1. Project Data

Summary project data	
GEF project ID	5667
GEF Agency project ID	GCP/SLC/202/SCF
GEF Replenishment Phase	GEF-5
Lead GEF Agency (include all for joint projects)	FAO
Project name	Climate change adaptation of the Eastern Caribbean fisheries sector
Country/Countries	Antigua and Barbuda, Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago
Region	Latin America & Caribbean
Focal area	Climate Change
Operational Program or Strategic Priorities/Objectives	CCA-1, Outcome 1.2: Livelihood and sources of income of vulnerable populations diversified and strengthened; Outcome 1.3: Climate-resilient technologies and practices adopted and scaled-up. CCA-2, Outcome 2.1: Increased awareness of climate change impacts, vulnerability and adaptation; Outcome 2.2: Access to improved climate information and early-warning systems enhanced at regional, national sub-national and local levels; Outcome 2.3: Institutional and technical capacities and human skills strengthened to identify, prioritize, implement, monitor and evaluate adaptation strategies and measures. CCA-3, Outcome 3.2: Policies, plans and associated processes developed and strengthened to identify, prioritize, and integrate adaptation strategies and measures.
Stand alone or under a programmatic framework	Standalone
If applicable, parent program name and GEF ID	N/A
Executing agencies involved	FAO; FAO Western Central Atlantic Fishery Commission (WECAFC), Caribbean Regional Fisheries Mechanism (CRFM), Caribbean Network of Fisherfolk Organisations (CNFO), University of the West Indies Centre for Resource Management and Environmental Studies (UWI-CERMES)
NGOs/CBOs involvement	Local environmental NGOs and CBOs: beneficiaries The Nature Conservancy, CARIBSAVE partnership, Caribbean Natural Resources Institute: project partner (secondary executing agency)
Private sector involvement (including micro, small and medium enterprises)[1]	Fish processing companies (retailing and exporting) and aquaculture companies: beneficiaries
CEO Endorsement (FSP) /Approval (MSP) date	1/21/2016
Effectiveness date / project start date	1/1/2017
Expected date of project completion (at start)	9/30/2021
Actual date of project completion	6/30/2022

Project Financing			
		At Endorsement (US $M)	**At Completion (US $M)**
Project Preparation Grant	GEF funding	0	0
	Co-financing		
GEF Project Grant		5.46	5.46

[1] Defined as all micro, small, and medium-scale profit-oriented entities, including individuals and informal entities, that earn income through the sale of goods and services rather than a salary. (GEF IEO 2022)

Co-financing	IA own	2	2
	Government	33.73	25.134
	Other multi- /bi-laterals	0.4	0.4
	Private sector		
	NGOs/CBOs	1.2	0.2
	Other	0.212	0.212
Total GEF funding		5.46	5.46
Total Co-financing		37.542	27.946
Total project funding (GEF grant(s) + co-financing)		43.002	33.406
Terminal evaluation validation information			
TE completion date		September 2022 Click or tap to enter a date.	
Author of TE		Cecile Brugere, Jan Voordouw, Sherry Heileman	
TER completion date		12/30/2022	
TER prepared by		Emanuele Bigagli	
TER peer review by (if GEF IEO review)		Jeneen R. Garcia	

Access the form to summarize key project features here: https://www.research.net/r/APR2023.

2. Summary of Project Ratings

Criteria	Final PIR	IA Terminal Evaluation	IA Evaluation Office Review	GEF IEO Review
Project Outcomes	S	S		MS
Sustainability of Outcomes		ML		ML
M&E Design		MS		MS
M&E Implementation		MS		MS
Quality of Implementation		S[2]		S
Quality of Execution		S		S
Quality of the Terminal Evaluation Report				HS

3. Project Objectives and theory of change

3.1 Global Environmental Objectives of the project:

The project did not have an explicit global environmental objective. The objective of the project was to increase resilience and reduce vulnerability to climate change impacts in the eastern Caribbean fisheries sector, through introduction of adaptation measures in fisheries management and capacity building of fisherfolk and aquaculturists (TE, p. 8).

3.2 Development Objectives of the project:

The project did not have an explicit development objective (TE, p. 8).

3.3 Were there any **changes** in the Global Environmental Objectives, Development Objectives, or project activities during implementation? What are the reasons given for the change(s)?

No substantial changes have been made to project design or budget since the endorsement by GEF CEO (TE, p. 10). The MTR suggested to revise the following targets (TE, p. 16): Output 2.1.2 – reduce the number of beneficiaries from 4,200 to 3,000; Adaptation Monitoring and Assessment Tool (AMAT) Indicator 3 – reduce some of the targets for the related outputs. Also, the scope of Output 1.1.2 was modified because of lack of baseline data that prevented the downscaling of climate models to describe fisheries abundance and accessibility and led to working on improving fisheries data collection and statistics instead (TE, p. 17). The scope of the aquaculture activities was extended to include sea moss farming and primary transformation (drying), following local demand for assistance (TE, p. 24).

3.4 Briefly summarize project's theory of change – describe the inputs and causal relationships through which the project will achieve its long-term impacts, key links, and key assumptions.

- Problem: severe expected impacts of climate change and variability, exacerbating other pressures such as overfishing, pollution, habitat loss, disturbance of coral reefs, and invasive species; considerable vulnerability of the fisheries sector, to which populations are highly dependent for food security, livelihoods and household income, to these impacts.

[2] The TE (p. xvi) rates "E2. Quality of project implementation" as Satisfactory, and "E2.1 Quality of project implementation by FAO (BH, LTO, PTF, etc.)" as Highly Satisfactory.

- Barriers: (i) Limited access by fisheries' stakeholders to information on climate change impacts and vulnerabilities; (ii) Reduced fish stocks as a result of unsustainable practices exacerbated by the impacts of climate variability and change. (iii) Limited uptake of adaptive technologies, even if well known, and available/limited fisherfolk willingness to innovate. (iv) Capacity gaps in areas such as ICT, business skills, disaster risk reduction and mitigation. (v) Insufficient or degraded aquaculture centers. (vi) Insufficient data on income generation from aquaculture investments leading to lack of confidence in the industry as an alternative source of income. (vii) Gender segmented labor market may be negatively affecting women in fisheries. (viii) Weak mainstreaming of fisheries in climate change adaptation policies and plans. (ix) Weak mainstreaming of climate change adaptation and DRM considerations in fisheries policies and plans. (x) Governance mechanisms for sustainable fisheries are weak and fragmented and exclude fisherfolk from decision-making. (xi) Limited access by fisheries stakeholders to practical lessons learned and best practices on enhancing resilience to climate change in the sector.
- Strategy: (1) Understanding and raising awareness of climate change impacts and vulnerability; (2) Increasing fisherfolk, aquaculturists' and coastal community resilience to climate change and variability; (3) Mainstreaming of climate change adaptation in multilevel fisheries governance.
- Impact: 1) Reduced vulnerability of people, livelihoods, physical assets and natural systems to the adverse effects of climate change (climate change adaptation [CCA] Focal Area Objective 1). 2) Livelihoods and sources of income of vulnerable coastal populations diversified and strengthened. 3) Hunger, food insecurity and malnutrition reduced. 4) Sustainable provision of goods and services from fisheries.

4. GEF IEO assessment of Outcomes and Sustainability

Please refer to the GEF Terminal Evaluation Review Guidelines for detail on the criteria for ratings.

The outcome ratings (relevance, effectiveness, efficiency, and overall outcome rating) are on a six-point scale: Highly Satisfactory to Highly Unsatisfactory. The sustainability rating is on a four-point scale: Likely to Unlikely.

Please justify the ratings in the space below each box.

4.1 **Relevance and Coherence**	S

The TE rates relevance as Highly Satisfactory, and this evaluation rates it as Satisfactory. the project was highly relevant and aligned with GEF, FAO and national priorities, plans and policies; the design was pioneering and generally solid, although with some shortcomings.

The project was overall congruent with GEF and FAO frameworks and priorities. It was aligned with GEF climate change adaptation strategy, and firmly anchored in the Long-Term Vision on Complementarity, Coherence, and Collaboration between the Green Climate Fund and GEF. It was also aligned with FAO's new Strategic Framework 2022-2031, Country Programming Frameworks of the project countries, and FAO priorities on climate change in fisheries and aquaculture (TE, p. 11). The project activities were considered as highly relevant by all project beneficiaries (TE, p. 13), contributing to the nationally determined contributions of project countries to the Paris Agreement on climate change (TE, p. 12). The project had indirect synergistic effects with project StewardFish (GEF ID: 9720), and actively pursued interactions with other fisheries initiatives in the region (TE, p. 14)

The project design was pioneering; it was the first of its kind on climate change adaptation in fisheries in the region and filled a void at regional and national levels. It was suitable to tackle the multiple facets of climate change within the fisheries sector, and was aligned with the outcomes it set out to achieve (TE, p. 12). However, it raised expectations beyond what it could deliver regarding the climate proofing of fisheries infrastructure. In fact, the project was overambitious because of the great number of countries (seven) and activities, the nature of the different activities, and the limited budget and timeframe (TE, p. 11). Two assumptions of the theory of change (1.2 "*Value addition is important to diversify the fisheries product and increase resilience of the fisheries sector*", and 1.3 "*Approved policies and plans will be implemented*") were only partially confirmed. Finally, although the project was approved to include infrastructural improvements at landing sites, these were not permitted under the GEF Special Climate Change Fund, generating disappointment in fishers (TE, p. 13).

4.2 **Effectiveness**	S

The TE rates effectiveness as Satisfactory, and this review concurs. The project achieved almost all the targets set ex-ante, including those of the Adaptation Monitoring and Assessment (AMAT) tool, and made the expected level of contributions to global environmental benefits.

The achievement rate of the project targets was highly satisfactory; 12 project outputs were achieved at an average of 97%, 7 outputs at 100%, and 1 was over-achieved (Output 1.1.3), while some were not achieved (i.e., those for Component 4-Project Management; TE, p. 15). Also, the majority of the targets of the Adaptation Monitoring and Assessment Tool (AMAT) targets were achieved or exceeded; only the AMAT indicator 3 was not achieved (74%) despite the reduction of the target proposed by the MTR because evaluated as over-ambitious. More details for each Component are as follows:

Component 1 – Understanding and raising awareness of climate change impacts and vulnerability. The progress on this Component was highly satisfactory (TE, p. 19), thanks to the delivery of the following Outputs: (1) tools for management of the sargassum at national and local level: subregional sargassum outlook bulletins, published online every quarter and distributed through regional networks; and sargassum adaptive management plans in Grenada, Saint Kitts and Nevis, Saint Lucia, and Saint Vincent & the Grenadines (TE, p. 17). (2) Fisheries data collection and statistics was significantly improved, although this was not explicitly planned in the project document (TE, p. 17). (3) Community-based, participatory processes for vulnerability and capacity assessment were conducted, which led to the production of communication materials, and stand as a strong baseline for future interventions (TE, p. 18).

Component 2 – Increasing fisher-folk, aquaculturists and coastal community resilience to climate change and variability. The TE (p. 23) considers progress for this sub-component as highly satisfactory, based on the delivery of the following Outputs: (1) The project's delivery of training on safety at sea and utilization of ICT was considered by all informants as the greatest and most tangible realization of the project, despite some delays in the delivery of equipment in time for the training, due to procurement issues, and published a manual on safety at sea for the Caribbean (TE, p. 19). (2) The establishment of an insurance scheme for fishers varied across the project countries; while the project produced an extremely useful policy brief on third party vessel insurance, the embedding of vessel insurance in national legislation was

considered only in Trinidad and Tobago because of lack of capacity in other countries and difficulties in meeting because of COVID-19 (TE, p. 20). (3) Post-harvest activities (training, business proposals for the utilization of underutilized species, and development of alternative and improved livelihoods) were tailored to the specific local needs and to respond to country requests. Trainings were successfully organized, despite delays and limitations due to COVID-19. Also, exchange visits between fishers were organized across countries, standing as an example of best practice (TE, p. 21). However, the development of business proposal did not happen as planned due to the unavailability of required expertise within CRFM (TE, p. 20). Also, the business skills training for fishers took place only in Grenada, Saint Lucia, and Saint Vincent & the Grenadines, with only 2 fishers out of 62 participants who acquired their own boats and agreed to register themselves as a business and keep better records, due to the fishers' consideration that fishing is not a business but a way of life (TE, p. 21). Finally, the expectation of improvements in landing sites was disappointed due to impossibility to disburse GEF funds despite CEO project approval (TE, p. 21). As for the improved resilience of aquaculturists, the project successfully delivered training and rehabilitation of facilities, providing a strong basis for new developments in this sector. However, there is little evidence that this increased adaptation and resilience to climate change among aquaculturists (TE, p. 23). Challenges derived from the marginal nature of this activity in project countries.

Component 3 – Mainstreaming of climate change adaptation in multi-level fisheries governance. The project successfully supported the formulation of a larger number of management plans for fisheries and aquaculture development, which are already being implemented in some countries although not yet formally approved due to lengthy and bureaucratic approval processes: fisheries management plans, including climate change concerns and adaptation as integral components of fisheries sustainability; four sargassum Adaptive Management Plans; the formulation of aquaculture development plans in Dominica and Saint Lucia; the inclusion of disaster response in Grenada; (TE, p. 26).

4.3 **Efficiency**	MS

The TE rates efficiency as Moderately Satisfactory, and this review concurs. Although the disbursement of funding was adequate and adjusted to requirements, and expenditures were meticulously tracked, some components of the project management, as well as some of the adjustments made to address problems raised during implementation, were cost-ineffective, and there were some gaps in the administrative management. The project was extended twice, one to September 2021 to address the impacts of COVID-19, and another to March 2022 to ensure the finalization of activities.

The project was implemented with moderate efficiency. The funding was disbursed by three quarters by the time COVID-19 hit, showing that momentum could be maintained despite inevitable slow-down (TE, p. 33). Spending was adjusted to requirements through budget revisions (TE, p. 33). Although the Field Program Management Information System was not regularly updated, meticulous monthly tracking of expenditures and disbursal of funds enabled adequate monitoring of the budget and reallocation of funds across budget lines (TE, p. 34). Adjustments were made to circumvent administrative blockages and meet beneficiaries' needs; however, not all of them were cost-effective (TE, p. 35). Procurement was cost-ineffective (TE, p. 33). Letters of Agreement worked well with organizational partners, but were overall administratively demanding (TE, p. 35). There were gaps in the administrative management of the project,

which were partly improved after the MTR especially in relation to the annual programming of activities and budgets. This was due to the complexity of FAO procedures and a general lack of awareness and knowledge about them at country level (TE, p. 30), which were partly increased thanks to changes in FAO SLC personnel during project implementation; the difficulties in the management of the great number of letters of agreement issued (27). The project was extended for a total of 21 months, allowing to wind down activities and to complete outstanding ones and reinforce past ones (TE, p. 33).

4.4 **Outcome**	MS

Summarize key outcomes related to environment, human well-being, and enabling conditions (Policy, Legal & Institutional Development; Individual & Institutional Capacity-Building; Knowledge Exchange & Learning; Multistakeholder Interactions), as applicable. Include any unintended outcomes (not originally targeted by the project), whether positive or negative, affecting either ecological or social aspects.

Where applicable, note how both intended and unintended outcomes have positively and/or negatively affected marginalized populations (e.g., women, indigenous groups, youth, persons with disabilities), and where some stakeholder groups have benefited more/ less than others.

The TE rates "progress towards outcomes and project objectives" as Satisfactory, and this review rates it as Moderately Satisfactory. The project was highly relevant to international, regional, and national plans and priorities, and had an overall solid design although with some issues and the fact that some assumptions were only partially valid. Although it achieved the majority of outputs and ex-ante targets, the results across the project country were uneven, and the supporting evidence was anecdotal. Finally, its efficiency was moderately satisfactory.

The major impacts of the project are as follows:

Environmental. The TE does not mention any environmental outcome of the project.

Socioeconomic. The project had a limited contribution to the adoption of climate-resilient technologies and fishing practices; although there is some evidence of improved self-organization to implement measures to increase resilience, such as improved control and management of sargassum (TE, p. 19), there is overall uncertainty on the achievement of this outcome because the related assumptions are only partially realized (TE, p. 44).

Enabling conditions. The project contributed to an increase in understanding and awareness about climate change impacts, vulnerability and adaptation among fishers, aquaculturists and national fisheries authorities (TE, p. 17), contributing to creating a necessary change in the way climate change adaptation in fisheries was perceived and addressed (TE, p. 43) and toward forming an "ecosystem" for the project activities (TE, p. 42). The project also improved the national fisheries data collection and analysis systems, contributing to generating greater knowledge in the region and scientific community on climate change adaptation in the fisheries and aquaculture sectors (TE, p. 19). Moreover, the project made a significant difference (TE, p. x) in the determination of a behavioral change in men and women fisherfolk and beneficiaries, who embraced adaptation technologies and changed their practices to increase their safety at sea, and are now aware on the benefits and importance of licensing and registering vessels (TE, pp. 21-

22). Fishers' trust of fisheries authorities generally improved, although with variations across project countries (TE, p. 22). As for aquaculture, the project built the capacity for improved resilience of aquaculturists to the impacts of climate change, including rehabilitation of farms, building of aquaponics demonstration facilities, and restart of production of prawn hatchlings in Dominica, although evidence is scant and anecdotal (TE, p. 25) and does not support the conclusion that these are contributing to adaptation and resilience to climate change among aquaculturists and their communities (TE, p. x). The project supported the formulation of a large number of management plans (which was greater than was anticipated; TE, p. x), including also disaster risk management in fisheries in the case of Saint Lucia (TE, p. 28), and raised awareness among fisheries policy makers (TE, p. 29). Finally, the project included fisheries concerns in climate change adaptation priorities at national level in some countries, and mainstreamed climate change adaptation for fisheries in a large number of national and regional policies, and brought special attention to the fisheries-climate nexus in high-level political for a (TE, p. xi). In relation to gender, youth and minority groups, the set targets of women participation in project activities were not reached, while the efforts made to reach the youth for aquaponics training and development are promising (TE, p. xiii).

Unintended outcomes. The TE reports no unintended outcomes.

4.5 **Sustainability**	ML

Note any progress made to sustain or expand environmental benefits beyond project closure, using stakeholder (rather than project) resources, e.g. through replication, mainstreaming or scaling-up of GEF-supported initiatives. Examples would be farmers adopting practices using own funds, follow-on replication projects, development of plans for scaling, inclusion in local or national legislation, and allocation of government budgets or private sector investments for institutional adoption.

The TE rates sustainability as Moderately Likely, and this review concurs. There are some likely environmental risks, as well as financial and institutional risks depending from the varying commitment of the project countries, which will have an important effect on project sustainability; however, the net benefits are more likely to continue than abate.

The project laid down strong foundations for the sustainability of results, harnessing opportunities and collaborations with other regional projects and initiatives, thereby leaving a strong legacy (TE, p. xi). However, the sustainability of project results will depend on the commitment of national fisheries authorities to uptake and upscale project results, which varies across countries, the uncertainty regarding GEF funding for projects at the nexus of climate change adaptation, fisheries, and SIDS (TE, p. xi); the formulation of an exit strategy, whose preparation began towards the end of the project; and on the opportunities that arose to develop external additional support (TE, p. 35).

Financial. The likelihood of financial risks is moderate (TE, p. 41). Thanks to the Vulnerability and Capacity Assessment analysis, some countries can now access the Green Climate Fund with the support of FAO, although there will be risks due to the great complexity of procedures (TE, p. 36). The financial commitment of governments is highly variable, with some countries having already committed resources for the implementation of the management plans developed during the project or to scale out some

activities by including them in their work plans, while other countries expressed doubts to be able to do so without committed funds (TE, p. 40). Funding still has to be secured to replicate Vulnerability and Capacity Assessment activities to other fishing communities, and there is doubt that this will be taken forward by fisheries authorities alone, without outside assistance (TE, p. 40). In addition, the GEF funding landscape for projects on climate change adaptation related to fisheries in SIDS looks uncertain, seemingly fragmented between SIDS and LDC, the International Waters Program, and the Blue-Green Islands Integrated program, with potentially diverging focus and priorities that may compromise the continuity of results and may not be conducive to addressing climate change adaptation in a holistic way (TE, p. 41).

Sociopolitical. Sociopolitical risks are moderately unlikely; the main risk comes from the engagement of fishers and their uptake of results due to insufficient incentives and demonstration of concrete benefits (TE, p. 42).

Institutional frameworks and governance. The project developed a strong ownership and capacity, triggered changes in awareness and behavior, and established innovative partnership models (TE, p. 36), although this has not been strategically planned (TE, p. 35). Awareness of fishers about climate change impacts will sustain in the future, and the adoption of improved climate-resilient technologies and fishing practices will last with some support (TE, p. 36), including the possibility to replicate some approaches to other communities (TE, p. 37), such as the Vulnerability and Capacity Assessment toolkit that is being used in Asia and Africa (TE, p. 45). As for safety at sea, in Trinidad and Tobago there are strong signs of commitment by fishers and solid ties established with the Fisheries Department; however, gaps still remain regarding fishers' access to radios, insufficient clarity about governments' roles, and insufficient understanding of obligations under the international conventions, such that greater efforts are needed to ensure the sustainability of these achievements in the future (TE, p. 38). Partnerships emerged during the project that will take some activities and tools forward in other projects (e.g., aquaponics through the new project AMEXCID, and high likelihood of percolation of climate change adaptation awareness ad knowledge to other GEF initiatives such as the Blue Economy-CLME+; TE, p. 36). However, the sustainability of project results is likely to be very dependent on the institutional commitment of national fisheries authorities, which varies across project countries (TE, p. 36) and topics (e.g., aquaponics; TE, p. 40). In fact, the main risks to sustainability come from the lack of prioritization of climate change concerns in fisheries and aquaculture in national development agendas and fisheries authorities' work plans on the one hand (due to staffing turnover and low capacity in national fisheries administrations), and the prevailing 'project by project' mentality/approach on the other (TE, p. 42). In fact, despite the encouraging signs of integration of outputs into national policies of plans, there is overall little evidence that the post-harvest activities are sustainable, because of lack of expertise to pursue value chain analyses, insufficiently trained personnel (TE, p. 38). Also, an important risk comes from the fact that the innovative approach of targeting secondary school students instead of fishers for aquaponics training, will require the collaboration of competent ministries for the integration of this training in school curricula, to which at the moment of the TE there is no evidence (TE, p. 37). In relation to data collection, the continuous increase of both expertise and autonomy of fisheries statisticians in the Caribbean will remain a challenge unless models of learning exchange and a regional 'community' of experts and analysts is created (TE, p. 40).

Environmental. The environmental risks to project sustainability are likely, as environmental risks from volcanoes and extreme weather risks, exacerbated by climate change, will continue to be ever-present and to threaten infrastructures and fishing-based livelihoods, even though are supposed to have become more resilient (TE, p. 42).

5. Processes and factors affecting attainment of project outcomes

Before describing the factors, you may choose to summarize reported outcomes and sustainability here: https://www.research.net/r/APR2023.

5.1 Co-financing. To what extent was the reported co-financing essential to the achievement of GEF objectives? If there was a difference in the level of expected co-financing and actual co-financing, what were the reasons for it? Did the extent of materialization of co-financing affect project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

The project materialized 74% of the expected co-financing, with 7 partners committing the expected funds, 2 partners contributing more, 2 less than planned, and 1 that did not contribute (CARIBSAVE, which ceased to exist during project implementation). This negative variation did not affect negatively project results (TE, p. xii, 49), although in Trinidad and Tobago it left the country scrambling for other projects to reduce the shortfall. In Saint Kitts and Nevis, the considerably higher commitment did not contribute to proportionally higher results (TE, p. 50). There was also few evidence of the value of the contribution of some co-financing partners (TE; p. xii).

5.2 Project extensions and/or delays. If there were delays in project implementation and completion, then what were the reasons for it? Did the delay affect the project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

A first nine-month extension to 30 September 2021 was justified because of the impact of COVID-19. Then, an additional no-cost extension until 20 March 2022 made it possible to complete and also reinforce some of the activities (TE, p. 34).

5.3 Stakeholder ownership. Assess the extent to which stakeholder ownership has affected project outcomes and sustainability. Describe the ways in which it affected outcomes and sustainability, highlighting the causal links.

The project developed stakeholder ownership and capacity (TE, p. xi) and established a web of partnership that was essential for the execution of activities at national and regional levels (TE, p. xiii). The participatory formulation of the project enabled the building of ownership among executing partners, which enhanced the value of their contribution, in particular for organizational partners (TE, p. 13). In Saint Kitts and Nevis, Trinidad and Tobago, and Grenada, regular meetings were held between national fisheries authorities and national stakeholders, which denote their willingness to engage closely with stakeholders and fishers, and anchor the project firmly in national processes and interests (TE, p. 48).

5.4 Other factors: In case the terminal evaluation discusses other key factors that affected project outcomes, discuss those factors and outline how they affected outcomes, whether positively or negatively. Include factors that may have led to unintended outcomes.

The COVID-19 pandemic, which started half-way through the project, was the biggest challenge to project implementation across all countries, as it entailed a slowdown of activities (TE, p. 10). In particular, meetings to discuss third party vessel insurance (see Component 2.2) were not held in almost all countries, hampering the delivery of this Output, and planned hands-on workshop were delayed in Saint Lucia, Saint Vincent & the Grenadines (TE, pp. 19-20).

Other factors that affected project outcomes were Hurricane Maria, which destroyed existing aquaculture facilities in Dominica in September 2017, and a volcanic eruption in April 2021, which brought activities in Saint Vincent and the Grenadines to a standstill.

6. Assessment of project's Monitoring and Evaluation system

Ratings are assessed on a six point scale: Highly Satisfactory to Highly Unsatisfactory.

Please justify ratings in the space below each box.

6.1 **M&E Design at entry**	MS

The TE rates M&E design as Moderately Satisfactory, and this review concurs. The M&E plan was overall solid, with appropriate indicators and adequate arrangements for implementation, although there were some shortcomings in relation to the lack of quantitative targets and rigidness in the design of some tools.

There was no formalized and completed M&E plan. The preliminary M&E plan in the project document, which included clear and regular reporting schedule following GEF and FAO requirements, targets and indicators, and was practical and sufficient (TE, p. 45), was not further elaborated (TE, p. 46).

A critical weakness highlighted by the TE (p. 45) is the fact that some outputs did not have quantified targets or sufficiently specific indicators, e.g., not evaluating changes in knowledge, attitudes and practices. Also, the M&E plan did not require sufficient keeping of meeting minutes (TE, p. 46). The rigidness of GEF's Adaptation Monitoring and Assessment Tool (AMAT) was not fully conducive to the tracking and reporting of the project's progress, and this blurred reporting on the overall project achievements (TE, p. xii).

6.2 **M&E Implementation**	MS

The TE rates M&E implementation as Moderately Satisfactory, and this review concurs. The implementation followed the plan, although a full M&E plan was not developed as expected, and some of the weaknesses in design were not addressed.

The monitoring of progress was practical and sufficient (TE, p. xii), and was done based on the targets and indicators of the M&E monitoring requirements in the project document, without further elaborating a complete M&E plan (TE, p. 46). Efforts were made to include all stakeholders in the reporting and review of progress reports, but these were not always fruitful (TE, p. xii). The lack of quantitative or sufficiently

specific indicators for some outputs was not rectified during project implementation. Also, the related recommendation of the MTR on including the evaluation of changes in knowledge, attitude, and practices, was not addressed (TE, p. 46).

7. Assessment of project implementation and execution

Quality of Implementation rating is based on the assessment of the performance of GEF Agency(s). Quality of Execution rating is based on performance of the executing agency(s). In both instances, the focus is upon factors that are largely within the control of the respective implementing and executing agency(s). A six-point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess.

Please justify ratings in the space below each box.

7.1 **Quality of Project Implementation**	S

The TE rates quality of implementation as Satisfactory, and this review concurs. The performance of the implementing agency met the expectations, providing technical supervision, responsiveness and adaptability, with only some weaknesses, which were partly addressed after the MTR.

FAO SLC provided a satisfactory technical oversight and supervision of the project; especially, after the MTR, they improved a number of managerial procedures (including more rigorous annual programming of activities and budgets, and streamlining of procedures). Project staffing was also relatively stable during the project, enabling consistency and continuity (TE, p. 32). The Project Coordinating Unit was responsive to countries' requests, provided the necessary day-to-day guidance on an individual basis, and was proactive in seizing opportunities to expand project outreach (TE, p. 32). However, there were some gaps in administrative management due to complexity of FAO procedures and lack of awareness and knowledge about them at country level, which has reportedly created problems in coordination by the Project Coordination Unit (TE, p. 30). Also, all NPCs complained about the lack of training and onboarding on these complex FAO rules and procedures, which led to procurement or returning of wrong equipment, with negative effects on the work of partners and execution of activities at national level (TE, p. 47). Finally, the limited technical and strategic guidance of the Project Task Force was made up for with personal connections on an individual basis (TE, p. 32).

7.2 **Quality of Project Execution**	S

The TE rates quality of project execution as Satisfactory, and this review concurs. Executing agencies had a satisfactory performance, with enough diligence, commitment, and adaptability to difficulties raised during project execution, despite some weaknesses in some countries related to funding and lack of engagement of all stakeholders.

National partners executed project activities with enough diligence, despite administrative bottlenecks such as the holding of project funds in national consolidated funds, procurement hurdles, and COVID-19 constraints (TE, p. xii). The articulation of national teams in NFCs and NFPs was a suitable means to oversee execution at national level and provide direct liaison with government and fisheries authorities. These

national teams were dedicated to the project despite staff variability; this was an issue in Antigua and Barbuda and Dominica, where the NPCs were not replaced following their resignation, and in Grenada, where three different NPCs took up the post (TE, p. 46). Letters of agreement with organizational partners were effectively implemented (TE, p. xii), although issues were raised in the disbursement of related funds in nearly half of the national executing partners, which were not solved everywhere and affected the quality of execution in these countries (TE, p. 48).

In Trinidad and Tobago, the varying participation of national officers in data collection and statistics training activities hampered the coordination of follow-up activities between these two islands, as well as understanding of each island's specific needs, and slowed down both the execution and the replication/scaling out of activities to other parts of the country (TE, p. 47). In addition, the engagement of GEF Operational Focal Points (OFP) proved time-consuming and ineffective, and only one GEF OFP reviewed the June 2021 PIR, and none did in 2020 (TE, p. 47). Although this did not impact negatively on the project (TE, p. xii), it denotes a lack of strategic engagement on behalf of the project and FAO SLC (TE, p. 47). Also, the engagement of the FAO National Correspondents, which are typically based in agriculture departments and tend to be less familiar with fisheries issues, was very limited in all countries except Saint Vincent and the Grenadines and Grenada; however, this had minimal consequences on the project activities (TE, p. 48).

8. Lessons and recommendations

8.1 Briefly describe the key lessons, good practices, or approaches mentioned in the terminal evaluation report, including how they could have application for other GEF projects. Lessons must be based on project experience.

The TE (p. 63) proposes the following lessons:

Lesson 1. The project has demonstrated the importance of considering a project as an 'ecosystem' within which there is scope for multiple interactions among components (stakeholders, activities), non-linearity and surprise, as well as the importance of project process, and that as part of an ecosystem, satellite stakeholders (beyond those who had been described in the project document), can have synergistic roles and generate additive benefits. It also showed that the links/collaborations that satellite stakeholders create among themselves, under the influence of the project but outside its direct control, are indicative of the development of new behaviors and practices, and fundamental for the sustainability of project results in the longer-term.

Lesson 2. Identifying champions of change, especially in communities and/or local organizations is key. These people can be a key resource point, as well as important influencers of behavior change among their peers. The model of ICT stewards in fishing communities and of private aquaculture champions could be emulated in other projects. As a direct link between the project, fisheries authorities and fishers/communities, champions of change can also play a critical role in building trust and managing beneficiaries' expectations. Managing stakeholders' expectations from the start will prevent disappointment and loss of interest in the project in the long-term, even if execution issues arise.

Lesson 3. Co-financing amounts committed at project start can be deceiving and can artificially overinflate budget envelopes. Committed amount should be a true reflection of co-financing already confirmed and not potential. Rigorous tracking is also difficult. Amounts committed are nonetheless a good indicator of a country's or institution's interest and buy-in.

Lesson 4. Commitment and dedication, making sure that the appropriate persons are invited to and attend workshops, targeting top and middle management officials, constitute the foundation for the sustainability of any activity. Engagement with fishers must also be continuous, frequent and repeated to ensure memorization of new practices and development of new behaviors, to maintain the project's presence and visibility with fishers, and provide incentives for them to remain involved. It is also critical to work around fishers' schedules so they do not lose income. Modular training that can be dispensed quickly and cheaply, supported by videos and engaging materials, are needed to easily train new fishers entering the sector. If demonstrations and training include new equipment, mechanisms for their appropriation post-training must be included.

Lesson 5. More attention needs to be paid to the impact of extreme climate events which inevitably hinder project activities. Better contingency plans should be ready to reach people on the ground in extreme circumstances (e.g. COVID-19), and these should include a variety of solutions to maintain interpersonal engagement. While virtual engagement was necessary due to COVID-19 restrictions and allowed project activities to continue, its limitations to engage with fishers and communities were evident and could not replace in-person engagement with fishers who may all not have access to or be comfortable with virtual platforms.

Lesson 6. Projects must consider the diversity among participating countries: for a regional climate change adaptation project, it must be recognized that the needs, vulnerabilities and capacities of countries vary, and national objectives and activities must be tailored accordingly. Equally, the diversity of climate change adaptation actors must be recognized and embraced. Close collaboration across various government agencies and sectors is required, even if deemed a priori remotely connected to the issue.

Lesson 7. The Project showed that aquaculture development for adaptation holds potential but is not a panacea: taking into account the wider context beyond the sole development of the production technology itself is fundamental, and strengthening technical capacity alone is insufficient for uptake, replication and upscaling of project results. Capital investments required at start up are a barrier to entry for poorer and vulnerable groups in the Caribbean (it may be different elsewhere), all the more so that credit is not available from private financing institutions. Access to resources is also key, and the size of the country – in terms of its ability to source these – matters in this regard. Domestic demand and international market conditions are also important for the economic viability of aquaculture operations. Finding the right level of entry as well as the right scale of operation in terms of required capital investment, capacity/know-how and products/species is key but also needs to be adapted to the entrepreneurial profile of those willing to invest in the activity.

Lesson 8. FAO's dual role as both an implementing and executing agency worked well in the context of a relatively simply designed project, especially in the context of fisheries projects where its technical

expertise is unique. While project-level indicators and GEF Core Indicators provide insights into the project's progress and achievements at different levels, the potential to leverage their synergies and inform both programme and project managers, as well as executing partners, could be explored.

8.2 Briefly describe the recommendations given in the terminal evaluation.

The TE (p. 61) proposes the following recommendations:

Recommendation 1. To FAO. Continue technical support to future fisheries and climate change adaptation interventions in the Caribbean. Priority areas identified by the terminal evaluation are: fisheries data collection and statistics, replication and upscaling of models put in place by the project; aquaponics, FARE, vulnerability and capacity assessment (VCA), SAS-ICT, insurance for fishers and value chain actors, in the context of social protection in fisheries more broadly, seamoss farming and transformation, legislation and policies and plans. In developing a programme of work on these topics at national levels, it is recommended to synergise activities, nurture multi-sectoral, "organic" partnerships across multiple stakeholders from government, private sector, academia and civil society, understand fishers' behaviour and tailor interventions accordingly, and mainstream a gender perspective at all stages of project development and implementation and in all project interventions.

Recommendation 2. To FAO and GEF. In the design and management of future projects, FAO should consider scaling down the scope of intended large-scale projects to allow for clearer implementation, giving due consideration to the governance and geography of partner countries in organizing operational arrangements at national levels, promoting flexibility and agility in project management, facilitating the creation and sustainability of an ecosystem of stakeholders, and pursuing funding partnerships across donor agencies as well as replenishing the GEF SCCF to tackle the multiple facets of climate change adaptation in projects focused on natural resources.

Recommendation 3. To FAO. With regards to knowledge management, sharing and dissemination of experiences and lessons in the region and beyond, FAO should consider: pursuing efforts to increase the resonance of the project to the entire Latin America and the Caribbean region, ensuring that new projects' budgets cover a knowledge management and communication expert from project start as well as the cost of publication of knowledge materials after project end, reviewing protocols and permissions for open access of project archives and greater visibility on social media platforms.

Recommendation 4. To FAO. Continue promoting climate change issues and the climate change adaptation agenda in the work of regional fisheries bodies. Regional Fisheries Management Organizations and regional fisheries bodies (in the Caribbean and beyond) to raise climate change and climate change adaptation up in their agendas, for example by making it a regular agenda item and/or topic in the Scientific Advisory Groups (SAG) should be encouraged to mainstream climate change in their programmes of work more systematically.

Recommendation 5. To FAO headquarters and FAO SLC. Review, streamline where possible, and provide more guidance on administrative procedures and requirements. Better onboarding and supervision during project staff transition periods, as well as regular orientation of project staff and executing partners

is required. Efforts that have been initiated to streamline procedures should be pursued, along with regular review of financial and operational procedures.

Recommendation 6. To GEF and FAO. More flexible reporting mechanisms and future funding should ensure that progress towards outcomes and the multiple dimensions of climate change adaptations are captured in future projects. Incentives should be provided to GEF OFPs to improve their engagement in projects. While acknowledging that GEF has moved from the AMAT to Core Indicators during the life of the project, it should be ensured that the scope of GEF monitoring through the Core Indicators allows reporting on project outcomes and changes, beyond numbers, and that there is space for outcome-oriented indicators that fall without the strict scope of Core Indicators. Project specific indicators that embrace outcomes should also be systematically developed in projects' documents and results frameworks. Implementing agencies need to find ways to more meaningfully engage OFPs throughout the project cycle (from development to execution to closing), reciprocally, OFPs should capitalize on their position to provide strategic guidance to projects.

Recommendation 7. To institutional partners. Project institutional partners (governments and regional organizations) should pursue their efforts to integrate and promote the results of the project in their own programmes and outreach, starting with a reflection on how to mainstream the project's results in organizational partners' own activities, and reaching out to wider to 'non-conventional' fisheries project partners who are important components of the stakeholder 'ecosystem'.

9. Quality of the Terminal Evaluation Report

Before rating the quality of the terminal evaluation, click here to summarize your observations on the sub-criteria: https://www.research.net/r/APR2023.

A six-point rating scale is used for each sub-criteria and overall rating of the terminal evaluation report (Highly Satisfactory to Highly Unsatisfactory)

Criteria/indicators of terminal evaluation quality	GEF IEO COMMENTS	Rating
1. Timeliness: terminal evaluation report was carried out and submitted on time?	The TE was conducted within 6 months from, and was submitted to the GEF portal within 12 months from, project completion	HS
2. General information: Provides general information on the project and evaluation as per the requirement?	He TE provides general information on the project (ID, executing agencies, key project milestones, GEF environmental objectives) and lists the evaluators	HS
3. Stakeholder involvement: the report was prepared in consultation with – and with feedback from - key stakeholders?	The TE identified the key stakeholders, but there is no evidence that their feedback was sought and incorporated in the draft report	MS
4. Theory of change: provides solid account of the project's theory of change?	The TE discusses the theory of change and causal links to achieve intended impact; it presents the assumptions and discusses their validity	HS
5. Methodology: Provides an informative and transparent account of the methodology?	The TE discusses information sources, presents information on interviewees and on project sites and activities; it describes the tools and methods used for evaluation and the limitations	HS
6. Outcome: Provides a clear and candid account of the achievement of project outcomes?	The TE assesses relevance to GEF and national priorities, and of project design; it evaluates performance on all targets, discusses factors that affected it, and assesses timeliness and efficiency	HS
7. Sustainability: Presents realistic assessment of sustainability?	The TE identifies risks to sustainability, their likelihood and likely effects, and rates overall sustainability	HS

8. M&E: Presents sound assessment of the quality of the M&E system?	The TE evaluates M&E design and implementation, including the use of information from M&E for project management	HS
9. Finance: Reports on utilization of GEF funding and materialization of co-financing?	The TE reports on use of GEF resources; it discusses co-financing type, sources, and quantity, including reasons for different materialization and impact on project results	HS
10. Implementation: Presents a candid account of project implementation and Agency performance?	The TE evaluates implementation and execution of the project, including factors that affected them and how challenges were addressed	HS
11. Safeguards: Provides information on application of environmental and social safeguards, and conduct and use of gender analysis?	The TE reports on the implementation of environmental and social safeguards, and on the conduct of gender analysis and implementation of related actions	HS
12. Lessons and recommendations are supported by the project experience and are relevant to future programming?	The TE presents lessons based on project experiences and discusses their applicability; it presents recommendations with clear action and action takers	HS
13. Ratings: Ratings are well-substantiated by evidence, realistic and convincing?	Ratings are supported with sufficient and credible evidence	HS
14. Report presentation: The report was well-written, logically organized, and consistent?	The TE is written in English; it is easy to read, well-organized, and consistent, and makes good use of charts and tables	HS
Overall quality of the report		HS

10. Note any additional sources of information used in the preparation of the terminal evaluation report (excluding PIRs, TEs, and PADs).

ANNEX 1. GEF IEO THEORY OF CHANGE FRAMEWORK

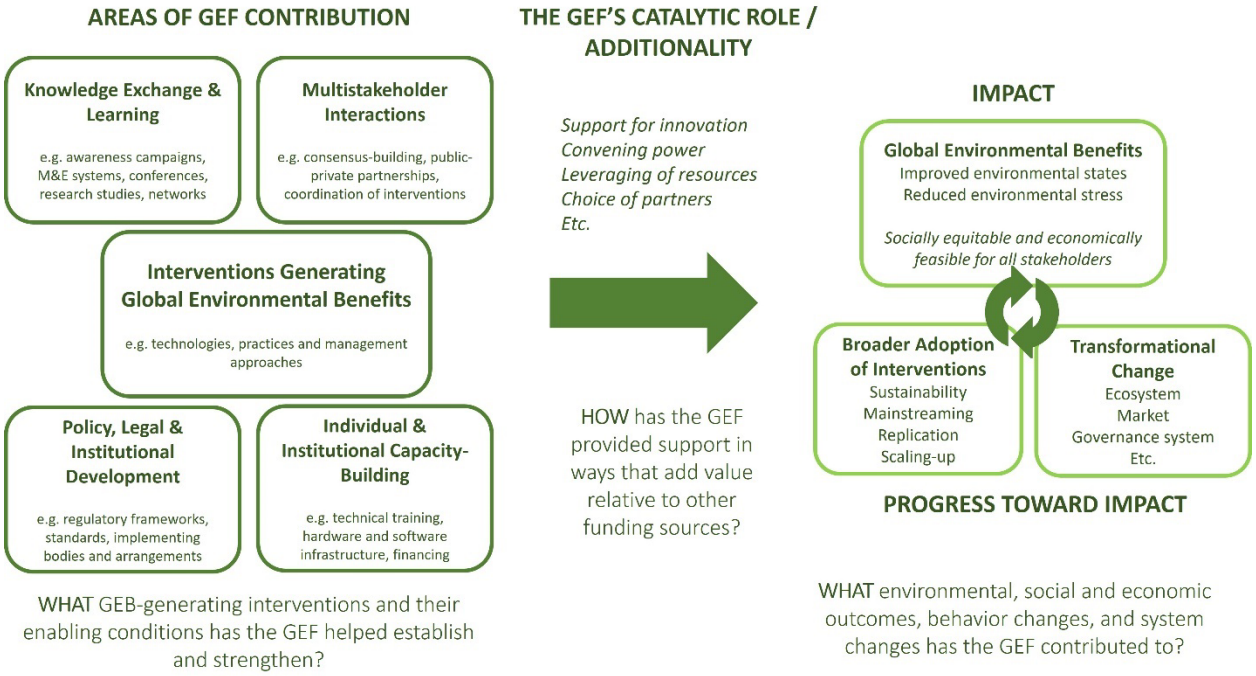

Figure 1. The GEF IEO's updated Theory of Change Framework on how the GEF achieves impact

The general framework for the GEF's theory of change (figure 1) draws on the large amount of evaluative evidence on outcomes and impact gathered over the years by the GEF Independent Evaluation Office. The framework diagram has been updated to reflect the IEO's learning since OPS5 (GEF IEO 2014, p. 47-50) about how the GEF achieves impact, as well as the evolution of the GEF's programming toward more integrated systems-focused and scaled-up initiatives.

The framework outlines the three main areas that the IEO assesses in its evaluations: a) the GEF's contributions in establishing and strengthening both the interventions that directly generate global environmental benefits, and the enabling conditions that allow these interventions to be implemented and adopted by stakeholders, b) the GEF's catalytic role or additionality in the way that the GEF provides support within the context of other funding sources and partners, and c) the environmental, social and economic outcomes that the GEF has contributed to, and the behavior and system changes that generate these outcomes during and beyond the period of GEF support.

The circular arrow between impact and progress toward impact, as before, indicates how bringing about positive environmental change is an iterative process that involves behavior change (in the form of a broader group of stakeholders adopting interventions) and/or systems change (which is a key characteristic of transformational change). These three areas of change can take place in any sequence or simultaneously in a positively reinforcing cycle, and are therefore assessed by the GEF IEO as indicators of impact.

Assessing the GEF's progress toward achieving impact allows the IEO to determine the extent to which GEF support contributes to a trajectory of large-scale, systemic change, especially in areas where changes in the environment can only be measured over longer time horizons. The updated diagram in particular expands the assessment of progress towards impact to include transformational change, which specifically takes place at the system level, and not necessarily over a long time period.

The updated diagram also more explicitly identifies the link between the GEF's mandate of generating global environmental benefits, and the GEF's safeguards to ensure that positive environmental outcomes also enhance or at the very least do not take away from the social and economic well-being of the people who depend on the environment. Thus the IEO assesses impact not only in terms of environmental outcomes, but also in terms of the synergies and trade-offs with the social and economic contexts in which these outcomes are achieved.

ANNEX 2. DEFINITION OF TERMS

Intervention	Any programmatic approach, full-sized project, medium-sized project, or enabling activity financed from any GEF-managed trust fund, as well as regional and national outreach activities. In the context of post-completion evaluation, an intervention may consist of a single project, or multiple projects (i.e. phased or parallel) with explicitly linked objectives contributing to the same specific impacts within the same specific geographical area and sector. https://www.gefieo.org/evaluations/gef-evaluation-policy-2019
Activity (of an intervention)	An action undertaken over the duration of an intervention that contributes to the achievement of the intervention's objectives, i.e. an intervention is implemented through a set of activities. E.g. training, (support to) policy development, (implementation of) management approach.
Outcome	An intended or achieved short- or medium-term effect of a project or program's outputs. https://www.gefieo.org/evaluations/gef-evaluation-policy-2019
Impact	The positive and negative, primary and secondary long-term effects produced by a project or program, directly or indirectly, intended or unintended. https://www.gefieo.org/evaluations/gef-evaluation-policy-2019
Environmental outcomes	Changes in environmental indicators that could take the following forms: • Stress reduction: reduction or prevention of threats to the environment, especially those caused by human behavior (local communities, societies, economies) • Environmental state: biological, physical changes in the state of the environment http://www.gefieo.org/sites/default/files/ieo/evaluations/ops5-final-report-eng.pdf
Social and economic outcomes	Changes in indicators affecting human well-being at the individual or higher scales, e.g. income or access to capital, food security, health, safety, education, cooperation/ conflict resolution, and equity in distribution/ access to benefits, especially among marginalized groups.
Synergies	Multiple benefits achieved in more than one focal area as a result of a *single intervention*, or benefits achieved from the interaction of outcomes from at least two separate interventions in addition to those achieved, had the interventions been done independently.

	http://www.gefieo.org/evaluations/evaluation-multiple-benefits-gef-support-through-its-multifocal-area-portfolio-map-2016
Trade-offs	A reduction in one benefit in the process of maximizing or increasing another benefit. http://www.gefieo.org/evaluations/evaluation-multiple-benefits-gef-support-through-its-multifocal-area-portfolio-map-2016
Broader adoption	The adoption of GEF-supported interventions by governments and other stakeholders beyond the original scope and funding of a GEF-supported intervention. This may take place through sustaining, replication, mainstreaming, and scaling-up of an intervention and/or its enabling conditions (see definitions below). http://www.gefieo.org/sites/default/files/ieo/evaluations/ops5-final-report-eng.pdf
Sustainability	The continuation/ likely continuation of positive effects from the intervention after it has come to an end, and its potential for scale-up and/or replication; interventions need to be environmentally as well as institutionally, financially, politically, culturally and socially sustainable.https://www.gefieo.org/evaluations/gef-evaluation-policy-2019
Replication	When a GEF intervention is reproduced at a comparable administrative or ecological scale, often in different geographical areas or regions. http://www.gefieo.org/sites/default/files/ieo/evaluations/ops5-final-report-eng.pdf
Mainstreaming	When information, lessons, or specific aspects of a GEF initiative are incorporated into a broader stakeholder initiative. This may occur not only through governments but also in development organizations and other sectors. http://www.gefieo.org/sites/default/files/ieo/evaluations/ops5-final-report-eng.pdf
Scaling-up	Increasing the magnitude of global environment benefits (GEBs), and/or expanding the geographical and sectoral areas where they are generated to cover a defined ecological, economic, or governance unit. May occur through replication, mainstreaming, and linking. http://www.gefieo.org/evaluations/evaluation-gef-support-scaling-impact-2019
Transformational change	Deep, systemic, and sustainable change with large-scale impact in an area of major environmental concern. Defined by four criteria: relevance, depth of change, scale of change, and sustainability. http://www.gefieo.org/evaluations/evaluation-gef-support-transformational-change-2017
Additionality	a) Changes in the attainment of direct project outcomes at project completion that can be attributed to GEF's interventions; these can be reflected in an acceleration of the adoption of reforms, the enhancement of outcomes, or the reduction of risks and greater viability of project interventions. b) Spill-over effects beyond project outcomes that may result from systemic reforms, capacity development, and socio-economic changes. c) Clearly articulated pathways to achieve broadening of the impact beyond project completion that can be associated with GEF interventions. https://www.gefieo.org/sites/default/files/ieo/council-documents/files/c-55-me-inf-01.pdf