Part I: Project Information

GEF ID
10992

Project Type
MSP

Type of Trust Fund
GET

CBIT/NGI
CBIT **No**
NGI **No**

Project Title
Demonstration of a Caribbean Mechanism Toward Establishment of a SIDS-SIDS Green-Blue Economy Knowledge Transfer Hub

Countries
Regional, Barbados, Grenada

Agency(ies)
UNEP

Other Executing Partner(s)
University of the West Indies (UWI), Cave Hill Campus

Executing Partner Type
Others

GEF Focal Area
Land Degradation

Sector

Taxonomy

Focal Areas, International Waters, Marine Protected Area, Pollution, Nutrient pollution from Wastewater, Plastics, Nutrient pollution from all sectors except wastewater, Coral Reefs, Biomes, Mangrove, Seagrasses, Constructed Wetlands, SIDS : Small Island Dev States, Chemicals and Waste, Best Available Technology / Best Environmental Practices, Waste Management, Hazardous Waste Management, Sound Management of chemicals and waste, Biodiversity, Mainstreaming, Agriculture and agrobiodiversity, Tourism, Land Degradation, Sustainable Land Management, Sustainable Livelihoods, Income Generating Activities, Community-Based Natural Resource Management, Integrated and Cross-sectoral approach, Sustainable Agriculture, Ecosystem Approach, Land Degradation Neutrality, Land Productivity, Influencing models, Transform policy and regulatory environments, Demonstrate innovative approache, Stakeholders, Local Communities, Communications, Awareness Raising, Public Campaigns, Education, Behavior change, Beneficiaries, Type of Engagement, Information Dissemination, Consultation, Partnership, Private Sector, Individuals/Entrepreneurs, SMEs, Civil Society, Academia, Community Based Organization, Non-Governmental Organization, Gender Equality, Gender Mainstreaming, Women groups, Gender-sensitive indicators, Sex-disaggregated indicators, Gender results areas, Knowledge Generation and Exchange, Capacity Development, Capacity, Knowledge and Research, Knowledge Exchange, Learning, Theory of change, Knowledge Generation, Innovation, Climate Change, Climate Change Adaptation, Climate resilience, Small Island Developing States

Rio Markers

Climate Change Mitigation

No Contribution 0

Climate Change Adaptation

Significant Objective 1

Biodiversity

Significant Objective 1

Land Degradation

Principal Objective 2

Submission Date

4/14/2023

Expected Implementation Start

9/1/2023

Expected Completion Date

9/1/2026

Duration

36In Months

Agency Fee($)
168,766.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount($)	Co-Fin Amount($)
LD-2-5	Create enabling environments to support scaling up and mainstreaming of SLM and LDN	GET	1,776,484.00	2,448,600.00
		Total Project Cost($)	**1,776,484.00**	**2,448,600.00**

B. Project description summary

Project Objective

To enhance knowledge uptake and application within academia and communities of policy and technical practice in SIDS by implementing a systematic approach for extraction and translation of green-blue knowledge elements generated by GEF projects.

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing ($)
Component 1: Establishment of a SIDS-SIDS Green-Blue Environmental Knowledge Transfer Hub as a formalized mechanism	Technical Assistance	**1.1:** An **institutional coordinated operational KM Hub mechanism** for extraction of knowledge from Caribbean GEF implemented projects, approved by participant governments and their partners. *Indicators: (i) Number of signed cooperation agreements /MOUs by partner organizations*	**1.1.1** SIDS-SIDS Green-Blue Knowledge Transfer Hub (KTH) and ICT solution for evaluation and endorsement of lead partners. **1.1.2.** Institutional Cooperation Agreements for operationalisation of the SIDS-SIDS Green-Blue Knowledge Transfer Hub with partner agencies signed by partner organizations. **1.1.3.** SIDS Green-Blue Economy Knowledge Network Nodes for the strengthening of inter- and intra-regional cooperation between SIDS.	GET	527,316.00	613,600.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing ($)
Component 2: Development of a demonstration model for extracting learning from GEF Projects into Green-Blue learning curricula formats for sectoral application	Technical Assistance	**2.1: Knowledge integrating green-blue learning elements extracted from GEF projects, effectively demonstrated** and applied in selected educational institutions and sectors. *Indicators: (i) Gender-sensitive rating assessment/appraisal scores provided by reviewers and stakeholders on tools, quality of curricula, demonstrated efficacy of KT Hub model*	**2.1.1** Methodology and system for analysis of and extraction of Green-Blue learning elements developed from GEF projects implemented in CSIDS for evaluation by KT Hub partners. **2.1.2** Pilot curricula set/learning elements extracted from GEF projects (on sector-based environmentally sound and innovative technologies and policy instruments) designed for multiple delivery platforms for evaluation by KT Hub partners **2.1.3** Pilot phase delivery of curricula/learning elements	GET	580,217.00	1,056,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing ($)
			tested, evaluated and validated by target learners and users (students, professionals) and KT Hub partners			
			2.1.4 Pilot Ambassadorial Knowledge Transfer Initiative and evaluation by users			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing ($)
Component 3: Enhancement of sustainability and scale-up	Technical Assistance	**3.1: Mainstreaming of knowledge generated by GEF projects and scale-up applied** within the work of national and regional partners, sharing of lessons learned and peer to peer exchange. *Indicators: (i) number of signature events convened; (ii) Number of emergent opportunities (policies, business plans, financing mobilized) gained by stakeholders from KTH knowledge exchanges in their respective areas*	**3.1.1.** Marketing, Outreach and Communication Strategy and accompanying suite of knowledge products for uptake by target stakeholders **3.1.2.** Green-Blue Solutions Marketplace Event and Replication Strategy to sustain promotion of innovation generated by GEF Projects via the KT Hub in CSIDS and global SIDS. **3.1.3** Project monitoring and evaluation system	GET	507,453.00	564,000.00
				Sub Total ($)	**1,614,986.00**	**2,233,600.00**
Project Management Cost (PMC)						
	GET		161,498.00			215,000.00

Project Management Cost (PMC)		
Sub Total($)	**161,498.00**	**215,000.00**
Total Project Cost($)	**1,776,484.00**	**2,448,600.00**

Please provide justification

C. Sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Recipient Country Government	Government of Barbados	In-kind	Recurrent expenditures	450,000.00
Recipient Country Government	Government of Grenada	In-kind	Recurrent expenditures	150,000.00
Other	University of the West Indies (UWI), Cave Hill Campus, Barbados	In-kind	Recurrent expenditures	700,000.00
GEF Agency	UNEP Partnership on Action for Green Economy (PAGE) Secretariat	In-kind	Recurrent expenditures	248,600.00
GEF Agency	UNEP One Planet Network/ 10-Year Framework of Programmes on Sustainable Consumption and Production (YFP)	In-kind	Recurrent expenditures	70,000.00
Other	Caribbean Comunity Secretariat (CARICOM)	In-kind	Recurrent expenditures	100,000.00
Other	Organization of Eastern Caribbean States (OECS)	In-kind	Recurrent expenditures	50,000.00
Other	Caribbean Youth Environmental Network (CYEN)	In-kind	Recurrent expenditures	30,000.00
Other	Partnership Initiative on Sustainable Land Management (PISLM)	In-kind	Recurrent expenditures	100,000.00
Donor Agency	Development Bank of Latin America (CAF)	Grant	Investment mobilized	200,000.00
Other	United Nations Institute for Training and Research (UNITAR)	In-kind	Recurrent expenditures	100,000.00

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Donor Agency	United Nations Industrial and Development Organisation (UNIDO) through the Centre for Renewable Energy and Energy Efficiency Centre and the Barbados BLOOM Clean Tech Cluster	In-kind	Recurrent expenditures	250,000.00
			Total Co-Financing($)	**2,448,600.00**

Describe how any "Investment Mobilized" was identified

The Development Bank of Latin America (CAF) was solicited on the basis of their development support mandate to countries in the region. On the basis of a formal submission from the UWI with possible co-financing options, the Bank made a decision to contribute grant co-financing to the project.

D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
UNEP	GET	Grenada	Land Degradation	LD STAR Allocation	258,973	24,602	283,575.00
UNEP	GET	Regional	Land Degradation	LD Global/Regional Set-Aside	1,517,511	144,164	1,661,675.00
			Total Grant Resources($)		**1,776,484.00**	**168,766.00**	**1,945,250.00**

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required **true**

PPG Amount ($)

50,000

PPG Agency Fee ($)

4,750

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
UNEP	GET	Grenada	Land Degradation	LD STAR Allocation	15,000	1,425	**16,425.00**
UNEP	GET	Regional	Land Degradation	LD Global/Regional Set-Aside	35,000	3,325	**38,325.00**
				Total Project Costs($)	**50,000.00**	**4,750.00**	**54,750.00**

Core Indicators

Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	5,000	5,000		
Male	5,000	5,000		
Total	10000	10000	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

10,000; 50% female, 50% male; representing (i) academia/KM institutions, (ii) practitioners/resource users; private sector, communities (iii) national govt technical, policy professionals

Part II. Project Justification

1a. Project Description

(1a. Project description

1. The Global Environmental Problem, Root Causes and Barriers that Need to be Addressed:

The SIDS context: land resource degradation and the global environmental problem: According to Agenda 21[1][1] Small Island Developing States (SIDS) and islands supporting small communities are a special case both for environment and development. They are ecologically fragile and vulnerable. Their small size, limited resources, geographic dispersion and isolation from markets, place them at a disadvantage economically and prevent economies of scale. Because small island development options are limited, there are special challenges to planning for and implementing sustainable development and therefore will be constrained in meeting these challenges without the cooperation and assistance of the international community.[2][2] Further, Agenda 21 recommends that SIDS should develop and strengthen inter-island, regional and interregional cooperation and information exchange. Further, pursuant to *Chapter XIV. Human Resource Development* of the *Programme of Action on the Sustainable Development of Small Island developing States* adopted by the international community in 1994 (commonly referred to as the *Barbados Programme of Action* (BPOA))[3][3] concludes that it is a matter of high priority to strengthen national educational and training mechanisms in order to facilitate the flow of information on sustainable development issues, enhance public awareness of the environment and encourage participation in the implementation of effective solutions.[4][4] One of the strategies highlighted in the BPOA to achieve this objective is to infuse sustainable development ideas into education curricula at all levels and promote participation by all groups, emphasizing the link between environment and social and economic issues[5][5]. In this regard, the international community is encouraged to support efforts to develop curricula for sustainable development, in particular tertiary level courses on environmental management and sustainable development, encouraging multidisciplinary approaches.[6][6]

In addition, the *SIDS Accelerated Modalities of Action Pathway* (commonly referred to as the SAMOA Pathway)[7][7] calls for the establishment of national and regional information and communications technology platforms and information dissemination hubs in small island developing States.[8][8] This is further elaborated by calls for the strengthening educational and training mechanism(s) of national and regional information and communications technology platforms and information dissemination hubs in small island developing States to facilitate information exchange and cooperation, building on existing information and communications platforms.[9][9]

As highlighted in the Barbados Programme of Action[10][10] (BPOA) a major long-term land management issue in small island developing States is the degradation of the limited land area due to a variety of factors, including overuse because of high population pressure on a limited resource base; deforestation

due to unsustainable commercial logging or permanent conversion to agricultural or grazing pursuits; and other episodic events, such as fire. Natural events, such as catastrophic cyclones, are also major contributors. Land degradation of that kind results in accelerated erosion and a resultant decline in fertility and productivity, a deterioration in water quality and the siltation of rivers, lagoons and reefs. Deforestation is also linked to a decline in the continuity and quality of village water supply, the depletion of genetic, wood and non-wood plant resources, and the fading away of traditional forest, lagoon and reef-based subsistence life systems. This proposed initiative is advanced under the overarching theme of addressing land degradation and achieving land degradation neutrality (LDN), given that locally driven anthropocentric influences in SIDS have most direct and significant impact on terrestrial landscapes, on account of the small spatial scales that in turn can result in loss of global environmental benefits (GEBs) over relatively very short time spans. The loss or impairment of ecosystem services associated with land and coastal degradation presents complex, interlinked challenges on small islands, where biodiversity is impacted by land use and land use change, land productivity and water resources (fresh and coastal) are compromised by direct land degradation and chemical/waste pollution loading, and landscapes are rendered more prone to accelerated degradation under changing climate, that predisposes communities to heightened risk of life and property loss in the face of extreme events. Over the past decades, Caribbean SIDS and global SIDS have amassed, and have access to, a vast reservoir of knowledge and experiences generated by a myriad of project and programme initiatives to address sustainable land and associated inter-linked resource management, considering the close ?ridge-to-reef? nexus between land and coastal areas. However, translation of this knowledge into sustained and effective ?greener? or ?bluer? solutions/practice by resource users, private sector and communities to build economically and socially resilient livelihoods remains low. This proposed initiative therefore presents an approach via a *SIDS Knowledge Transfer Hub mechanism* demonstrated for the Caribbean, to better harness knowledge and green-blue solutions particularly from GEF initiatives to improve long-term sustainability in uptake, application and replication by practitioners, that will ultimately result in improved land and coastal resource management, with the generation of GEBs.

***Threats*:** Under the frameworks of the Barbados Programme of Action and the SAMOA Pathway, Caribbean Small Island Developing States (CSIDS), through obligations under the various multi-lateral environmental agreements, treaties and cooperation frameworks, donor support interventions and national mandates, have been addressing the declining state of biodiversity, climate, land and soil health, ocean health, freshwater resources, fisheries, and the presence of hazardous chemicals that are well-manifested in their impacts in degrading global environmental benefits in the region.

Land degradation impacts terrestrial landscapes across Caribbean countries to varying degrees, characterized by forest resource overexploitation and degradation, unsustainable agricultural practices, unplanned and/or poorly planned urbanization and poor quarrying practice. The extent and severity of land degradation is heighted in mountainous interiors of the islands, that are typically subjected to extreme rainfall events. Land degradation in productive agricultural landscapes is exacerbated by improper and inefficient use of fertilizers and other agro-chemicals that pollutes ground and surface waters and adjacent coastal waters[11][11]. Quantification of soil losses from landscapes of Caribbean islands has not been systematically and comprehensively assessed, nor has soil organic carbon which is one of the three global indicators for LDN, so **predicting and monitoring change in soil organic carbon is vital to achieving LDN targets. Further,** UNEP?s *Cartagena Convention State of the Convention Area (SOCAR) Assessment of Marine Pollution from Land-based Sources and Activities in*

the Wider Caribbean Region Report (2019)[12][12] notes that turbidity observations made in coastal waters, reflective of sediment runoff, generally shows increases outside the accept?able range in the wet season in response to higher erosive rainfall which in turn are related to changes in human population density (Chollett et al., 2017). Associated with inputs of sediments in coastal waters is the contamination of sediments with toxic chemicals. UNEP SOCAR Report (2019) reported that a wide variety of metals and organic substances, such as polycyclic aromatic hydrocarbons (PAHs), polychlori?nated biphenyls (PCBs), heavy metals, and pesticides, are discharged into coastal waters from urban, agricultural, and industrial sources. These contaminants adsorb onto suspended particles and eventually accumulate in depo?sitional basins (FAO, 2017)[13][13]. It is estimated that in the SIDS of the Caribbean, and Latin America, land degradation costs an estimated US$ 4 800 million dollars annually, and impacts approximately 125 million people within the region (UNEP, 2006)[14][14].

These environmental and natural resource issues are likely to be exacerbated by climate change. A clear manifestation of this is the occurrence of drought events particularly in years with El Ni?o Southern Oscillation (ENSO)[15][15] events. The drought of 2015-2017 was particularly severe, as well, affected approximately 200,000 families (1 million people) in Haiti, especially in Sud-Est, Nord-Ouest and Artibonite regions. Expensive, desalinated water resources account for as much as 70 percent of drinking water in Antigua and Barbuda. Even in Guyana, a country renowned for its water resources, the damage from the 1997/1998 drought was estimated to be approximately US$ 29 million due to decreased outputs in the agricultural sector; rice production decreasing by 37 percent and sugar by 7 percent and 40 percent in the mining sector as result of the unavailability or limited sources of water. Hence the mainstreaming of mainstreaming climate resilience is a national priority for all Caribbean Small Island Developing States. While these countries have not contributed significantly to causing global climate change, they are, nevertheless at the forefront with respect to the adverse impacts of climate change. Cadogan (2021)[16][16] noted that climate change modelling studies have predicted that changes in rainfall patterns and temperature regimes will continue to affect the freshwater availability in the Caribbean if carbon dioxide and greenhouse gas emission continue unabated. In the Caribbean this will be manifested in impacts to groundwater, crop management, flooding, landslides, pollution, among others. In the Caribbean it has been observed that due to the onset of climate change there has been a decrease in stream flow and groundwater recharge rates in many water-stressed countries. The impacts of climate change such as re-occurring drought, intense rain and storm events accelerate land degradation and increases the risk of occurrence of natural disasters.

The report *The State of Biodiversity in The Caribbean Community* notes that the ecosystems of the Caribbean provide critical support to the development and well-being of the diverse population of 20 million people living in one of the global biodiversity hotspots. However, this hotspot is threatened by

the effects of habitat destruction, pollution, invasive alien species and climate variability[17][17]. According to the *Ecosystem Profile of The Caribbean Islands Biodiversity Hotspot* (2019)[18][18], the total land surface of the Caribbean Islands Hotspot is only 230,000 km2 however with just around 10% of the hotspot?s original habitat remaining, most of the major habitat loss has already occurred. The remaining landscapes continue to be modified in response to population growth and demands and that habitats remain at risk from human activity and natural disasters. In percentage terms, amphibians and reptiles are among the most threatened of the taxonomic groups assessed, at 73 and 31 percent respectively. The Caribbean Sea is biologically significant; it has the highest marine species richness in the Atlantic Ocean, represents two of the 34 identified biodiversity hotspots (Myers et al. 2000) and is considered the ?high-diversity heart? of the Tropical West Atlantic, itself one of four global centres of tropical marine biodiversity (Robertson and Cramer 2014).

The report *Marine Pollution in the Caribbean: Not a Minute to Waste* (2019)[19][19] underscores that the wider global problem of marine pollution is also ubiquitous in Caribbean waters and constitutes a serious threat to the Blue Economy. Pollution, including marine litter, plastics, sewage, oil and chemicals, impacts the value of the goods and services provided by the oceans, including quality of fisheries and the pristine marine environment highly valued by the tourism sector. The region is extremely vulnerable to the impacts of marine pollution due to the dependence of its people on natural resources in combination with its vast exposed coastlines. On average, about 85 percent of wastewater in the Wider Caribbean Region (WCR) goes untreated into the ocean. Studies have measured the concentration of plastic litter across the Caribbean and found as many as 200,000 pieces of plastic per square kilometer in the northeastern Caribbean. A snapshot for some selected countries featured in the report, shows that an average of 2,014 litter items per kilometer were found on beaches and coastal areas as compared to a global average of 573. Wastewater and agricultural runoff are significant sources of nutrient pollution loading while industrial activities and shipping are sources of hydrocarbon pollution.

The COVID-19 Pandemic challenge in CSIDS: Compounding the environmental threats has been the devastating fallout from the COVID-19 pandemic. Emerging data reveals the extent of the fallout, with the global economy contracting an estimated 3.5% in 2020 (IMF, 2021) and global extreme poverty increasing for the first time in over two decades (UNDP, 2020). Widespread business closures, extensive job losses, and deep recessions were among some of the immediate economic effects (World Bank, 2020a). Beyond economic impact, COVID-19 has exposed and, in some cases, exacerbated underlying social and environmental issues. These challenges have spurred calls to ?build back better? from political, corporate, and academic actor. The impact of the pandemic was significant on the economies of the Caribbean, including those of Barbados and Grenada which created extreme economic hardship. The pandemic disrupted the tourism industry, which accounts for over 45% of GDP of these countries, given that the sector employs significant proportions of the country?s workforces. In the case of Barbados, the economy is estimated to have contracted by about 18 per cent in 2020 and in Grenada by about 13%. The

pandemic is expected to have major prolonged impact on the recovery efforts of both Barbados and Grenada.

The devastating impacts of the COVID-19 pandemic on countries? economies worldwide, have underscored the need for a sustainable Green-Blue post-COVID 19 economic recovery. It is essential to accelerate environmental and climate action through innovative mechanisms that foster sustainable use of natural resources that support local livelihoods and maintain the integrity of the natural environment.[20][20] For the Caribbean, a key strategy that needs to be deployed to guide post-pandemic recovery, is to draw on the wide body of knowledge generated by the numerous project and programme initiatives on environmental management implemented in CSIDS, with the view of extracting relevant and impactful Green-blue knowledge elements; learning approaches which have been successfully employed and upscaled with beneficial results; innovative technologies and solutions which have resulted in fundamental policy changes to influence behavioural change; solutions that mitigate further risk from the impacts of infectious diseases similar to COVID-19, and expand emerging opportunities for investment, all with the view of integrating them into future project and programme development. Notwithstanding the high interest and recognized need in CSIDS to embrace green-blue growth strategies to sustain strong economic growth, against the backdrop of enhancing climatic resilience and environmental sustainability with poverty reduction and social inclusion, there has been no enduring and systematic means to extract and transform Green-Blue learning elements from projects and programmes into mainstreamed practice at both technical and policy level. This has been true to varying degrees in contribution of the GEF partnership support to the Caribbean region based on findings of the GEF?s Independent Evaluation Office.

Challenge of transitioning Green-Blue economy knowledge to support post-COVID-19 Response: In consideration of the extreme vulnerabilities of CSIDS and associated economic and livelihood losses due to gathering climate change impacts, loss of biodiversity, pollution and land degradation, and more recently, with the coupling of the extreme fallout from the COVID-19 pandemic, CSIDS must continue to aggressively pursue a development agenda that builds resilience. A key pillar to building this resilience is enhancing the capacity of public sector policy makers and technical facilitators, private sector, communities of practice and wider civil society to effectively adopt and apply green-blue knowledge and tools that have been amassed through the myriad of programme and project interventions not only in CSIDS, but in the global SIDS community. This is particularly relevant against the backdrop that CSIDS are characterized by limited institutional capacities among agencies with lead mandates for sustainable development; hence emphasis on strengthening capacity needs to continue in the direction of broadening the sustainable development agenda to include partners in the academic community, NGOs and CSOs so that they have the appropriate capacities to be knowledge brokers and teachers with the aim of achieving behavior change that enhances resilience of green-blue economies, and safeguard environmental benefits from regional to global levels.

It should be noted that well before the COVID-19 pandemic, this fundamental challenge of the inability to routinely transition knowledge gained toward systematic implementation of green solutions was recognized by the Government of Barbados, informed in its Green Economy Scoping Study[21][21] which among its numerous recommendations, made call for the establishment of a *SIDS-SIDS Knowledge*

Transfer Platform of Green Economy Policies and Practices.[22][22] The United Nations Institute for Training and Research (UNITAR), one of the five UN agencies participating in the Partnership for Action on Green Economy (PAGE)-Barbados Programme, undertook a feasibility study of the SIDS-SIDS Green-Blue Economy Knowledge Hub within a wider scope of supporting Barbados? objectives to integrate inclusive green-blue economy goals and targets into SDG-aligned national economic and development planning. The effort aimed to implement evidence-based sectoral and thematic reforms in line with inclusive green-blue economy priorities, to strengthen capacities at the national level and to improve the inclusive green-blue economy knowledge base.

The concept of the Green-Blue SIDS Knowledge Hub is not new, as it has been embedded in the various international agreed instruments on the sustainable development of SIDS, namely, the Barbados Programme of Action (BPOA), the Mauritius Strategy for the Further Implementation of the BPOA (MS/BPOA) and the SAMOA Pathway. Further, the *XXII Meeting of the Forum of Ministers for the Environment for Latin America and the Caribbean* hosted by the Government of Barbados in February 2021 recognising the importance of the need for a Transfer Knowledge Hub, pursuant to its Decision 8 on the *Environmental Dimension of the Sustainable Development of Small Island Developing States (SIDS)*, called for the development of a Caribbean SIDS COVID-19 Recovery Response to address issues relevant to the economic health of Caribbean SIDS, including the establishment of a regional modality or institutional mechanism in Caribbean SIDS, in the form of a SIDS cooperation and knowledge hub preferably within a regional university, with the view of enhancing knowledge transfer and use among SIDS[23][23].

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Challenge of ineffective knowledge uptake and application from the GEF project partnership: Caribbean SIDS have benefited over the past 30 years from the implementation of GEF-supported investments intended to contribute to the preservation of global environment benefits based on conservation and sustainable use of natural resources in the Caribbean region. Notwithstanding these investments, most countries in the Caribbean remain at a relatively low ability to effectively transform the contributions of the suite of projects into mainstreamed adoption into practice among practitioners both in the public and private sectors particularly in the hospitality and agricultural industries, that are now the basis of Caribbean economies. This is mainly because project investments tend to be managed within a short-term planning ?project-by-project? execution modality within management of the executing agency, without a wider ?permanent? institutional framework that may serve as a knowledge repository with the critical function of creating a learning environment for sustained uptake and implementation of best practice among practitioners and civil society at large. As a consequence, there tends to be no or limited inter-project learning; no well-defined protocol to extract from the various interventions, the green-blue learning components including, *inter alia*, environmentally sound and innovative technologies and policy instruments.

The University of the West Indies, notwithstanding its regional mandate (with campuses in Jamaica, Trinidad and Tobago, Barbados and Antigua and Barbuda), and position as the premiere centre of excellence for higher education in in CSIDS in the English-speaking Caribbean, tends to have limited sustained uptake of GEF learnings within the university, limiting its potential role to advancing the catalytic work of the GEF. Overall, this results in the learnings of the GEF not being systematically mainstreamed into the curricula of the university and that of affiliate centres of excellence. This constitutes a ***long-range problem*** in that countries will not attain positions to fully maximize opportunities to build needed responses to address challenges in maintaining integrity of ecosystem services and creating the opportunities to build a more robust, diversified green-blue economy. This can be extended to the context of realizing integrated green-blue and sustainable COVID-19 recovery efforts, where otherwise relevant information may not be easily accessible to aid with needed accelerated transformational change. This represents a lost opportunity to capitalize on the regional university network that has not only a highly relevant mandate, but also has the inherent capability to help address this gap. However, without sufficient attention paid to connecting the university community to the GEF Partnership in a systematic way, green-blue leaning elements from the projects remain not sufficiently integrated into the curricula of the regional university system, constituting not only a serious knowledge gap but an impediment to sustainability and continuity of practice and replication of lessons learned. In summary; (i) the lack of access to knowledge on successful, evidence-proven applications of green-blue learning elements implemented through GEF projects in CSIDS means that countries will be unable to utilize that knowledge in the post-COVID-19 Green-Blue Recovery, notwithstanding there is global consensus that the best response of building-back-better is via a Green-Blue and Sustainable Recovery approach and (ii) the absence of a methodology and system for documenting successfully implemented green-blue solutions through GEF project investments, a situation that if allowed to persist, would mean that neither CSIDS, nor the GEF, would be reaping maximum benefits of these investments.

The ***long-term solution*** in the context of the GEF Partnership in the Caribbean, is to put in place an institutional *SIDS-SIDS Knowledge Transfer Hub Mechanism* via strong, well-established academic nodes, to ultimately facilitate SIDS in delivering Global Environmental Benefits (GEBs) and maintaining the health of the environment through the extraction of knowledge and learning in a systematic manner, including, inter-alia; environmentally sound and innovative technologies, green-blue approaches and climate resilient methods and tools. The success and lessons from this project that seeks to demonstrate a ?proof-of concept? for knowledge management, are intended to be scaled-up to a wider global SIDS level under the GEF-8 replenishment to include the Pacific and the Atlantic, Indian Ocean and South China Sea (AIS) SIDS.

The approach proposed in this project builds on the GEF?s Response to COVID-19[24][24], in particular, its proposed medium term actions which focuses on d*evelopment of an internal blueprint on how to deploy ongoing and upcoming projects that can help lay the foundation for a green-blue recovery which emphases the identification and integration of* the risks and opportunities linked to COVID-19 and an examination of how the crisis is affecting strategic platforms of engagement on themes such as food

security, cities, mining and the circular economy. It also builds on the GEF?s long term vision to f**urther promote systems change thinking in the strategies to guide GEF?s upcoming 8th replenishment cycle**[25][25] **which provides an opportunity** to explore lasting solutions to addressing the fallout from the current COVID-19 pandemic and mitigating the threat of potential future emergence of zoonotic diseases that could be unleashed from forest ecosystem reservoirs that are subjected to degradation and human interaction. Support from the GEF will contribute to accelerating transformational change to the human systems, including, *inter-alia*; in particular to food, and production and consumption, while ensuring a balance between the use of natural systems and human systems.

Barriers: The project seeks to address three (3) key barriers in the realization of a regional SIDS-SIDS knowledge management hub that will better harness knowledge and green-blue solutions particularly from GEF initiatives to improve long-term sustainability in uptake, application and replication by practitioners, that will ultimately result in improved land, coastal and natural resource management, with the generation of GEBs, in alignment with the proposed project component areas; **(1)** Lack of a systematic, coordinated institutional-level approach and means to ensure that knowledge generated from GEF projects implemented in CSIDS can be extracted and transformed to usable Green-Blue learning opportunities, **(2)** Lack of a demonstrable model and associated methodology for systematic extraction of green-blue learning resources from GEF projects in curricula development and effective delivery means to users, and **(3)** Limited awareness and operational knowledge to support effective dissemination of Green-Blue tools and approaches and their application.

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Barrier 1: *Lack of a systematic, coordinated institutional-level approach and means to ensure that knowledge generated from GEF projects implemented in CSIDS can be extracted and transformed to usable Green-Blue learning opportunities.* In general, there is no *well-defined standing cooperation framework* between the University of the West Indies and organizations serving as implementing and executing agencies for GEF projects to efficiently facilitate knowledge uptake by UWI for transformation to learning resources. In projects where roles have been defined for the university as a partner, the cooperation framework tends to be limited to reviews and technical inputs from university experts in the relevant subject areas over the project duration. It should be noted however that this has not necessarily been the case for projects where the university was designated as Executing Agency; exceptions include projects including, for example, the Regional Biosafety, for which the University of the West Indies, St. Augustine Campus, Trinidad and Tobago served as the Executing Agency. Cooperation tends to be ad-hoc on a project-by-project basis. In GEF project design there is often *no tangible sustainable linkage made between the longer-term utilization of the knowledge products supported through an institutional home*. This is notwithstanding that all GEF projects are required to specify the modality for development of knowledge products and how these products may be used post-project. The general assumption applied is that the knowledge products will be utilized during the course of project implementation, thereafter, mainstreamed within the beneficiary organizations and utilized in code of practice. The result is that *knowledge management remains fragmented and confined to operational context within the projects themselves while active*. Invariably this results in the *university remaining uncommitted to forging deeper and sustainable linkages with the GEF partnership* in the region; the national GEF Operational Focal Points, the GEF Implementing Agencies and the project Executing Agencies. The University has advanced ICT capabilities to support its on-campus and open campus programme offerings, but this *ITC capability has not been evolved toward interface with the project learning opportunities* with particular relevance to the GEF project delivery in the Caribbean. The underpinning problem in post-project application and continued learning is the fact that when the project resources

have been expended there are usually *limited to no financial provisions for continued support*. Across the GEF partnership in the Caribbean there has not been definition of a sustainable model that can assure continuity in terms of stable financial stream to keep knowledge products under active use and further development, a process that can be best maintained within the university tertiary education framework.

Barrier 2: *Lack of a demonstrable model and associated methodology for systematic extraction of green-blue learning resources from GEF projects in curricula development and effective delivery means to users.* Following the contributory elements outlined above that result in Barrier 1, to date, there has been a *no coordinated efforts to devise an approach methodology and system for analysis of and extraction of Green-Blue learning elements* from GEF projects. Since the mode of engagement of UWI in many GEF projects has been limited to the narrow purview of the individual projects, the potential wider and more integrative learning and knowledge management process across projects has not been developed to any degree of full potential. The result is that UWI continues to develop its curricula based on normative approaches meaning that *opportunities to learn from ?live? GEF project knowledge capture and demonstration do not feed into the process of curricula development* at the university. This in turn results in *limited opportunity to test concepts advanced in GEF projects*. The UWI has been widely considered as a hub for extension of knowledge to practitioners in governments and other stakeholder groups through affiliated programmes. However, without an established system to extract green-blue learning elements from existing project and programme interventions being undertaken in CSIDS, including GEF investments, in place, *continued curricula development and rollout processes will not capture the suite of innovative approach and technologies contained in therein*.

The GEF partnership recognizes the importance of ensuring that knowledge products are easily accessible to users and make impact that drives behavior. However, there is a *lack of tailoring potential learning content from projects to current and popular dissemination platforms* that are widely used today, particularly social media, that is quickly becoming among the preferred means of accessing information among younger learners. Another factor that limits investment in sustained knowledge transfer is the fact that even within GEF implementing agencies, there is often *inadequate opportunity for technical specialists/staff to access or engage in capacity building using tools and methods learned from projects* in structured learning settings as part of organizational skills development, for onward support to governments and stakeholders. This means that there is little incentive to build on learning opportunity if specialists are not engaged in routine feedback and validation; a process that the university may be adept in facilitating. The opportunity of translation of best practice and knowledge experience from the GEF project portfolio in the region sees relatively *limited translation into a sustained pathway for transferring knowledge gained from projects that can feed and inform policy and technical aspects of multilateral environmental agreement negotiations*. Expert knowledge provided through project contributions (via consultancy reports, technical notes, guidance notes and best practice protocols) are usually not available in ready-usable formats for negotiators as a means of integrating knowledge from science to policy. Addressing this gap, facilitated university academia will greatly assist the work of the CARICOM and OECS Secretariat in negotiating arenas.

Barrier 3: *Limited awareness and operational knowledge to support effective dissemination of Green-Blue tools and approaches and their application.* Notwithstanding there is global consensus that a green (and blue) sustainable post-COVID-19 recovery is necessary and desirable, a major constraint mitigating against this, is limited operational knowledge on the green-blue tools and approaches available to practitioners across sectors to facilitate this. This is further exacerbated by the *absence of sustainable means to network and exchange information, experiences and practices as well as limited platforms* for stakeholder engagement and interaction. There are a number of constraining factors related to the project context and how knowledge is disseminated. A significant factor is that there tends to be very *limited tracking on uptake and application of tools beyond the life of the projects* due in large measure to inadequacy of sustained communication and stakeholder engagement post-project. Where good practice from project learning is indeed being applied, there tends to be rather *limited visibility and promotion particularly beyond the life of the project*. It follows that there is *inadequate means of assessing utility and application* of these tools. An important related consideration is the *inability to transfer knowledge across socio-cultural contexts* where there may be opportunity; in many cases *language translation is often a limitation*. In general, beneficiaries and partners are sensitized to solicit engagement during project execution in accordance with project-based communications and stakeholder engagement plans. Once the project closes the assumption is that communications and awareness-raising will become part of the work of the project executing agency, but this *communications and awareness-raising is often not sustained post-project due to resource constraints*. This reality will likely persist among local partner organizations; however this deficit could be possibly addressed through the university-led partnership with coordinated ?inter-project? learning opportunities. *Communication approaches across the GEF project partnership in the Caribbean region are often disjointed* and the projects could benefit from a more consistent strategic approach that could be facilitated by an institutional knowledge hub that provides a reference for communications and outreach. This hub can help synergize and amplify the work and reach of other existing knowledge platforms that are available. Finally, there is *limited profiling at major events of effective application of knowledge acquired* through GEF projects in SIDS. There is need to maintain the spotlight on SIDS in development agendas given their inherent vulnerabilities, however there are *low capacities in maintaining presence in global arenas* that would otherwise allow for building new and maintaining existing support networks. Marketplace-type events are important avenues to exchange knowledge, broker collaborations and raise resources, however SIDS are often poorly featured and represented.

2. The Baseline Scenario and Any Associated Baseline Projects

The baseline below presents a synopsis of efforts in enhancing SIDS green-blue knowledge management and application relevant to this project; from the national level in the context of the core project countries, Barbados and Grenada, to the regional level and the wider global level.

Baseline National level ? Barbados: Knowledge management related to environment and sustainable development has been initially underpinned at a policy level by the 2004 *Barbados National Sustainable Development Policy (NSDP)* that outlines the national principles of sustainable development. The NSDP calls for a change in attitude, behaviour and values by all persons, corporations and decision-makers. The lynchpin of this policy is that the primary development objective in Barbados ought to be the optimization of quality of life for present and future generations, while ensuring that economic growth and development is not achieved at the expense of our ecological capital. In this regard, the Government, in partnership with civil society, is committed to providing the appropriate framework to facilitate the attainment of this goal.

Within the scope of the *National Strategic Plan (NSP) 2006-2025*, the Government committed to Building a Green Economy under Goal 4; *Global Excellence, Barbadian Traditions* which provides the blueprint for the realisation of Barbados? vision of becoming a fully developed society that is prosperous, socially just and globally competitive by the end of the first quarter of 20th century. The Plan set the strategic goals in pursuit of the national vision for 2025. Amongst the goals, the Goal Four speaks to ?*Building a Green Economy: Strengthening the Physical Infrastructure and Preserving the Environment?*. Achieving this goal focuses on the protection, preservation and enhancement of physical infrastructure, environment and scarce resources and calls for finding the right balance between the development and the preservation of the physical surroundings. The *Barbados Green Economy Scoping Study (GESS)* followed, with an outline of the necessary steps to move the Barbados economy towards a greener economy and the resulting net benefits that might accrue. Five sectors were of focus; agriculture, fisheries, building/housing, transportation and tourism with four cross-cutting issues; waste, water, energy and land. One of the critical recommendations made in the report is the establishment of a *SIDS-SIDS Knowledge Transfer Platform of Green Economy Policies and Practices*. The NSP was buttressed by the Green Economic Policy outlined in the Government of Barbados? 2007 Economic and Finance statement that established foundation principles for the green (and blue) economy as well as presenting a range of fiscal and programmatic proposals to support sectoral transformation.

Under the *Partnership for Action on Green Economy (PAGE)-Programme* which Barbados joined in 2016 and commenced its programme of work in 2018, the government prioritised the following outcomes; (i) Baseline systems established for evidence-based progress assessment on green and blue economy; (ii) Resource-efficient interventions demonstrated in Agri/Fisheries value chains and infrastructure; (iii) Inclusive green and blue economy principles developed and integrated into evidence-based policy interventions; (iv) Enhanced institutional support for green and blue economy transition; and (v) Enhanced citizens engagement in Barbados? green and blue economy transition. Targeted

outputs include: (i) A Green and Blue Jobs Survey, (ii) A Sectoral Study on the Fisheries Sector- given its Green Economy and Blue Economy potential; (iii) Establishment of a Youth Engagement and Communications platform on Green and Blue Economy; (iv) The Establishment of the Small Island Developing States (SIDS) Green Economy Knowledge Transfer Hub in Barbados; and (v) The Development and Delivery of Training Courses geared towards Inclusive Green Economy and Blue Economy for Barbados and Caribbean Small Island Developing States.

In addition, a project for additional support for green economic recovery entitled *Embedding a Circular and 5Rs Clean and Green Philosophy? in Barbados? Recovery and Associated Consumption and Production Practices,* was submitted for the consideration of the PAGE Board and approved for implementation in Barbados as part of the PAGE-Barbados Programme. Currently, the necessary institutional arrangements are being finalized for its implementation. This initiative has three thematic areas, namely; Thematic Area 1. Impact assessment, support for greening of economic stimulus packages and mobilizing private finance for green recovery; Thematic Area 2. Strengthening collective national ownership of green recovery plans and national discourse on green and inclusive recovery and Thematic Area 3. Targeted capacity building on green and inclusive recovery.

Moreover, Barbados was selected has the host of the Caribbean Centre for Renewable Energy and Energy Efficiency (CCREEE)[26][26], which was established in Bridgetown, Barbados, under the CARICOM framework in Partnership with UNIDO. The centre is working towards integrated and inclusive sustainable energy product and service markets within the Caribbean by mitigating barriers in the areas of policy and regulation, knowledge management, capacity building and investment and business promotion among all 15 CARICOM countries. UNIDO facilitates south-south and triangular cooperation between the various SIDS regions on joint sustainable energy issues and solutions through the platform of the Global Network of Regional Sustainable Energy Centres (GN-SEC)[27][27]. The network covers 36 of 38 SIDS and has collected some experience with regard to SIDS-SIDS cooperation on knowledge management and capacity building. For example, through the CCREEE and PCREEE regional electric mobility policy frameworks were established. This offers space for joint learning.

Recently, Barbados also saw the creation of the Barbados BLOOM Clean Tech Cluster,[28][28] which is providing intelligence and incubation support for local clean tech businesses and start-ups in Barbados. The cluster will be part of the global BLOOM programme covering also other lower and medium-income countries and SIDS.[29][29]

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Baseline National level ? Grenada: The Government of Grenada/Deutsche Gesellschaft f?r Internationale Zusammenarbeit (GIZ)/UNDP *Integrated Climate Change Adaptation Strategies (ICCAS) Project* that ended in 2019 aimed to increase resilience of vulnerable communities and ecosystems to climate change risks in Grenada through integrated adaptation approaches. Key knowledge management elements of the project included increasing the adaptive capacity of communities through the implementation of concrete community-based adaptation actions and dissemination of lessons learned and best practices at the local, national, regional and international levels.

The GCF-funded *Integrated Physical Adaptation and Community Resilience through an Enhanced Direct Access pilot in the public, private, and civil society sectors of Three Eastern Caribbean small island developing states* ***[30][30]*** that started in 2019 includes knowledge management elements associated with *inter alia*, implementation of ecosystem-based adaptation measures for climate-proofing investments and enhancing community resilience to climate impacts manifested in droughts, floods and hurricanes.

The *Grenada National Ecosystem Assessment (NEA) Project* (started in 2020) under a global initiative funded through the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMU), the International Climate Initiative (IKI) with global project oversight by UNEP-WCMC includes knowledge management-oriented outputs that include; communication materials to increase access to the evidence base and facilitate uptake of the assessment findings by practitioners and policy makers, policy support tools and methodologies, a national multi-stakeholder platform to support the assessment process, and to provide ongoing communities of practice facilitating a science-policy interface and case studies and lessons learned made available through relevant communities of practice.

The GEF/UNDP *Implementing a "Ridge to Reef" Approach to Protecting Biodiversity and Ecosystem Functions within and Around Protected Areas (Ridge to Reef) project* supports a ridge-to-reef approach in strengthening land, forest and reef management processes and biodiversity conservation on all terrestrial landscapes and marine and seascapes in Grenada, with focus on marine and terrestrial protected areas. The project will contribute to development of a policy-based legal, planning and institutional/regulatory framework in support of a sustainably managed network of terrestrial and marine protected areas, improve management of landscapes and seascapes by adopting sustainable land management and sustainable forest management principles and practices as a matter of public policy for protection and sustainable use of biodiversity, prevention of land and coastal environment degradation. The project aims to integrate livelihood objectives within the management of forest and marine eco-systems.

Baseline Caribbean regional level*:* There are several institutions and associated cooperation frameworks that have dedicated investment in knowledge management that include those under the CARICOM organizational umbrella and at the Organization of Eastern Caribbean States (OECS) sub-regional level. Although the project focuses on GEF project learning and transformation, these ongoing efforts are critical feeder elements to the proposed knowledge hub mechanism, and in the medium and long term the knowledge components therein will be incorporated and networking with them strengthened.

University of the West Indies Green Economy Group: This group has been researching and publishing on the Green Economy following the completing of the Green Economy Scoping Study. Signature publications from the group cover topics ranging from the impact on stock prices of green firms in emerging markets and exploration of wage differentials between green and non-green industries, the comparative advantage and green goods in the Caribbean to willingness to pay for marine conservation.[31][31]

The XX11 *Forum of Ministers of the Environment for Latin America and the Caribbean (LAC)* pursuant to Decision 8 calls for support to Caribbean SIDS with the *establishment of a Regional Modality or Institutional Mechanism in Caribbean SIDS*, in the form of a SIDS Cooperation and Knowledge Hub preferably within a regional university, with the support of the ITC Agencies and others financial institutions such as the GEF, regional and hemispheric banks (e.g. CDB; Latin American Bank, IADB etc.) and UN Agencies[32][32]. The University of the West Indies, Cave Hill Campus has advised the Secretariat of the Forum of Ministers of LAC of its intention and commitment to the establishment of a SIDS Cooperation and Knowledge Hub; the offer has been accepted by the Forum Secretariat. The Decision of the Forum of Minister of the Environment for LAC is consistent with recommendations made in the *Barbados Green Economy Scoping Study (GESS)* report for the establishment of a SIDS-SIDS Knowledge Transfer Platform of Green Economy Policies and Practices. It is also consistent with directives of Caribbean SIDS conveyed in the San Pedro Declaration (2018) that resulted from a preparatory meeting for the Mid-Term Review (MTR) of the SAMOA Pathway. The Declaration calls for enhancing institutional modalities for the facilitation of SIDS-SIDS cooperation and the establishment of knowledge transfer platforms for SIDS-SIDS cooperation and collaboration using ICT platforms.[33][33]

A key foundational effort of the University of the West Indies upon which this project is being built is the *Feasibility Study of the Establishment of a SIDS-SIDS Green-Blue Economy Knowledge Transfer Hub*. This effort, which was undertaken in 2021 explored the feasibility of establishing a SIDS-SIDS Green-Blue Economy Knowledge Hub at the University of the West Indies, Cave Hill Campus. The Feasibility Study was undertaken within the overall framework of the of Green-Blue Economy Learning Programme, whose goal is to mainstream relevant Green Economy and Blue Economy principles in

university-level-learning interventions that address contemporary sustainable development policy challenges in Barbados and other Small Island Developing States. Barbados, as one of the flagship projects of the UNEP Partnership for Action on Green Economy (PAGE) Programme[34][34] is being piloted in respect to the process and methodology for transformation of the amassed knowledge under the Barbados PAGE Programme to a knowledge exchange hub[35][35]. The feasibility study concluded that the establishment of the SIDS-SIDS Green?Blue Economy Knowledge Transfer Hub is not only feasible; but is relevant and necessary to advance the SIDS agenda. It has been recognized that such a mechanism will can contribute to strategic evolution of Sustainable Development in SIDS and enhance its position in influencing negotiations at the international and regional levels.[36][36]

The mission of the *University Consortium of Small Island States* is to enhance graduate education institutions in SIDS by facilitating the development of the capacity needed to implement the Barbados Programme of Action. Its objectives, include, *inter alia*; improved information flow among members on courses offered, facilities, student needs and relevant documents; cooperative curriculum development, research, indigenous knowledge management and outreach in the key areas of sustainable development of SIDS by supporting resilience building for sustainable development; the sharing of research findings and reference materials resulting from SIDS-focused research. The results emulating from this project will be used to enhance the curricula offered by the Consortium of SIDS Universities which comprise of the University of Malta, University of Mauritius, University of the South Pacific, University of the Virgin Islands and the University of the West Indies.

Cartagena Convention Secretariat, Caribbean Regional Seas Programme. The Cartagena Convention entered into force in 1986 with the mandate of protection of the Caribbean Sea from pollution, protection and preservation of rare or fragile ecosystems and habitats, and development guidelines for planning and environmental impact assessments of important development projects. Projects and activities take place under three programme areas; (i) Assessment and Management of Environment Pollution (AMEP), (ii) Specially Protected Areas and Wildlife (SPAW) and (iii) Communication, Education, Training and Awareness (CETA)[37][37]. The Secretariat provides a knowledge node for Contracting Parties to the Convention, with its third CETA programme area serving the role as the primary node. This knowledge node functions as a repository for information and knowledge derived from the range of projects and activities of the Secretariat. For initiatives the Secretariat is engaged there are separate webpages notably for the larger GEF projects such as the Caribbean Regional Fund for Wastewater Management (GEF CReW)[38][38] and the Integrating Water, Land and Ecosystem Management in Caribbean SIDS (GEF IWEco).[39][39]

The *Sustainable Development Desk of the CARICOM Secretariat* is mandated to focus on coordination and execution of relevant work with regional partners and CARICOM institutions related mainly to Chapter IV of the *Revised Treaty of Chaguaramas Established the Caribbean Community including the CARICOM Single Market and Economy (CSME).*[40][40] Article under Chapter IV of relevance to the environmental and sustainable development agenda include Article 55 on Sustainable Tourism Development, Articles 56.1 and 57 on Agriculture, Article 58 on Natural Resource Management, Article 60 on Fisheries Management and Development, Article 61 on Forest Development and Management, Article 65 on Environmental Protection. The Sustainable Development Desk of the Caribbean Community Secretariat is currently in the process of facilitating the finalisation of the *Community Environment and Natural Resources Policy Framework* for consideration of the Council on Trade and Economic Development (COTED) of the Caribbean Community. It is anticipated that SIDS-SIDS Green-Blue Economy Knowledge Hub will play a significant role in support the implementation of the Action Plan linked to the operationalisation of the Policy Framework. The Sustainable Development Desk also

provides networking support within the Treaty framework to support negotiations and knowledge management and sharing. Some of this is being supported under the (EU-funded) *Caribbean Hub ? Capacity Building Related to The Implementation of Multilateral Environmental Agreements (MEAs) In African, Caribbean and Pacific (ACP) Countries* in collaboration with UNEP?s Law Division.[41][41] In addition, a number of the Caribbean Community?s Institutions also have environmental mandates including knowledge management and capacity building support functions and will therefore benefit from functional linkages with the Hub.

At the sub-regional level, the *Organisation of Eastern Caribbean States (OECS)* maintains a Knowledge Centre; *?OECS No'laj tje'*[42][42] a dedicated online platform that carries resources on a variety of thematic areas that the agency is engaged with. The thematic areas related to environment and sustainable development, specifically biodiversity and ecosystems management, climate and disaster resilience, energy and oceans governance are in general alignment to the St. George?s Declaration of Principles for Environmental Sustainability in the OECS.

The *Partnership Initiative on Sustainable Land Management (PISLM*) for Caribbean SIDS, an inter-governmental convening mechanism for the Caribbean SIDS participation in the UNCCD is currently executing a number of GEF projects. One of those projects *Caribbean Small Island Developing States (SIDS) Multicountry Soil Management Initiative for Integrated Landscape Restoration and Sustainable Food Systems: Phase 1 (CSIDS-SOILCARE Phase 1)* has significant knowledge management components, which not only serves as a baseline for this project but also provide the basis for synergetic collaboration between these two GEF projects. Of particular interest is the proposed establishment of the establishment of *Caribbean Land Degradation Neutrality (LDN) and Sustainable Land Management (SLM) Knowledge Hub and Caribbean SLM/LDN SIDS-SIDS Cooperation Mechanism* In addition, the PISLM has a series of commitments and action-oriented coalitions focused on deliverables, intended to translate political commitment into action. The PISLM serves as a mechanism to facilitate exchange of experiences and good land management practices between participating countries. Furthermore, the initiative serves as a mechanism for stimulating the replication of various approaches, tools and methodologies throughout the region[43][43].

The Caribbean Natural Resources Institute (CANARI) works with communities in research, policy influence and capacity building for participatory natural resource governance in the Caribbean. The organization hosts the *CANARI Knowledge Hub* aimed to connect and network on themes related to Caribbean sustainable development, natural resource governance and management[44][44].

Baseline - Global level: There are numerous global knowledge management platforms available to GEF project management, collaborating partners and stakeholders in the Caribbean, in addition to the resources available through regional partners. None of them however are specifically dedicated to SIDS sustainable development nor the extraction of green-blue learning elements from projects and programmes which have been implemented in SIDS. These platforms however provide foundational bases upon which investment in knowledge management platforms tailored for SIDS can be made. The following are key initiatives that have been commonly used in project development, knowledge capture and dissemination to support decision making and practitioner application. The overview is not exhaustive.

Global Environment Facility: GEF Kaleo[45][45] is an online knowledge sharing system to provide a ?question and answer? platform to service GEF partners and stakeholders across the globe to assist with

common queries. The *GEF Academy*[46][46] provides an online and face-to-face curriculum of courses and learning events designed to enhance the capacity of GEF partners and stakeholders in execution of GEF-funded initiatives. The platform offers a catalogue of self-paced online courses and facilitated webinars, as well as face-to-face training events that draw on the latest knowledge and information regarding GEF policies, procedures and guidelines. Courses also provide best practices relevant to GEF investments, global expertise, technical information and lessons learned. *GEF-IW:LEARN****[47]***[47] is the International Waters Learning Exchange and Resource Network established to strengthen transboundary water management around the globe by collecting and sharing best practices, lessons learned, and innovative solutions to common problems across the GEF International Waters portfolio. It promotes learning among project managers, country official, implementing agencies, and other partners. An important baseline is the newly launched GefIslands.org[48][48] Knowledge Platform developed under the *Communication, Coordination and Knowledge Management (CCKM) Project*, under the *GEF-funded Implementing Sustainable Low and Non-Chemical Development in Small Island Developing States (ISLANDS) Programme*. GefIslands.org is intended to serve as a knowledge hub and repository for SIDS knowledge on chemicals and waste.

UN Convention on Biological Diversity: *The Clearing-House Mechanism (CHM)* has been established further to Article 18.3 of the Convention and Decision X/15 to provide effective information services and other appropriate means in order to promote and facilitate scientific and technical cooperation, knowledge sharing and information exchange, and to establish a fully operational network of Parties and partners***[49]***[49]. The *Biosafety Clearing-House (BCH)****[50]***[50] has been established under Article 20 of the Cartagena Protocol on Biosafety to facilitate the exchange of information on Living Modified Organisms (LMOs) and to assist Parties in complying with their obligations under the Protocol. Under the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization, the *Access and Benefit-sharing Clearing-House (ABSCH) Knowledge Base****[51]***[51] is an online tool designed to help users become familiar with the Clearing-House, learn how to submit records, search for information and complete other important tasks.

UN Convention to Combat Desertification: The UNCCD Secretariat *Knowledge Hub*[52][52] supports knowledge-management tasks, together with the Committee on Science and Technology (CST), by providing a framework for organizing scientific and technical information and access to best practices. The Knowledge Hub seeks to connect national, regional and global platforms and networks to create an access point for sharing proven best practices and scientific knowledge on desertification, land degradation and drought (DLDD).

UN Framework Convention on Climate Change: The *Adaptation Knowledge Portal (AKP)****[53]***[53] is a product of the Nairobi Work Programme (NWP), the UNFCCC knowledge-for-action hub for climate adaptation and resilience. The AKP aims to provide access to information and knowledge on climate change adaptation, and on the work of related work streams under the Framework Convention on Climate Change. The AKP builds on the worldwide contributions of policy-makers, practitioners and researchers to offer first-hand information and actionable knowledge for end-users.

UN Environment Programme: The *Publications & Data portal****[54]***[54] hosts a wide range of environmental resources that include real-time data tools and platforms to key reports, publications, fact sheets and interactives. *Earth School*[55][55] was co-created by UNEP and Ted-Ed to provide children,

parents and teachers with engaging nature-focused content to stay connected to nature during the global COVID-19 pandemic, which has seen approximately 1.5 billion children out of school. Earth School takes students on 30 quests, each focused on a different nature-related topic. The Forum of Ministers of Environment for LAC supported by the UNEP Office for Latin America and the Caribbean, also established UNEP Environmental Training Network for Latin America and the Caribbean. That network includes a number of subregional university knowledge-based partnerships and alliances including the Mainstreaming Environment and Sustainability in the Caribbean Universities (MESCA). During the XXI Meeting of the Forum of Ministers of Environment of Latin America and the Caribbean (Buenos Aires, Argentina, 2018), in the Declaration of Buenos Aires[56][56], the countries agreed to strengthen environmental education as a cross-cutting issue and provide more support to the Environmental Training Network of Latin America and the Caribbean to promote cooperation in the exchange of experiences among the countries of the region, generating synergies with other initiatives and networks that promote environmental education[57][57].

UN Industrial Development Organisation: A PAGE partner agency, hosts an *Online Knowledge Hub* inclusive of a Training Academy, Online Tools for policy makers, institutions, enterprises and consumers, as well as database with a range of technical publications.

International Labour Organization Peer Learning Hub for Enterprises in Asia Pacific: An all-in-one platform providing training materials and information related to the ILO?s activity-based and peer learning programmes implemented in the region, allowing partners, providers and beneficiaries to access key resources online[58][58]. ILO is a PAGE partner.

UN Food and Agriculture Organization: The *Resources portal* hosts data, interactive stories and publications accessible via the main portal. The FAO Regional Office for Latin America and the Caribbean hosts platforms for publications and multimedia[59][59] and project/programme information[60][60]. The FAO also maintains a SIDS solutions platform for knowledge exchange[61][61].

UN Development Programme: Sustainable development resources relevant to Latin America and the Caribbean are hosted under links to the various programmes and initiatives of the agency[62][62].

UN Institute for Training and Research (UNITAR) provides innovative learning solutions to individuals, organizations and institutions to enhance global decision-making and support country-level action. The agency offers toolboxes and expertise in learning, facilitation and process design methodologies, assisting to co-create tailor-made solutions for the specific needs of partners[63][63].

UN Programme on Reducing Emissions from Deforestation and Forest Degradation (FAO, UNDP, UNEP): The *REDD+ Academy*[64][64] is a coordinated REDD+ capacity development initiative led by the UN-REDD Programme and the UNEP Environmental Education and Training Unit, which seeks to match the scale of the global climate change mitigation challenge and enable systematic, focused capacity development to deliver REDD+ on the ground. The REDD+ Academy is a comprehensive response to capacity building needs identified by the countries receiving support from the UN-REDD Programme.

Other organisations: There are numerous other development organizations that work with stakeholders in the Caribbean with focus on sustainable development and supporting investments in green-blue

economy opportunities and lend support through dedicated knowledge management platforms. These agencies host substantial resources on their respective web platforms. Some examples of the agencies with a wide engagement in the Caribbean region and their KM portals include the *International Union for Conservation of Nature (IUCN)* resource portal at https://www.iucn.org/resources, the *World Resources Institute (WRI)* with various KM portals https://www.wri.org/.

3. The Proposed Alternative Scenario with a Brief Description of Expected Outcomes and Components of the Project

Project Overview: The GEF?s incremental funding and co-financing resources will be used to overcome the identified barriers that generally hinders the country from effectively adapting, replicating and upscaling knowledge gained from collective project investments primarily in sustainable land and coastal area resource management that could otherwise position the country to move more quickly toward a green-blue sustainable resource management pathway that is now urgently needed in the wake of the COVID19 pandemic. The project will be oriented with primary alignment to the GEF Land Degradation focal area as the entry point, toward the objective of supporting countries to create enabling environments to support scaling up and mainstreaming of sustainable land management (SLM) and land degradation neutrality (LDN). However, given the cross-sectoral approach the project will need to adopt, considerations under GEF?s International Waters focal area objective of strengthening blue economy opportunities through sustainable healthy coastal and marine ecosystems will also be applicable, particularly in the context of watershed to coastal area nexus (ridge-to-reef) in SIDS. Additionally, the GEF Chemicals and Waste focal area objectives whereby countries are supported in strengthening sound management of industrial, agricultural chemicals and their waste through better control, and reduction and/or elimination and associated enabling environments to manage harmful chemicals and waste are also relevant in the context of interconnected circular-economy approaches to mitigate environmental degradation.

The project?s theory of change is underpinned by the desired intermediate state of realizing the increased and sustained replication of green-blue solutions in post-COVID recovery through (i) enhanced planning and development decisions that benefit from the wealth of GEF project knowledge contributions and (ii) and empowered and vibrant community of practice that actively exchanges information and experiences to promote and apply green-blue solutions. Ultimately the project will contribute to making the communities of the Caribbean more resilient to external shocks such as the COVID-19 pandemic, and the threats of climate change and lessening the degradation risks posed the country?s ecosystems that will contribute to expanded global environmental benefits.

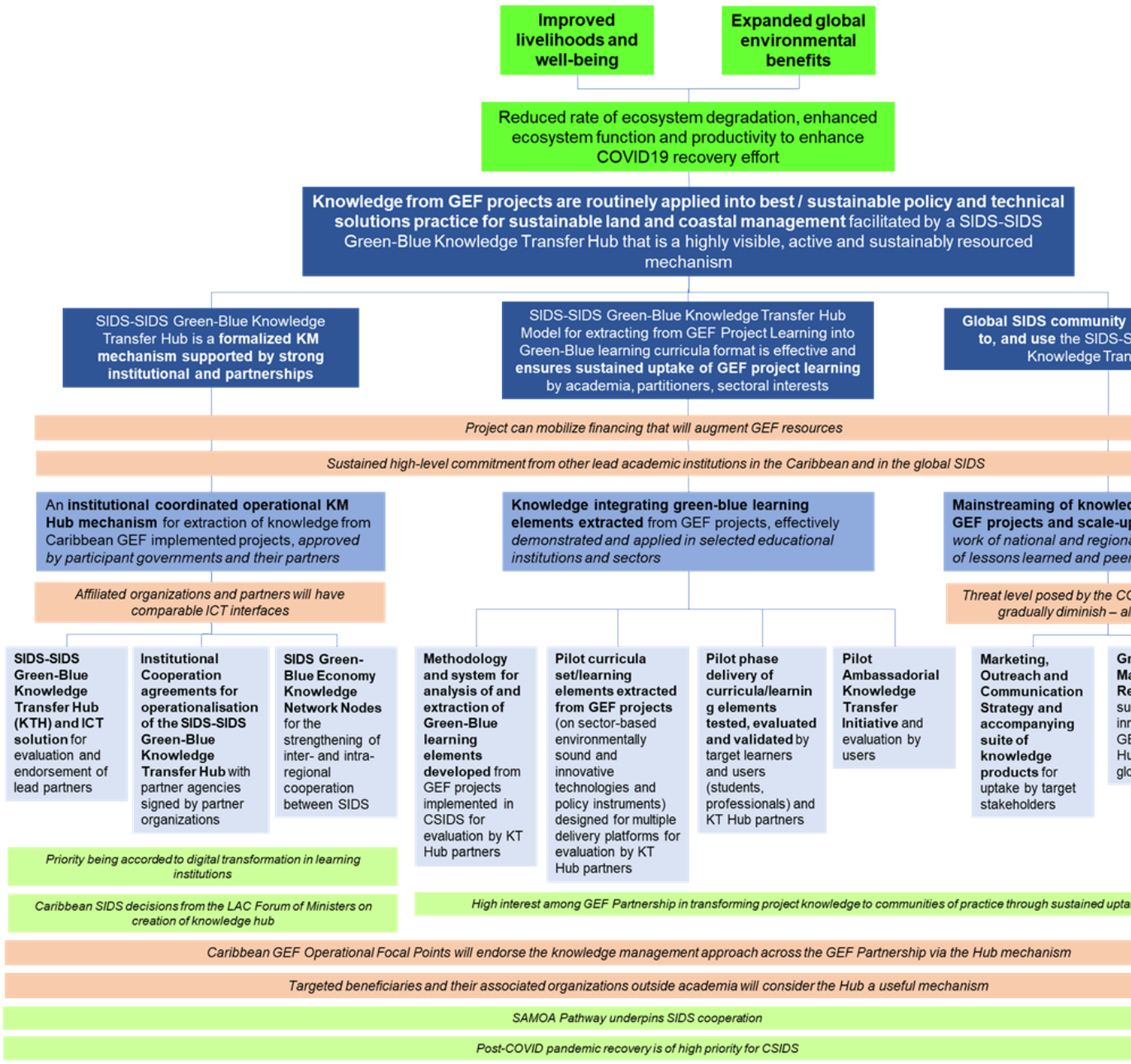
Project alignment to UNEP?s Medium-Term Strategy (MTS) and Programme of Work (PoW): The project is aligned to UNEP?s 2022-2025 Medium Term Strategy (MTS) and Programme of Work (PoW) where it will contribute to the *Nature Action Programme* Outcome 2B: *Sustainable management of nature is adopted and implemented in development frameworks* supported by the *Digital transformations subprogramme*.

The relevant indicators of the Expected Accomplishments (EAs) to which the project contributes are; under the Nature action subprogramme; Indicator (i) *Number of national or subnational entities that, with UNEP support, adopt integrated approaches to address environmental and social issues and/or tools for valuing, monitoring and sustainably managing biodiversity* and under the Digital transformations sub-programme: Indicator (ii) *Number of business alliances, partnerships and networks leveraging environmental data and digital transformation approaches to incentivize environmental sustainability and a circular economy within financial markets*. The project will contribute substantially to the Nature Action Programme Direct outcome 2.7: *Natural assets are valued, monitored and sustainably managed*.

Programme Coordination Project (PCP) alignment: This project will fall under the *Mainstreaming Biodiversity and Ecosystem Services Across Sectors and Systems* PCP and the *Digital Transformation* PCP.

Assumptions: The project considers the following assumptions that will need to hold to realize the anticipated outcomes through the proposed causal pathways. A core assumption is that the GEF Operational Focal Points on behalf of the Governments will endorse the knowledge management approach for uptake and learnings from GEF projects via the Knowledge Management Hub as proposed by the project, and express commitment to work closely with the University of the West Indies as the lead proponent in application of the approach in the long-term with GEF Caribbean Partnership and wider to SIDS at the global level. A central assumption is that targeted beneficiaries and their associated organizations outside academia will consider the Hub a useful mechanism relevant to support of enterprise development and livelihood enhancement around green and blue economy opportunities. The project assumes that there will be a sustained high-level commitment from other lead academic institutions in the Caribbean and in the global SIDS affiliated to the University of the West Indies, toward building and strengthening long-term collaborative arrangements as partners in the KM Hub. It is assumed that affiliated organizations and partners will have comparable ICT interfaces with appropriate bandwidth that will enable the flow of data and information from the Hub and that they will have capabilities to ensure uptake among their user groups. A critical assumption is that the project will be able to successfully mobilize financing that will augment GEF resources and create the conditions for sustainable financing of the Hub post-project. Finally, the project assumes that the threat level posed by the COVID-19 pandemic will gradually diminish by the time the project is mobilized and that health protocols associated with the need for travel and networking no longer cause further significant disruptions.

The project design is reflective of the causal pathways captured in the theory of change in Figure 1 below.



Causal pathway 1

Barrier Cluster 1: Lack of a systematic, coordinated institutional-level approach and means to ensure that knowledge generated from GEF projects implemented in CSIDS can be extracted and transformed to usable Green-Blue learning opportunities

- *Poorly defined knowledge management cooperation framework for GEF projects in the Caribbean*
- *No recognized institutional home for knowledge products generated by Caribbean GEF Partnership*
- *Knowledge management effort typically confined to active project lifespan*
- *Institutional ICT capabilities not configured to exploit GEF project learning opportunities*
- *Limited financial provisions for continued knowledge management support post-project*

Causal pathway 2

Barrier Cluster 2: Lack of a demonstrable model and associated methodology for systematic extraction of green-blue learning resources from GEF projects in curricula development and effective delivery means to users.

- *No methodology for analysis of and extraction of Green-Blue learning elements*
- *Opportunities to learn from 'live' GEF project knowledge capture do not feed into curricula development of academic institutions*
- *Lack of tailoring potential learning content from projects to commonly used dissemination platforms*
- *Inadequate opportunity for technical specialists/staff to access or engage in capacity building using tools and methods learned from projects*
- *Limited transferal of knowledge gained from projects to inform policy and technical aspects of multilateral environmental agreement negotiations*

Causal pa

Barrier Cluster 3: Limite operational knowledge t dissemination of Green- approaches and their ap

- *Absence of means to net information, experiences*
- *Limited tracking on uptak beyond project life*
- *Inability to transfer knowl contexts*
- *Communications/awarene post-project*
- *Communication approach partnership in the Caribbe*
- *Limited profiling at major application of knowledge*

Figure 1. Project theory of change

This project will establish a new paradigm for the treatment of knowledge with respect to green-blue tools, methods and innovative technologies resulting from projects being implemented in CSIDS. The project therefore intends to break the barrier of disjointedness with respect to treatment of knowledge management by facilitating change from a passive position of simply a recognition that projects implemented have made a contribution to knowledge, to one in which the knowledge is stored, used as learning and research tools by their integration into curricula development and made accessible to a wide cross section of stakeholders; including practitioners in the field. In addition, the project will demonstrate proof-of-concept to work out operational and partnership modalities. The project also contributes to improving the enabling environment for sustainable land management (SLM) and Land Degradation Neutrality (LDN) in Caribbean Small Island Developing States (CSIDS), and SIDS, in general.

The project seeks to deliver intended outcomes under three project components. Investment under **Component 1** will realize the outcome of stakeholders adopting an SIDS-SIDS Green-Blue Knowledge Transfer Hub as an effective mechanism to consolidate, disseminate, uptake and apply knowledge harvested from GEF projects in Caribbean SIDS. Investment under **Component 2** will realize strengthened stakeholder capacities and means enabled to uptake Green-Blue learning elements which become foundational best practice among user community. In this regard, case studies from Barbados and Grenada will be used as pilots to test the methodologies for extraction of green-blue leaning elements and innovative approaches, and transformation into curricula based on analysis of GEF projects. **Component 3** will focus on enhancing sustainability, application and scale-up as well as increasing awareness and buy-in to the knowledge transfer hub with active use among stakeholders. An integral part of Component 3 will be the application of Green-Blue Knowledge to the implementation of a number of specific activities with a particular orientation to the private sector in particular micro-, small and medium sized enterprises.

Component 1: Establishment of a SIDS-SIDS Green-Blue Environmental Knowledge Transfer Hub as a formalised mechanism: This Component will facilitate strengthening of the institutionalisation of the SIDS-SIDS Green Knowledge Transfer Hub at the University of the West Indies, Cave Hill Campus, to advance the foundational efforts already developed through the PAGE-Barbados Programme and as endorsed by LAC Ministers of Environment in 2021. The process will entail building partnerships and alliances, particularly with organisations and mechanisms across the world promoting Green-Blue Growth Strategies, analyze information capture and utilisation among users across all stakeholder interests, determine opportunities for enhancement and the operationalisation of a system that will meet the needs of users, built on a sustainability framework that will ensure continuity. The **overall vision** of the SIDS-SIDS Green-Blue Knowledge Transfer Hub (KTH) is to provide an operational mechanism to connect, collaborate and communicate and to share knowledge and information across national boundaries between SIDS and its peoples, nationally, regionally and globally; particularly on the green-blue economy in the context of sustainable development and poverty eradication as one of the important tools available for achieving sustainable development.[65]65

The KTH will facilitate the extraction of knowledge and learning in a systematic manner to also deliver global environmental benefits and maintain the health of the environment. Within the scope of project support it will lend specific focus to improving the enabling environment for sustainable land resource

management by making knowledge on sustainable land management in the CSIDS more accessible including highlighting the linkages with biodiversity and climate change. The effort will make a significant contribution to enhancing awareness so as to influence policy and supporting actions in moving toward Land Degradation Neutrality (LDN) and meeting the ambition of the Kunming-Montreal Global Biodiversity Framework (2022). It should be noted that while the project places emphasis on land resource management (in line with the GEF focal area strategy and objective under which this project falls), it does not negate ecosystems assets and services that are associated within the coastal zones that are at the core of blue economy opportunities. The specific functions of the KTH will include, *inter alia*:

? Facilitate CSIDS and SIDS globally in delivering global environment benefits (GEBs) through the extraction of knowledge and learning, including from GEF projects implemented in CSIDS in a systematic manner and to contribute to maintenance the health of the environment. Caribbean GEF projects will constitute the principal core set of initiatives that will be used to develop and build the methodology within the scope of the project.
? Serve as the vehicle through which green-blue learning components of the myriad international instruments to which Caribbean SIDS (CSIDS) and SIDS-global have committed to, are extracted and translate into Green-Blue learning products and processes for integration into formal teaching at the tertiary level and practical action on the ground.
? Serve as a SIDS institutional mechanism to support mainstreaming, coordination and implementation of learning, education, applied research, and analytical components of activities developed within the framework of the Partnership for Action on Green Economy (PAGE), in particular, PAGE Barbados, inclusive of the activities resulting therefrom, as well as activities designed to ?build back better? in the post COVID-19 pandemic world.
? Facilitate knowledge product development, knowledge sharing and provide a knowledge management platform for accessing knowledge on SIDS-specific innovative green and blue economy tools and solutions with reference to relevant SIDS instruments agreed by the international community (e.g. the Barbados Programme of Action (BPOA), the Mauritius Strategy for the Further Implementation of the BPOA and the SAMOA Pathway) and the Sustainable Development Goals (SDGs). In the context of the SDGs,of which many are directly relevant (Golas 2,6,7,8,12,13,14,15), the project will also be complementary to efforts to assess progress on sustainable development that complement gross domestic product metrics related to SDG goal/indicator 17.19.
? Provide a training platform for targeted audiences through a portfolio of foundational and specialized courses and programmes for various audiences in SIDS in support of the SAMOA Pathway and Sustainable Development Goals, connected principally to sustainable land resource management with concomitant influences on coastal areas and resource use. Training interventions will target key sectors including, *inter alia*, fisheries, agriculture, manufacturing, energy and tourism and will cater to the most urgent needs of national stakeholders, as identified in key policy announcements of the target countries as well as the re-inception mission of PAGE Barbados in November 2018.
? Facilitate SIDS - SIDS country technical exchanges and thematic workshops.

An ICT support solution for the KTH (KTH ICT Platform) will be implemented under the project that takes into consideration the need for effective connectivity with SIDS both within the Caribbean and beyond, and for building relations with Green and Blue Economy institutions worldwide. The requirements for the appropriate web-accessible ICT solution to support the KTH were assessed during the PPG phase and will be installed during project implementation. This KTH ICT Platform is designed as a content management system and will be the Hub?s interface to online users. Operational and cooperation modalities between organisations engaged in the Caribbean GEF Partnership and other stakeholders and beneficiaries will be elaborated, and organisational commitments via MOUs and other instruments for engagement will be secured. This will include pathways for sustainability and financial viability for long-term operation of the KTH.

The project will contribute to enhancing SIDS-SIDS cooperation on inclusive green-blue economy learning through environmental and sustainable development knowledge exchange between CSIDS and SIDS-Global as an integral part of the KTH?s focus. This effort will not only facilitate the mainstreaming of relevant Green-Blue Economy principles in university-level-learning interventions that address

contemporary sustainable development policy challenges faced by Barbados and Grenada, and also other SIDS, and will be used as a basis to enhance collaboration with various development and knowledge management partners working within SIDS as well as non-SIDS partners, including other potential users such as the private sector, scientists, NGOs among others.

Outcome 1.1: An institutional coordinated operational Transfer KM Hub mechanism for extraction of knowledge from Caribbean GEF implemented projects, approved by participant governments and their partners.

Output 1.1.1. SIDS-SIDS Green-Blue Knowledge Transfer Hub (KTH) and ICT solution for evaluation and endorsement of lead partners:

The Green-Blue Economy Knowledge Transfer Hub represents the central institutional node and will be located under the Office of the Deputy Principal of the Cave Hill Campus. The knowledge flow process to and from the KTH will consist of six major steps; these are:

1. **Identification and Collection of Knowledge**: In addition to the cohort of GEF Caribbean projects, relevant knowledge will also be sourced from outputs of key multilateral and bilateral processes in which Barbados, Grenada (as core project countries) and SIDS have participated at the regional and global levels, PAGE Economy processes and activities. To support this process, a Scientific and Technical Advisory Group (STAG) which will be established as an advisory body to the KTH within the scope of the project and beyond. The STAG will be fundamental to the operations of the KTH serving the following key functions: (i) provide technical guidance to project implementation, (ii) advise on knowledge transfer tools and methodologies related to innovation and new areas of research on sustainable development of SIDS, (iii) analyze and synthesize relevant existing knowledge that will be taken up under the Hub, (iv) perform quality control functions particularly with respect to content management of information, (v) contribute technical inputs in SIDS negotiations at regional and international levels as may be required.

2. **Knowledge Organisation and Processing**: Once the knowledge is identified and received by the KTH, it will be checked for accuracy and quality and appropriately formatted before being uploading to the Platform to be accessed by users.

3. **Knowledge Storage:** The knowledge resources are then stored in a format which is easily accessible by potential users of the KTH ICT Platform.

4. **Knowledge Sharing Access and Distribution:** Once the knowledge is organized, stored and available for access, the principal users, at the University of the West Indies, Cave Hill Campus will be automatically informed to the new resources availability. To be able to access the knowledge in the KTH database, users will need to register before access is given. An online registration system will therefore be an integral part of the KTH ICT Platform. The knowledge accessed will be used for a number of purposes, including the development of specific learning products to be delivered at the University level and professional development purposes; project development and the provision of policy guidance and decision making.

5. **Creation of New Knowledge**: New knowledge includes new technologies and scientific developments, in particular, knowledge extracted from GEF projects implemented in CSIDS. In addition, appropriate mechanisms will be established during the course of project implementation to contribute to the generation of new knowledge. Specialist working groups, both closed and open, will be facilitated. The KTH will be supported by the STAG in this regard.

To facilitate the KTH operationalisation, a *KTH ICT Platform* will be established at the UWI-Cave Hill Campus to be operated with the necessary technical support from the UWI-Cave Hill Campus ICT Services. The KTH ICT Platform will leverage UWI Cave Hill Campus? ICT infrastructure and services for (i) course registration, (ii) financial management, (iii) video conferencing, (iv) email, storage and productivity tools, (v) network connectivity and internet services, and (vi) technical and project management services for the implementation of the KTH. During the PPG phase, UWI-Cave Hill CITS designed the ICT components needed to establish the KTH. A five?phase approach was adopted that entailed (i) review of background documentation to gain a high?level of understanding of the principle objectives and components of the proposed Green-Blue Economy Knowledge Transfer Hub, that considered the Feasibility Study commissioned by the UWI, further informed by consultations during the PIF development with key stakeholders, (ii) needs assessment to determine and confirm the requirements of the proposed system, (iii) requirements elicitation and analysis, (iv) identification of viable system solution options and (v) cost estimation for establishment of the system.

The proposed KTH ICT Platform will be a customised cloud-based solution that facilitates the core knowledge management and collaboration requirements of the KTH. Its initial feature set will include (i) establishment of the KTH branding to generate the custom look for the Hub, (ii) institute user account management that enables user registration and access levels, (iii) management of public and registered users-only content, (iv) serving of targeted content to users, KTH personnel and staff, special interest groups such as SIDS nodes, donors and other content providers, (v) serving of collaboration and communication tools, (vi) support custom workflows for knowledge lifecycle management, (vii) manage roles and permissions to facilitate careful vetting of knowledge content prior to publication, (viii) enable reporting capabilities and (ix) facilitate integration with and interfaces to selective third-party solutions. Specific integrations and interfaces with the existing UWI Campus ICT system will include, *inter alia*;

? UWI Cave Hill learning management platforms to facilitate the development and delivery of courses. In addition, the learning management platform will provide proven integration with reputable video conferencing solutions and where needed allows for assessment and competency measures;
? UWI Cave Hill course registration and payment portal to facilitate easy online payment;
? UWI Cave Hill finance system for fund management.

Further interfaces will come from the wide collection of the MS Office 365 productivity tools, which includes email, private storage, internal project collaboration, telephony services and a collection of applications. The KTH ICT Platform will be built on virtualized infrastructure with the flexibility to scale up based on usage and storage demands. The platform will follow best practice in the deployment of a production and test environment, security management, maintenance and support to retain operability as well as incorporation of disaster management system protocols and system redundancies to ensure availability and continuity. The details of the ITC design study including preliminary costs are contained in Annex T1.

Under the overall direction of the ICT Specialist (refer to Annex M for draft TOR), the project anticipates the KTH ICT Platform will be installed and rolled out in a testing phase by the Second Quarter of Year 1 for full operation by Quarter 3 of the Project Implementation. The operational effectiveness and user feedback will be assessed on a routine basis toward enhancement of the solution and final configuration. It is anticipated that by the end of the project there will be *at least 5,500 registered user interactions with KTH ICT Platform*. This target will be validated at project inception.

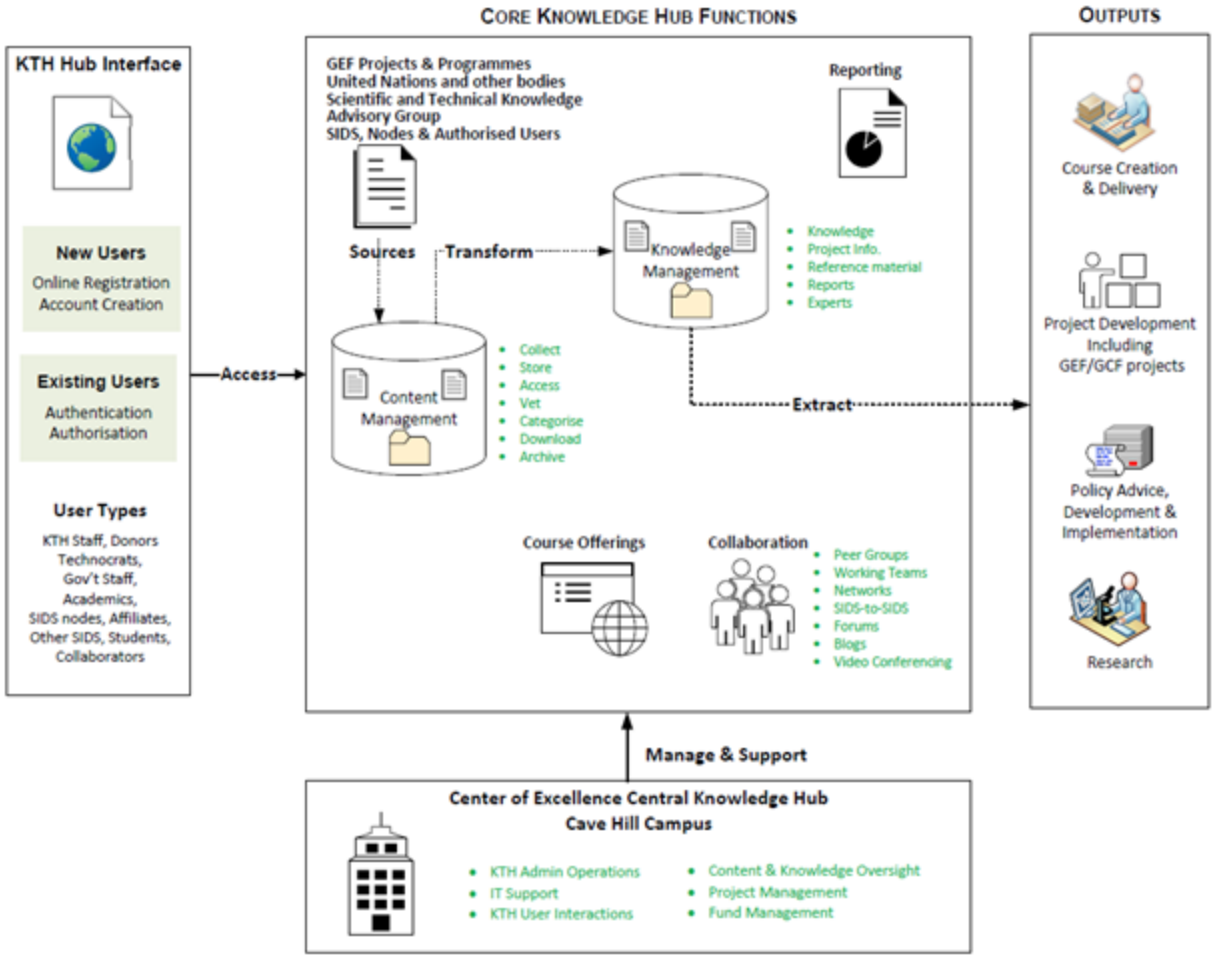


Figure 2: Representation of the KTH ICT Platform

In the context of this project, a key recommendation is that future GEF projects to be developed and implemented in CSIDS include to the extent practical, explicit Knowledge Transfer Elements that will be implemented by the KTH via explicit financed agreements with UWI. In this regard the KTH will execute knowledge management aspects of the projects as relevant in providing services to the projects in transformation of learnings to curricula, working with policy and technical specialists affiliated with the projects. Such financed arrangements for knowledge management will fill the gap related to ensuring continuity of GEF project knowledge use and adaptation that currently obtains and maintain an active permanent knowledge home in the KTH. This new and innovative approach will be elaborated further with the project countries, Caribbean SIDS and the GEF during the implementation of the Project.

To assure long-term sustainability and viability of the Knowledge Transfer Hub, is the identification of possible sources of financing though the formulation and execution of a *KTH Sustainability and Resource Mobilization Strategy*. The Feasibility Study on the Hub[66][66] included recommendations that will be integrated within the Strategy. An important element of the KTH Sustainability and Resource Mobilization Strategy will be the establishment of a dedicated *SIDS Sustainable Development Endowment Fund* to provide support for innovative research and policy development on the sustainable development in CSIDS, within an ?Environmentally Sound, Climate Resilient, Green-Blue Economy Framework? aspired to by countries. Resources secured by the proposed Endowment Fund may be derived from different sources including public sector contributions from CSIDS, regional donors,

partnerships with the private sector, revenue generated from commercialization of the activities of the KTH (e.g. offering of academic and professional courses, and research support services), development finance institutions (DFIs) and the international community. Further, within the framework of the Inter-Agency Partnership Mechanism (IAPM), a Forum of Regional Development Banks and funding oganisations of which SIDS are members will be established with the view of leveraging resources for promoting KM as an integral part of SIDS sustainable development, on an ongoing basis. To streamline the management of the resources mobilized in support of the operations of the Hub, a separate ?SIDS Account? will be established in the University System at the Cave Hill Campus. The project aims to *raise at least US$10 million in cash and in-kind resource commitments to the work of the KTH through collaborative work* by the end of the project.

A Resource Mobilization Specialist, financed by the project, will develop the KTH Sustainability and Resource Mobilization Strategy, including the development of a portfolio of complementary project and programme interventions, designed to contribute toward assuring financial sustainability of the Hub.

Output 1.1.2. Institutional Cooperation Agreements for operationalisation of the SIDS-SIDS Green-Blue Knowledge Transfer Hub with partner agencies signed by partner organizations

A major strategy of the KTH will be the development of partnerships and alliances with organizations affiliated with Caribbean SIDS in the first instance, and organizations associated with SIDS at the global level as well as with a wide cross-section of key environmental and sustainable development stakeholder agencies across the globe such as green growth organisations, PAGE organisations, regional SIDS Secretariats among others. During the PPG design phase an initial assessment of mandates and capacities of various partners already engaged with development of this initiative and to be engaged in the Hub was carried out to determine roles in governance, technical and policy contributions to the Hub within a proposed *Inter-Agency Partnership Mechanism (IAPM)*. The IAPM, will facilitate the coordination of partner agencies (e.g. PAGE agencies; agencies pursuing green economy activities, bi and multilateral agencies, civil society etc.) with which the KTH will be working with. It will provide one of the means through which the KTH can extract and curate knowledge from across multiple fields of relevance to sustainable development in SIDS, by fostering cooperation and collaboration, harnessing and the consolidation of targeted technical and capacity development assistance.

The IAPM is expected to *convene special working groups* based on specific thematic areas to enhance knowledge pathways from source generation to realize effective use within communities of practice. These working groups may be convened as needed in association with the PAGE Agencies and the associated GEF projects. Given that origin of the KTH initiative was triggered by a decision of the XXII Meeting of the Forum of Ministers of the Environment for Latin America and the Caribbean, a Working Group will be established to activate a relationship with the Forum to review progress and assure that the Hub effectively delivers in its support in implementation of the Decisions of the Forum of Ministers related to circular economy (LAC Circular Economy Coalition for Latin America and the Caribbean[67]67), and Post COVID-19 sustainable recovery and knowledge management on CSIDS.

In addition, within the framework of the Inter-Agency Partnership Mechanism (IAPM) the Hub will *facilitate the convening of regional economic and trade cooperation Secretariats* in the context of determining how knowledge flows generated as a result of the project interventions under the KTH can be effectively contributed to joint planning in the frame of strengthening of ?SIDS collectivity?. In addition to the CARICOM and the OECS Commission of the Caribbean region, other Secretariats will include the Economic Community of West African States (SIDS members are Cape Verde and Guinea-Bissau), the Secretariat of the Common Market for Eastern and Southern Africa (COMESA) (SIDS members are Comoros, Mauritius and Seychelles), the Indian Ocean Commission (IOC) (SIDS members are Comoros, Mauritius, and Seychelles), the Southern African Development Community (SADC) (SIDS members are Mauritius and Seychelles), the Secretariat of the Pacific Regional Environmental Programme (SPREP) [68][68].

In addition, the IAPM will implement its mandate by convening groups of organisations, addressing SIDS sustainable development issues which could benefit from knowledge management including *inter alia*; organisations focusing on green growth,[69][69] regional development banks of which SIDS are Member Countries[70][70] and financial donors such as the European Union through its funding modalities such as the ACS, and entities implementing significant knowledge management and application initiatives, such as the GEF-ISLANDS Project and GEF-SOILCARE Phase I Project. In the case of the SOILCARE Project, in order to demonstrate how this modality will work, a *KTH-PISLM Working Group will be established* between the Executing Agency and the Partnership Initiative for Sustainable Land Management (PISLM) in Caribbean SIDS for the implementation of the GEF Regional Project SOILCARE Phase 1 and the Hub to facilitate the development and implementation of the Knowledge Management elements[71]71 of that project. Similarly, a *KTH-Forum of Ministers of the Environment for LAC Working Group will be established* to explore a working relationship with the Forum of Ministers of LAC on how the Hub will support CSIDS in the implementation of the Decisions of the Forum of Ministers.

Besides the IAPM, a *SIDS Facilitation Mechanism* will assist collective coordination of CSIDS within the inter-governmental processes such as the Forum of Ministers of the Environment for Latin America and the Caribbean (e.g. where there is a SIDS Working Group). It will also be used as a platform for CIDS-Global to meet, plan and to coordinate joint activities, underpinned by SIDS?SIDS cooperation for knowledge exchange.[72]72 This Facilitation Mechanism will assist SIDS in knowledge management exchanges and related decision making of strategic interest. One of these areas of strategic relevance for green and blue economy is participation within the Forum of Ministers of the Environment for LAC Circular Economy Coalition for Latin America and the Caribbean,[73]73, pursuant to Decision 2 ?*Sustainable Consumption and Production and Circular Economy ? Key Drivers for Post COVID-19 Sustainable Recovery*? of the XXII Meeting of the Forum of Ministers of the Environment for Latin America and the Caribbean.

Central to the functioning of the KTH will be the conclusion with participating agencies, of *Institutional Cooperation Agreements with UWI, Cave Hill Campus* as the host institution for the Hub. For the purpose of this project the UWI will adapt its official MOU as the Institutional Cooperation Agreement (Annex T2 presents an initial draft for consideration at project inception). The Agreement will specify *inter alia*; indicative roles, responsibilities and operational modalities of the partnerships of these supporting agencies as an indication of their commitment to work closely with the Hub, in particular with respect to data curation, quality assurance and quality control of knowledge inputs and outputs, resource mobilisation and the utilisation and integration in their work of the outputs resulting from the activities of the Hub. The project anticipates that *formalized agreements will be established with at least 30 KTH partners* by the end of the project.

The process of formulating and finalising the institutional cooperative agreements will entail the continued convening of consultations early in the project implementation process to be led by the UWI?s Office of the Deputy Principal. Project resources will support the hosting of in-person consultations, as necessary and required, which will be augmented with virtual participation, particularly for more distant SIDS agency collaborators. These agreements will define the modalities for data and knowledge exchange, peer review and technical support across all the project components for the duration of the project. Annex L presents indicative roles, responsibilities and operational modalities of supporting agencies that will form the IAPM Partnership. Key partner commitments have been secured (co-financing commitments in Annex R) and the project will continue to cultivate partnerships over the course of implementation.

The project will *operationalize a Scientific and Technical Advisory Group (STAG)* which will be fundamental to the operations of the KTH, since it will play a critical role with respect to the creation

and curation of new knowledge and synthesizing of relevant existing knowledge that will be taken up under the KTH. A number of tangible results and benefits are expected to result, including *inter alia*; a commitment by these organisations to work closely with the KTH, in particular with respect to data curation, quality assurance and quality control of knowledge inputs and outputs, resource mobilization and the utilization and integration in their work of the outputs resulting from the activities of the KTH. The STAG will be constituted by independent experts in relevant subject areas, with advisory support as relevant from the GEF Scientific and Technical Advisory Panel (GEF-STAP). The terms of reference of the STAG are contained in Annex L.

With the acquisition of a core caucus of partners via conclusion of partnership agreements, a *formal launch event for the SIDS-SIDS Green-Blue Economy Knowledge Transfer Hub* will be convened. This event is anticipated to be hosted in a joint CSIDS forum on sustainable consumption and production (SCP) and circular economy (event to be determined), to ensure context and relevance is anchored particularly within private sector-based community of practice. In the later stages of project implementation, the *efficacy of the cooperation agreements entered into by partners will be evaluated* and updated and/or modified as needed so as to form the foundation for the permanent institutional cooperation framework for the Hub.

Output 1.1.3. SIDS Green-Blue Economy Knowledge Network Nodes for the strengthening of inter- and intra-regional cooperation between SIDS:

This output will be a vehicle for strengthening inter and intra-regional cooperation on knowledge management for sustainable development between global SIDS regions and will form an integral part of the KTH. This output already has grounding in the various SIDS cooperation instruments agreed to by the international community, which calls for enhanced regional and interregional cooperation among SIDS. This project therefore builds on enhancement of the concept has also been subject to consideration by SIDS experts[74]74 who participated in the Commonwealth-sponsored International Architecture for Environment and Sustainable Development (IAESD) which outlined a proposed institutional framework at the global and regional levels to support SIDS Sustainable Development. Importantly, the output be a modality through which knowledge from other regional and global SIDS-relevant KM platforms of major GEF projects and KM initiatives such as SOILCARE, GEF ISLANDS and IW-LEARN, and as well as those from relevant knowledge tools (for example, Trends Earth and WOCAT), specifically with a SIDS focus will be incorporated into the Hub.

Complementing the central KTH Node based within the UWI-Cave Hill, will be *SIDS Regional Nodes* to be established in partner organizations in two other two SIDS regions namely, the South Pacific and AIMS SIDS Regions to increase connectivity with SIDS globally as well as to provide knowledge inputs as may be necessary. Initial consultations have been held with countries from the other SIDS regions on the role and function of the proposed SIDS Regional Nodes which will continue and finalized during the project implementation phase.

In addition, within the Caribbean SIDS, *Caribbean Nodes* will be established at strategic locations, including the Campuses of the University of the West Indies at the Mona (Jamaica), St. Augustine (Trinidad and Tobago) and Three Islands (Antigua and Barbuda), respectively, the Sustainable Development Directorates of both the Caribbean Community Secretariat and the Organisation of Eastern Caribbean States (OECS) Commission, respectively, at the Offices at the Partnership Initiative (PISLM) on Sustainable Land Management (in Guyana, Trinidad and Tobago at the University of the West Indies, St, Augustine and Grenada), and at the office of the Foundation for Research Innovation Enterprise Entrepreneurship Training and Development in the Organisation of Eastern Caribbean States (OECS);[75]75 FRIEETAD). Initial consultations were held with the Basel Convention Regional Centre for Training and Technology Transfer for the Caribbean (BCRC-Caribbean), with responsibility for Caribbean SIDS contributions to the GefIslands.org knowledge platform developed under the Communication, Coordination and Knowledge Management (CCKM) sub-project, of the GEF-funded

Implementing Sustainable Low and Non-Chemical Development in Small Island Developing States (ISLANDS) Programme. This dialogue explored potential cooperation and the project will continue to seek the opportunity of GefIslands.org becoming a Node of the KTH.

Where possible, opportunities will be sought over the course of the project to connect with important knowledge portals, such as that contemplated under the proposed Caribbean Resilient Recovery Facility[76][76] (CRRF) as well as foster contribution toward existing and emerging private sector knowledge support platforms.[77][77] In this regard, the project anticipates connecting to other relevant knowledge management nodes for the sharing of information and knowledge including on climate change and climate change investment opportunities among the private sector, including the exchange of ideas and to capture lessons learnt in various sectors related to Green-Blue innovations and technologies which are applicable to SIDS in general. The participating institutions at both SIDS-global and in the Caribbean will sign specific *Cooperation Framework Agreements* to specify how these nodes will work together within the scope of the project implementation under the KTH, that is anticipated to contribute in the long-term toward a wider SIDS Green-Blue technical assistance programme. It is anticipated that *at least 15 SIDS entities will connect as affiliated nodes* to the KTH by the project?s close.

Component 2: Development of a demonstration model for extracting learning from GEF Projects into Green-Blue learning curricula formats for sectoral application: The project will develop a knowledge extraction methodology based on ongoing or recently completed GEF projects that were recognized to be best practice in terms of useful policy and technical contributions. The methodology will be designed with a recommendation that Caribbean GEF projects contain specific knowledge transfer elements that are linked to the KTH, ensuring that the Green-Blue learning elements from these projects are automatically captured and recorded by the Hub. The content will be transformed to gender-sensitive learning curricula and educational resources that will be pilot-tested by learners in Barbados and Grenada. The project will facilitate focus on the two main economic sectors in Caribbean SIDS; the tourism and agriculture sectors. Given the scope of investments in both GEF and non-GEF initiatives in these two countries and opportunities for demonstration of the methodology, it was determined that the learning elements to be extracted and piloted for Barbados will focus on innovative and transformative approaches that inform the tailoring of sustainable technological options, particularly, in micro, small and medium sized enterprises associated with sustainable tourism. The pilot for Grenada on the other hand will focus on addressing land degradation, promotion of sustainable land management and contributing to attaining land degradation neutrality (LDN) associated with the agricultural sector. It is recognized that there will likely be shared learning themes between the two countries. Notwithstanding that the project is supported under the GEF land degradation focal area it considers ecosystem assets and services that are associated within the coastal zones that are at the core of blue economy opportunities, hence the ?green and blue? knowledge approach upon which the project is based. A pilot Ambassadorial Knowledge Transfer Initiative will also be developed under this component to enhance uptake of policy and technical knowledge to support negotiating processes.

Outcome 2.1: Knowledge integrating green-blue learning elements extracted from GEF projects, effectively demonstrated and applied in selected educational institutions and sectors.

Output 2.1.1. Methodology and system for analysis of and extraction of Green-Blue learning elements from GEF projects implemented in CSIDS for evaluation by KT Hub partners:

A replicable methodology will be developed and tested under the project that enables the Hub to assess CSIDS GEF projects on an ongoing basis, for extracting green-blue learning elements for transformation into curricula, training modules and capacity-building tools, but also to influence evidence-based formulation. These learning tools should be ?climate proofed? to ensure that they also contribute to enhancing climate resilience and appropriately accommodate gender considerations.

GEF projects implemented in CSIDS were accessed from the GEF projects database (https://www.thegef.org/projects-operations/database) during the PPG phase. An initial screening of the database was carried out to make a first selection of national and regional projects mainly related to focus to land and coastal resource management thematic areas that will have connections to green and blue economy learning elements. In the screening of the portfolio of projects a number of criteria were taken into consideration in making the selection; these considerations are specified in Annex T3. In addition to these considerations, emphasis is placed on selection of projects that are completed and those under active implementation (to be completed ahead of June 2024) that have yielded significant knowledge outputs. Of the GEF Caribbean projects screened, those excluded were GEF 1 and Pilot Phase projects, Enabling Activities, Concepts Approved (ahead of active implementation) and GEF7 projects (given relatively recent startup), narrowing to a cohort of 140 national and regional full-sized and medium-sized projects. Of these, a representative sample of 55 national projects and 22 regional GEF projects, implemented in CSIDS were selected, that will be subject to further analysis during the early stages of project implementation. Projects selected were those approved between 2000 and 2019 from the GEF 3 to GEF 6 replenishment cycles considering the likelihood that projects will have generated knowledge products that can be harvested. It should be noted that for this initial starter set of projects, only projects in the English-speaking countries were considered given working language of the University of the West Indies.

Following project inception, this cohort of short-listed GEF projects (as well as relevant non-GEF selected projects as available) implemented in CSIDS will be subjected to further analysis by environmental and project curricula development specialists (under the STAG, with guidance from the GEF Scientific and Technical Advisory Panel (STAP)). Alignments will be sought between the relevant learning elements extracted from the GEF projects to specific green-blue related economic sectors to test their applicability as key tools for the Green-Blue learning, and also for relevance in contribution to post COVID-19 recovery. Consultations will be held with the GEF implementing agencies which had oversight of the projects being evaluated. It is expected that *at least 35 projects will provide the core content for extraction of learning elements*, however this will be determined following project inception.

The projects (refer to Annex T3) were tentatively assigned thematic areas that they substantially address, aligned to the GEF focal areas, with a cross-cutting governance theme as follows; (i) International Waters - Marine and freshwater ecosystems management; (ii) Biodiversity - Terrestrial ecosystems management, invasive alien species management, biosafety, access and benefit sharing; (iii) Land degradation ? sustainable land management and restoration, sustainable agricultural systems; (iv) Climate change adaptation and mitigation, (v) Chemicals & Waste ? POPs, chemicals, waste management, sustainable consumption, (vi) Cross-cutting governance ? environmental governance (and gender equity considerations), ecosystems valuation, environmental economics. The project proposes that extracted learning elements directed to the Barbados pilot focuses on transformative approaches in the application of nature-based approaches in sustainable technological options for small and medium sized enterprises in enhancing sustainable tourism development, while the learning elements applied to the Grenada pilot is linked to addressing land degradation, promotion of sustainable land management and contributing to attaining land degradation neutrality (LDN) mainly in the agricultural sector. Table 1 lists the project thematic areas and the relative relevance of the thematic area to demonstrating extraction of learning elements in the pilot testing in Barbados and Grenada.

Table 1. GEF project thematic areas for consideration in Barbados and Grenada learning pilots.

Broad GEF project focal/ thematic area	**Thematic areas from GEF project cohort** (refer to Annex T3)	**Relevance for pilot demonstration by country**	
		Barbados Sustainable tourism	**Grenada** SLM/sustainable agriculture
International Waters	1. Blue economy / marine protected areas management	**??**	?
	2. Watershed management / pollution control	**??**	**??**

Biodiversity	3. Terrestrial protected areas management	X	??
	4. Forest / habitat restoration	X	??
	5. Access and benefits sharing	?	?
	6. Invasive alien species	?	?
	7. Biosafety	X	?
Land degradation	8. Sustainable land management / land restoration	?	??
	9. Sustainable agricultural systems	X	??
Climate change	10. Climate change adaptation	??	??
	11. Climate change mitigation	??	X
	12. Renewable energy technologies	??	?
Chemicals & Waste	13. POPs, chemicals /waste management	??	?
	14. Sustainable consumption and production	??	?
Cross-cutting	15. Environmental economics / ecosystems valuation	??	??
	16. Environmental governance (and gender equity considerations)	??	??

Key: ??highly relevant ?relevant ? low relevance X not relevant

Based on the final selection of the project cohort, the project team will *acquire the core project knowledge outputs* that are to be transformed to curricula. Given this project is demonstrating a methodology there will need to be selectivity in the range of topics and target groups that are to be engaged in testing of the methodology. In this regard, specific criteria will need to be established early in the process considering priority capacity building demands of target stakeholders. This in turn will sharpen the focus on acquisition of the core project outputs that will be worked with. These outputs are anticipated to include the collection of policy and technical studies, best practice methodologies, technology options, lessons learned documentation. Through planning and development workshops, the project team, supported by specialists of UWI?s Centre for Excellence in Teaching and Learning and members of the STAG will *refine the methodological framework for extracting the blue-green learning elements* from the suite of projects. The proposed approach will take into consideration the methodology developed for the Green-Blue Learning Programme at the UWI, Cave Hill Campus, which was guided by the Barbados Green Economy Scoping Study. The Institute for Gender and Development Studies of the UWI will provide input to ensure gender considerations are fully integrated in the process.

For the projects under consideration, an assessment will also be undertaken of knowledge management methodologies that has relevance to sustainable land management (SLM) for which operational and functional collaboration can be developed (given the land degradation focal area under which this project is advanced). *SLM and LDN learning elements extracted from these projects will be appropriately formulated and contributed to, as necessary, to existing KM platforms, such as the WOCAT Global Database on Sustainable Land Management*[78]78. Given the close watershed to coastal area nexus in SIDS, lessons from projects focused on strengthening blue economy opportunities through sustainable healthy coastal and marine ecosystems (aligned to GEF focal area objective IW1-1) will also be considered. In analyzing the selected projects, the aims and objectives of each individual project will be reviewed, followed by identification and extraction of the green-blue elements contained therein, followed by a critical examination of how the learning elements will be applied in the project and finally, an examination of the results and the potential of the learning elements for up-scaling and replication. The framework for analysis and extraction of learning elements will be designed to optimize learning opportunities that lead to expanded gender-based benefits.

The analysis will seek out project outputs that provide innovative solutions to encourage circularity in resource use through policy and technical solutions that can be adapted to learning elements. In the case of SIDS, with significant investment in the tourism sector, work advanced by Bodosca and

Sreimikiene,[79]79 in moving toward more sustainable tourism through a ?cradle-to-cradle? approach is highly relevant. This cradle-to-cradle approach is a revolutionary vision of how life on Earth works and how it can be transformed from a circular economy point of view, in respect of minimizing waste streams through improved design, sustainable transformation of materials through the consumption life cycle, through the use of renewable energy toward reduced impacts on the environment. The following (Table 2) provides an indication of the issues which will be considered in the analysis; while designed specifically for the tourism sector, it can be adjusted for other sectors, in this case for Grenada with the focus on sustainable agriculture.

Table 2. Preliminary Sector Categories which provide a basis for learning element analysis and consideration

Sector Categories	**Examples of ?Cradle-to Cradle? Policy elements**	**Project thematic areas of possible relevance (Table 1)**	
		Barbados Sustainable tourism	**Grenada** SLM/Sustainable agriculture
Health and Safety Considerations	Establishment of Protocols and Monitoring Facilities/Systems to Monitor Health and Safety, particularly at the ports of entry.	6	6
Transportation	The use of new modes of transportation for example the use of electric vehicles etc.	11	
Materials	Promotion of Sustainable designs including the use of Sustainable materials	13,14	
	Promotion of Recycling of Materials and the Creation of Recycling Systems	13,14	13,14
Energy	Promotion of the Use of Renewable Energy Sources, particularly Solar	11,12	11,12
Waste Management	Promotion of avoidance, minimisation, reuse and recycling	14	14
Leisure Activities	Enhancing opportunities for Outdoor Activates (e.g. establishment of nature trails, particularly in the Barbados National park etc. both terrestrial and marine etc.	1,2	1,2,3,4
	Enhance conservation and protected landscapes (both terrestrial and marine) and as an integral part of leisure activities	1,2	1,2,3,4
Climate Resilience Measures	Identification and Implementation of actions to enhance resilience to the adverse effects of climate change.	10	10
Sustainable Financing Mechanisms	Introduction of Green Financing Mechanism(s) and Modalities in the Banking Sector	15	15
	Establishment of Vulnerability Mechanisms in Existing Funds and Assistance Packages to increase more effective responses to extreme events.	15	15
	Introduction of Sustainable Insurance Options (e.g. Crop Insurance for the Agricultural sector et al)	15	15

* numbers correspond to the thematic areas in Table 1.

A core consideration in the development and application of the methodology is that it will not duplicate existing efforts among partners but to ensure there is harmonization of efforts and importantly, enhance sustainability of application of project outputs. This will lead to recommendations on a replicable approach for analysis and harvesting of learning elements. Annex T3 provides an indicative outline of the process for access and extraction of learning elements from the project cohort that will need to be fully elaborated at project inception and implementation.

The framework for extraction of green-blue learning elements will be prepared as a gender-sensitive *published methodology* that will be followed during the course of project execution as content from projects and other sources are acquired and formulated for development of learning resources. An *evaluation of the methodology* will be carried out at a prescribed point in project implementation to fine-tune or adapt the approach with the publication of the final agreed methodology for extraction of learning elements.

Output 2.1.2 Pilot curricula set/learning elements extracted from GEF projects (on sector-based environmentally sound and innovative technologies and policy instruments) designed for multiple delivery platforms for evaluation by KT Hub partners:

The Green-Blue elements extracted from a sub-set of innovative GEF projects (and possibly select non-GEF initiatives) projects that have been successfully implemented in the Caribbean region generated as Output 2.1.1, will be transformed into learning tools and contribute to the development of a suite of curricula tools and teaching resources. Emphasis will be placed on the identification of content which has instructional value, to create curricula that is demand-driven, that provide knowledge and tools to assist uptake and incorporation of green and blue economy approaches by learners into public and private sector policy and technological investments. Application of knowledge via delivery of tailored curricula will in turn contribute to realizing GEBs through biodiversity conservation and sustainable use, land rehabilitation, climate mitigation and adaptation and a pollution free environment. Under the lead of the STAG, supported by UWI?s Centre for Excellence in Teaching and Learning, curricula development specialists will *develop a pilot suite of curricula packages, templates* for adaptation of the learning content and other learning resources.

The process for development of courses and programmes at the University of the West Indies will be followed in keeping with quality standards of learning outputs which are summarized as follows:

? The Lecturer or Head of Department identifies a prospective course offering.
? The Lecturer / Head of Department works with the Centre for Excellence in Teaching and Learning to help define the teaching objectives, develop the course outline and assessment methodology.
? Once the course is developed, the package is shared with all the other campus departments for comments.
? The package is reviewed by the Academic Quality Assurance Committee that comprises of representatives of all the faculties to determine how departmental comments were addressed. The Committee will provide further feedback on any issues, potential overlap with existing offerings and ensure coherence with university teaching objectives. The process also ensures that the course level is commensurate with other courses at the learning level.
? The Academic Board (comprised of Heads of all Departments) reviews the package to provide further comments and input.
? Once approved by the Board the course is rolled out to students.

For academic programme development, the path is similar as in development of courses but with the additional step of engagement of the Board for Graduate and Undergraduate Studies (comprises of representatives of all the campuses); this Board will need to sign off on the programme prior to roll-out. The same process is also applied in the development of certificate and short courses that are to be administered to ?specially admitted students? as will be the case for external (non-university) students to be targeted under the project.

The other campuses of UWI and some of its dedicated ?institutes? will be engaged as Secondary KTH Nodes in providing guidance in the development of the curricula through the above-described mechanism; **(1)** Mona Campus (Jamaica) through its *Institute for Gender and Development Studies* in ensuring gender mainstreaming in the learning elements, the *Institute for Sustainable Development* in terms of sustainable development solutions and enhancing engagement of the university consortium for SIDS, the *Climate Studies Group Mona* that specializes on assessing climate change scenarios and the potential impacts. **(2)** St Augustine Campus (Trinidad & Tobago) and its *Faculty of Food and Agriculture* with contributions to land management and sustainable development (leading development of a Soil Information Infrastructure system under the GEF-SOILCARE Phase 1 Project), and the *UWI Global Institute for Climate Smart and Resilient Development* in the context of climate change and resilience solutions. **(3)** Five Islands Campus (Antigua and Barbuda) will serve as part of the training hub for Antigua and the Eastern Caribbean.

The design process is anticipated to commence by Quarter 2 of Year 1. Consideration will be given to priority themes identified by the pilot countries (Barbados and Grenada) in *development of what will be the first ?starter-set? of curricula products*. The GEF (and non-GEF) national and regional projects, if they meet the criteria, within which the two countries participated, and for which there are substantial knowledge outputs, will be tapped into as priority for generation of the curricula content. Selection of the specific topics will be done in close consultation not only with academia but also with the beneficiary stakeholders of these countries. As noted above, the Barbados pilot will focus on innovative and transformative approaches that inform the tailoring of sustainable technological options, particularly, in micro, small and medium sized enterprises and the enhancement of sustainable tourism. The Grenada pilot will focus on addressing land degradation, promotion of sustainable land management and contributing to attaining land degradation neutrality (LDN). The curricula developed will integrate gender-sensitive considerations as foundational and will place emphasis on opportunities that will enhance green-blue economic prospects for women and vulnerable stakeholders.

It is anticipated that the initial suite of draft curricula outputs will be available within Year 1. Based on the development process outlined above, the curricula packages will be tailored for delivery in appropriate formats for use by students, professionals, practitioners and other stakeholders in both public and private sectors. These outputs will be circulated to the Project Steering Committee and the IAPM via face-to-face and virtual consultations for review and comments. Faculty of UWI associated with the learning themes will be solicited to provide frontline review inputs. Recommendations for refinement and final adjustments will be incorporated in the first core curricula set that will be produced in printed and electronic formats for delivery both in live classroom settings and virtual distance methods. Once approved by the STAG, the newly developed content will be uploaded to the KTH portal to be accessed by the web portal.

The starter curricula set will be rolled out to *two pilot testing groups (gender-balanced) to test the efficacy of the learning outcomes*; one group in Barbados and the other in Grenada as the core project countries through collaborative engagement with the national chapters of the Caribbean Youth Environment Network (CYEN) of Barbados and Grenada, and students of the Grenada National Training Agency (GNTA) and the T. A. Marryshow Community College (TAMCC). At least 200 ?pilot? learners will be engaged. Emphasis will be placed on working with learners that are either currently employed, or aspire to be engaged in relevant green and blue economy segments, and those who may already have prominent roles in capacity building and knowledge transfer to peers, colleagues and wider stakeholders in their communities of practices in their respective countries. Learners may also include field practitioners, public and private sector professionals, community mobilizers and educators. The results of testing of the green-blue learning methods in Barbados and Grenada will provide the basis for their use in not only the design of leaning products (under Output 2.1.2) which will be integrated into the UWI curricula development processes, but will also facilitate the design of the KM components of future national and regional GEF projects and programmes designed to facilitate transfer of knowledge, technology and approaches that can facilitate increased innovation in a SIDS context. A consultant, as part of the STAG team, will be based in Grenada and will have responsibility to support the pilot learning in collaboration

with the national chapter of the CYEN, the Grenada National Training Agency (GNTA) and the T. A. Marryshow Community College (TAMCC).

The project will solicit engagement of instructors from UWI, GNTA, TAMCC and other project partners with specialist knowledge in the subject matter, to deliver the course content. It is tentatively anticipated that the testing will run over the course of at least one semester, however this will be further evaluated during the course of project implementation as to whether an extended period will be required. The efficacy of delivery and uptake of the content will be evaluated from both instructor and learner ends against a scoring framework that evaluates criteria such as gender sensitivity, applicability, ease of uptake, presentation of content, impact, means of delivery among others. Based on this evaluation, *recommendations will be made for enhancement* by the STAG and presented to the PMC and IAPM.

The design of the resources will incorporate considerations for wider application in Caribbean SIDS, Member States of LAC and global SIDS, under an upscaled follow-on GEF8 proposal (with connections anticipated to the GEF Blue-Green Islands Integrated Program[80][80]).
The project will extend reach to other universities in the Caribbean, such as the University of Technology (UTech) of Jamaica and the University of Guyana, and others within the wider SIDS community as implementation rolls out.

Output 2.1.3 Pilot phase delivery of curricula/learning elements tested, evaluated and validated by target learners and users (students, professionals) and KT Hub partners:

Based on the curricula roll-out and accompanying assessment recommendations from the Barbados and Grenada pilots, the curricula set (with refinements incorporated as required) will be advanced under the KTH within UWI and other affiliate training organizations that were identified to support the wider roll-out process with learners. In this advanced pilot phase delivery, the curricula will be tested with learner groups from within the university; with undergraduate and graduate students aligned to applicable fields of study. Relevant UWI faculty participating in the project will integrate the curricula within the course offerings (as per the process described under Output 2.1.2). Trainers from affiliated training organizations that are participating in the project under the KTH will also facilitate integration of curricula in course offerings. To ensure that there is consistency in delivery and learning appraisal, the project will facilitate the *design of training and orientation programmes for trainers/instructors*. These orientation programmes will be convened under the guide of the STAG.

In *delivery of the course content*, a variety of available means will be deployed. In the case of UWI, it is expected that the primary delivery mode will be via in-class instruction, however the KTH facilities available for distance learning will also be utilized. The number of classes and course offerings will be determined during project implementation. In the case of affiliated agencies participating in the project with learners within green-blue economic sectors that include policy and technical professionals (government support agencies), practitioners within private sector and community organizations, the delivery means will be via workshops and seminars, using both in-class and virtual platforms. In the case of the university, the teaching cycle will be run over at least one semester but may be extended depending on the nature of the topics. It is anticipated that *at least 3,000 student learners within UWI will be targeted for this pilot phase and some 750 learners from organizational affiliates*. To access members of organizational affiliates (farmers associations, other small business groups) to solicit participation in learning and knowledge transfer, the project will make use of WhatsApp group messaging and other social media platforms (Facebook, LinkedIn) already in use by UWI, the Caribbean Youth Environment Network, the Grenada National Training Agency and the T. A. Marryshow Community College to disseminate messaging on the KTH and capacity building services that are offered. The project will ensure that there is appropriate gender balance in access to the learning resources. All learners will be awarded certification and/or accreditation in accordance with academic standards of the associated organization.

The process will be supported by the *convening of Green-Blue Leaning Integration Dialogues* (at least 6 by end-project) with the various stakeholders to assist them in the integration process both in curricula development and practical application in the field. These dialogues to be hosted by the STAG, will be essential to gauge the efficacy of the overall knowledge transfer process and methodologies to bring applied knowledge to practice, with focus on the recipient green and blue communities of practice. These dialogues will be informed by an *evaluation of the uptake and application of learning elements*. As with the initial pilot, the project will develop an assessment tool to evaluate the efficacy of knowledge uptake and potential for application among learners with the application of gender-specific indicators. This will be the basis for validation and fine-tuning of the curricula developed.

***Output 2.1.4 Pilot Ambassadorial Knowledge Transfer Initiative and evaluation by users**:*

The KTH will facilitate access to policy and technical support for negotiators during environmental negotiations based on state-of-the-art knowledge assembled by the KTH, through the partnership contributions. This is intended to address one of the main weaknesses faced by CSIDS negotiators; the absence of sustained technical support and back-up during complex negotiations. Knowledge and innovation associated with environmental project investments (such as those financed by the GEF) to strengthen policy, and drive technical solutions are not actively captured as part of the knowledge base negotiators use, or have access to in a dynamic demand-driven manner to inform negotiated positions, including consultations among SIDS. Griffith,[81]81 highlighted that a knowledge gap exists between UWI?s course offerings, and knowledge requirements for negotiations that Caribbean SIDS undertake at the regional and international levels.

The project will contribute to the design and development of an *Ambassadorial Knowledge Transfer Initiative*. This will create the space for policy and technical personnel to interact more dynamically with negotiators between Capital and negotiating spaces, to report periodically on issues being negotiated, as well as the status of negotiation and strategies being adopted by the region. This initiative will facilitate a mechanism that will also allow CSIDS negotiators to receive periodic feedback from the ground from a wide cross-section of stakeholders.

Under lead of the STAG the project will solicit participation by a select group of experienced SIDS ambassadors and the regional secretariats of CARICOM and the OECS to help guide the development of this initiative. This core of negotiators will be augmented by representation of convention national focal points, to help bridge use of the KTH to support negotiations at the conference of parties for the conventions. During project execution with the operationalization of the Ambassadorial Knowledge Transfer Initiative, the Barbados SIDS Ambassador for SIDS (resident in Barbados) will maintain oversight of this Initiative and serve as an Ex-Officio Member of the STAG. The development process will entail in the first instance the *selection and curation of foundational knowledge that serve as the underpinning in key environmental negotiating arenas*. Key messages and core evidence-based data that has been consolidated by participating organizations within the KTH will be taken into consideration, along with knowledge outputs generated from the GEF (and non-GEF projects where available) from Output 2.1.1.

The project will deliver a *series of specialized knowledge products* which draw on the knowledge and experience of the Ambassadors and which have strategic significance implications for SIDS sustainable development. Since the implementation of this project coincides with preparations being undertaken for the convening by the United Nations of the Fourth International Conference on the Sustainable Development of SIDS, this effort, to the extent practicable, will be used as an input to that process. *Capacity building seminars will be convened* (at least 10 by project-end) during the piloting of this initiative and will be made available to relevant stakeholders in both Barbados and Grenada. *At least 50 participants (gender-balanced)* are expected over the course of the project. Following the first iteration of the knowledge enhancement capacity building seminars, the STAG will *assess feedback using gender-specific indicators and present recommendations for replication*. Key among the recommendations will

be how the programme will be mainstreamed within organizational mandates; in the case of the Caribbean, within the CARICOM and OECS Commission secretariats.

This programme will commence with a focus on CSIDS with a vision to gradually expand to include the other SIDS regions. To ensure that the work undertaken by the Hub supports positions taken by CSIDS Member States in the various negotiating theaters, the project will provide the basis for, and trigger the eventual formation of a SIDS Ambassadorial Council. The STAG will be anticipated to play a continued role in the longer term in providing technical, scientific and legal back stopping to CSIDS negotiators in the international environment in trade and sustainable development negotiations and/or mobilizing the necessary expertise from CSIDS experts to do so. Over time the Ambassadorial Knowledge Transfer Initiative can be fostered to serve as a forum for SIDS ministerial policy dialogues and SIDS Heads of State consultations, as need and circumstance may dictate.

Component 3: Enhancement of sustainability and scale-up: The profile of the KTH to the Caribbean and the global SIDS community will be expanded under this component through making the knowledge generated accessible to other potential users such as the private sector, scientists, NGOs etc. so that they can be applied to the benefit of their members and society in general. In this regard, emphasis will be placed on the exchange of experiences, project and programme ideas which could be developed by project proponents in CSIDS and SIDS in other regions for consideration of decision makers and national executing agencies, to upscale lessons and suitable approaches for development interventions. This approach, in addition to ensuring accessibility to relevant knowledge will ensure that a connection exists between the academic host and the other potential users on the ground. Strategic functional linkages will be established between the KTH and other regional and global SIDS-relevant knowledge management platforms of major GEF projects such as ISLANDS, SOILCARE, CReW, IWEco, and other initiatives such as GEF IW-LEARN to ensure ready access by stakeholders in CSIDS.

Outcome 3.1: Mainstreaming of knowledge generated by GEF projects and scale-up applied within the work of national and regional partners, sharing of lessons learned and peer to peer exchange.

Output 3.1.1 Marketing, Outreach and Communication Strategy and accompanying suite of knowledge products for uptake by target stakeholders:

An integral part of the Hub?s infrastructure will be the development and implementation of a *Marketing, Outreach and Communication strategy* including the development of a *suite of gender-sensitive awareness resources* in support of all components of the project. The Strategy will be developed over the first two quarters following project inception. The aim of the strategy is to ensure that project outputs become mainstreamed within the work of national and regional partners and are placed on a path for uptake and replication within beneficiary communities and integrated into strategic development directions of Barbados and Grenada as the country pilots as well as other CSIDS that also lends support to COVID-19 pandemic recovery. To facilitate this, a Partnership and Communications Specialist (refer to Annex M for TORs) will spearhead development of the strategy and have responsibility for its execution over the duration of the project. This specialist will support awareness and outreach associated with all components and development of the needed communications tools and resources. The specialist will also conduct feedback assessments on the tools developed by the Hub under the project.

The Marketing, Outreach and Communication Strategy will advance the following approach:

? *Create high and impactful visibility in promotion of knowledge generated under the KTH*, the work of the University of the West Indies and participating institutions in Hub. The model will be promoted as contributory in aspiration toward a SIDS centre of excellence or academy for green and blue economy learning in SIDS.

? *Build strong and highly collaborative linkages with key green-blue economy institutions in advancing innovative methodologies and tools to extract knowledge* in a systematic manner from project

and programme investments that is transformed to ongoing learning initiatives within academia and communities of practice within public and private sectors, youth, gender-oriented and community-based organizations to deliver global environment benefits and maintain the health of the environment in SIDS.

? *Promote green-blue learning elements identified from relevant GEF projects implemented in CSIDS that specifically targets the private sector for uptake and utilization*. This will be achieved through knowledge transfer partnerships under the KTH with micro, small and medium-sized enterprises (and organizational affiliates) to facilitate transfer of best practice and technology innovation, and assist spread technical and business skills to these entities that is anticipated to contribute to a wider private sector development knowledge support programme for SIDS.

? *Support cooperation and networking among research and technological development bodies* working in support of SIDS sustainable development. Within the framework of instruments to which SIDS are party (for example the Economic Partnership Agreement with CARIFORUM[82]82), promote joint initiatives to raise awareness of science and technology capacity building programmes, joint research networks in areas of common interest, facilitate exchanges of researchers and experts in project preparation and participation joint scientific meetings to foster exchanges of scientific and technological information and interaction.

? *Develop and disseminate impactful awareness materials and showcase at regional and international partnership events*. All dissemination platforms will be actively engaged in promoting the project outputs (produced in various formats, ranging from conventional printed materials such as booklets, leaflets, fliers, posters to digital media using gender-sensitive language and gender-balanced imagery) and making connections to wider SIDS development agendas, that feature dynamic interactions with experts and the communities of users of the tools and methodologies developed under the KTH. Social media platforms such as LinkedIn, Facebook, YouTube and Twitter will be utilized under branded handles of the KTH. Linkages will be established with data hosting nodes of global international development agencies within the UN system, the donor community and regional cooperation secretariats in contributing to dissemination effort. This will be in keeping with the movement toward deepened digital transformation efforts in outreach and education with special attention on youth where the KTH will emulate initiatives such as Earth School[83][83] that was co-created by UNEP and Ted-Ed to provide youth, parents and teachers with engaging nature-focused content to stay connected to nature.

As noted, the strategy implementation will create strategic functional linkages between the KTH and other regional and global SIDS relevant knowledge management platforms associated with key GEF projects and programmes notably the GEF International Waters Learning Exchange & Resource Network (IW-LEARN), and the GEF-ISLANDS Project to ensure ready access by stakeholders in CSIDS. It is also anticipated, that through the STAG, the KTH will play a contributory role in both the shaping and implementation of the GEF8 Integrated Programs, particularly those which deals specifically with SIDS sustainable development, most relevant being the Blue and Green Islands Integrated Program. Embedded within the Strategy will be a feedback mechanism that will ensure that the project management team, the STAG, the wider project partnership, the GEF Operational Focal Points and relevant stakeholders (within the Caribbean and at the global SIDS level) will be able to assess how the project outputs are being utilized and offer recommendations for improvement. The project will ensure that *knowledge product use and uptake will be evaluated* through the use of gender-specific indicators.

Output 3.1.2 Green-Blue Solutions Marketplace Event and Replication Strategy to sustain promotion of innovations generated by GEF Projects via the KT Hub in CSIDS and global SIDS:

The project will support the convening of at least two major *Green-Blue Solutions Marketplace Events* which will promote best practice for private sector application, that showcase innovations from select GEF projects implemented in CSIDS, particularly those from which learning elements and curricula

development have been extracted and have commercial replication potential. These Marketplace Events will also contribute to facilitating, stimulating and enhancing green-blue economy enterprise-relevant research and training. This event will be designed to be replicable on a periodic basis, perhaps on a two-year cycle at various host locations in the Caribbean so that it becomes a regular fixture in the GEF Partnership in the Caribbean. It is estimated that at least *500 participants (gender-balanced) will be expected by the end of the project*. This target and the specific modalities will be explored at project inception (with assurance of tracking of male versus female participation).

During the PPG design phase of the project, several concepts for focused attention and development emerged, that may benefit from ?marketplace networking? proposed under the project, that bridges science to policy to green-blue business opportunity. One of these is support to *fostering green and blue MSME entrepreneurial opportunity enhancement for youth*. Exchanges supported by the KTH will be designed to facilitate the transfer of knowledge and technology from extraction of green and blue learning elements from project implementation and the spread of technical and business skills to youth stakeholders. Related is a proposed incorporation of a *private sector knowledge support portal* within the KTH architecture that will provide increased access by private sector users and ensure there is a connection between the academic host and practitioners, with emphasis on the project pilot countries of Barbados and Grenada. This will align to Articles 51 through 65 pertaining to the *Policies for Sectoral Development (Chapter Four)* of the *Revised Treaty of Chaguaramas* ***Establishing the Caribbean Community****, Including the CARICOM Single Market and Economy (CSME),* where the Hub will contribute knowledge to mainstream application of green and blue technical skills and business practices to ensure sustainability. Another avenue for innovation through knowledge exchange that the KTH will facilitate is *enhancement of sustainable food production and tourism linkages* that has relevance to SIDS ?build back better? efforts in the post-COVID19 pandemic environment. This contribution will embrace the unique characteristics of SIDS, considering farming and fishing cultures, uniqueness of agro-produce and nutritional benefits, with exploration of development of a ?SIDS food label? that is synonymous with sustainability objectives and traditions in SIDS. This will be in direct response to the proposed ?*island food and sustainable tourism support initiative*? highlighted in the SAMOA Pathway.[84][84] Another recommended concept during the PPG design phase that will be explored is the formulation of a *SIDS clean-tech initiative*, via joint collaboration between the Hub and the PAGE Agencies. In a project development support role, the KTH will facilitate consultations among SIDS in application of knowledge (accumulated by the Hub) in future GEF, GCF and other donor-supported project development. The project anticipates that *at least 10 emergent opportunities in respect to innovative policies, business plans, financing mobilized* will be gained by private sector stakeholders as a result of the KTH knowledge exchanges in their respective areas of endeavor (this metric to be better refined during project inception).

The KTH via the project, will *promote the knowledge products through high-profile engagement at major regional and global events*, either on mainstage or in side events (workshops, seminars, webinars) at regional and international meetings, including the United Nations Environment Assembly (UNEA), the regional constituency meetings of the GEF, the GEF-International Waters Learning Exchange and Resource Network (IW-LEARN), the CARICOM Council for Trade and Economic Development (COTED) for Environment, the OECS Council of Ministers on Environmental Sustainability, the Conference of Parties for the Cartagena Convention, meetings of the Caribbean Hotel & Tourism Association, the Caribbean Hotel & Resort Investment Summit, etc. The overall impact from convening and participation in these events will be enhancing private sector embrace of green-blue development strategies and programmes through the creation of a platform to share lessons learned and provide the potential for upscaling experiences. The project will define a calendar of events on project inception that will be updated on a rolling basis to ensure facilitation can be provided for *participation of KTH partners and designates of the user communities in such regional and global events*.

The convening of knowledge networking fora will *assist in the development of the resource mobilization strategy* (Output 1.1.1) whereby the KTH partners such as the Caribbean Development Bank, the Development Bank of Latin America (CAF), among others, will have the opportunity for direct exchanges in proposing resource mobilization and development of models for the operational sustainability of the KTH. The *outcomes of the marketplace events will be evaluated* to best inform the

how this initiative can be replicated and institutionalized as part of the KTH at both the Caribbean and global SIDS levels into the future.

Output 3.1.3 Project monitoring and evaluation system

A project monitoring and evaluation system will be put in place to ensure continual assessment of progress in meeting project outcome and output targets. The monitoring, evaluation and learning system will ensure full transparency of the project progress and performance against the results framework, and compliance with the established reporting and evaluation requirements (refer to Section 9 Monitoring and Evaluation).

4. Alignment with GEF Focal Area and/or Impact Programme Strategies

In the context of the proposed outcomes of this project, alignment can be realized with all the GEF focal areas considering the close sectoral interconnectedness of development agendas in small islands. However, for programming alignment, this project is placing emphasis on the GEF land degradation focal area considering that management of land assets in small landscapes and consequent negative outcomes of poor land use has cross-cutting and very immediate impacts on ecosystem services, and in turn impacts social and economic well-being. The influence of climate change will continue to greatly amplify the negative outcomes associated with land degradation. The primary focal area objective alignment is to: *LD-2-5 to create enabling environments to support scaling up and mainstreaming of sustainable land management and land degradation neutrality*; given the close watershed to coastal area nexus (ridge-to-reef) in SIDS, GEF focal area objective *IW-1-1 to strengthen blue economy opportunities through sustainable healthy coastal and marine ecosystems* will also be applicable. The GEF Chemicals and Waste focal area objectives, *CW-1-1/2 that seek to strengthen sound management of industrial, agricultural chemicals and their waste through better control, and reduction and/or elimination* and *CW-2-3 to support enabling environments to manage harmful chemicals and waste* are also relevant in the context of interconnected circular-economy approaches to mitigate environmental degradation.

The project will directly align particularly with the 2020 findings of the GEF?s Independent Evaluation Office (IEO) in its report on *Evaluation of Knowledge Management of the GEF*[85][85] that highlights the need for a standard approach or guidance on transforming data and information into usable formats that can be shared, notwithstanding the various knowledge management utilities that have been developed. Of note in the GEF-IEO findings is that there are deficiencies in capturing data and information at the project level and enhancing subsequent use in spite of the advancement of the fully online management of the project data and information, and increased integration of KM within project proposals. In this regard, this project proposal addresses the GEF-IEO core recommendation that there be investment in a technical solution that strengthens the overall knowledge management system. This

will mean a solution to capture KM data, lessons, and good practices and to present them in a usable and accessible format for both GEF stakeholders and externally. While the recommendation points toward strengthening the mechanisms between the GEF Secretariat and agencies, this proposal will contribute to the wider partnership building with organizations such as universities that have technical competency and capability to serve as knowledge curators and support active knowledge application in a sustainable manner.

Importantly, the *Strategic Country Cluster Evaluation for SIDS* (2019) carried out by the GEF IEO[86][86] that assessed the relevance and performance of GEF in helping address the main environmental challenges to SIDS and review of the determinants of sustainability yielded significant observations that served to align this project concept. The evaluation noted that the performance of SIDS projects was lower than for the overall GEF portfolio on the dimensions of outcome performance, and project implementation and execution and that regional projects performed significantly better on outcomes and sustainability. In the SIDS portfolio it was found that there remained inadequate investment in building local and national capacity with a lack of clear exit strategies and means to future financing. Besides the overall recommendation that integrated approaches (ridge-to-reef, integrated watershed management considering renewal energy approaches for sectoral productivity) there were a number of other recommendations that spoke to designing more integrated projects in line with whole island/blue economy approaches and improving project design with due consideration to sustainability. However, the most critical recommendation of direct relevance to this proposed project is to ?*promote innovation and knowledge exchange?*. The GEF-IEO noted that the *?GEF project portfolio in SIDS should include a combination of innovative (e.g., income-generating products from invasive alien species) and scaling-up approaches that have shown to be effective. Innovation should be supported even if it has a higher risk. Regional programs should encourage a transfer of knowledge to the poorest SIDS through a South-South capacity-building approach?*. Given the finding that regional projects perform significantly better on outcomes and sustainability than national stand-alone projects (projects funded via STAR allocations under the biodiversity, land degradation and climate change focal areas) underscores the need for emulation of joint learning and collaboration opportunities that are typically built in into reginal projects; this is where the knowledge hub concept can provide such integration.

Looking toward the *GEF 8 Programming Directions*[87][87] specific attention is being paid to SIDS through the proposed Blue and Green Islands Integrated Program (IP), recognizing the continued challenges of these countries against the backdrop of the high degree of interconnectivity among marine and terrestrial ecosystems, economic sectors and livelihoods. In this regard, SIDS are uniquely positioned to pioneer nature-based solutions approach that underpins GEF investments. With emphasis on addressing interconnected environmental challenges driven by key sectors; tourism, food (agriculture, fisheries) and urban development, the Blue and Green Islands IP anticipates strengthening sub-regional governance platforms to help to embed nature-based solutions in regional level institutional and policy

frameworks, supported by South-South learning, knowledge exchange, and collaboration as a key aspect of the program. This project is anticipated to be a significant contributor to Component 4 on Knowledge management and collective upscaling.

Finally, emerging on what appears to be the subsidence in the COVID-19 pandemic, the project will build alignments to proposed medium and longer-term strategies outlined in the *GEF's response to COVID-19****[88]***[88] aimed at addressing the present situation and to enhancing resilience to deal with any new environmental crises which might emerge in the foreseeable future. More specifically, it will build on the proposed medium-term action to d*evelop an internal blueprint on how to deploy ongoing and upcoming projects that can help lay the foundation for a green-blue recovery which emphases the identification and integration of* the risks and opportunities linked to COVID-19. It will build on the recommended longer-term action to f**urther promote systems change thinking in the strategies that guide GEF?s 8th replenishment cycle.**

5. Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing.

Baseline	**Incremental Cost**

Baseline	Incremental Cost
Under the baseline scenario there will continue to be a lack of a coordinated institutional-level approach and mechanism to ensure that knowledge generated from GEF projects implemented in CSIDS can be extracted and transformed to usable Green-Blue learning opportunities for application in policy solutions, and to influence future GEF project development. Notwithstanding the fact that institutions such as the University of the West Indies can serve as important potential nodes for knowledge synthesis and transfer, there will remain under the baseline scenario, no defined standing cooperation framework between the University of the West Indies and organizations serving as implementing and executing agencies for GEF projects to efficiently facilitate knowledge uptake. This will mean that the current situation will persist, where there will be limited ability to sustain the long-term utilization of knowledge products. Under the baseline, knowledge management will remain fragmented and confined to operational context within the projects while they are active. Without expanded engagement of the university in the GEF Partnership in the Caribbean in a knowledge hub capacity the university will likely remain uncommitted to forging deeper linkages, particularly where resource allocations may not be defined.	The GEF investment seeks to put in place a coordinated institutional-level approach and mechanism to ensure that knowledge generated from GEF projects implemented in CSIDS can be extracted and transformed to usable Green-Blue learning opportunities in the overarching context of sustainable land management and land degradation neutrality as an underpinning connecting to interrelated environmental challenges in alignment with the GEF focal areas. The critical contribution through this project will be the piloting of a cooperation framework between the University of the West Indies and organizations serving as implementing and executing agencies for GEF projects to efficiently facilitate knowledge uptake in a more harmonized approach. It is anticipated that this framework will define roles and responsibilities of UWI and key partners and define appropriate modalities to realize sustainability post-project and into the upcoming programming within GEF-8. The project anticipates ensuring that the university becomes recognized as a regional knowledge management hub for the GEF Partnership, serving as a template for replication and upscaling within the Caribbean and at the global SIDS level towards a SIDS-SIDS knowledge management framework which could be used to influence future project development.

Baseline	Incremental Cost
Under a business-as-usual scenario the situation will persist where there will be no demonstrable model and associated methodology for systematic extraction of green-blue learning resources from GEF projects that can be applied to curricula development and accompanying means of effective delivery means to users. Without a methodology for analysis of and extraction of Green-Blue learning elements, the opportunities to learn from ?live? GEF project knowledge capture and demonstration will not feed into the process of curricula development at the university that can in turn contribute not only to GEF project implementation but mainstreaming in communities of practice. Engagement of academia will remain short-term without continued evolution and validation of learning and experiences in a more sustainable way. Under the prevailing baseline there will continue to be limited tailoring potential learning content from GEF projects to current and popular dissemination platforms, avenues that can be expanded within a university setting where youth-oriented approaches may enrich knowledge dissemination and uptake. The baseline will continue to be characterized by relatively limited engagement among technical personnel from GEF Partnership agencies in joint learning opportunities via a KM hub that can be transferred to further project development and execution. The BAU will continue to see limited translation of knowledge gained from projects to inform policy and technical aspects of multilateral environmental agreement negotiations.	The GEF investment will demonstrate a viable model that employs a methodology for the evaluation and sourcing of opportunities for project-based learning based on best practice, extracting these learning opportunities and transformation of into Green-Blue learning elements, along with a means for delivery to student learners at graduate and undergraduate level, but importantly to practitioners and relevant stakeholders. Barbados and Grenada will serve as pilot countries in this effort based on project experiences. The suite of tools from the project learning and transformed into pilot curricula will be subject to a validation process by users within the university and among practitioners. Opportunities will be sought to start embedding replicable content into existing or new course offerings. The project will build on the current limited baseline of GEF project learnings within the university knowledge management system to expand to a range of content that contributes updates on new and emerging technical and policy approaches in green-blue economy development, capitalizing on emerging delivery digital tools and social media platforms. A notable avenue for capitalization will be the advancements made in accessibility to online group meeting and learning platforms that rapidly evolved in functionality and capability as a result of the COVID-19 pandemic. A particularly important consideration in the digital transformation context is the opportunity to cultivate youth-oriented approaches within the university setting to enrich knowledge dissemination and uptake. The project investment will contribute to a closer community of practice among technical personnel from GEF Partnership agencies via the KM hub and will foster improved translation of knowledge to strengthen multilateral environmental agreement negotiations.

Baseline	Incremental Cost
Under the BAU scenario, without a KM hub arrangement there will continue to be relatively limited awareness and means to network among stakeholders to support effective dissemination of Green-Blue tools originating from the GEF project partnership and promote their application. The situation of relatively limited tracking on uptake and application of tools beyond the life of the projects will likely persist without a means to assess utility and application. Importantly there will remain the inability to transfer knowledge across socio-cultural contexts, particularly where language translation is factor that requires consideration. Under the prevailing scenario communication approaches across the GEF project partnership in the Caribbean region will remain rather disjointed with lost opportunity to synergize messaging on common themes that could be otherwise harmonized and facilitated via a KM hub. Under the baseline situation Caribbean SIDS will likely continue to have limited profiling at major events of effective application of knowledge acquired and low capacities in maintaining presence in global arenas.	The baseline scenario will be elevated through the definition of clear communication and stakeholder engagement pathways. The project will raise awareness of the concept of the KM Hub to the GEF Caribbean Partnership and solicit buy-in across sectors. The project will use the learnings developed from the pilot countries Barbados and Grenada (although content developed from regional collaborations involving other countries will be used) to target stakeholders. Emphasis will be placed on securing private sector interests and building coherent linkages to GEF resource programming under the GEF-8 replenishment where tourism, agriculture/fisheries and urban development sectors are of priority under the Green-blue Islands Integrated Program. Through an enhanced communication pathway supported by the project and by extension the hub, there will be a greater ability to track uptake and application of tools beyond the life of the projects within a community of practice. Key to the GEF investment on the baseline will be to ensure there is continued gains made to ensure socio-cultural relevance and that gender considerations are integrated. The project will lessen fragmentation in communication of best practices across the Caribbean GEF project partnership and present a means to better harmonize the messaging on common themes. All this will be extended to showcasing at various regional and global events in collaboration with partners.

6. Global Environmental Benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF)

The project will facilitate CSIDS and other SIDS countries being able to generate GEBs and maintaining the health of the environment through the extraction of knowledge and learning in a systematic manner, including, inter-alia; environmentally sound and innovative technologies, green-blue approaches and climate resilient methods and tools and making them accessible to a wide cross-section of stakeholders. It will contribute to countries? capacities to generate global environmental benefits within the framework of the GEF land degradation, biodiversity, climate change and chemicals & waste focal areas in the context of maintaining the integrity of production in Caribbean landscapes to realize multiple benefits of reducing biodiversity loss, pollution mitigation and enhancing resilience to climate change. The importance of conservation of landscapes in the Caribbean is underpinned by the fact that the region is an ecological hotspot possessing a relatively high proportion of endemism that represents 2.6 percent of the world?s 300,000 plant species, and 3.5 percent of the world?s 27,298 vertebrate species[89]89. The project will contribute to implementing the UNCCD in the scope of its Strategic

Framework 2018-2030, specifically to contribute to enhanced enabling environments to support scaling up and mainstreaming of sustainable land management and land degradation neutrality.

The project will contribute to urgent national imperatives in the target countries of Barbados and Grenada and by extension the Caribbean, that are reflected at the global level in stimulating post COVID-19 recovery of economies and livelihoods using innovative approaches to foster more nature-based solutions in sustainable use of natural resources; the effort to build-back-better on the basis of green-blue learning opportunities. The project will serve as a model and vehicle for SIDS for the development of strategies, plans and policies for implementing Inclusive Green-Blue Economy programmes across sectors, including within civil society and the private sector, as well as strengthening capacities for policy analysis and contributing to the reframing of economic and national development policies along Inclusive Green Economy (IGE), Sustainable Development Goals (SDG) and climate action priorities.

7. Innovation, Sustainability and Potential for Scaling up

Innovation: The project intends to demonstrate several innovative approaches in enhancing sustainability of knowledge transfer and translation into practice in a small island development context. It will be one of the first projects to be implemented in SIDS designed to specifically extract Green-Blue learning from GEF projects implemented by CSIDS via a dedicated, institutional knowledge hub for transformation into curricula, training modules and other platforms for learning. This is intended as an innovative means of enhancing the process of infusing knowledge from best practices into design and implementation of green-blue initiatives and concretely contribute to urgently needed sustainable ?build-back-better? recovery in the aftermath of the COVID-19 pandemic. The central innovative feature of the project is that it provides support for the formalization of a SIDS-SIDS Green-Blue Economy Knowledge Transfer Hub, a long-needed institutional mechanism which has taken almost three decades after the adoption of Chapter 17.G. entitled *Sustainable Development of Small Islands,*[90]90 as part of Agenda 21 and the convening of the First UN Conference on the Sustainable Development of SIDS in Barbados 1994, to have the likelihood of becoming a reality. This project will harness best-practice in policy and technical solutions for learning from prior and current GEF initiatives in the Caribbean, and Barbados and Grenada as the project target countries, to test the methodology. This will be a positive development which is intended to long-lasting implications for the sustainable development of SIDS, in general. This will provide the basis for the KTH that over time can evolve as a *SIDS Green-Blue Learning Centre of Excellence*.

Sustainability: A number of metrics of sustainability have already been established. The University of the West Indies (Cave Hill) is committed to the establishment of the SIDS-SIDS Green-Blue Economy Knowledge Transfer Hub with a vision toward evolution into a SIDS-Global Green-Blue Learning Centre of Excellence within the framework of a global partnership. This is in line with its raison d'?tre as a well-established and respected institution of higher learning that already serves the needs of the Caribbean region in knowledge generation, learning, and dissemination. The UWI is fully capable of meeting the needs of stakeholders and the community of practice for GEF project learning beyond its institutional remit, aided by partnership building.

A key part of the sustainability model to be explored and developed in this project is the sustainability resource flows to support the continued work of the university within the GEF Partnership so that it is no longer driven via project-by-project engagement. In this regard, the commitment of the member countries (through the GEF Operational Focal Points), GEF Implementing Agencies and Executing partners will need to be secured so that new initiatives are programmed with substantive engagement roles for the university in management of and harmonization of the knowledge management components of projects. This effectively means that with the commencement of the project, a process will be initiated to create a dynamic link with UWI via the KTH to the GEF Partnership (OFPs, GEF IAs) for assurance that incoming relevant GEF initiatives will have a knowledge management feed into the Hub. This

process will be largely enabled through the work of the STAG and facilitated by the Scientific and Technical Specialist, supported by the Knowledge Hub Development Specialist and Project Manager.

A Resource Mobilisation Strategy will be developed and executed by the project that will provide financial sustainability options for long-term operation of the KTH. Resource mobilization options for the KTH operation will be informed by the approach and methodology that is developed and adopted, hence will be further defined over the course of implementation by the Resource Mobilization Specialist. While the financial sustainability model will be built out to some extent from existing modalities that UWI already has in place for cost recovery in course and programme offerings, it is expected that new mechanisms will be sought to meet this new niche that is proposed as embodied by the KTH; the Endowment Fund is to be established for this purpose.

To enhance sustainability of results and realize further institutionalization of the initiative, the KTH will host other knowledge portals, approved by the policy makers of CSIDS. One of these is a proposed Private Sector Knowledge Support and Engagement Portal,[91]91 that will provide increased access to the private sector, to ensure there is a connection between the academic host and the work being undertaken by private sector on the ground. This in turn will lend support to the planned development of a private sector knowledge support programme for SIDS that will be designed during project implementation, with additional funding sought for its further development. This programme will facilitate transfer of knowledge, technology and approaches that can lead to increased innovation in a SIDS context, contribute to the maintaining of a healthy environment and to the delivery of GEBs. It should be noted that the point of reference for this programme is articulated in the SAMOA Pathway, related to the attainment of *Sustained and Sustainable, Inclusive and equitable economic growth with Decent Work for All*[92]92 where knowledge-based solutions are applicable. These include development of public-private partnerships, international cooperation, exchanges and investments in formal and non-formal education and training to create an environment that supports sustainable investments and growth, fostering entrepreneurship and innovation, building capacity and increasing the competitiveness and social entrepreneurship of micro, small and medium-sized enterprises, the creation of decent jobs and debt sustainability.

Sustainability with respect to private sector engagement and enterprise development facilitation based on knowledge exchange will be expanded via agreements to which CSIDS are party, such as the Economic Partnership Agreement (EPA) where funding mechanisms have been put in place to facilitate the participation of the private sector. In this regard, a SIDS-EU Green Knowledge Initiative is proposed based on elements of the EPA between CARIFORUM States on the one part, and the European Union and its Member States, on the other part**,** where Articles 136 and 138 make provision for cooperation on science and technology and eco-innovation, respectively, as well as cooperating on relevant elements of the ?European Green Deal.?[93]93 Specific emphasis will be placed on the youth with contribution to the proposed creation of ?Green Entrepreneurial Centers for Youth?, pursuant to Article 52 (a) of the Revised Treaty of Chaguaramas Establishing the Caribbean Community, including the CARICOM Single Market and Economy (CSME), that advocates mainstreamed application of green technical skills and business practices. These Green Entrepreneurial Centres for Youth will form an integral part of the micro, small and medium-sized enterprises knowledge transfer partnerships.

The Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States,[94]94(MS-BPOA) while recognizing that tourism is an important contributor to economic growth in SIDSs, underscores the challenge faced by these countries to strengthen linkages to other sectors, specifically with regard to creating synergistic linkages between the tourism and agricultural sectors by promoting local food and beverage supply chains, rural and agro-tourism. In the aftermath of the COVID-19 pandemic the need to focus on new innovative approaches to tourism development has become increasingly more important as SIDS attempt to ?Build Back Better?.

To facilitate enhancement of sustainability and scale-up, with the application of innovative approaches as part of Build Back Better efforts, the project will facilitate the elaboration of a proposed pilot SIDS Food Tourism Initiative and associated SIDS Food Label that is synonymous with SIDS sustainability and traditions. This is consistent with the island food and sustainable tourism support Initiative based on community participation as highlighted in the SAMOA Pathway.[95]95

The Hub will facilitate consultations among SIDS to discuss knowledge management linkages with GEF and GCF project development and application of knowledge accumulated by the KTH. It is anticipated that the Hub will contribute to design of relevant global SIDS projects. One such project recommended by stakeholders is the formulation of a SIDS Clean-Tech Initiative, as joint project, with the KTH taking a lead with the PAGE Agencies.[96]96

Scaling?up potential: The implementation of this project offers significant potential for the scaling up of the knowledge management approach to generate global environmental benefits through improved sustainable land and coastal area resource management from Caribbean SIDS to global SIDS. This project is being designed as a precursor to the development of a wider regional-scale CSIDS Project on green-blue knowledge management that is anticipated to be emulated across global SIDS regions toward the evolution of a SIDS-Global Green-Blue Learning Centre of Excellence. The CSIDS knowledge hub will be connected to other regional and global knowledge management networks not only across environmental specialist interests, but across commercial sectoral areas (tourism, agriculture/fisheries, manufacturing), where the project will define the best modalities for establishing connections and the means of ensuring that knowledge of greatest topical relevance can be easily shared not only within the university learning offerings but also to the wider community of practice. The critical factor to lend toward scaling-up potential is that the knowledge products will be positioned in a demand-driven context where learning offerings are certified and contribute to professional accreditation and certification via affiliate partners (professional associations, development partners, etc.). The project will lay the basis for replication to the other SIDS global regions and draw from the successes and learn from the challenges from previous efforts, to ensure the scaling-up achieves permanence. The project anticipates to actively promote the gains from this proof-of-concept to an established modality to be upscaled within the GEF-8 programming.

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[1] See Agenda 21, Chapter 17G entitled ?Sustainable development of small islands?

[2] Ibid

[3] http://www.un-documents.net/sids-act.htm

[4] Paragraph 62, Barbados Programme of Action

[5] Paragraph 64. A. (i), Barbados Programme of Action

[6] Paragraph, 64. C. (i) Barbados Programme of Action

[7] https://sustainabledevelopment.un.org/samoapathway.html

[8] Paragraph 109 (h), SAMOA Pathway

[9] Paragraph 109 (h), SAMOA Pathway

[10] See 32, Barbados Programme of Action

[11] CSIDS-SOILCARE Phase1 https://www.thegef.org/projects-operations/projects/10195

[12] https://www.unep.org/cep/resources/report/socar-report

[13] ibid

[14] https://knowledge.unccd.int/publications/land-degradation-assessment-small-island-developing-states-sids

[15] ENSO is one of the most important climate phenomena on Earth due to its ability to change the global atmospheric circulation, which in turn, influences temperature and precipitation across the globe

[16] Cadogan (2021) Climate change and water ? Are sustainable practices enough to adapt *in* Spotlight on Caribbean Climate, CCCCC https://joom.ag/brUI

[17] https://caricom.org/documents/16630-un_environment_-_the_state_of_biodiversity_in_the_caribbean_community_b5....pdf

[18] https://www.cepf.net/sites/default/files/cepf-caribbean-islands-ecosystem-profile-december-2020-english.pdf

[19] https://www.unep.org/cep/resources/publication/marine-pollution-caribbean-not-minute-waste

[20] Such a Recovery Strategy has been called for by a number of Fora, including the Forum of Ministers of the Environment for Latin America and the Caribbean in their Decision 8 and the Bridgetown Declaration adopted by the XXII Meeting of the Forum of Ministers of the Environment for Latin America and the Caribbean held on 1-2 February 2021 hosted by Barbados.

[21] Moore, W., Alleyne, F., Alleyne, Y., Blackman, K., Blenman, C., Carter, S., Cashman, A., Cumberbatch, J., Downes, A., Hoyte, H., Mahon, R., Mamingi, N., McConney, P., Pena, M., Roberts, S., Rogers, T., Sealy, S., Sinckler, T. and A. Singh. 2014. Barbados? Green Economy Scoping Study. Government of Barbados, University of West Indies - Cave Hill Campus, United Nations Environment Programme, 244p. See -Barbados' Green Economy Scoping Study-2014Barbados GESS study.pdf (unep.org)

[22] Ibid.

[23] https://wedocs.unep.org/bitstream/handle/20.500.11822/34956/Decisions_22.pdf?sequence=1&isAllowed=y

[24] https://www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF_C.58_Inf.07_GEF%27s%20Response%20to%20COVID-19.pdf

[25] Ibid

[26] www.ccreee.org

[27] www.gn-sec.net

[28] https://bloomcluster.com/

[29] https://www.gn-sec.net/content/bloom-regional-program

[30] Antigua and Barbuda, Dominica, Grenada

[31] Publications in this regard, include, *inter alia*:

? Robinson, Justin, Adrian Glean, and Winston Moore. "*How does news impact on the stock prices of green firms in emerging markets?*." Research in International Business and Finance 45 (2018): 446-453.

? Jackman, Mahalia, and Winston Moore. "*Does it pay to be green? An exploratory analysis of wage differentials between green and non-green industries*." Journal of Economics and Development (2021).

? Schuhmann, Peter W., et al. "*Visitors? willingness to pay marine conservation fees in Barbados*." Tourism Management71 (2019): 315-326.

? Moore, Winston. "*An assessment of green export opportunities for Barbados*." CEPAL Review (2013).

? Niles, Keron, and Winston Moore. "*Accounting for environmental assets as sovereign wealth funds*." Journal of Sustainable Finance & Investment 11.1 (2021): 62-81.

? Moore, Winston, Stephano Pereira, and Shamika Walrond. "*Comparative Advantage and Green Goods in the Caribbean*." Social & Economic Studies (2015): 59-90

[32] https://wedocs.unep.org/bitstream/handle/20.500.11822/34956/Decisions_22.pdf?sequence=1&isAllowed=y

[33] https://sustainabledevelopment.un.org/content/documents/20630San_Pedro_Declaration_Revised_AT.pdf.

[34] https://www.un-page.org/

[35] https://www.un-page.org/Barbados%20Country

[36] Griffith, M.D., Feasibility Study of the Establishment of a SIDS-SIDS Green-Blue Economy Knowledge Transfer Hub. Prepared for the The University of the West Indies, Cave Hill Campus, Office of the Deputy Principal; CaribInvest West Indies, Limited, June 2021.
[37] https://www.unep.org/cep/what-we-do/communication-education-training-and-awareness-ceta

[38] http://www.gefcrew.org/

[39] https://www.iweco.org/

[40] https://caricom.org/documents/4906-revised_treaty-text.pdf

[41] https://caricom.org/wp-content/uploads/capacity_building_mea_project_document.pdf

[42] https://www.oecs.org/en/our-work/knowledge/centre

[43] https://pislmsids.org/

[44] https://hub.canari.org/

[45] https://www.thegef.org/what-we-do/topics/gef-kaleo

[46] https://www.thegef.org/what-we-do/topics/knowledge-learning

[47] https://iwlearn.net/

[48] https://www.greengrowthknowledge.org/initiatives/gef-islands

[49] https://www.cbd.int/chm/

[50] https://bch.cbd.int/en/kb/tags/about/What-is-the-Biosafety-Clearing-House-BCH-/619c553658029700017ff43b

[51] https://absch.cbd.int/en/

[52] https://knowledge.unccd.int/home/about-knowledge-hub

[53] https://www4.unfccc.int/sites/NWPStaging/pages/About.aspx

[54] https://www.unep.org/publications-data

[55] https://www.unep.org/explore-topics/education-environment/what-we-do/earth-school

[56] https://wedocs.unep.org/bitstream/handle/20.500.11822/26515/BuenosAires_Declaration.pdf?sequence=2&isAllowed=y

[57] https://www.unep.org/pt-br/node/23747

[58] https://www.ilo.org/asia/media-centre/news/WCMS_760830/lang--ja/index.htm

[59] https://www.fao.org/americas/publicaciones-audio-video/en/

[60] https://www.fao.org/americas/programas-y-proyectos/en/

[61] https://www.fao.org/sids-solutions/en

[62] https://www.latinamerica.undp.org/content/rblac/en/home/sustainable-development.html

[63] https://www.unitar.org/learning-solutions

[64] https://www.unep.org/resources/report/redd-academy-learning-journal

[65] See SIDS Accelerated Modalities of Action (SAMOA) Pathway, paragraph 25

[66]Griffith, M.D., Feasibility Study of the Establishment of a SIDS-SIDS Green-Blue Economy Knowledge Transfer Hub. Prepared for the The University of the West Indies, Cave Hill Campus, Office of the Deputy Principal; CaribInvest West Indies, Limited, June 2021.

[67] The Latin America and Caribbean Regional Coalition on Circular Economy, will be led by a Steering Committee composed of four high level government representatives on a rotating basis, and eight permanent strategic partners: the Climate Technology Centre & Network (CTCN), the Ellen MacArthur Foundation (EMF), the Inter-American Development Bank (IDB), the Konrad Adenauer Foundation (KAS), the Platform for Accelerating the Circular Economy Coalition (PACE), the United Nations Environment Programme (UNEP), the United Nations Industrial Development Organization (UNIDO) and the World Economic Forum (WEF). The issues which the coalition was mandated by the Ministers to take into consideration are relevant to green growth issues. These issues, pursuant to Decision 2 of the Forum of Ministers include; *inter alia;*

a) Building a common regional vision on sustainable production and consumption, including but not limited to circular economy.

b) Serving as a platform to exchange best practices and promote South-South and North-South cooperation,

c) Providing science-based knowledge on the opportunities and co-benefits of a circular economy approach to post COVID-19 economic recovery, including its potential to create new jobs, promote innovation in resource efficiency practices and accelerate the adoption of sustainable consumption and production patterns. All this as an important contribution to achieve the goals under the United Nations Framework Convention on Climate Change (UNFCCC) and its Paris Agreement, and the Agenda 2030 for Sustainable Development.

d) Increasing dialogue and access financing for innovation and circular economy by governments and the private sector, with special emphasis on small and medium enterprises (SMEs).

e) Supporting resource mobilization for the operationalization of the Regional Coalition on Circular Economy and the implementation of projects in the region.

[68] (not including the controlling states) are *American Samoa, Commonwealth of the Northern Mariana Islands, Cook Islands, Federated States of Micronesia, Fiji, French Polynesia, Guam, Kiribati, Marshall Islands, Nauru, New Caledonia, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu and Wallis and Futuna*)

[69] Comprising of the five United Nations agencies?the UN Environment Programme (UNEP), the International Labour Organization (ILO), the United Nations Development Programme (UNDP), the

United Nations Industrial Development Organization (UNIDO), and the United Nations Institute for Training and Research (UNITAR)?which comprise the Partnership for Action on Green Economy (PAGE) along with representation from key Green Growth Non-Governmental organisations such as the Green Growth Knowledge Partnership (GGKP) and the Green Economy Coalition (GEC).

[70] Caribbean Development Bank, African Development Bank, Asian Development Bank

[71] Outcome 5.2. Knowledge Management, Technical Assistance and Communication on SLM and SSM Strengthened and Enhanced of SOILCARE Phase 1 has substantive Knowledge Management elements, including, inter alia; the establishment of a *Caribbean LDN and SLM Knowledge Hub which* will facilitate digital collaboration between the participating Member States as well as with other SIDS and the rest of the world in general, thus enabling the sharing of experiences, knowledge and learning about LDN, SSM and SLM issues.

[72] See GEF STAP, UNDERSTANDING SOUTH-SOUTH COOPERATION FOR KNOWLEDGE EXCHANGE, 61st GEF Council Meeting December 06 ? 09, 2021 Virtual Meeting, GEF/STAP/C.61/Inf.04 November 27, 2021, Global Environment Facility.

[73] The Latin America and Caribbean Regional Coalition on Circular Economy, will be led by a Steering Committee composed of four high level government representatives on a rotating basis, and eight permanent strategic partners: the Climate Technology Centre & Network (CTCN), the Ellen MacArthur Foundation (EMF), the Inter-American Development Bank (IDB), the Konrad Adenauer Foundation (KAS), the Platform for Accelerating the Circular Economy Coalition (PACE), the United Nations Environment Programme (UNEP), the United Nations Industrial Development Organization (UNIDO) and the World Economic Forum (WEF). The issues which the coalition was mandated by the Ministers to take into consideration are relevant to green growth issues. These issues, pursuant to Decision 2 of the Forum of Ministers include; *inter alia;*

f) Building a common regional vision on sustainable production and consumption, including but not limited to circular economy.

g) Serving as a platform to exchange best practices and promote South-South and North-South cooperation,

h) Providing science-based knowledge on the opportunities and co-benefits of a circular economy approach to post COVID-19 economic recovery, including its potential to create new jobs, promote innovation in resource efficiency practices and accelerate the adoption of sustainable consumption and production patterns. All this as an important contribution to achieve the goals under the United Nations Framework Convention on Climate Change (UNFCCC) and its Paris Agreement, and the Agenda 2030 for Sustainable Development.

i) Increasing dialogue and access financing for innovation and circular economy by governments and the private sector, with special emphasis on small and medium enterprises (SMEs).

j) Supporting resource mobilization for the operationalization of the Regional Coalition on Circular Economy and the implementation of projects in the region.

[74] CaribInvest (West Indies) Ltd, Asha Singh; Constance Vigilance AIMS IAESD Group, et al.,

[75] Headquartered in Saint George?s, Grenada, the Foundation has subsidiary offices in Antigua and Barbuda, the Commonwealth of Dominica, Saint Kitts Nevis, Saint Lucia and Saint Vincent and the Grenadines. The objectives of the Foundation, include, inter alia, promotion of Research, Innovation, Enterprise and Entrepreneurship through Training particularly among the youth and women in the OECS; the development via public private partnerships in all fields of socio-economic endeavour while tackling socio-economic issues of unemployment, gender issues, and governance primarily in the OECS and development of progressive-minded socio economic interests and jointly undertake programmes while

promoting strategic alliances with Private sector, Government interests and their respective authorities, globally with material and technical support and monetary assistance from regional and International organisations.

[76] The CRRF is to be established as an institutionalized partnership mechanism geared towards strengthening, harnessing and improving the coordination of recovery capacities; and the development of a more robust and resilient recovery solutions that has been approved by the Heads of Government of the Caribbean Community. The University of the West Indies (UWI) has been designated the lead role in the Recovery Knowledge and Information thematic cluster of the CRRF.

[77] This will support the Private Sector Development Knowledge Support Programme for SIDS to be implemented under Component 3.1.2.

[78] https://qcat.wocat.net/en/wocat/

[79] Bodosca, S and Streimikiene, D.; Cradle to Cradel: A Step Further for Sustainable Development in Tourism, Transformations in Business and Economic, Vol, 14, No. 2B (35B), 2015, pp. 548-556.

[80] https://www.thegef.org/sites/default/files/documents/2022-10/GEF_IP_BlueGreenIslands_2022_10_12.pdf

[81] Griffith, M.D., Feasibility Study of the Establishment of a SIDS-SIDS Green-Blue Economy Knowledge Transfer Hub. Prepared for the The University of the West Indies, Cave Hill Campus, Office of the Deputy Principal; CaribInvest West Indies, Limited, June 2021.

[82] Articles and 136 and 138 of the *Economic Partnership Agreement Between CARIFORUM States, on the one part, and the European Union and its Member States, on the other part***,** make provision for cooperation on science and technology and eco-innovation, respectively as well as cooperating on relevant elements of the ?European Green Deal?. https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:289:0003:1955:EN:PDF

[83] https://www.unep.org/explore-topics/education-environment/what-we-do/earth-school

[84] See Paragraph 30(f) of the SAMOA Pathway. https://sustainabledevelopment.un.org/samoapathway.html

[85] https://www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.E_C59_04_evaluation_of_KM_GEF_2020.pdf

[86] https://www.gefieo.org/evaluations/scce-sids

[87] https://www.thegef.org/sites/default/files/documents/2022-01/GEF_R.08_17_GEF-8_Programming_Directions.pdf

[88] https://www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF_C.58_Inf.07_GEF%27s%20Response%20to%20COVID-19.pdf

[89] https://www.cepf.net/sites/default/files/caribbean_ep_summary.pdf

[90] Chapter 17G of Agenda 21 that refers to *Sustainable development of small islands* in the context of Scientific and technical means recommends that (17.133) ?*Centres for the development and diffusion of scientific information and advice on technical means and technologies appropriate to small island developing States, especially with reference to the management of the coastal zone, the exclusive economic zone and marine resources, should be established or strengthened, as appropriate, on a regional basis*.? https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf

[91] This will support the Private Sector Development Knowledge Support Programme for SIDS to be implemented under Component 3.1.2.

[92] Paragraphs 23-30 of the SAMOA Pathway.

[93] This is a new growth strategy that aims to transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use.

[94] Paragraphs 50-52 of the MS-BPOA

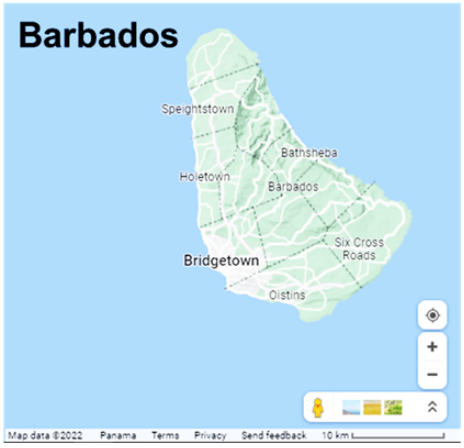
[95] Paragraph 30(f) of the SAMOA Pathway

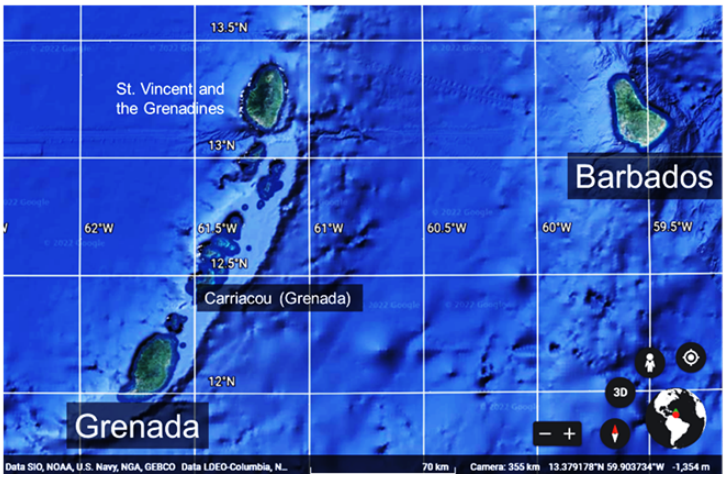
[96] Paragraph 30(f) of the SAMOA Pathway

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

https://www.nationsonline.org/oneworld/map/Caribbean-political-map.htm





1c. Child Project?

If this is a child project under a program, describe how the components contribute to the overall program impact.

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Civil Society Organizations Yes

Indigenous Peoples and Local Communities Yes

Private Sector Entities Yes

If none of the above, please explain why:

Please provide the Stakeholder Engagement Plan or equivalent assessment.

Please refer to Annex P - Stakeholder Engagement Plan and Gender Strategy

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement

Table 1. Core project stakeholders and roles in project implementation (an expanded stakeholder listing and mapping by output engagement is contained in Annex P)

Stakeholders	**Roles in Project Implementation** ***[main outputs]***
Ministry of Environment and National Beautification, **Barbados**	***Lead country; Co-financier***. Lead technical contributor in project implementation. Focal Point for the PAGE-Barbados Programme from which project development has been built based on recommendations from the programme. Provision of overall policy and technical guidance and ensuing congruence with the relevant decisions of the XXII LAC Forum of Ministers (given Barbados? role as President of the Forum) in the shaping the proposal. ***[Main outputs: 1.1.1, 2.1.2, 2.1.3, 3.1.3]***
Ministry of Climate Resilience, The Environment, Forestry, Fisheries, Disaster Management and Information, **Grenada**	***Lead country; Co-financier*** Lead technical contributor in project implementation. Provision of overall policy and technical guidance. ***[Main outputs: 1.1.1, 2.1.2, 2.1.3, 3.1.3]***
Caribbean National Convention Focal Points; (UNCCD and others; UNCBD, UNFCCC); GEF OFPs	Follow on outcomes of Decision 8 of the XXII Meeting of the Forum of Ministers of Environment for Latin America and the Caribbean, which called for the establishment of a SIDS-SIDS Knowledge Transfer Hub, preferably in a SIDS University (endorsed by 33 Member States of LAC); participation on Special SIDS Working Group (of the Forum) to advance the establishment of the Hub to ensure synergy and complementarity with the knowledge management efforts with the GEF SOILCARE Project (Phase 1) and other major regional initiatives. ***[Main outputs: 1.1.2, 1.1.3, 2.1.3, 2.1.4, 3.1.2]***
University of the West Indies ? Cave Hill Campus, through the SIDS-SIDS Green-Blue Economy Knowledge Transfer Hub	***Project Executing Agency, Co-financier***. Host agency for the SIDS-SIDS Green-Blue Knowledge Transfer Hub; overall lead technical contributor with responsibility for project implementation and technical backstopping for the PAGE-Barbados Programme. ***[all outputs]***

Stakeholders	**Roles in Project Implementation *[main outputs]***
University of the West Indies ? Mona Campus, Jamaica ? St. Augustine Campus, Trinidad and Tobago ? UWI Five Islands (Antigua and Barbuda)	Supporting technical contributors to UWI Cave Hill Campus Lead in project implementation and technical backstopping for the overall initiative; provide cross-disciplinary inputs and guidance on proposal development from stakeholders in the resident countries. Specific engagements by the various campuses are anticipated as follows: ? Mona Campus (*Secondary KTH Node*): (1) *Institute for Gender and Development Studies*: gender mainstreaming; (2) *Institute for Sustainable Development*: connection with sustainable development solutions and the university consortium for SIDS, and Hub node partner; (3) *Climate Studies Group Mona*: climate change scenarios and the potential impacts. ? St Augustine Campus (*Secondary KTH Node*): (1) *Faculty of Food and Agriculture*: land management and sustainable development. Lead development of Soil Information Infrastructure under the GEF-SOILCARE Phase 1 Project; (2) *UWI Global Institute for Climate Smart and Resilient Development*: climate change and resilience solutions. ? Five Islands Campus (*Secondary KTH Node*): serve as part of the training hub for Antigua and the Eastern Caribbean ***[Main outputs: 1.1.1, 2.1.1, 2.1.2, 2.1.3]***
The Office of H.E.Ambassador of Barbados to Belgium, France, Germany, Luxembourg, The Netherlands and the European Union Embassy of Barbados, Belgium	Advisory support to the project implementation and provision of liaison with SIDS representatives within the context of the ACP Group and with the European Union related organizations. Will support direct bilateral engagement with representatives from other Caribbean and global SIDS in capacity development. ***[Main outputs: 2.1.4]***
United Nations Coordination Office for the PAGE-Barbados Programme	***Co-financier.*** Advisory support to the project implementation. Focal Point for the PAGE-Barbados Programme and establishing link between UNITAR and UWI-Cave Hill Campus in mobilizing initial investment for the Feasibility Study for the SIDS-SIDS Green Economy Knowledge Transfer Hub; identification of opportunities for support through GEF Partnership. Participation through direct bilateral and sectoral engagements. ***[Main outputs: 1.1.1, 1.1.2, 1.1.3, 2.1.1, 2.1.2, 2.1.3, 2.1.4, 3.1.1, 3.1.2, 3.1.3]***

Stakeholders	**Roles in Project Implementation *[main outputs]***
One Planet Network / 10-Year Framework of Programmes on Sustainable Consumption and Production (10YFP)	***Co-financier.*** Advisory support to the project implementation. Enhancing capacities of stakeholders for mainstreaming and implementing sustainable consumption and production patterns (application of the SCP Hotspot Analysis Tool), promotion of knowledge on circularity applied to high-impact sectors, and advancement of priorities for the SIDS regions such as sustainable tourism and sustainable lifestyles and education. ***[Main outputs: 1.1.2, 2.1.3, 3.1.2]***
Grenada National Training Agency (GNTA)	Advisory and consultative inputs on development and utilization of green-blue learning elements and roll out of pilot learning in association with public and private sector in Grenada. ***[Main outputs: 2.1.1, 2.1.2, 2.1.3]***
T. A. Marryshow Community College (TAMCC)	Advisory and consultative inputs on development and utilization of green-blue learning elements and roll out of pilot learning in association with public and private sector in Grenada. ***[Main outputs: 2.1.1, 2.1.2, 2.1.3]***
University of Technology (UTech), Jamaica	Caribbean SIDS academic node for knowledge sharing and exchange; replication of the curricula development methodologies. ***[Main outputs: 1.1.1, 2.1.1]***
University of Guyana	Caribbean SIDS academic node for knowledge sharing and exchange; replication of the curricula development methodologies. ***[Main outputs: 1.1.1, 2.1.1]***

Stakeholders	**Roles in Project Implementation *[main outputs]***
<u>Private Sector</u> ? Barbados Chamber of Commerce ? Export Barbados ? Barbados Private Sector Association ? Barbados Hotel and Tourism Association ? Caribbean Export and Development Agency ? Grenada Chamber of Commerce and Industry ? Grenada Industry and Development Corporation ? Grenada Hotel and Tourism Association	Inputs in project implementation in context of directing private sector industry knowledge management needs and receiving capacity development support around blue-green appropriate technology uptake and application on various themes (resource efficiency, pollution mitigation, sustainable land management among others). Provision of advisory inputs on preferred modes of knowledge access, capacity building modalities, avenues for widened private sector engagement, means of assessing efficacy and providing feedback, long-term sustainability options and strengthening industry partnerships. To be engaged through direct bilateral and group participation. ***[Main outputs: 2.1.3, 3.1.2]***
Barbados National Organisation of Women	Consultative inputs in integrating gender considerations into the project output delivery, specifically in piloting the curricula products in Barbados, upscaling and replication into wider practice in the country. ***[Main outputs: 2.1.3, 3.1.2]***
Grenada National Organization of Women (GNOW)	Consultative inputs in integrating gender considerations into the project output delivery, specifically in piloting the curricula products in Grenada, upscaling and replication into wider practice in the country. ***[Main outputs: 2.1.3, 3.1.2]***
Caribbean Community Secretariat (CARICOM) Secretariat	***<u>Co-financier</u>.*** Advisory support in project implementation in networking with ongoing KM efforts in the CARICOM Region. To provide support to countries through direct bilateral and multi-country engagements. ***[Main outputs: 1.1.2, 1.1.3, 2.1.4]***
Organization of Eastern Caribbean States (OECS)	***<u>Co-financier</u>.*** Advisory support in project implementation in networking with ongoing KM efforts in the OECS Sub-Region. To provide support to countries through direct bilateral and multi-country engagements. ***[Main outputs: 1.1.2, 1.1.3, 2.1.4]***

Stakeholders	**Roles in Project Implementation *[main outputs]***
Cartagena Convention Secretariat, Caribbean Regional Seas Programme	Consultative inputs related to learning from relevant regional GEF projects (mainly in International Waters) in the Convention area and opportunities for adaptation along project learning modalities and the GEF IW-LEARN. Will provide support to countries through the Convention governance mechanism via direct bilateral and multi-country engagements. ***[Main outputs: 2.1.1, 3.1.2]***
Caribbean Development Bank (CDB)	Advisory inputs in project implementation in access to sustainable financing options through partnerships with bank-financed initiatives and partners to support the work of the Hub in the long-term. ***[Main outputs: 1.1.1, 1.1.2, 3.1.2]***
Partnership Initiative on Sustainable Land Management (PISLM)	***Co-financier.*** Advisory support in project implementation in networking with ongoing KM efforts in implementation of the UNCCD within the Caribbean partnership. To provide support to countries through direct bilateral and multi-country engagements. ***[Main outputs: 1.1.2, 1.1.3, 3.1.2]***
Banco de Desarrollo de Am?rica Latina (CAF)	***Co-financier.*** Advisory inputs in project implementation on sustainable financing options through partnerships with bank-financed initiatives and partners to support the work of the Hub in the long-term. ***[Main outputs: 1.1.1, 1.1.2, 2.1.3]***
Caribbean Youth Environmental Network (CYEN)	***Co-financier.*** Advisory and consultative inputs on utilization of green-blue learning elements through pilot learning in association with public and private sector in Barbados and Grenada. ***[Main outputs: 2.1.2, 2.1.3, 3.1.2]***
Alliance of Small Island States (AOSIS) Secretariat	Advisory support in project implementation in networking with ongoing KM efforts across SIDS regions. To provide support to countries through direct bilateral and multi-country engagements. ***[Main outputs: 1.1.3, 2.1.4]***
The United Nations Institute for Training and Research (UNITAR)	Consultative inputs in project implementation. Initial investment for undertaking of the feasibility study for the SIDS-SIDS Green Economy Knowledge Transfer Hub on which the project is built. To provide support to countries through direct bilateral and multi-country engagements. ***[Main outputs: 1.1.2, 2.1.3, 3.1.2]***

Stakeholders	Roles in Project Implementation *[main outputs]*
United Nations Environment Programme (UNEP), Latin America and Caribbean Office	Facilitating consultative inputs from other GEF teams working in the Caribbean and within the organization on experiences with KM. This includes the Cartagena Convention Secretariat. To provide support to countries through direct bilateral and multi-country engagements. ***[Main outputs: 1.1.2, 2.1.4, 3.1.2]***
United Nations Industrial and Development Organisation (UNIDO)	Inputs regarding the involvement of the Global Network of Regional Sustainable Energy Centres (GN-SEC) covering 36 of 38 SIDS and facilitating south-south and triangular cooperation on joint sustainable energy issues and solutions (e.g. flexible power grids, ocean energy, electric mobility, climate resilient energy planning). To provide support to countries through direct bilateral and multi-country engagements. ***[Main outputs: 1.1.2, 2.1.3, 3.1.2]***
UN Office of the High Representative for the LDCs, LLDCs and SIDS (UN-OHRLLS)	Advisory support in project implementation in networking with ongoing KM efforts across SIDS regions. To provide support to countries through direct bilateral and multi-country engagements. ***[Main outputs: 1.1.2, 2.1.4, 3.1.2]***
United Nations Department of Economic and Social Affairs (UNDESA)	Advisory support in project implementation in networking with ongoing KM efforts across SIDS regions. To provide support to countries through direct bilateral and multi-country engagements. ***[Main outputs: 1.1.2, 2.1.4, 3.1.2]***
Foundation for Research Innovation Enterprise Entrepreneurship Training and Development in the OECS (FRIEETAD)	Consultative inputs in project implementation and networking with ongoing KM efforts in the OECS Sub-region. To provide support to countries through direct bilateral and multi-country engagements. ***[Main outputs: 1.1.2, 2.1.3, 3.1.2]***
GEF Scientific and Technical Advisory Panel (STAP)	Technical advisory support in the development and validation of the green-blue learning element extraction methodology toward adoption and replication within the GEF Partnership. ***[Main outputs: 2.1.1, 3.1.2]***

Select what role civil society will play in the project:

Consulted only;

Member of Advisory Body; Contractor;

Co-financier; Yes

Member of project steering committee or equivalent decision-making body; Yes

Executor or co-executor;

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

The project considers assurance of gender mainstreaming across all the project components and within the monitoring and evaluation framework to ensure that the outputs and benefits are equitably accessed. It is acknowledged that there may likely be differential interface and application of knowledge between men and women which in turn can make a difference in how the project may contribute towards enhancing social and economic empowerment. The project attempts to take this into account in the consultative processes, development of the project outputs, their application and scaling up in the context of sustainability. The project design will follow the GEF *Guidance to Advance Gender Equality in GEF Projects and Programs* (2018)[97] and incorporate gender-disaggregated indicators to measure and report on the gender equity in participation in project activities, both at the advisory and at the implementation levels. Indicators will track contributions at the results/outcome level in the context of how knowledge is generated and applied in uptake at the beneficiary level. The project will ensure participation of stakeholders that are active in promoting, seeking benefits and safeguarding gender-based rights. Roles for these partners have been identified across the three project components and gender-sensitive monitoring of benefits are included within the project monitoring framework.

At the regional level, existing overarching frameworks will be referenced to guide the integration of gender equality, women?s empowerment and the participation of indigenous peoples into the project. One such framework is the 1997 *Charter of Civil Society*[98] for the Caribbean Community (CARICOM) adopted by the Conference of the Heads of Government of the Caribbean Community, along with a Memorandum of Understanding signed between the CARICOM Secretariat and UN-Women on *Gender Equality and the Empowerment of Women* (2017)[99] to support the Community?s work on gender and regional statistics. The scope of the MOU includes collaboration in provision of Caribbean-wide data, statistics and analysis on the implementation of the gender dimensions of the Sustainable Development Goals (SDGs) and the SIDS Accelerated Modalities of Action known as the SAMOA Pathway. The recently developed OECS Commission Gender Policy (2022)[100] will also be used as a reference for the project. This policy guidance, although designed within the scope of the OECS Members States of which Barbados is not a part, will be useful to strengthen gender considerations to be taken into account under the project. The policy statement considers integration and mainstreaming of gender in the OECS?s policies and in its programming work with the countries. The Institute for Gender and Development Studies of the UWI will play a key advisory role in project execution where a representative will serve on the Project Steering Committee and be included in the working groups that will be established to ensure that gender is mainstreamed within technical output delivery and in assuring gender-equitable access to benefits generated as a result of the project. The Grenada National Organization of Women (GNOW) and the Barbados National Organisation of Women are two national CSOs that will be engaged during the project implementation process in conjunction with the development of learning curricula. This relationship will be explored further at project inception under the guide of UWI?s Institute for Gender and Development Studies. The project gender engagement approach is detailed in the Stakeholder Engagement Plan, Annex P.

[97] https://www.thegef.org/sites/default/files/publications/GEF_GenderGuidelines_Dec2018_CRA_web.pdf

[98] https://caricom.org/documents/12060-charter_of_civil_society.pdf

[99] https://caricom.org/caricomun-women-sign-mou-on-gender-equality-empowerment/#:~:text=The%20MOU%20on%20Gender%20Equality,known%20as%20the%20SAMOA%20Pathway.

[100] https://oecs.org/en/our-work/knowledge/library/gender/oecs-commission-gender-policy

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Yes

Closing gender gaps in access to and control over natural resources;

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women Yes

Does the project?s results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Elaborate on the private sector's engagement in the project, if any.

Private sector engagement is at the core of the project, given that they are among the primary beneficiaries in uptake and replication of solutions made accessible through the knowledge management hub in contributing to economic transformation processes toward an inclusive green-blue economy and assist to hasten COVID-19 pandemic economic recovery. The project, in formalizing the KTH is anticipated to contribute to the establishment of a private sector knowledge transfer partnership that will facilitate transfer, uptake and application of knowledge and technology to micro, small and medium-sized enterprises in facilitating green-blue economy business-relevant research, business development and training. These activities will contribute to increased innovation in a SIDS context around maintaining ecosystem health and delivery of GEBs. The project support to private sector will align to Articles 51 through 65 pertaining to the Policies for Sectoral Development (Chapter Four) of the Revised Treaty of Chaguaramas Establishing the Caribbean Community, Including the CARICOM Single Market and Economy (CSME), where the KTH will contribute knowledge to mainstream application of green and blue technical skills and business practices to ensure sustainability.

Work initiated under the PAGE-Barbados Programme, along with the knowledge contributions from GEF and other relevant projects will serve as a springboard for engagement of the private sector, where the project will elaborate a knowledge transfer model built on existing capacity building programmes offered through development partner affiliates and private sector associations. The main private sector organizations in Barbados to be engaged in the project include the Barbados Chamber of Commerce, Export Barbados, the Barbados Private Sector Association and the Barbados Hotel and Tourism Association. In Grenada lead private sector umbrella organizations will include the Grenada Chamber of Commerce and Industry, the Grenada Industry and Development Corporation and the Grenada Hotel and Tourism Association. The Caribbean Export and Development Agency, an umbrella trade facilitation organization will be engaged at a regional integration level in the wider promotion of the knowledge hub to constituents, and support drawing best practice knowledge to the Hub. The project will ensure that learning products are based on demand-driven needs of private sector interests, underpinned by a cost recovery model that will aid in sustained development and delivery of knowledge products and course offerings in the long-term.

During the initial stages of project implementation under a pilot programme, private sector organizations in Barbados and Grenada, whether collectively (under umbrella representation) or individually, will be solicited to provide inputs on green-blue capacity development and associated knowledge management needs on various topics, for example, resource use efficiency, sustainable consumption and production, pollution mitigation, sustainable land and water management, climate-smart agriculture, ecosystem-based restorative measures, among others. Inputs will be provided on preferred modes of knowledge access and transfer, avenues for widened private sector engagement, strengthening industry partnerships, means of assessing efficacy and long-term sustainability options. These inputs will be compiled through interaction between private sector representatives and project specialists organized via specific working groups in Barbados and Grenada. Learning elements directed to the Barbados pilot will focus primarily on transformative approaches in the application of nature-based approaches in small and medium sized enterprises mainly connected to sustainable tourism development. In the case of the Grenada pilot, the learning elements will be applied mainly to addressing land degradation, promotion of sustainable land management and contributing to attaining land degradation neutrality (LDN) with primary emphasis on the agricultural sector. The learning elements and derived curricula will integrate gender-sensitive considerations to enhance access to green-blue economic opportunities by women and vulnerable stakeholders.

The project will adopt an innovative partnership approach with the engagement of the Caribbean Youth Environment Network (CYEN) in the two target countries. This was borne out of stakeholder guidance in the project PPG phase to purposely contribute to entrepreneurial opportunity enhancement and the spread of technical and business skills to youth stakeholders. In piloting the learning elements at the national level, at least 200 ?pilot learners? will be solicited to include members from the national chapters of the CYEN of Barbados and Grenada; targeting young professionals that are already engaged in relevant green and blue economy segments from private sector and other support organizations. They will constitute the initial cohort to make input into the formulation of curricula and for the testing and validation of the knowledge extraction approach and methodology. The learning cohorts to be selected will be based on their existing or potential roles in knowledge transfer to peers, colleagues and wider stakeholders in their communities of practices. The outcome of the green-blue learning methods piloted in Barbados and Grenada will provide the basis for application in the design of leaning products (under Output 2.1.2) which will be integrated into the UWI curricula development processes and offerings to students and in the development of curricula and knowledge products for training and skills development in the private sector at the wider level.

The project will host at least two Green-Blue Solutions Marketplace Events within both Barbados and Grenada that will be designed to showcase the methodology for extracting of innovative green-blue learning elements from select GEF projects implemented in CSIDS, and how these are upscaled to private sector application. The marketplace events will be designed to be replicable perhaps on a two-year cycle at various host locations in the Caribbean so that it becomes a regular fixture within the Caribbean. These marketplace events will be hosted in partnership with organizations working with sustainable green and

blue economy such as the Commonwealth Fund for Technical Cooperation, Green Growth Knowledge Partnership, Green Economy Coalition, One Planet Network, PAGE Agencies, local and regional financial institutions and business partners engaged in technology promotion applicable to SIDS. To emerge out of these marketplace events will be the shaping of a private sector knowledge support portal within the Hub architecture that will ensure there is sustained connection between academic partners and the private sector work in Barbados and Grenada in the first instance, to be broadened to Caribbean SIDS and SIDS globally. Private sector support concepts that emerged during the PPG design phase included the development of a SIDS clean-tech initiative via joint collaboration between the Hub and the PAGE Agencies, and a SIDS food and sustainable tourism support initiative and associated label based on the uniqueness of farming and fishing cultures in SIDS, in alignment with the SAMOA Pathway.

A key incentive to guarantee buy-in and sustainability by private sector enterprises (and participants) will be attainment of recognized UWI certification that can be used in career advancement and organizational-level certification. Participation will be incentivized under the project roll-out where participants will be supported fully. The project will seek to not only to engage the organizations already identified but to expand the initiative to wider private sector groups and organizations to include for example agriculture and fisheries cooperatives and other enterprises that are reliant on green and blue resource utilization. Through the resource mobilization effort under the project that aims to establish an endowment fund, costs for capacity building will be offset while maintaining the quality of learning resources and delivery into the future.

5. Risks to Achieving Project Objectives

Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

With respect to the social and environmental safeguards assessment, the project has been assessed as having an overall low risk rating. Refer to the Safeguard Risk Identification Form in Annex O.

Risk	Risk level	Mitigation Measures
Low buy-in across stakeholders	Medium	Engage early in broad-based awareness raising to gain consensus on best approaches with lead collaborating agencies and stakeholder groups including with other UWI campuses and affiliated centres of excellence/ knowledge centres. Define and clearly craft out roles and clear deliverables among partners based on demonstrable gains from investment in the project. Ensure early outreach to engage key agencies from other SIDS regions in the planning/development process toward execution.

Risk	Risk level	Mitigation Measures
Lack of buy-in or low perceived relevance by private sector	Medium	Formulate early in the project development process the business case for value the knowledge hub can provide in terms of the range of potential services and how this may translate to improved and cost-effective practices that are also environmentally sustainable. Need to institute awareness-raising based on promising opportunities that have already emerged under the PAGE-Barbados programme and relevant engagements in Grenada to demonstrate how the project will translate knowledge to practice.
Limited buy-in from governments (GEF Operational Focal Points and national collaborators)	Medium	Expand early buy-in from the Caribbean GEF OFPs to shape the design of the project and ensure that the proposed modalities of the project meets expected needs.
Challenge in adequately catering for potentially diverse needs of intended target groups that may have differing needs and knowledge levels	Low	The diversity of potential users and target stakeholders could present difficulty in extracting a harmonized core of learning resources and products that will be broadly relevant and readily applicable. The project will establish criteria early in project implementation in consultation with stakeholders so that most relevant projects and associated knowledge products are utilized in knowledge extraction. This will be defined in the project methodology.
Challenges in coordination among the GEF partnership (project implementing agencies and key executing partners)	Low	An institutional mapping has informed the definition of entry points for extracting best practice from project initiatives that will be used to demonstrate the methodology for extracting green-blue learning elements. The project will ensure there is a sustained, routine consultation process to engage these agencies within the Caribbean GEF Partnership framework.
Limited flow of financial resources to sustain the SIDS-SIDS Green-Blue Knowledge Transfer Hub in the medium and long term.	Medium	A Resource Mobilisation Strategy will be implemented as a key output of project. This will entail the conceptulisation and development of bankable knowledge-based projects and programmes for implementation by the Hub.
Imposition of COVID19 transmission mitigation measures (if crisis situation persists) and associated disruptions; challenges potentially related to post-pandemic economic recovery in terms of changing policy and priorities, personnel and material deployment	Low	With the subsidence of the COVID19 Pandemic in the Caribbean and gradual return to normal it is anticipated that the risk to project implementation will be substantially lower (at time of project submission). Countries continue to maintain emergency management protocols in state of readiness should resurgence occur. In such an eventuality, project proponents and partners will observe national protocols and adapt as appropriate to COVID-19 containment measures, change in capacity of stakeholders, changes in the baseline, change in conditions of beneficiaries and processes for stakeholder engagement.

6. Institutional Arrangement and Coordination

Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

Project Implementing Agency: The United Nations Environment Program (UNEP) is the GEF Implementing Agency for this project. UNEP is tasked with the overall responsibility of ensuring that GEF policies and criteria are adhered to and that the project meets its objectives and deliver on expected outcomes. Other specific Implementing Agency responsibilities include ensuring compliance with GEF policies and standards for results-based M&E, fiduciary oversight, safeguards compliance, project budget approvals, technical guidance and oversight of project outputs, approval of Project Implementation Reports (PIRs), and participation in the project?s superior governance structure.

Project Executing Agency: The University of the West Indies (Cave Hill Campus) will be the project Executing Agency, with the Office of the Deputy Principal designated with overall project management responsibility. A Project Cooperation Agreement (PCA) will be issued by UNEP to UWI to establish this execution function, with provision of financial resources.

Project Management Unit: A Project Management Unit (PMU) will be established within the Office of the Deputy Principal. The day-to-day project management functions related to the project will be undertaken by the Director of the SIDS-SIDS Green-Blue Economy Knowledge Transfer Hub who will also serve as the Project Manager for the Project, who will be responsible for all technical and financial reporting supported by an Administrative Assistant. The Project Manager will also be supported by a core expert team, a Knowledge Hub Development Specialist, a Scientific and Technical Specialist (who will serve as the Secretary to the STAG), an Information and Communications Technology Specialist and a Partnership and Communications Specialist. Refer to Annex M for the TORs of the specialists. The PMU will be responsible for fiduciary oversight and reporting of the project, including financial management and procurement consolidation according to the project?s operational manual and procurement plan. It is also responsible for monitoring and evaluation (M&E), providing and coordinating technical advice, and coordinates and assists with overall project focus concerning project strategies, criteria and methodologies.

Project Steering Committee: The project will be directed by a Project Steering Committee (PSC) comprised of representatives from Barbados and Grenada, UWI, CARICOM Secretariat (Sustainable Development Desk), the OECS Commission Secretariat, UNITAR, PISLM as well as a representative from the Private Sector and the Caribbean Environmental Youth Network (which has over 700 active youth volunteers throughout CSIDS). The PSC will also include a gender specialist from UWI?s Institute for Gender and Development Studies, to ensure that the gender considerations are fully mainstreamed within project management and carries over to technical execution in terms of accessibility and uptake of outputs and ensuring that the monitoring and evaluation framework of the project is appropriately gender-sensitive.

The Chair of the PSC will be a designate of UWI. The PSC will convene on a six-month basis to review workplan execution and reporting outputs, decide on project directions and integration within national and regional frameworks with the aim of having a permanent knowledge management hub as a coordinating mechanism by the end of the project that sustains participation of the relevant stakeholders of the GEF Partnership.

UNEP in capacity as Implementing Agency will have a seat on the PSC and be recipient of substantive technical reports (half-year, and annual Project Implementation Review reports) and quarterly financial reports. The PSC shall appoint as required, technical working groups (based on agreed TORs) to oversee and ensure technical quality of outputs. The PMU will ensure annual financial audits of expenditure conducted and contribute to the conduct of a mid-term review and terminal evaluation, with engagement of the PMU and beneficiary stakeholders.

Scientific and Technical Advisory Group (STAG): The technical backstopping of the project will be performed by the STAG in its capacity as the main advisory body to the project. The STAG will lead and oversee *inter-alia* the roll-out of the proposed methodologies in establishment of the hub and validation of the results with proof-of-concept testing with beneficiaries and stakeholders, review and screen learning

opportunities for curricula development, consolidate knowledge products, explore and expand learning partnerships within the GEF Partnership community of practice, capture the generation of new knowledge, including the application and deployment of new technologies and scientific developments. The STAG will perform a quality control function of the data and information hosted on the Platform. The STAG will also evaluate proposals and approaches for financial viability of the Hub. The project will ensure that expert representation on the STAG will be appropriately gender balanced.

Inter-Agency Partnership Mechanism (IAPM): will be the principal mechanism for mobilizing and facilitating interaction among the various institutions and agencies engaged with the project with which the KTH will be working. The IAPM will include the Caribbean Community Secretariat (CARICOM), the Secretariat of Eastern Caribbean States (OECS) and the Caribbean Forum (CARIFORUM), main regional development banks and funding oganisations that serve SIDS with the view of leveraging resources for SIDS sustainable development on an ongoing basis, agencies that support enhancement of green-blue growth development opportunities including the United Nations Environment Programme (UNEP), the International Labour Organization (ILO), the United Nations Development Programme (UNDP), the United Nations Industrial Development Organization (UNIDO), and the United Nations Institute for Training and Research (UNITAR), which comprise the Partnership for Action on Green Economy (PAGE), along with representation from key green growth non-governmental organisations such as the Green Growth Knowledge Partnership (GGKP) and the Green Economy Coalition (GEC).

Figure 3 illustrates the project management arrangements. Draft terms of reference for the project coordination and management mechanisms are contained in Annex L.

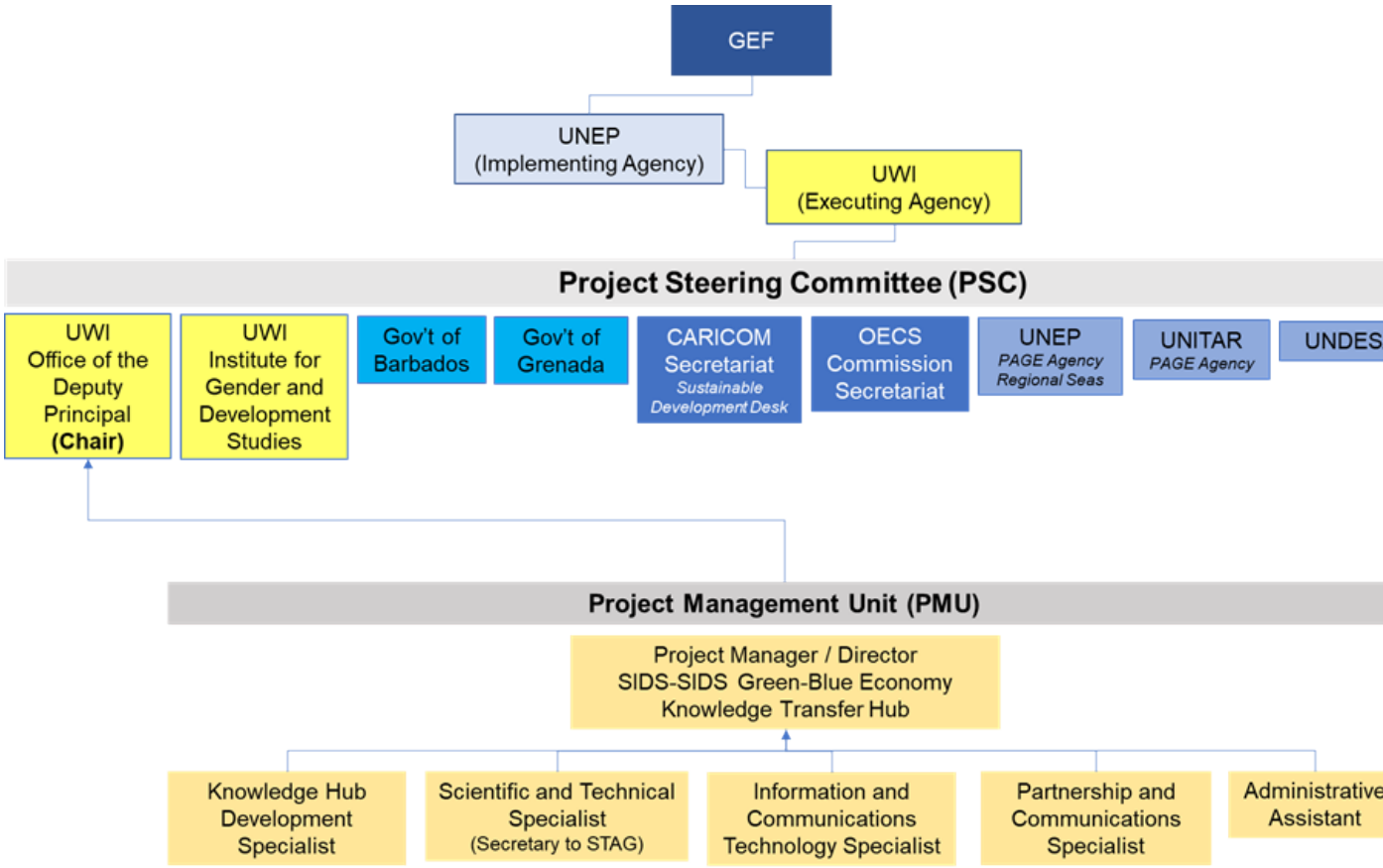


Figure 3. Project management arrangements.

Coordination with other relevant GEF-financed projects and other initiatives: While all GEF projects have knowledge management components from which lessons may be derived, there are three projects of relevance that are dedicated to knowledge management currently under implementation that includes Caribbean countries, and one which about to commence which has a significant knowledge management component for which significant synergies can be developed. The first two projects are expected to provide replicable models and approaches that may be emulated. These are: **(1)** *GEF IW:LEARN 5: Supporting Portfolio Coordination Within and Beyond the International Waters Focal Area, particularly in Small Island Developing States, Through Knowledge Sharing, Information Management, Partnership Building and Programmatic Guidance Services* is co-implemented by UNDP and UNEP with Intergovernmental Oceanographic Commission of UNESCO as the Executing Agency. The project aims to facilitate replication of good practice across GEF International Waters projects, including projects across all focal areas in SIDS, working in collaboration with development partners, supporting the delivery of training information management, providing programmatic guidance and facilitating partnership building. Component 1 is most relevant; it will contribute targeted knowledge sharing and results showcasing across projects and development partners to advance transboundary water management in all IW Focal Area ecosystems; **(2)** *GEF Implementing Sustainable Low and Non-Chemical Development in SIDS (ISLANDS) - Communications, Coordination and Knowledge Management Project,* implemented by UNEP and executed by the Green Growth Knowledge Partnership. The project seeks to coordinate, communicate, and manage knowledge from ISLANDS Programme to amplify the results of ISLANDS child projects throughout each region resulting in the Programme being more than the sum of the parts of the individual projects. Component 2 is relevant to this proposed project that aims to provide information and opportunities for exchange among SIDS governments and other SIDS stakeholders to take action technically, legally and through partnerships. **(3)** *Caribbean Small Island Developing States (SIDS) Multicountry Soil Management Initiative for Integrated Landscape Restoration and Sustainable Food Systems: Phase 1 (CSIDS-SOILCARE Phase 1)* has a significant Knowledge Management component for which beneficial synergies can be built with the Hub. It should be noted that these projects account for gender-sensitivity based on the GEF *Guidance to Advance Gender Equality* (2018) and this project will ensure congruency in approach to integrate gender considerations.

Partnership for Action on Green Economy (PAGE) Programme-Barbados: Barbados joined the PAGE Programme in 2016 to lend support implementation of the NSP and of other green (and blue) economy objectives with focus on thematic areas such as green and blue jobs, youth engagement, green industry, and strengthening individual and institutional capacity for integrative green (and blue) growth (IGE). This is against the policy and commitments to sustainable development through social compacts with the private sector and trade unions, strategic frameworks, such as the?National Sustainable Development Policy, and National Strategic Plan (2006-2025)?(NSP). In post-COVID-19 recovery the PAGE Programme will support efforts in the economic recovery strategy, boosting the circular economy and promoting green consumption and production practices as a key way forward. A key anchor-point to this project concept is the recent agreement between UWI and the Government on the development of a Green and Blue Economy Learning Programme that is informed by the feasibility study on the establishment of the SIDS-SIDS Green?Blue Economy Knowledge Transfer Hub.

7. Consistency with National Priorities

Describe the consistency of the project with national strategies and plans or reports and assesments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

National priorities Barbados: **(1)** Barbados? *First National Communication to the United Nations Framework Convention on Climate Change* was prepared and submitted to the UNFCCC Secretariat in 2001. That report contained an assessment of Barbados? vulnerability to the potential impacts of climate change, an inventory of greenhouse gases produced nationally, strategies for the abatement of greenhouse gases, and recommended policies and actions for responding to global climate change. The *Second National Communication (SNC)* (2018)[101] identifies the environmental and socio-economic vulnerabilities to climate change, practices and measures to climate change facilitate adaptation and mitigation and uncertainties and limitations within the assessment methodology, notably in terms of data accuracy and accessibility. The SNC highlighted actions related to technology transfer and knowledge in context of meeting the reported GHG emissions reduction targets and adaptation needs. Specifically, it acknowledged efforts related to small island renewable energy knowledge and technology in respect to a collaboration between UWI and universities from Germany, Fiji and Mauritius on an information exchange and networking initiative called the Small Developing Island Renewable Energy Knowledge and Technology Transfer Network (DIREKT) project. **(2)** The *National Biodiversity Strategy and Action Plan* (2020)[102] addresses weakness in knowledge management associated with management of biological resources. In this regard, the NBSAP strategic targets aim to *inter-alia,* to increase participation of stakeholders in data collection and dissemination, supported by the development of a platform for access, storage, dissemination and application of knowledge and that all traditional and scientific knowledge and technology relating to biodiversity is widely and equitably shared, transferred and applied. The NBSAP recommends that the Ministry of Environment develop an environmental knowledge management system to document and make accessible the results of varied research and development efforts in the country. **(3)** The *First and Second National Reports to the UNCCD* as well as the *National Action Programme (NAP) to Combat Desertification and Land Degradation and to Mitigate against the Effects of Desertification, Land Degradation and Drought*[103] have been submitted. The NAP (2002) is the culmination of a national consultation process which identified the constraints to effective control of land degradation and developed action plans to address these constraints in the three thematic areas of agriculture, settlement, and resource use and conservation. Strategic elements related to knowledge management include the development, documentation and protection of local, knowledge and practices with respect to hard and soft engineering solutions and other approaches to address land degradation and mitigate against the impacts of land degradation and drought. **(4)** The *National Strategic Plan of Barbados 2006-2025****[104]*** presents *Goal Four on ?Building a Green Economy - Strengthening the Physical Infrastructure and Preserving the Environment*? that focuses on the objectives of sustainable renewable resource use and natural resources, maintaining a safe and reliable water supply, an efficient and reliable energy sector, transport system and infrastructure, improvement of disaster management and developing and maintaining an efficient land-use policy. All these objectives have associated knowledge management and related capacity building needs.

National priorities Grenada: **(1)** Under obligations of the UNFCCC the country submitted its *National Adaptation Plan (NAP) 2017-2021*[105] and its first and second Nationally Determined Contribution (NDCs). Under the NAP, priority is given to improving the understanding of and knowledge about climate impacts, vulnerabilities, risks and resilience (e.g. green building) options. Recognition was given to the challenge of knowledge continuity among government staff related to adaptation efforts between administrations, needed emphasis on traditional knowledge to assess climate-related impacts to supplement gaps in formal data records. **(2)** The *National Biodiversity Strategy and Action Plan 2016-2020*[106] highlights knowledge gaps and capacity needs related to access to applicable tools and methodologies such as application of spatial assessment technologies for disaster risk reduction, landscape and natural resource assessments, technologies for genetic analysis of biodiversity and genetic modified organisms among others.

(3) The UNCCD *Aligned National Action Programme for the State of Grenada* (2015)[107] specifies Operational Objective 3 on Science, Technology and Knowledge where it advocates for changes that will position Grenada to become a leader on scientific and technical knowledge pertaining to land degradation and drought mitigation. The *Land Degradation Neutrality National Report* (2015)[108] cited inadequate knowledge among the indirect drivers of land degradation in the country, and underscored the application of knowledge of biophysical, climatic and socio-economic factors contributing to land degradation and drought mitigation among the key strategic implementation actions to achieve the set voluntary land degradation neutrality (LDN) target. The report further recommends that a Documentation and Knowledge Management Centre be created that would consolidate relevant data to inform all aspects of land use for sustainability of livelihoods, water and food security. **(4)** The *National Sustainable Development Plan (NSDP)* 2020-2035[109] within the frame of knowledge management, lays out National Strategic Actions that highlights the challenge of inadequate use of technology, and proposes the establishment of a technology institute and an institutional framework to support Grenada?s transition to a knowledge-based digital economy and society and to build its human capital.

United Nations Cooperation Framework: The United Nations coordinated support to Barbados and Grenada is under a *UN Multi-Country Sustainable Development Framework (MSDF)*. The 2022-2026 UN MSDF in the Caribbean[110] includes Outcome 6 ?*Caribbean countries manage natural resources & ecosystems strengthening their resilience & enhancing the resilience& prosperity of the people and communities that depend on them*? which is relevant to the objectives under this project. Under this Outcome Area the UN system will support countries to address the priority area of enhancing Resilience to Climate Change and Sustainable Natural Resource Management, where this project will help remove bottlenecks so that solutions are scaled up for sustainable livelihoods and sustainable consumption and production, particularly in the tourism and agricultural sectors. By way of intervention strategies across the partnership of UN agencies, the project will directly contribute to the needed technical support for the development of sustainable livelihood and tourism strategies and development of policies to promote sustainable consumption and production.

The Office of the UN Resident Coordinator with responsibility for Barbados and Grenada (Multi-Country Office (MCO)) covers the Barbados and the Eastern Caribbean. UNEP, through its Caribbean Sub-Regional Office (CSRO) participates in the UN Sub-regional Team (UNST) and works to ensure UNEP-led initiatives align with the Multi-Country Sustainable Development Framework (MSDF). During project implementation, UNEP?s CRSO will be kept in close communication to facilitate as relevant and necessary, avenues for building synergies between related initiatives. The CSRO will be furnished with key reports that will include *inter-alia*, annual progress implementation reviews, mid-term reviews and terminal evaluation reports for feedback particularly related to ensuring coherence with wider UN-led initiatives within the Caribbean region. The UN Resident Coordinator's Office has been advised in parallel with the formulation of the project and feedback will be incorporated into further drafts of the project documentation and appropriately incorporated into governance arrangements at implementation. It should be noted that the outputs and realized outcomes of the project will be taken up in the Common Country Analyses (CCA) for the two target countries and by extension, the MSDF in terms of providing intelligence on adoption of best practices from project investments and how upscaled and replicated to and by communities of practice. Further, through the knowledge transfer mechanism, the project will contribute to enhanced capabilities of the UN Country Teams (UNCTs) in their results reporting in alignment with the outcome/results clusters of the MSDF. It is anticipated that with the strong engagement of the countries and the UN partnership within the project governance mechanism, dynamic sharing of results from the project with the UNCTs will be expanded, that will also assist with the preparation and development of new Common Country Analyses / Common Multi-Country Analyses.

Beyond the national priorities for SIDS, outlined above, this project will contribute significantly to the fulfillment of not only CSIDS priorities, but those of SIDS, in general. In this regard, it reaffirms that small island developing states remain a special case for sustainable development in view of their unique and particular vulnerabilities and that they remain constrained in meeting their goals in all three dimensions of sustainable development, without the assistance of the international community. In addition, the knowledge which is generated through this intervention will go a long way in helping CSIDS in extracting and applying

green-blue learning tools and technologies which are adaptable to the SIDS?s realities. It will also contribute in strengthening SIDS-SIDS inter- and intra-regional collaboration.

[101] https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/4693851_Barbados-NC2-1-Barbados%20SNC%20FINAL%20April%202018.pdf

[102] https://biodiversity.gov.bb/resources/chm/national-biodiversity-strategy-and-action-plan-2020/

[103] https://www.unccd.int/sites/default/files/naps/barbados-eng2001.pdf

[104] https://www.un-page.org/files/public/barbados_national_strategic_plan_2006-2025.pdf

[105] https://unfccc.int/sites/default/files/resource/Grenada_NAP_%202017-2021.pdf

[106] https://www.cbd.int/doc/world/gd/gd-nbsap-v2-en.pdf

[107] https://knowledge.unccd.int/sites/default/files/naps/2021-03/Grenada%20Aligned%20National%20Action%20Programme_withcommsplan.pdf

[108] https://knowledge.unccd.int/sites/default/files/ldn_targets/grenada-ldn-country-report.pdf

[109] https://gov.gd/sites/default/files/docs/Documents/others/nsdp-2020-2035.pdf

[110] https://caribbean.un.org/en/211222-united-nations-multi-country-sustainable-development-cooperation-framework-2022-2026

8. Knowledge Management

Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.

This project is in totality a knowledge management initiative with focus on the generation, organization, storage, dissemination and uptake to practice of policy and technical knowledge generated from the GEF Partnership, via a regional knowledge hub mechanism. The project intends to address the perpetual cycle of loss of retention of project knowledge, and limited transferability and uptake into demonstrated practice among intended beneficiaries in the long-term; in other words, shift from a project-by-project cycle in how knowledge is generated and used, to a more permanent programmatic approach. This project is being framed against observations and core recommendations from the GEF Independent Evaluation Office (IEO) that there remain deficiencies in capturing data and information at the project level and enhancing subsequent use and that regional programs should encourage a transfer of knowledge to the poorest SIDS through a South-South capacity-building approach. The project will build on already emerging efforts of the University of the West Indies in strengthening the mechanism and methodology for sustained green-blue knowledge management, building on experiences from the PAGE-Barbados Programme, supported by UNITAR. This existing approach lends itself well for building out and scaling up to incorporate the GEF Partnership in the Caribbean where this project intends to contribute to catalyzing the establishment of the KTH within under university umbrella and strengthen the regional and international organizational collaborations that are needed, with options to guarantee long-term sustainability of operation of the KTH. The project will test and demonstrate a proof-of-concept through a defined methodology for extraction

of green-blue project learnings from GEF initiatives executed in Barbados and Grenada (as core countries) in addition to other countries in the region, and transformation to curricula and learning resources. These resources will be tested within the university community and project beneficiaries to validate not only the approach, but the content, relevance and gender sensitivity, suitability of access and transferability to practice. Given the strong private sector user orientation established under the PAGE-Barbados Programme, assessment of utility of the approach in the context of green-blue post-COVID-19 pandemic economic recovery will be paid special attention. The project is expected to build the platform for the eventual establishment of a SIDS-SIDS Green-Blue Economy Knowledge Transfer Hub to be anchored within a wider scaling-up under the upcoming GEF-8 programming, specifically under the Green-Blue Islands Integrated Program. The project will be executed within the GEF Partnership framework in the Caribbean, with close inputs from technical and policy specialists across the GEF focal areas, drawing on regional and global projects that have made significant advancement in knowledge management or are executing dedicated knowledge management standalone initiatives, for example GEF-IWLEARN 5 Project and the GEF-ISLANDS (chemicals and waste) - Communications, Coordination and Knowledge Management Project. The approaches developed from this project as relates to the SIDS sustainable development will be made accessible for learning and policy analysis purposes and will aid in enhancing understanding and awareness among beneficiaries about green-blue learning strategies which can be employed in future project development.

9. Monitoring and Evaluation

Describe the budgeted M and E plan

The project will follow UNEP?s standard monitoring, reporting and evaluation processes and procedures. Substantive and financial project reporting requirements are summarized in Table 2. Reporting requirements and templates are an integral part of the UNEP legal instrument to be signed by the executing agency and UNEP.

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

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

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

Project supervision will take an adaptive management approach. The Task Manager will develop a project supervision plan at the inception of the project which will be communicated to the project partners during the inception workshop. The emphasis of the Task Manager supervision will be on outcome monitoring but without neglecting project financial management and implementation monitoring. Progress vis-?-vis delivering the agreed project global Environmental benefits will be assessed with the Coordination

Committee at agreed intervals. Project risks and assumptions will be regularly monitored both by project partners and UNEP. Risk assessment and rating is an integral part of the Project Implementation Review (PIR). The quality of project monitoring and evaluation will also be reviewed and rated as part of the PIR. Key financial parameters will be monitored quarterly to ensure cost-effective use of financial resources.

In line with the GEF Evaluation requirements and UNEP?s Evaluation Policy, any project with a duration of 4 years or more will be subject to an independent Mid-Term Evaluation or management-led Mid-Term Review at mid-point. This project, although of a 3-year duration will also be subject to a Mid-Term Review as a useful project management tool for guidance to the PMU and stakeholders. All GEF funded projects are subject to a performance assessment when they reach operational completion. This performance assessment will be either an independent Terminal Evaluation or a management-led Terminal Review.

In case a Review is required, the UNEP Evaluation Office will provide tools, templates, and guidelines to support the Review consultant. For all Terminal Reviews, the UNEP Evaluation Office will perform a quality assessment of the Terminal Review report and validate the Review?s performance ratings. This quality assessment will be attached as an Annex to the Terminal Review report, validated performance ratings will be captured in the main report. However, if an independent Terminal Evaluation (TE) of the project is required, the Evaluation Office will be responsible for the entire evaluation process and will liaise with the Task Manager and the project implementing partners at key points during the evaluation. The TE will provide an independent assessment of project performance (in terms of relevance, effectiveness and efficiency), and determine the likelihood of impact and sustainability. It will have two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP staff and implementing partners. The direct costs of the evaluation (or the management-led review) will be charged against the project evaluation budget. The TE will typically be initiated after the project?s operational completion. If a follow-on phase of the project is envisaged, the timing of the evaluation will be discussed with the Evaluation Office in relation to the submission of the follow-on proposal.

The Evaluation Office will monitor compliance with this plan every six months for a total period of 12 months from the finalisation of the Recommendations Implementation Plan. The compliance performance against the recommendations is then reported to senior management on a six-monthly basis and to member States in the Biennial Evaluation Synthesis Report. The project?s M&E Plan is presented below.

Table 3. Indicative monitoring and evaluation workplan.

Type of M&E Activity	Responsible Parties	GEF Budget (USD)	Co-Finance in kind (USD)	Time Frame
Inception Workshop	UWI, Government of Barbados, Government of Grenada	8,000	30,000	Within 2 months of project start-up
Inception Report	UWI	2,520	1,000	1 month after project inception meeting
Measurement of project indicators (outcome, progress and performance indicators) including baseline data collection	UWI	7,000		Outcome indicators: start, mid and end of project Progress/performance indicators: annually
Standard semi-annual progress reporting and monitoring to UNEP	UWI	5,040		Within 1 month of the end of reporting period

Type of M&E Activity	Responsible Parties	GEF Budget (USD)	Co-Finance in kind (USD)	Time Frame
Monitoring by the Project Steering Committee and advisory technical group of environmental and social risks, and corresponding management plans as relevant	UWI	5,000	10,000	Once a year minimum
Project Implementation Review (PIR)	UWI	7,560	2,000	Annually, part of reporting routine
Mid Term Review/ Evaluation	UNEP, UWI	25,000		At mid-point of project implementation
Terminal Evaluation	UNEP	35,000		Within 6 months of end of project implementation
Project Final Report	UWI	7,560	2,000	Within 2 months of the project completion date
Co-financing report	UWI	2,520	4,000	Within 1 month of the PIR reporting period
Project Closing Workshop	UWI	9,000	30,000	Within one month of project closure
Total M&E Plan cost		**114,200**	**79,000**	

10. Benefits

Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

The establishment of the Green-Blue Economy Knowledge Transfer Hub will have significant benefits to Caribbean SIDS and SIDS at the global level. Some of the main benefits which will result from its establishment and operationalization will include;

? Availability of an innovative and systematic approach for extraction of green and blue learning components from the various GEF project implemented in CSIDS as well as from the various SIDS sustainable development instruments and the myriad of international instruments (both legally binding and soft law), and making them accessible for faculty, students, environmental negotiators and public and private sector communities of practice. With proof-of-concept for knowledge extraction demonstrated through this project, the approach can be replicated and significantly upscaled to SIDS at the global level.

? Enhanced longevity of knowledge generated from GEF projects into more active and sustained use by beneficiaries in the public and private sector, in other user communities and within the academic community, that will reduce the loss or ?leakage? of knowledge that is attributable to siloed project-by-project knowledge management approaches.

? Enhanced direct focus in SIDS on knowledge management, including the building of cohesion among knowledge management partners which are based on SIDS experiences, and the building of a unique SIDS community of practice to enhance the penetration of GEF knowledge as extracted form GEF projects and programmes.

? Contribution to the evolution into a SIDS Centre of Excellence for Green and Blue Learning and the building of, and strengthening of knowledge sharing networks with other Green and Blue Growth Institutions across the globe.

? Expanded dissemination of relevant technical and policy knowledge generated from the GEF Partnership that supports CSIDS negotiators in complex bilateral and multilateral negotiations with provision of technical and legal backstopping based on emerging knowledge.

11. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
Low	Low		

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

https://acrobat.adobe.com/link/review?uri=urn:aaid:scds:US:625739d5-9ea5-341b-9e26-fdc9d7a36f05

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
ANNEX O - SRIF (revised)	CEO Endorsement ESS	
CRC SRIF Knowledge Hub_am	Project PIF ESS	

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

Outcomes/outputs	Indicators	Baseline	Mid-term Targets	End of Project Targets	Means of Verification	Assumptions
Project Objective: To enhance knowledge uptake and application within academia and communities of policy and technical practice in SIDS by implementing a systematic approach for extraction and translation of green-blue knowledge elements generated by GEF projects						
Component 1: Establishment of a SIDS-SIDS Green-Blue Environmental Knowledge Transfer Hub as a formalized mechanism						
Outcome 1.1: An institutional coordinated operational KM Hub mechanism for extraction of knowledge from Caribbean GEF implemented projects, approved by participant governments and their partners	(i) SIDS-SIDS KTH establishment status (ii) Number of signed cooperation agreements /MOUs by partner organizations	SIDS-SIDS KTH not established	SIDS-SIDS KTH in piloting phase; participation by at least 10 partners	SIDS-SIDS KTH fully established; participation by at least 20 partners	? Signed cooperation agreements /MOUs by partner organizations ? KTH ICT solution operational assessment ?	? GEF Member Countries including the Operational Focal Points endorses the knowledge management approach for uptake and learnings ? A commitment made by partner organisations to work closely with UWI as the lead proponent in application of the approach and appropriate Coordination Mechanisms establish to facilitate this. ? Targeted beneficiaries, associated
Output 1.1.1: *SIDS-SIDS Green-Blue Knowledge Transfer Hub (KTH) and ICT solution for evaluation and endorsement of lead partners*	**(i)** Number of registered user interactions with KTH ICT Platform (*to be validated at project inception*) **[Core Indicator 11]** (i) Value of confirmed financing (including programme and project development financing)	0 USD 1 million	1,500 USD 5 million	5,500 USD 10 Million	? ICT equipment inventory ? ICT system test assessment report ? User assessment / feedback ? Co-financing commitment and resources mobilized to contribute to the Hub?s financial sustainability	

Outcomes/outputs	Indicators	Baseline	Mid-term Targets	End of Project Targets	Means of Verification	Assumptions
Output 1.1.2: *Institutional Cooperation Agreements for operationalisation of the SIDS-SIDS Green-Blue Knowledge Transfer Hub with partner agencies signed by partner organizations*	(i) Number of partner agreements formalized (ii) Number of partner consultative dialogues convened	0 0	10 15	30 25	? Agreements ? Evaluation / assessment ? STAG meeting minutes	organizations outside academia will consider the Hub a useful mechanism ? Sustained high-level commitment from lead academic institutions in the Caribbean

Outcomes/outputs	Indicators	Baseline	Mid-term Targets	End of Project Targets	Means of Verification	Assumptions
Output 1.1.3: *SIDS Green-Blue Economy Knowledge Network Nodes for the strengthening of inter- and intra-regional cooperation between SIDS*	(i) Number of Caribbean and SIDS Nodes established and operational as part of the KTH ICT Platform	0	8	15	? Inter-node cooperation framework operation protocols	and in global SIDS toward building and strengthening long-term collaborative arrangements as partners in the KM Hub ? Affiliated organizations and partners have the ability to interface (with appropriate bandwidth) with the ICT Solution?SIDS Sustainable Development Knowledge Platform that allow for effective interface with the KM Hub ? Affiliated organizations and partners have capabilities to ensure uptake among their user groups ? A Resource Mobilisation Strategy will be design and operationalize thereby augmenting GEF resources and create the conditions

Outcomes/outputs	Indicators	Baseline	Mid-term Targets	End of Project Targets	Means of Verification	Assumptions
						for sustainability of KM Hub ? A Science and Technology Mechanism is established to contribute to the generation of new knowledge and assist with quality control.
Outputs under Component 1 Output 1.1.1: SIDS-SIDS Green-Blue Knowledge Transfer Hub (KTH) and ICT solution for evaluation and endorsement of lead partners Output 1.1.2: Institutional Cooperation Agreements for operationalisation of the SIDS-SIDS Green-Blue Knowledge Transfer Hub with partner agencies signed by partner organizations Output 1.1.3: SIDS Green-Blue Economy Knowledge Network Nodes for the strengthening of inter- and intra-regional cooperation between SIDS						
Component 2: Development of a demonstration model for extracting learning from GEF Projects into Green-Blue learning curricula formats for sectoral application						
Outcome 2.1 Knowledge integrating green-blue learning elements extracted from GEF projects, effectively demonstrated and applied in selected educational institutions and sectors	(i) Gender-sensitive rating assessment/appraisal scores (*TBD at project inception*) provided by reviewers and stakeholders on tools, quality of curricula, demonstrated efficacy of KT Hub model	0	Nominal score that conveys *satisfactory rating*	Nominal score that conveys *satisfactory rating*	? Learner assessment /evaluation report	? Analysis of the GEF CSIDS project portfolio is analysed and a representative sample of projects selected for more detailed analysis

Outcomes/outputs	Indicators	Baseline	Mid-term Targets	End of Project Targets	Means of Verification	Assumptions
Output 2.1.1 *Methodology and system for analysis of and extraction of Green-Blue learning elements developed from GEF projects implemented in CSIDS for evaluation by KT Hub partners*	(i) Number of methodological approaches for extracting green-blue learning elements from GEF projects (ii) Number of representative GEF projects implemented in CSIDS selected for extraction of green-blue learning elements	0 0	1 At least 30	1 At least 35	? Methodology / approach ? STAG guidance ? Pilot evaluation report	? A methodology is designed and used for the extraction of green-blue learning elements from the selected GEF CSIDS projects ? Commitment to work closely with UWI as the lead proponent in application of the approach ? Targeted beneficiaries, associated organizations outside academia will consider the Hub a useful mechanism ? Sustained high-level commitment from lead academic institutions in the
Output 2.1.2 *Pilot curricula set/learning elements extracted from GEF projects (on sector-based environmentally sound and innovative technologies and policy instruments) designed for multiple delivery platforms for evaluation by KT Hub partners*	(i) Number curricula suite modules/packages (*number to be validated at project inception*) **(ii)** Number of test learners participating (50/50 gender ratio) in Barbados and Grenada **[Core Indicator 11]** (ii)	0 0	6 100	10 200	? STAG guidance ? Curriculum packages ? Learner groups validation / assessment report	

Outcomes/outputs	Indicators	Baseline	Mid-term Targets	End of Project Targets	Means of Verification	Assumptions
Output 2.1.3 *Pilot phase delivery of curricula/learning elements tested, evaluated and validated by target learners and users (students, professionals) and KT Hub partners*	(i) Number of entities participating in pilot (ii) Number of learners participating (50/50 gender ratio) at UWI and other stakeholder partners **[Core Indicator 11]** (iii) Number Green-Blue Leaning Integration Dialogues	0 0 0 0	3 500 (400 UWI students; 100 beneficiary communities) 3	3 3,750 (3,000 UWI students; 750 beneficiary communities) 6	? Training and orientation programme / content for trainers/instructors ? Learner groups validation / assessment report ?	Caribbean and in global SIDS toward building and strengthening long-term collaborative arrangements as partners in the KM Hub ? Affiliated organizations and partners have comparable ICT interfaces (with appropriate bandwidth) that allow for effective interface with the KM Hub ? Affiliated organizations and partners have capabilities to ensure uptake among their user groups
Output 2.1.4 *Pilot Ambassadorial Knowledge Transfer Initiative and evaluation by users*	(i) Number of tailored learning products produced for the Ambassadorial Pilot Programme (ii) Number of gender-sensitive training events / workshops and seminars with negotiators (iii) Number of learners participating (50/50 gender ratio) **[Core Indicator 11]**	0 0 0	4 5 20	4 10 50	? Training and orientation programme / content for trainers/instructors ? Learner groups validation / assessment report ? Ambassadorial Pilot Programme launched and operational ? Green-Blue Knowledge materials are being produced and used by stakeholders	

Outcomes/outputs	Indicators	Baseline	Mid-term Targets	End of Project Targets	Means of Verification	Assumptions
Outputs under Component 2 Output 2.1.1 Methodology and system for analysis of and extraction of Green-Blue learning elements developed from GEF projects implemented in CSIDS for evaluation by KT Hub partners Output 2.1.2 Pilot curricula set/learning elements extracted from GEF projects (on sector-based environmentally sound and innovative technologies and policy instruments) designed for multiple delivery platforms for evaluation by KT Hub partners Output 2.1.3 Pilot phase delivery of curricula/learning elements tested, evaluated and validated by target learners and users (students, professionals) and KT Hub partners Output 2.1.4 Pilot Ambassadorial Knowledge Transfer Initiative and evaluation by users						
Component 3 Enhancement of sustainability and scale-up						
Outcome 3.1 Mainstreaming of knowledge generated by GEF projects and scale-up applied within the work of national and regional partners, sharing of lessons learned and peer to peer exchange	(i) Number of signature events convened (ii) Number of emergent opportunities (policies, business plans, financing mobilized) gained by stakeholders from KTH knowledge exchanges in their respective areas (*metric to be refined during project inception*)	0 0	0 5	2 10	? Event proceedings and media releases ? Knowledge uptake evaluation report	? Green-Blue Solutions extracted from GEF CSIDS projects are used to design a number of private sector initiatives ? A deliberate strategy is made and design to promote and market the Hub, regionally

Outcomes/outputs	Indicators	Baseline	Mid-term Targets	End of Project Targets	Means of Verification	Assumptions
Output 3.1.1 *Marketing, Outreach and Communication Strategy and accompanying suite of knowledge products for uptake by target stakeholders*	(i) Number of communications strategies developed and implemented (ii) Number of gender-sensitive KM products produced as part of the Strategy (iii) Stakeholder assessment scores (*TBD at project inception*) on utility of awareness products and overall awareness of the KTH	0 0 n/a	1 10 Nominal score that conveys *satisfactory rating*	1 15 Nominal score that conveys *satisfactory rating*	? Knowledge delivery feedback/assessment review ? Awareness resources package	among CSIDS as well as globally ? Commitment to work closely with UWI as the lead proponent in application of the approach ? Targeted beneficiaries, associated organizations outside academia will consider the Hub a useful mechanism

Outcomes/outputs	Indicators	Baseline	Mid-term Targets	End of Project Targets	Means of Verification	Assumptions
Output 3.1.2 *Green-Blue Solutions Marketplace Event and Replication Strategy to sustain promotion of innovation generated by GEF Projects via the KT Hub in CSIDS and global SIDS*	(i) Number of Green-Blue Solutions Uptake and reflected in Private Sector Initiatives (Private Sector Knowledge Support Programme; SIDS-EU Initiative; Pilot SIDS Food Initiative) (ii) Number of major marketplace events hosted (iii) Number of participants to major marketplace events (tracked by sector, gender, origin) **[Core Indicator 11]**	0 0 0	5 1 250	10 2 500	? Marketplace event evaluation report ? Replication Strategy and financing proposal	? Sustained high-level commitment from lead academic institutions in the Caribbean and in global SIDS toward building and strengthening long-term collaborative arrangements as partners in the KM Hub ? Affiliated organizations and partners have capabilities to ensure uptake among their user groups ? Threat level posed by the COVID-19 pandemic will gradually diminish
Output 3.1.3 *Project monitoring and evaluation system*	(i) M&E system is established and approved by UNEP	0	1	1	? Project management reports ? M&E records; Half-year progress reports, PIRs ? Mid-term Review and Terminal Evaluation	M&E system established early in project implementation
Outputs under Component 3 Output 3.1.1 Marketing, Outreach and Communication Strategy and accompanying suite of knowledge products for uptake by target stakeholders Output 3.1.2 Updated Output 3.1.2 Green-Blue Solutions Marketplace Event and Replication Strategy to sustain promotion of innovation generated by GEF Projects via the KT Hub in CSIDS and global SIDS Output 3.1.3 Project monitoring and evaluation system						

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

Refer to the GEF Sec Review and Agency Response at project page at https://www.thegef.org/projects-operations/projects/10992

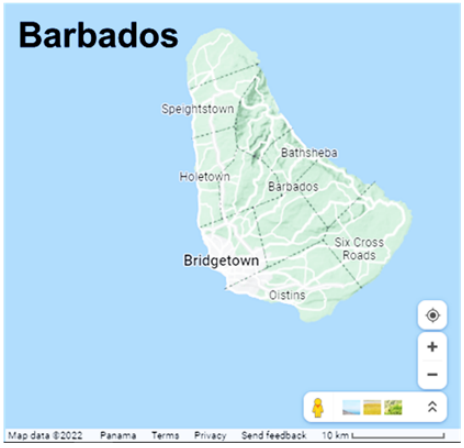
ANNEX C: Status of Utilization of Project Preparation Grant (PPG). (Provide detailed funding amount of the PPG activities financing status in the table below:

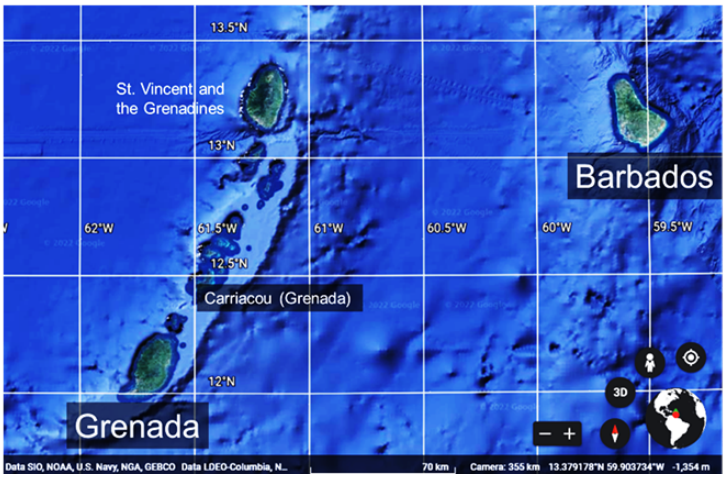
PPG Grant Approved at PIF: **50,000**			
Project Preparation Activities Implemented	***GETF/LDCF/SCCF Amount ($)***		
	Budgeted Amount	***Amount Spent To date***	***Amount Committed***
Expert assessment on KM, communication and project development	37,495	25,452	12,043
International and national travel	3,000	0	3,000
Validation workshop and consultation process	3,005	0	3,005
Sundry operational costs	6,500	3,803	2,697
Total	**50,000**	**29,256**	**20,745**

ANNEX D: Project Map(s) and Coordinates

Please attach the geographical location of the project area, if possible.

https://www.nationsonline.org/oneworld/map/Caribbean-political-map.htm





ANNEX E: Project Budget Table

Please attach a project budget table.

GEF ID: 10992 Demonstration of a Caribbean Mechanism Toward Establishment of a SIDS-SIDS Green-Blue Economy Know

Appendix H-1: Indicative GEF Project Budget

Expenditure Category / UNEP Budget code	Detailed Description (activities)	Component ($US)			Sub-Total	M&E	PMC	T
		Component 1	Component 2	Component 3				
		Outcome 1.1	Outcome 2.1	Outcome 3.1				
Works								
2301					-			
					-			
Goods					-			
2301	Computer Equipment	25,000	-	-	**25,000**			
					-			
					-			
Sub-contract to executing partner/ entity								
2301					-			
Contractual Services – Company								
2301	UWI system upgrade - Establish ITC Solution	142,516	91,617	105,190	**339,324**			
					-			
International Consultants								
5303	Independent Evaluator - MTR				-	25,000		
5303	Independent Evaluator - TE				-	35,000		
	...				-			
Local Consultants								
1202	1. Knowledge Hub Development Specialist (Programme Officer) (core)	40,000	40,000	20,000	**100,000**			
1202	2. Scientific and Technical Specialist (core)	8,000	64,000	8,000	**80,000**			
1202	3. ICT Specialist (core)	44,000	33,000	33,000	**110,000**			
1202	4. Partnership and Communications Specialist (core)	32,000	32,000	16,000	**80,000**			
1202	STAG Consulting Experts	18,000	18,000	9,000	**45,000**			
1202	Resource Mobilization Specialist	70,000	-	30,000	**100,000**			
1202	Technical Specialist - Grenada	16,200	48,600	16,200	**81,000**			
5202	Audits (1 per year)				-		24,000	
					-			
Salary and benefits / Staff costs								
1101	Project Manager	75,600	63,000	50,400	**189,000**	25,200	37,800	
1120	Admin Assistant						72,000	
					-			
Trainings, Workshops, Meetings								
3201	Output 1.1.1: SIDS-SIDS Green-Blue Knowledge Transfer Hub (KTH) and ICT solution	15,000			**15,000**			
3201	Output 2.1.2: Pilot curricula set/learning elements extracted from GEF projects		55,000		**55,000**			
3201	Output 2.1.3 Pilot phase delivery of curricula/learning elements		75,000		**75,000**			
3201	Output 2.1.4 Pilot Ambassadorial Knowledge Transfer Initiative		30,000		**30,000**			
3201	Output 3.1.2 Green-Blue Solutions Marketplace Event and Replication Strategy			40,000	**40,000**			
3301	Output 1.1.2: Institutional Cooperation Agreements organizations	20,000			**20,000**			
3301	Output 1.1.3: SIDS Green-Blue Economy Knowledge Network Nodes	9,000			**9,000**			
3301	Output 2.1.3 Pilot phase delivery of curricula/learning elements tested, evaluated and validated		22,000		**22,000**			
3301	Output 3.1.1: Marketing, Outreach and Communication Strategy / suite of knowledge products			10,000	**10,000**			
3301	Output 3.1.2 Green-Blue Solutions Marketplace Event and Replication Strategy			45,000	**45,000**			
3301	M&E Inception Workshop					8,000		
3301	M&E Monitoring by the Project Steering Committee and advisory technical group					5,000		
3301	M&E Project Closing Workshop					9,000		
					-			
Travel								
1601	**Oversight travel by PMU**	12,000	8,000	10,462	**30,462**	7,000		
					-			
Office S...					-			
4101	**Office Supplies**				-		15,000	

ANNEX F: (For NGI only) Termsheet

Instructions. Please submit an finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

ANNEX G: (For NGI only) Reflows

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agencys is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

ANNEX H: (For NGI only) Agency Capacity to generate reflows

Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies? capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).