity and ecosystem management Mozambique (25,000 ha)		
Sub-Activity 2.2.1.2.1	Scientific Capacity Building	Training and Capacity Building reports produced within specified timeframe and in agreed upon format for each relevant effort
Sub-Activity 2.2.1.2.2	Policy and Management Engagement	Meeting notes for each engagement effort; PSC and ICU meeting reports
Sub-Activity 2.2.1.2.3	Replication Strategy	1 replication strategy document produced within specified timeframe and agreed upon format

Per Small-scale Intervention - Intervention Site 3 - Indonesia

Component 2: Application of blue forests methodologies for carbon accounting and ecosystem services valuation **Sub-Component 2.1:** Improving the understanding of blue forests carbon storage and sequestration and ecosystem services		
Output 2.1.1: Application of blue forests methodologies and approaches in five documented small-scale interventions focusing on both carbon storage and sequestration and on ecosystem services valuation at each site (Y4 of the project).		
Activities		**Objectively verifiable indicators**
Activity 2.1.1.3 Small-scale intervention 3 – improved understanding Indonesia (100,000 ha)		
Sub-Activity 2.1.1.3.1	Carbon Stock and Sequestration Assessment	1 detailed assessment report produced within specified timeframe and in agreed upon format
Sub-Activity 2.1.1.3.2	Ecosystem Services Assessment	1 national scale report produced by end of intervention cycle in agreed upon format
Sub-Activity 2.1.1.3.3	Communication Strategy	1 communications and outreach strategy document is produced; ICU and PSC meeting reports noting implementation progress; 1 Communication and Outreach package produced in agreed upon format
Sub-Activity 2.1.1.3.4	Mapping, data collection, ground truthing	1 assessment completed with report and data provided in agreed format
Sub-Activity 2.1.1.3.5	Project-level Training and Capacity Building in Blue Forests Concept	Training and Capacity Building reports produced within specified timeframe in and format for each relevant effort
Sub-Activity 2.1.1.3.6	Coordination and Reporting	ICU and PSC reports noting coordination and reporting efforts
Sub-Component 2.2: Improving blue forests ecosystem management capacity		
Output 2.2.1: Blue forests methodologies and approaches incorporated into ecosystem management in all five small-scale intervention sites.		
Activity2.2.1.3 Small-scale intervention 3 – improved capacity and ecosystem management Indonesia (100,000 ha)		
Sub-Activity 2.2.1.3.1	Scientific and ES capacity building	Training and Capacity Building reports produced within specified timeframe in and format for each relevant effort
Sub-Activity 2.2.1.3.2	National Policy and Management Engagement	Meeting notes for each engagement effort; PSC and ICU meeting reports
Sub-Activity 2.2.1.3.3	Local Governance and Management Engagement	Meeting notes for each engagement effort; PSC and ICU meeting reports
Sub-Activity 2.2.1.3.4	Replication Strategy	1 replication strategy document produced within specified timeframe and agreed upon format

Per Small-scale Intervention - Intervention Site 4 - Madagascar		
Component 2: Application of blue forests methodologies for carbon accounting and ecosystem services valuation **Sub-Component 2.1:** Improving the understanding of blue forests carbon storage and sequestration and ecosystem services		
Output 2.1.1: Application of blue forests methodologies and approaches in five documented small-scale interventions focusing on both carbon storage and sequestration and on ecosystem services valuation at each site (Y4 of the project).		
Activities		**Objectively verifiable indicators**
Activity 2.1.1.4 Small-scale intervention 4 – improved understanding Madagascar (26,000 ha)		
Sub-Activity 2.1.1.4.1	Quantification of Mangrove Carbon Sequestration	1 detailed assessment report produced within specified timeframe and in agreed upon format
Sub-Activity 2.1.1.4.2	Mangrove REDD+ Mapping and Change Analysis	1 assessment completed with report and data provided in agreed format
Sub-Activity 2.1.1.4.3	Ecosystem Services Assessment	1 national scale report produced by end of intervention cycle in agreed upon format
Sub-Activity 2.1.1.4.4	Financial Valuation of Mangrove REDD+	1 financial valuation assessment is produced within specified timeframe and in agreed upon format
Sub-Activity 2.1.1.4.5	Mangrove REDD+ Development	1 Project Idea Note (PIN) submitted to potential investors
Sub-Activity 2.1.1.4.6	Communication Strategy	1 communications and outreach strategy document is produced; ICU and PSC meeting reports noting implementation progress; 1 Communication and Outreach package produced in agreed upon format
Sub-Activity 2.1.1.4.7	Project-level Blue Forests Capacity Building	Training and Capacity Building reports produced within specified timeframe in and format for each relevant effort
Sub-Activity 2.1.1.4.8	Coordination and Reporting	ICU and PSC reports noting coordination and reporting efforts
Sub-Component 2.2: Improving blue forests ecosystem management capacity		
Output 2.2.1: Blue forests methodologies and approaches incorporated into ecosystem management in all five small-scale intervention sites.		
Activity2.2.1.4 Small-scale intervention 4 – improved capacity and ecosystem management Madagascar (12,000 ha)		
Sub-Activity 2.2.1.4.1	Scientific Capacity Building	Training and Capacity Building reports produced within specified timeframe in and format for each relevant effort
Sub-Activity 2.2.1.4.2	Policy and Management Engagement	Meeting notes for each engagement effort; PSC and ICU meeting reports
Sub-Activity 2.2.1.4.3	Replication Strategy	1 replication strategy document produced within specified timeframe and agreed upon format

Per Small-scale Intervention - Intervention Site 5 – U.A.E.		
Component 2: Application of blue forests methodologies for carbon accounting and ecosystem services valuation **Sub-Component 2.1:** Improving the understanding of blue forests carbon storage and sequestration and ecosystem services		
Output 2.1.1: Application of blue forests methodologies and approaches in five documented small-scale interventions, focusing on both carbon storage and sequestration and on ecosystem services valuation at each site (Y4 of the project).		
Activities		**Objectively verifiable indicators**
Activity 2.1.1.5	**Small-scale intervention 5 – improved understanding U.A.E. (176,400 ha)**	
Sub-Activity 2.1.1.5.1	Baseline Carbon Assessment	1 assessment report produced
Sub-Activity 2.1.1.5.2	Ecosystem Services Assessment	1 assessment report produced
Sub-Activity 2.1.1.5.3	Policy Assessment	1 assessment report produced
Sub-Activity 2.1.1.5.4	Communication, Outreach and Knowledge Capture	1 communications, outreach and knowledge capture strategy document is produced; 1 Communication and Outreach package produced in agreed upon format
Sub-Activity 2.1.1.5.5	Mapping and Ground Truthing	Field work reports produced; Online Geographic Tool updated with new data
Sub-Activity 2.1.1.5.6	Carbon Finance Feasibility Assessment Component	1 assessment report produced
Sub-Activity 2.1.1.5.7	Project Coordination	ICU and PSC reports noting coordination and reporting efforts
Sub-Component 2.2: Improving blue forests ecosystem management capacity		
Output 2.2.1: Blue forests methodologies and approaches incorporated into ecosystem management in all five small-scale intervention sites.		
Activity2.2.1.5	**Small-scale intervention 5 – improved capacity and ecosystem management U.A.E. (176,400 ha)**	
Sub-Activity 2.2.1.5.1	Capacity Building and Knowledge Transfer Component	Training and Capacity Building reports produced within specified timeframe in and format for each relevant effort
Sub-Activity 2.2.1.5.2	Policy and Management Engagement	Meeting notes for each engagement effort; PSC and ICU meeting reports
Sub-Activity 2.2.1.5.3	Geographic Tools Component	1 functioning and accessible online tool is produced

Knowledge management, technical support and coordination for all 5 Iintervention Sites	
Component 2: Application of blue forests methodologies for carbon accounting and ecosystem services valuation **Sub-Component 2.1:** Improving the understanding of blue forests carbon storage and sequestration and ecosystem services	
Activities	**Objectively verifiable indicators**
Output2.1.1: Application of blue forests methodologies and approaches in five documented small-scale interventions, focusing on both carbon storage and sequestration and on ecosystem services valuation at each site (Y4 of the project).	
Activity 2.1.1.6 Facilitating knowledge management on carbon s storage and sequestration and ecosystem services	**Advisory Panels and PSC reports noting received support**
Sub-Component 2.2: Improving blue forests ecosystem management capacity	
Output2.2.1: Blue forests methodologies and approaches incorporated into ecosystem management in all five small-scale intervention sites.	
Activity2.2.1.6 Facilitating knowledge management to improve capacity and ecosystem management	**Advisory Panels and PSC reports noting received support**

Approaches, experiences and recommendations are available for the replication and up-scaling of interventions		
Component 2: Application of blue forests methodologies for carbon accounting and ecosystem services valuation **Sub-Component 2.3:** Synthesizing approaches, experiences and recommendations for replication and up-scaling of blue forests interventions		
Activities		**Objectively verifiable indicators**
Output 2.3.1: A Global Blue Forests Data Tool is developed, focusing on both carbon storage and sequestration and on ecosystem services valuation and additional evidence-based experiences resulting from existing baseline initiatives are documented (incl. 2 GEF-IW project sites)		
Activity 2.3.1.1	**Development of a Global Blue Forests Data Tool focusing on both carbon storage and sequestration and on ecosystem services valuation**	
Sub-Activity 2.3.1.1.1	Training workshop	1 workshop report produced within specified timeframe and in agreed upon format
Sub-Activity 2.3.1.1.2	Updating of data tool	Online Data Tool updated with new data
Sub-Activity 2.3.1.1.3	Coordination of on-line uploading and sharing of data	Online Data Tool updated with new data
Sub-Activity 2.3.1.1.4	Manual/guide for greater GEF IW application	1 manual/guide produced within specified timeframe and in agreed upon format
Activity 2.3.1.2	**Collating additional documented evidence-based experiences from existing baseline initiatives**	
Sub-Activity 2.3.1.2.1	Learning and cross training with existing global baseline initiatives	PSC reports; Advisory Panels reports
Sub-Activity 2.3.1.2.2	UNEP - Blue Carbon Initiative	PSC reports; Advisory Panels reports; ICU reports; Meeting reports specific to sub-activity are produced in a timely fashion and in an agreed upon format.
Sub-Activity 2.3.1.2.3	UNEP ROLAC - Integrated Coastal Management project	PSC reports; Advisory Panels reports; ICU reports; Meeting reports specific to sub-activity are produced in a timely fashion and in an agreed upon format.
Sub-Activity 2.3.1.2.4	Kenya Maritime and Fisheries Research Institute (KMFRI) - Mangrove Carbon Projects	PSC reports; Advisory Panels reports; ICU reports; Meeting reports specific to sub-activity are produced in a timely fashion and in an agreed upon format.

Sub-Activity 2.3.1.2.5	Abu Dhabi Global Environmental Data Initiative (AGEDI) - Blue carbon initiatives	PSC reports; Advisory Panels reports; ICU reports; Meeting reports specific to sub-activity are produced in a timely fashion and in an agreed upon format.
Sub-Activity 2.3.1.2.6	The Ocean Foundation - Blue carbon projects	PSC reports; Advisory Panels reports; ICU reports; Meeting reports specific to sub-activity are produced in a timely fashion and in an agreed upon format.
Sub-Activity 2.3.1.2.7	South African Institute of International Affairs (SAIIA) - Blue Carbon Policy Project	PSC reports; Advisory Panels reports; ICU reports; Meeting reports specific to sub-activity are produced in a timely fashion and in an agreed upon format.
Sub-Activity 2.3.1.2.8	United States National Oceanic and Atmospheric Administration (NOAA) - Blue carbon programs	PSC reports; Advisory Panels reports; ICU reports; Meeting reports specific to sub-activity are produced in a timely fashion and in an agreed upon format.
Activity 2.3.1.3	**Facilitating knowledge management for replication and up-scaling**	**Advisory Panels, ICU and PSC reports noting received support**

Activities in Component 3

Improved understanding of ecosystem services and carbon storage, possible greenhouse gas emissions, sequestration and fluxes for blue forests ecosystems through targeted research and peer-reviewed literature	
Component 3: Improving the understanding of carbon storage and sequestration and ecosystem services of blue forests **Sub-Component 3.1:** Targeted research to address gaps in knowledge on blue forests ecosystems	
Output 3.1.1: At least 6 papers with equal attention to carbon storage and sequestration and ecosystem services valuation submitted for peer-review in high impact scientific journals, enabled through targeted support of research in order to fill key knowledge gaps (Y4).	
Activities	**Objectively verifiable indicators**
Activity 3.1.1.1 Targeted Research 1 - An Analysis of Global Market Opportunities for the Blue Forests Concept	
Sub-Activity 3.1.1.1.1 Targeted Research	1 targeted research plan produced within specified timeframe and in agreed upon format
Sub-Activity 3.1.1.1.2 Drafting and layout	1 targeted research paper produced
Sub-Activity 3.1.1.1.3 Submissions and dissemination at science symposiums and conferences	1 peer-reviewed targeted research paper published in relevant journal Compendium of conference abstracts (relevant conference and/or symposiums where paper has been submitted)
Activity 3.1.1.2 Targeted Research 2 - An Analysis of Carbon Fluxes in Degraded Seagrass Ecosystems in Madagascar	
Sub-Activity 3.1.1.2.1 Targeted Research	1 targeted research plan produced within specified timeframe and in agreed upon format
Sub-Activity 3.1.1.2.2 Drafting and layout	1 targeted research paper produced
Sub-Activity 3.1.1.2.3 Submissions and dissemination at science symposiums and conferences	1 peer-reviewed targeted research paper published in relevant journal Compendium of conference abstracts (relevant conference and/or symposiums where paper has been submitted)
Activity 3.1.1.3 Targeted Research 3 - A GIS analysis of a global 'blue forests' salt-marsh layer	
Sub-Activity 3.1.1.3.1 Targeted Research	1 targeted research plan produced within specified timeframe and in agreed upon format
Sub-Activity 3.1.1.3.2 Drafting and layout	1 targeted research paper produced
Sub-Activity 3.1.1.3.3 Submissions and dissemination at science symposiums and conferences	1 peer-reviewed targeted research paper published in relevant journal Compendium of conference abstracts (relevant conference and/or symposiums where paper has been submitted)
Activity 3.1.1.4 Targeted Research 4 - An Analysis of Carbon Fluxes in Degraded Mangrove and Seagrass Ecosystems in Indonesia	
Sub-Activity 3.1.1.4.1 Targeted Research	1 targeted research plan produced within specified timeframe and in agreed upon format
Sub-Activity 3.1.1.4.2 Drafting and layout	1 targeted research paper produced

Sub-Activity 3.1.1.4.3	Submissions and dissemination at science symposiums and conferences	1 peer-reviewed targeted research paper published in relevant journal Compendium of conference abstracts (relevant conference and/or symposiums where paper has been submitted)
Activity 3.1.1.5 Targeted Research 5 - An Analysis of the Potential Social Effects of Blue Forests Projects		
Sub-Activity 3.1.1.5.1	Targeted Research	1 targeted research plan produced within specified timeframe and in agreed upon format
Sub-Activity 3.1.1.5.2	Drafting and layout	1 targeted research paper produced
Sub-Activity 3.1.1.5.3	Submissions and dissemination at science symposiums and conferences	1 peer-reviewed targeted research paper published in relevant journal Compendium of conference abstracts (relevant conference and/or symposiums where paper has been submitted)

Activity 3.1.1.6 Targeted Research 6 - An Analysis of the Valuation of Coastal Ecosystem Services (other than Carbon)		
Sub-Activity 3.1.1.6.1	Targeted Research	1 targeted research plan produced within specified timeframe and in agreed upon format
Sub-Activity 3.1.1.6.2	Drafting and layout	1 targeted research paper produced
Sub-Activity 3.1.1.6.3	Submissions and dissemination at science symposiums and conferences	1 peer-reviewed targeted research paper published in relevant journal Compendium of conference abstracts (relevant conference and/or symposiums where paper has been submitted)
Activity 3.1.1.7 Facilitating knowledge management for targeted research		**Advisory Panels and PSC reports noting received support**

Activities in Component 4

Exploration of the adoption of methodologies and approaches by the international community	
Component 4: Options for the adoption of methodologies and approaches by the international community **Outcome 4.1:** Improving the acceptance and up-take of blue forests methodologies by international stakeholders	
Activities	**Objectively verifiable indicators**
Output 4.1.1: At least 1 carbon accounting and ecosystem services toolkit is produced; at one blue forests policy options report is produced; at least one documented global carbon and ecosystem services report is produced; all in support of advancing blue forests methodologies, policies and approaches (Y4)	
Activity 4.1.1.1 Advancing blue forests methodologies and approaches	
Sub-Activity 4.1.1.1.1 C-Accounting & ES Methodologies toolkit analysis	1 analysis brief is produced within specified timeframe and in agreed upon format
Sub-Activity 4.1.1.1.2 Toolkit drafting and layout	1 laid out toolkit package produced within specified timeframe and in agreed upon format
Sub-Activity 4.1.1.1.3 Publication	1 toolkit package published and available
Activity 4.1.1.2 Advancing blue forests policy options	
Sub-Activity 4.1.1.2.1 Policy research and analysis based on lessons learned from small-scale interventions	1 summary report produced within specified timeframe
Sub-Activity 4.1.1.2.2 Policy recommendations publication - Drafting and Layout	1 final report published and available within specified timeframe and in agreed upon format
Activity 4.1.1.3 Documenting global carbon and ecosystem experiences based on the small-scale interventions	
Sub-Activity 4.1.1.3.1 Global C and ES report research	1 research plan produced within specified timeframe and in agreed upon format; PSC meeting notes reporting progress of research ICU meeting notes reporting progress of research
Sub-Activity 4.1.1.3.2 Global C and ES report drafting	1 draft reportproduced within specified timeframe
Sub-Activity 4.1.1.3.3 Global C and ES report publishing and dissemination (Y4)	1 final report published and available within specified timeframe and in agreed upon format
Activity 4.1.1.4 Facilitating knowledge management for improving acceptance	**Advisory Panels and PSC reports noting received support**

Component 4: Options for the adoption of methodologies and approaches by the international community **Outcome 4.2:** Increasing stakeholder awareness of the carbon storage and sequestration and ecosystem services values of blue forests ecosystems	
Activities	**Objectively verifiable indicators**
Output 4.2.1: At least two policy briefs are produced (Y1-Y4); one media and communications strategy is developed and implemented (Y1);and at least two stakeholder engagement workshops are held (coordinated with IW:LEARN) to share lessons learned and promote carbon storage and sequestration and ecosystem services in natural resource management (Y1 and Y4)	
Activity 4.2.1.1 Developing policy briefs to raise awareness on blue forests opportunities and on blue forests uptake in policy making	
Sub-Activity 4.2.1.1.1 Policy research and analysis	1 research plan produced within specified timeframe and in agreed upon format; PSC meeting notes reporting progress of research ICU meeting notes reporting progress of research
Sub-Activity 4.2.1.1.2 Policy technical support	Advisory Panels, ICU and PSC reports noting received support
Sub-Activity 4.2.1.1.3 Policy briefs publication - Drafting and layout	1 draft set of policy briefs produced within specified timeframe
Sub-Activity 4.2.1.1.4 Policy stakeholder engagement	1 set of final and reviewed policy briefs published
Activity 4.2.1.2 Developing media communication materials and strategies	
Sub-Activity 4.2.1.2.1 Strategy development	1 media strategy document produced within specified timeframe
Sub-Activity 4.2.1.2.2 Interaction with relevant media outlets (subscriptions, etc.)	Meeting minutes of relevant interactions; PSC meeting reports noting media releases
Sub-Activity 4.2.1.2.3 Publications (information sheets, press releases, etc.)	Publications (information sheets, press releases, etc.) produced and available in accordance to agreed upon media strategy
Sub-Activity 4.2.1.2.4 Dissemination and outreach	Independent media reports, articles, interviews, editorials etc
Activity 4.2.1.3 Formation of stakeholder engagement workshops	
Sub-Activity 4.2.1.3.1 Project Inception Workshop (Y1)	1 Project Inception Workshop Report produced within specified timeframe
Sub-Activity 4.2.1.3.2 Project Showcase Workshop (Y4)	1 Project Showcase Workshop Report produced within specified timeframe
Sub-Activity 4.2.1.3.3 Outreach	1 Stakeholder Engagement Workshop Report produced within specified timeframe
Activity 4.2.1.4 Facilitating knowledge management for increasing stakeholder awareness	**Advisory Panels and PSC reports noting received support**

Activities in Component 5

Component 5: Project monitoring, networking and knowledge management **Outcome 5.1:** Project performance monitoring of activities		
Activities		**Objectively verifiable indicators**
Output 5.1.1: Project performance reviewed and reported, including IW Tracking Tool, in a timely manner, and MTE and FE completed and submitted on time.		
Activity 5.1.1.1 Monitoring project performance		
Sub-Activity 5.1.1.1.1	Project monitoring and review	PSC and PCU reports Mid-Term evaluation Terminal Evaluation
Sub-Activity 5.1.1.1.2	Project reporting	PSC and PCU reports Mid-Term evaluation Terminal Evaluation
Sub-Activity 5.1.1.1.3	Coordination of PSC meetings	PSC meeting reports
Sub-Activity 5.1.1.1.4	Mid-term evaluation	Mid-term evaluation report produced
Sub-Activity 5.1.1.1.5	Final evaluation	Terminal Evaluation report produced
Component 5: Project monitoring, networking and knowledge management **Outcome 5.2:** Knowledge management, networking and information sharing.		
Output 5.2.1: Improved knowledge management through documented cooperation and knowledge exchange, including a dedicated project website connected with IW:LEARN (Y1-Y4); development of joint strategy with IW:LEARN and GEF-STAP (Y1-Y4); at least 1 special session on blue forests at a high-profile science symposium and at the GEF IW Conference (Y4).		
Activity5.2.1.1 Implementing a dedicated project website connected with IW:LEARN and other GEF knowledge management systems		
Sub-Activity 5.2.1.1.1	Design of layout and launch, including coordination of design with project partners	1 fully functional and accessible project website launched within specified timeframe and in agreed upon format
Sub-Activity 5.2.1.1.2	Layout and publishing	1 fully functional and accessible project website launched within specified timeframe and in agreed upon format
Sub-Activity 5.2.1.1.3	Technical web site maintenance	PCU reports noting maintenance issues and progress
Sub-Activity 5.2.1.1.4	Content maintenance and coordination with BF project and other platforms and data hubs	Website updated with latest project information and data
Activity5.2.1.2 Improving knowledge management through documented cooperation and knowledge exchange with IW:LEARN and STAP in support of its climate resilience work		

Sub-Activity 5.2.1.2.1	Development of joint knowledge management strategy between BF, IW:LEARN and GEF-STAP	1 strategy document produced and agreed upon
Sub-Activity 5.2.1.2.2	Establishment of exchange and cooperation	Meeting reports and minutes
Sub-Activity 5.2.1.2.3	Presence at least one CoP	Participant list of CoP Agenda of CoP CoP meeting report
Sub-Activity 5.2.1.2.4	Preparation of at least two experience notes	2 notes produced
Sub-Activity 5.2.1.2.5	Dissemination of at least two experience notes	Minutes of relevant IW:LEARN efforts noting dissemination
Activity 5.2.1.3	**Undertaking special sessions on blue forests at a high-profile science symposium and at the GEF IW Conference**	
Sub-Activity 5.2.1.3.1	Outreach to science platforms	Meeting notes, minutes, reports PCU minutes; reports
Sub-Activity 5.2.1.3.2	Preparations and participation at science symposium and/or IW Conference	Participant list, agenda and meeting report of relevant symposium and/or IW Conference
Sub-Activity 5.2.1.3.3	Stakeholder outreach and dissemination	1 strategy document or brief is produced
Sub-Activity 5.2.1.3.4	Follow-up strategy	1 follow up strategy document produced

ANNEX B: RESPONSES TO PROJECT REVIEWS AND JUSTIFICATION FOR CHANGES TO BUDGETAND **STRUCTURE**

ANNEX B.1: 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).

Secretariat Comment at PIF	**Response**
Relevant question: 3. Is the Agency's comparative advantage for this project clearly described and supported?	
[AH:2/7/11] Yes. UNEP already has a strong blue forests baseline, including the Blue Carbon Initiative and two key publications on the topic. UNEP is also instrumental at bridging science and policy with platforms like the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES).	UNEP's Blue Carbon Initiative is integrated into the project through Activity 2.3.1.2 'Additional documented evidence-based experiences resulting from existing baseline initiatives (incl. 2 GEF-IW project sites)'. Sub-activities include a cross-training Blue Forests Project workshop, coordination and cross-training with other project activities and a report describing the impact and experiences resulting from cross-training and lessons learned from the existing baseline initiatives with the project; The CI/IUCN/IOC-UNESCO Blue Carbon Initiative is integrated into the project through Activity 2.3.1.2 'Additional documented evidence-based experiences resulting from existing baseline initiatives (incl. 2 GEF-IW project sites)' potential expert-level membership of the Pro-CSTAP and through the 'Project-level Training and Capacity Building in Blue Forests Concept' activity of each GEF-funded small scale intervention. The activity includes the facilitation of two intervention representatives attending blue forests relevant meetings in order to enhance project-level capacity, including meetings of the International Blue Carbon Scientific Working Group. Discussions were held with CI regarding this option, which will be formalized and vetted by the PSC after project inception; The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) is included into the project through potential expert-level membership of the Pro-ESAP, along with Forest Trends, Marine Katoomba, and TEEB for Oceans.
Relevant question: 11. Is (are) the baseline project(s), including problem (s) that the baseline project(s) seek/s to address, sufficiently described and based on sound data and assumptions?	
[AH:3/22/11] Addressed. However, at time of CEO Endorsement please note that ecosystem services baseline is still weak relative to C sequestration. Please elaborate on ecosystem services baseline projects like payment for ecosystem services (PES) progress made by Forest Trend's Marine Katoomba meetings and TNC's marine conservation agreements (MCAs).	The valuation of ecosystem services is included in all small-scale interventions. Each intervention will produce an ecosystem services assessment and will use the results in engaging in local and national policy; Efforts of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), Marine Katoomba, along with Forest Trends and TEEB for Oceans are included into the project through potential expert-level membership of the Pro-ESAP.

Relevant question: 14. Is the project framework sound and sufficiently clear?	
[AH:2/7/11] Project's expected outcomes are not quantitative enough, especially for components 1, 2, and 4. Please be more specific and identify tangible outputs for each expected outcome. [AH:3/22/11] Addressed, however there are still a few issues that need to be addressed at CEO Endorsement:	Additional tangible and quantifiable outputs are identified in components 1, 2, and 4. These include multiple reports and GEF-applicable toolkits.
(i) Component 2 - Expected Output 1: Please specify the number of small-scale interventions that will focus on C sequestration versus ecosystem valuation.	(i) All five interventions now focus on both C sequestration and ecosystem valuation.
(ii) Component 2 - Expected Output 2: As of now there could potentially be only two meetings over two years per working group would be held to "reach consensus for best practice..." - will two meetings will be sufficient to reach this output?	(ii) The working groups are now Project-level Advisory Panels following PPG activities. Multiple meetings are planned for the APs over the course of the project, including at least two face-to-face meetings within the first two years of the project.
(iii) Component 3 - Expected Output 3: While I recognize it is impossible to identify scope of research papers at PIF stage, it would be reassuring to know that there is equal attention given to both C sequestration and ecosystem services valuation. It would be to the project's detriment if all six papers only focused on one aspect or another.	(iii) An assessment of research priorities and knowledge gaps was undertaken during the PPG phase. Ecosystem services valuation is the focus of one of the targeted research papers, however ecosystem services assessments that produce reports are included in all of the interventions. In total six ecosystem service reports are expected from the project.
(iv) Component 4 - Expected Output 1: Wording is very similar to Output 1.2. Are these outputs meant to produce the same methodologies or different? Output 1.2 suggests methodologies for 3 ecosystems by project's 3rd year, while Output 4.1 suggests methodologies for 2 ecosystems by project's 4th year. Please make more consistent and clarify if these are intended to be different Outputs and adjust requested funding if they are the same.	(iv) The focus of this output has evolved, reflecting advances in policies related to blue forests. Output 4.1.1 is focused on C-Accounting & ES Methodologies toolkit will be produced and policy options will be advanced at the UNFCC level by year 4 of the project and output 4.2.1 on developing policy briefs, media information, stakeholder awareness raising etc.
[AH 8/2/11] Output 2.1 - It is not clear what the actual outputs will be from the small-scale interventions. The only verb in this output is applying the new methodologies. There should really be a more substantial result from this application like reports, evaluations, etc. This is likely what the second output of this component is meant to do but it is not clear in the text.	Each GEF-funded intervention has a solid target for improving ecosystem management based on blue forests values; *Ecuador intervention*: conservation agreements; *Mozambique intervention*: a REDD+ project (C and ES); *Madagascar intervention*: a REDD+ project (C and ES); *Indonesia intervention*: the incorporation of mangrove carbon into national planning (e.g. terrestrial REDD).
Relevant question: 17. Is public participation, including CSOs and indigenous people, taken into consideration, their role identified and addressed properly?	
[AH:2/7/11] Please expand this topic. It is unclear if this project is taking any further steps other than recognizing baseline activities.	A wide range of stakeholders (public, CSOs, and Indigenous peoples)will be engaged through the 'Local Governance and Management Engagement' sub-activity of each GEF-funded intervention, and through dissemination/awareness raising activities (including Component 5)

Relevant question: 18. Does the project take into account potential major risks, including the consequences of climate change and provides sufficient risk mitigation measures? (i.e., climate resilience)	
[AH:2/7/11] Yes, although no risks identified is higher than medium risk. Please reconsider "danger" of not actively incorporating private sector involvement into working groups. It is unclear how a transparent methodology process with prevent scientific dissent on standard methodology.	The private sector is included in the project through potential membership of the Pro-CSTAP and Pro-ESAP. Scientific discussion is encouraged through the multiple platforms this project presents and at various meetings/conferences to disseminate activities to mitigate dissent. For example, members of the International Blue Carbon Scientific Working Group, which works at an international scale and does not provide implementation support, are also intervention partners, and will be engaged at the project-level through the Pro-CSTAP, encouraging a different and more project driven discussion.
Relevant question: 19. Is the project consistent and properly coordinated with other related initiatives in the country or in the region?	
[AH:2/7/11] Addressed.	The project is fully coordinated at the Component scale (through coordination between Components), and through the 'Additional documented evidence-based experiences resulting from existing baseline initiatives (incl. 2 GEF-IW project sites)' activity of Component 2 and thought the international engagement sub-activities of the 'Increase stakeholder awareness of the ecosystem services and carbon values of blue forests ecosystems' activity of Component 4.
Relevant question: 24. Is the funding and co-financing per objective appropriate and adequate to achieve the expected outcomes and outputs?	
AH:2/7/11] No. is unclear why Component 2 will utilize so much of GEF funds (almost 60% of total GEF resources) when building upon existing GEF projects. Please elaborate significantly these activities in text.	Component 2 is the major focus of the Blue Forests Project. This component represents the critically important 'proof of concept' tests for the blue forests concept, through improved understanding of the blue forests concept, improved ecosystems management based on blue forests values, and the global replication and up-scaling of the concept. The other components of the project either support Component 2 and/or are fed outputs from Component 2. The activities of each of the interventions have been elaborated in the appendix descriptions for each small-scale intervention. The percentage of GEF funds for Component 2 has been reduced to 52%. Please note that one of the small-scale interventions is provided through 100% co-finance support (the Abu Dhabi Blue Carbon Demonstration Project), and represents $1,800,000 of investment by AGEDI.
Relevant question: 24. At PIF: comment on the indicated co-financing; At CEO endorsement: indicate if confirmed co-financing is provided.	
[AH:2/7/11] All co-financing is pledged in-kind. Please	The co-financing 'in cash' has been increased to $1,000,000.

strengthen agency co-financing in text (C.1) as well as actual amount of agency co-financing pledged with cash.	Please note that intervention 5 (the Abu Dhabi Blue Carbon Demonstration Project) is provided through 100% co-finance support and represents $1,800,000 of investment by AGEDI. The expected co-financing increasing from $18,590,000 USD to $23,268,215 USD (an increase in total co-finance to the project of $4,678,215 USD).
STAP Comment at PIF	**Response**
STAP welcomes this timely project to address the standardization of Blue Carbon accounting methodologies and to build consensus for their adoption by international organizations and governments as part of the suite of tools available to value carbon sequestration. STAP thanks UNEP for its productive early discussions on the development of the project concept. 1. In climate mitigation and adaptation instruments and discussion, the accounting for carbon in aquatic environments lags far behind that for terrestrial systems. IPCC and GEF, through the Carbon Benefits Project that STAP has also been involved with, are reasonably well advanced in translating extensive research, measurement, modelling and monitoring of terrestrial carbon into tools that are useable by project developers and managers. These tools and databases of default values and best practice methods do not include the major aquatic ecosystems, especially the marine and brackish water systems. The proposed project, if developed in an IPCC compliant format, may accelerate the IPCC's current consideration of blue carbon methods, which is proceeding in an incremental way only at present. STAP is concerned about potential duplication of efforts supported by this project and ongoing work of the IPCC aimed at the development of additional national-level inventory methodological guidance, including default emission values, on wetlands. IPCC work guidance (to be delivered in 2013) will consider ecosystems such as coastal wetlands (mangroves, saltmarshes, seagrass) and tidal freshwater systems as well as other freshwater wetlands and peatlands. STAP recommends that project proponents explore potential overlap and complementarities with the IPCC work and propose appropriate actions before the CEO endorsement.	This is an important point, and it is the intention of the project to support the work of the IPCC working group on wetlands GHG inventory guidelines. Expert members of the IPCC wetlands working group will form part of the Blue Forest Project Advisory Panels, ensuring good coordination between the project and the IPCC. UNEP was instrumental in selecting the lead authors for the wetlands guidelines, and will provide technical support (through research, peer-reviewed literature) and logistical (travel support) to the members of the IPCC group through the blue forest project. Furthermore, relatively limited resources from the blue forest project (only USD 475,000) are targeted at the development of the methodologies, as it is recognized that other groups (such as the IPCC group) will undertake the bulk of methodology development with support from the Blue Forest project. The largest investments are in application of methodologies on the ground (2,335,000), improving understanding (680,000) and adoption of methods by international community (530,000 – again supporting IPCC group). However, as well as supporting the IPCC group methodology development, the project will also develop ecosystem services valuation methodologies suitable for use in wider coastal GEF projects. The IPCC wetlands group is focusing solely on methodologies for carbon accounting. The aim of the blue forest project is also to explore the development and adoption of ecosystem services valuation methodologies.
2. STAP recommends that, during the preparation of the full project document, the proponents work collaboratively with the partners of the Carbon Benefits project (UNEP as Implementing Agency) to gain insight into approaches to standardize methods for blue carbon accounting. The CBP is IPCC compliant. Closer knowledge of how IPCC compliant methods are developed and applied will likely better inform the Project proponents of pathways to IPCC and national carbon accounting acceptance. The Project proponents	Although the project is now closed and has just completed its terminal evaluation, conversations with the task manager for the carbon benefits project (Gemma Shepherd) based in Nairobi took place and the relevant lessons learnt from the carbon benefits project will be taken into account for the blue forests project will feed into the implementation of the Blue Forests projects.

should focus on the development of "blue carbon" methodologies for GEF projects and take into account the specific GEF requirements and reporting mechanisms which often differ from those of other funding institutions and of the UNFCCC's flexible mechanisms.	
3. The proposal will help some strategically selected countries to take into account carbon sequestration services (using existing approaches of carbon accounting) together with other ecosystem services and develop tools and methods on how to reconcile carbon sequestration of blue carbon with other services provided by respective ecosystems. It would be work similar to "REDD+ readiness" efforts, and even without a legitimating decision of UNFCCC COP, it would still have merit on its own to raise global awareness of the importance of these services.	Yes – the application of methodologies will go ahead regardless of a legitimising decision by the UNFCCC COP, and will raise global awareness of the importance of coastal ecosystem services, as well as raise capacity of countries where interventions take place. If the application of methodologies is successful and the value of doing so is proved, then this might even increase the political will of countries to address these issues through the UNFCCC.

ANNEX B.2: JUSTIFICATION FOR CHANGES TO BUDGET AND **STRUCTURE**

Budget changes		
PIF Budget (GEF Funding) (USD)	**PPG Budget (GEF Funding) (USD)**	**Justification**
Component 1		
100,000	**475,000**	During PPG discussions it became apparent that a greater focus on project-level support to the small-scale interventions was needed and that the originally planned funding for Component 1 would not be insufficient to provide the intervention-level support needed for the application of blue forests methodologies and approaches with Component 2. Additionally it was recognized that the international-scale focuses of the international blue carbon science and policy working groups would not fit the needs of a project-level implementation focus of the Blue Forests Project and that a new project-level structure was needed. It also became apparent that a body focused on ecosystem services other than C would be needed to facilitate the full application of blue forests methodologies and approaches in the interventions. Therefore three project-level advisory panels were established under Component 1.
Component 2		
2,475,000	**2,335,000**	Although the GEF budget for Component 2 has been reduced, the budget for each intervention has been significantly increased due to the 100% co-financing of the U.A.E. intervention. This has allowed GEF funds to support other project Components and for the project to engage more at the international scale through the 'additional documented evidence-based experiences resulting from existing baseline initiatives' activity of Component 2. Please note that the co-finance to Component 2 has been greatly increased (from $8,380,000 in the PIF to $17,948,686 in the PPG, and resulting in a total increase in co-finance to the project of $4,678,215 USD), reflecting increased interest advances in blue forests projects internationally.
Component 3		

1,200,000	**680,000**	During the PPG phase the Task Team identified that changes to Component 3 was needed to reflect advances in scientific research. Component 3 will now deliver six targeted research papers called for in the PIF directed to key information gaps identified in the PPG stage that also supports the small-scale interventions.
Component 4		
400,000	**530,000**	During the PPG phase it was recognized that Component 4 should devote more effort to ensure replication and up-scaling opportunities of the blue forests methodology and approaches by international stakeholders. This is will be accomplished through an increase in GEF-funds for Component 4, resulting in additional tangible and measurable products from this component (e.g., policy report and briefs, GEF-IW applicable toolkit, etc.) and the increased visibility of blue forests within the International Community, particularly with the development of a tool which illustrates the global blue forests resource.
Component 5		
100,000	**255,000**	During the PPG phase it was agreed that Component 5 should have an increased focus on knowledge management to serve both the project and to assist dissemination. The project achieves this through an increase in GEF-funds for Component 5 to enhance the project monitoring, networking and knowledge management of blue forests concepts and achievements. In particular addressing the provision of information relating to blue forests and the timely communication of this to the international community.
Structural changes		
PIF	**PPG**	**Justification**
Component 1		
Three Outcomes: 1) Improved knowledge of coastal and marine ecosystem managers and stakeholders in selected regions on carbon sequestration, storage, possible greenhouse gas emissions as well as ecosystem services in blue forests ecosystems and on possible policy/economic instruments that may be applied to sustainable coastal habitat management. 2) Use of standardized carbon accounting and ecosystem services valuation methodologies for blue forests ecosystems in GEF and non GEF International Waters	One outcome: Outcome 1.1) Improved knowledge of coastal and marine ecosystem managers and stakeholders in selected regions on carbon sequestration, storage, possible greenhouse gas emissions as well as ecosystem services in blue forests ecosystems and on possible policy/economic instruments that may be applied to sustainable coastal habitat management	During the PPG phase it was agreed, through discussions with the project partners and the Task Team, that Component 1 should focus on supporting the implementation of blue forests methodologies and approaches at the small scale intervention level (component 2). The in-project level support to the interventions, (Outcome 2 of the PIF) was incorporated into to the outputs and activities of the Working Groups. The external or international level of Output 2 of the PIF ("GEF and non GEF International Waters projects") was transferred to the activities of Component 4 which focuses on the 'Exploration of the adoption of methodologies and approaches by the international community.' Output 3 of Component 1 from the PIF was transferred to Component 4 (e.g., the C-accounting & ES methodologies toolkit and documented global C and ES report).

projects and national settings. 3) Carbon accounting and ecosystem services valuation methodologies and related data-sets gathered through the project disseminated through the IW:LEARN and other GEF knowledge management activities.		
Component 5		
Four Outcomes: 1) Effective project coordination and management. 2) Improved access to and sharing of information in cooperation with IW:LEARN in integration of climate change adaptation and climate resilience into IW projects, as well as capacities to facilitate knowledge exchange 3) Improved knowledge management with compiled knowledge and experiences about the project shared with other GEF projects and GEF Sec. and accessible on IW:LEARN 4) Improved project execution from IW Conference participation and the use of the GEF5 IW indicator tracking system.	Three Outcomes: Outcome 5.1) Effective project monitoring and evaluation. Outcome 5.2) Improved access to and sharing of information in cooperation with IW:LEARN in integration of climate change adaptation and climate resilience into IW projects as well as capacities to facilitate knowledge exchange.	During the PPG phase it was agreed that Component 5 should incorporate all the PIF Outcomes that focus on improved knowledge management and IW. Outcome 5.2 in the PPG serves the needs and outputs identified in the PIF under Outcomes 2, 3 and 4. All the PIF Outputs relevant to improved knowledge management and IW are included under Outcome 5.2 (e.g., the dedicated project website connected with IW:LEARN and other GEF knowledge management systems; the Improved knowledge management through documented cooperation and knowledge exchange with (i) IW:LEARN including at least one functioning CoP, and (ii) with STAP in support of its climate resilience work; and the special session on blue forests at a high-profile science symposium at the GEF IW Conference).

ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS[25]

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

PPG Grant Approved at PIF: **75,000 USD**			
Project Preparation Activities Implemented	***GEF/LDCF/SCCF/NPIF Amount ($)***		
	Budgeted Amount	***Amount Spent To date***	***Amount Committed***
Technical Assistance in Support of the Selection and Design of Small Scale Interventions in Support of Component 2	35,000	35,000	35,000 (GEF resources used total 20,000, co-finance use total 15,000)
Technical Assistance Supporting the Formulation of an Agenda for Blue Forests Expert Working Groups and the Design of a Strategy for Filling Knowledge Gaps in Support of PPG Components 1 & 3 (16 PWs)	35,000	35,000	35,000 (GEF resources used total 15,000, co-finance use total 20,000)
Partners Inception Workshop	37,500	37,500	37,500
Partners Validation Workshop	37,500	37,500	37,500 (the Inception and Validation workshops were combined and GEF funds used total 40,000, co-finance use total 35,000)
Total	145,000 (GEF grant budgeted total 75,000, co-finance total 70,000)	145,000 (GEF grant spent total 75,000, co-finance total 70,000)	145,000 (GEF resources committed total 75,000, co-finance used total 70,000)

[25] If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities.

ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)

Provide a calendar of expected reflows to the GEF/LDCF/SCCF/NPIF Trust Fund or to your Agency (and/or revolving fund that will be set up)

N/A