

UNEP MONITORING AND EVALUATION DIRECT COST 2021 PROJECT DOCUMENT

Project Title: Monitoring and Evaluation Strategy for the Global Fund for Coral Reefs	Recipient UN Organisation(s): United Nations Environment Programme
Project Contact: Gabriel Grimsditch, Programme Management Officer, Marine and Coastal Ecosystems Unit. gabriel.grimsditch@un.org	Project Location: Global
Project Description: Monitoring and evaluation are critical elements of successful project planning and implementation. There are two central objectives: accountability and learning. The overall purpose of monitoring and evaluation is the measurement and assessment of performance in order to more effectively manage outputs and strengthen the achievement of outcomes. A well-designed and well-implemented monitoring strategy can inform an evaluation and can provide the evidence of results achieved as well as help identify lessons learned and best practices.	Total 2021 Project Cost: USD 200,000 Proposed Project Start Date: 1 January 2021 Proposed Project End Date: 31 December 2021

Key expected outputs

- Assess feasibility of data collection for the results indicators defined in the Fund's Terms of Reference for each project
- Coordinate with the Global Team to recommend alternatives to indicators that are difficult to measure
- Robust scientific methodologies for monitoring each indicator
- Baseline assessments of indicators for all project sites
- Annual reports on progress made against indicators for each project, and recommendations for improvements in project activities
- Mid-term review report for each project, with strategic advice on activities and interventions
- Terminal evaluation report for each project, with assessments of final progress made against indicators and any successes, challenges, failures, or unintended consequences. The Terminal Evaluation will be an independent function from the monitoring, and will be carried out by an independent evaluation office in consultation with the UNEP consultant.



 A report on lessons learned and best practication and upscaling 	ctices from the projects, with recommendations for
Signature of Receiving Organisation (UNEP):	
REDACTED	
Signature	
Leticia Carvalho	
Name (printed)	
Principal Coordinator	
Title	
18 February 2021	
Dated	

Monitoring & Evaluation Strategy for the Global Fund for Coral Reefs

Background on the Fund

The Global Fund for Coral Reefs is a blended finance instrument to mobilise action and resources to protect and restore coral reef ecosystems. It is hosted by the UN Multi-Partner Trust Fund in New York. The Fund has a dual focus:

- To facilitate the uptake of innovative financing mechanisms, including private market-based investments focused on coral reef conservation and restoration.
- To unlock financing for coral reef-related climate adaptation through the Green Climate Fund, Adaptation Fund, and multilateral development banks.

The Fund serves as a blended finance vehicle to provide risk equity capital, debt and grant funding to deliver exciting and impactful projects. Grants and investments make it possible for the fund to deliver smart solutions at scale. Starting capital will be leveraged to help developing countries mobilize the resources they need to meet their coral reef commitments under the Convention on Biological Diversity Post-2020 Global Biodiversity Framework. The Fund supports business models that can sustainably finance key conservation and development goals for coral reefs via two initiative windows. Technical assistance, capacity development, monitoring, and evaluation are provided via the grant window, while the investment window generates de-risked investment capital to maximise the impact of projects



incubated by the grant window. It aims to raise USD 500 million over 10 years in blended finance, through a coalition of UN agencies, financial institutions, and private philanthropy sources.

The Fund was launched at high-level event in the margins of the 75th UN General Assembly on September 16th, 2020. It is expected to run to at least 2030.

Aims of the Monitoring and Evaluation Strategy

Monitoring and evaluation are critical elements of successful project planning and implementation. They serve two central objectives: accountability and, often underappreciated, learning. Performance is defined as progress towards and achievement of results. Monitoring and evaluation help improve performance and achieve results. More precisely, the overall purpose of monitoring and evaluation is the measurement and assessment of performance in order to more effectively manage outputs and strengthen the achievement of outcomes. Monitoring is a function carried out by the project management team and evaluation is an independent function. A well-designed and well-implemented monitoring strategy can inform an evaluation and can provide the evidence of results achieved as well as help identify lessons learned and best practices.

The Fund will be investing in projects and activities that impact the environment and the livelihoods of coral reef communities, and therefore activities and interventions need to be carefully monitored and evaluated to avoid unintentional negative consequences of interventions.

Monitoring & Evaluation for the Global Fund for Coral Reefs has the following aims:

- 1. To identify key social, economic and environmental indicators to monitor
- 2. To understand the social, economic and environmental baseline conditions before project activities and interventions
- 3. To understand the impacts on social, economic and environmental indicators of project activities and interventions, compared to control sites where interventions have not taken place
- 4. To provide an advisory function to project activities and interventions as impacts are measured
- 5. To advise on interventions so that project activities and interventions do not cause unintentional negative social, economic or environmental impacts
- 6. To understand lessons learned from project activities and interventions
- 7. To analyze and synthesize and actively share? best practices arising from project activities and interventions, for potential replication and upscaling

Results-based Management

The Monitoring & Evaluation strategy for the Fund will follow a results-based management framework, and it will specifically monitor the indicators identified in the results framework described in Annex I of the terms of reference for the Fund (also found in Annex I of this document). If the indicators that have



been identified in the terms of reference are determined to be too difficult or too costly to measure, then UNEP will consult with the Global Team to propose alternative indicators for monitoring.

Results-based management (RBM) is a management strategy or approach by which an organization ensures that its processes, products and services contribute to the achievement of clearly stated results. Results-based management provides a coherent framework for strategic planning and management by improving learning. It is also a broad management strategy aimed at achieving important changes in the way agencies operate, with improving performance and achieving results as the central orientation, by defining realistic expected results, monitoring progress toward the achievement of expected results, integrating lessons learned into management decisions and reporting on performance.

By generating timely, accurate and reliable data, the M&E function at Global Fud for Coral Reefs is a key component of, and aims to contribute to, a robust RBM approach, ensuring that the right decisions are taken at the right time to improve programming. More specifically, the M&E function helps to ensure that the Fund investments are:

- Relevant to, and aligned with, regional, national and local needs and priorities
- Implemented according to plan and contributing to defined result(s)
- Sustainably managed and owned by communities and rights holders
- Capturing unintended outcomes, challenges and/or bottlenecks and are subsequently able to course correct
- Generating learning
- Accountable to stakeholders

By doing so, the M&E function contributes to ensuring that the Fund's interventions create positive impacts on the ecological health status of coral reefs, as well as on the livelihoods, food security and incomes of coral reef resource users.

Participatory Monitoring & Evaluation

The Monitoring & Evaluation Strategy will also follow a participatory approach to monitoring & evaluation.

Participatory Monitoring & evaluation (PME) is a participatory and inclusive approach to M&E whereby a range of stakeholders, including community members, are actively engaged in M&E activities. PME aims at effectively tracking programmatic achievements and challenges, while acknowledging and addressing deep-rooted power imbalances often reproduced by development programming.

By valuing primary stakeholders' knowledge, experience and expertise, PME allows reframing of M&E from a top down exercise, to one of mutual engagement and learning. As a result, ownership is strengthened, as is sustainability and the interventions' transformative potential.



Participatory monitoring and evaluation overlaps conceptually and is consistent with a human rights based approach to M&E, and the principle of "leaving no one behind". Both emphasize the inclusion, participation and meaningful engagement of rights holders and those impacted by interventions throughout the programming cycle.

As this Participatory M&E strategy is implemented, the following principles should be upheld:

- <u>Participation and Inclusion:</u> from the onset, M&E should meaningfully engage a range of stakeholders, including women's organizations. Individuals or groups that may be impacted by monitoring activities or evaluations should be meaningfully involved in these processes. Specific mechanisms should be set up to track the participation of women and girls and civil society organizations in M&E.
- <u>Reciprocity:</u> Stakeholders are not merely data points or potential sources of information for M&E activities; M&E should reflect this principle and ensure that any M&E exercise undertaken is useful to stakeholders' work and/or contributes to change in their lives. M&E should be conceptualized, conducted and used in a way that ensures those who are involved or impacted by the Fund's work, including those involved in or are interviewed during monitoring visits or for an evaluative exercise's data collection, benefit.
- <u>Non-discrimination and equality:</u> M&E should not exacerbate or reproduce any form of
 discrimination/bias including on the basis of "race, colour, ethnicity, gender, age, language,
 sexual orientation, religion, political or other opinion, national, social or geographical origin,
 disability, property, birth or other status as established by human rights standards." This
 requires, inter alia, a commitment to data disaggregation.
- <u>Data disaggregation:</u> Indicators to measure the impact of the Fund should allow for disaggregation by, for example, income, sex, age, race, ethnicity, migratory status, disability and geographic location, or other characteristics.

Monitoring & Evaluation Performance Management Framework

What are we monitoring and evaluating?

Specific social, economic and environmental/ecological indicators have been identified in Annex I of the terms of reference for the Fund to monitor and evaluate the activities and interventions of the Fund (also found in Annex I of this document). The feasibility and cost of each indicator will be assessed, and potential alternative indicators will also be proposed. For each indicator, a baseline will be measured and targets will be put in place as objectives for Fund interventions and as part of a logical framework / theory of change for each intervention / investment. The indicators will ensure to follow the results-based management and participatory M&E principles outlined above. Additional potential social,



environmental and economic safeguards to take into account for project development, monitoring and evaluation are included in the Annex II.

A robust Theory of Change for each project intervention will be required, as well as a costed Results Framework – example below:

Indicators and assumptions	Indicator definition and unit of measurement	Data collection methods and sources	Frequency and schedule	Person(s) responsible for M&E	M&E budget	Information use and audience
	Outcome 1					
This column lists indicators, which can be quantitative (numeric) or qualitative (descriptive observations) and are taken directly from the logframe.	This column defines key terms in the indicator for precise measurement (baseline and target) and explains how the indicator will be calculated, i.e., the numerator and denominator of a percent measure. It also should note any disaggregation, i.e., by sex, age, or ethnicity.	This column identifies information sources and data collection methods/tools. It should indicate whether data collection tools (surveys, checklists) exist or need to be developed.	This column identifies the frequency data will be collected, i.e., monthly, quarterly, or annually. It also identifies anything to schedule, such as deadlines to develop tools.	This column identifies people responsible and accountable for indicator measurements. Names and titles should be provided to encourage accountability.		This column identifies the intended audience and use of data, i.e., monitoring, evaluation, or reporting to policy makers or development partners. When necessary, it should state ways the findings will be formatted (i.e. reports or presentations) and disseminated.
Indicator 1						
Indicator 2						
	Output 1		ı			
Indicator 1						
add rows						

At what level are we monitoring and evaluating? Who is monitoring?

It is proposed that monitoring and evaluation will occur at the coral reef site level, the household level and the small or medium enterprise level to understand the impacts of Fund interventions and activities. It is proposed that monitoring data is collected by local partners – local experts, academic institutions, non-governmental organizations and citizen scientists.

How often are we monitoring and evaluating?

It is proposed that monitoring of indicators occurs once per year per project intervention site. This will entail yearly reports on the status of the indicators and recommendations on tailoring investment activities/interventions to improve the trajectory of indicators in line with project objectives, logical frameworks, and theory of change.

A baseline assessment will be conducted to understand the status of indicators before Fund investments begin.



There will also be a mid-term review halfway through the life of the investments/projects to provide more in-depth feedback and strategic advice on interventions and activities to help steer implementation.

There will be a terminal evaluation of the Global Fund for Coral Reefs based on the monitoring data collected throughout the life of the project and combined with primary data collected through data reviews, interviews and direct observation. The terminal evaluation will provide an in-depth analysis of the social, environmental, ecological, and economic impacts of the project activities as per the indicators identified. It will document successes of the interventions, but also unintended outcomes and consequences, as well as challenges, barriers, and failures. It will also provide an analysis of the lessons learned from the project interventions and document best practice case studies as well as make recommendations for upscaling and replication of interventions.

Roles within the Monitoring & Evaluation Framework

UNEP will hire an expert high-level consultant to further develop and manage the Monitoring & Evaluation strategy and process for the Global Fund for Coral Reefs. The expert consultant will have at least 10 years' experience in project management, monitoring and evaluation as well as a good understanding of coral reef science, management, and policy. The consultant must be available to travel to project sites.

The expert consultant will finalize the monitoring and evaluation strategy and be responsible for managing and coordinating the process including producing yearly reports and mid-term reviews. Terminal evaluations for the projects will be produced by an independent evaluation office, in consultation with the expert hired by UNEP. The expert consultant may not have the capacity to directly collect data-sets on all the indicators identified, but will be responsible for coordinating data collection and travelling to project locations. Monitoring data for each project site can be collected by local experts, local NGOs, and citizen scientists using a robust methodology

The expert consultant will work closely with the scientific advisory committee, who will be advising investments for the Global Fund for Coral Reefs.

A scientific and technical advisory committee for the Global Fund for Coral Reefs

The scientific and technical advisory committee will have the responsibility of advising on and guiding the investments made by the Global Fund for Coral Reefs (GFCR).

The key objectives of the scientific advisory committee will include:

- Advising on site selection for grants and investments, based on criteria developed by the Conservation Finance Alliance;
- Reviewing proposals made to the GFCR, analyzing them based on criteria developed by the Conservation Finance Alliance, and advising on project selection;
- Providing advice on national or regional experts who can also review proposals as appropriate;



- Providing advice on monitoring & evaluation as appropriate, for example providing advice in identifying baselines and indicators for project success.

The scientific and technical advisory committee will be made up of a select group of international experts in diverse fields related to coral reef conservation, management, and restoration, socioeconomics of coral reef communities as well as conservation finance and sustainable business experts. The scientific and technical advisory committee will be coordinated by UNEP and UNDP and will be chaired by a selected internationally renowned coral reef expert. It will be gender balanced and geographically representative and will comprise of no more than 10-20 experts. Experts in the Committee will have to recuse themselves from any project proposal in which there is a potential conflict of interest.

The Committee will be 'light touch', pro bono, low cost and will respect the fact that the experts have busy work schedules and will thus not impose large workloads on members.

The following experts are potential members of the committee:

Potential list of global experts and field of expertise

Expert	Institution	Area of Expertise
Elizabeth McLeod	TNC	Management
Sangeeta Mangubhai	WCS	Management
Ramon de Leon	Independent	Management
Yimnang Golbuu	Palau International Coral Reef Centre	Management
Kristian Teleki	WRI	Management
Arthur Tuda	WIOMSA	Management
Margaux Hein	Independent	Restoration
Buki Rinkevich	Israel Oceanographic & Limnological Research	Restoration
David Smith	Essex University	Restoration
Didier Zoccola	Centre Scientifique de Monaco	Restoration
Tadashi Kimura	Japan Wildlife Research Center	Restoration
Ian McLeod	James Cook University	Restoration
Jennifer Koss	NOAA	Restoration
Sylvain Pioch	University Montpellier	Restoration
Ove Hoegh-Guldberg	University of Queensland	Resilience Science
Callum Roberts	University of York	Resilience Science
Emily Darling	WCS	Resilience Science
David Obura	CORDIO East Africa	Resilience Science
Joseph Maina	Macquarie University	Resilience Science
Joan Kleypas	National Center for Atmospheric Research	Resilience Science
Serge Planes	CRIOBE	Resilience Science
Christina Hicks	Lancaster University	Socio-economics
Nadine Marshall	CSIRO	Socio-economics



Joshu Cinner	James Cook University	Socio-economics
Petra McGowan	TNC	Socio-economics
Mary Allen	NOAA	Socio-economics

A representative from the ICRI Secretariat

A representative from ICRS

Specific deliverables and products of the Monitoring & Evaluation Strategy

The Monitoring and Evaluation strategy will deliver the following deliverables and products for the Global Fund for Coral Reefs:

- A list of indicators to monitor to gauge success of project interventions/investments
- Robust scientific methodologies for monitoring each indicator
- Baseline assessments of indicators for all project sites
- Annual reports on progress made against indicators for each project, and recommendations for improvements in project activities
- Mid-term review report for each project, with strategic advice on activities and interventions
- Terminal evaluation report for each project, with assessments of final progress made against indicators and any successes, challenges, failures, or unintended consequences. The Terminal Evaluation will be an independent function from the monitoring, and will be carried out by an independent evaluation office in consultation with the UNEP consultant.
- A report on lessons learned and best practices from the projects, with recommendations for replication and upscaling

Indicative Monitoring & Evaluation Budget for 2021, based on 4 project sites

Item	Units	Cost per unit (USD)	Estimated cost (USD)
Expert consultant	12 months, 100% time	10,000	120,000
Travel to project sites and workshops	4 travel visits	5,000	20,000
Baseline data collection	4 project sites	15,000	60,000
Total			200,000



Annex I: Results Framework of the Global Fund for Coral Reefs, found in the Fund Terms of Reference

Goal: To prevent the extinction of coral reefs in our lifetime by eliminating the coral reef financing gap and supporting interventions that give coral reefs the best chance of survival

Relevant SDG Indicators

SDG Target 14.2.1 - Proportion of national exclusive economic zones (EEZs) managed using ecosystem-based approaches

SDG Target 14.5.1 - Coverage of protected areas in relation to marine areas

SDG Target 14.7.1 - Sustainable fisheries as a percentage of GDP in small island developing States, least developed countries and all countries

Fund Goal Signature Indicators for Priority Ecosystems

Species richness and overall biomass found in coral reef and associated ecosystems

Percentage of live coral cover in priority coral reef sites

Percentage of priority coral reef sites under effective protection and management

Ratio of grants vs. investment for coral reef conservation activities

Mandatory monitoring indicators – In addition to blended finance and conservation initiatives, the Fund will support the global collective effort of monitoring conditions in coral reef ecosystems. Below, the key metrics the Fund will monitor.

Bleaching event frequency and severity

pH of ocean water at coral reef sites

Water quality in terms of nutrient overloading (i.e., nitrogen, phosphorus), pollutants and turbidity due to suspended sediment

Marine debris (e.g., plastics, derelict fishing gear)

Impact and occurrence of natural disasters at coral reef sites (e.g., tropical cyclones, large storms)



Outcome 1: Protect priority coral reef sites and climate change refugia

IF more coral reef and associated ecosystem sites are protected, IF these sites are supported by capital for management and enforcement and by local and national governments, and IF there are increases in species richness and fish diversity, THEN the Fund's will have implemented protective measures that are effective in reducing local stressors at scale and improved the resiliency of coral reefs.

Key outcomes indicators and rationale

Indicator	Rationale
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- 1.1 Area (ha) of new climate refugia and priority sites designated as MPAs or LMMAs for coral reef and associated ecosystems (i.e., mangroves and seagrasses) protection
- 1.2 Annual capital expenditures (US\$/yr) for strengthened management and enforcement capacities of MPA and LMMA networks
- 1.3 Species richness (# of species/ha) and fish density (# of fish/ha) in protection areas compared to previous levels
- 1.4 Integrated local threat index¹ is decreased from high and very high levels (3,4,5 on the index) to low and medium levels (0,1,2 on the index)

New MPA and LMMAs created will indicate that the GFCR has mobilized new investment and capacity to protect climate resilient and priority coral reef sites. Well-managed MPAs and LMMAs are highly effective conservation actions that improve the health of coral reef ecosystems. They lead to increases in species diversity and biomass.

Investments in MPA and LMMA networks necessitates management plans and teams, boats and equipment for enforcement patrol, and communication material for community engagement in coral reef conservation. Many coral reef areas are designated as MPAs on paper but the management and enforcement activities are lacking or nonexistent. The absence of these elements promises very little benefits for coral reef conservation. Increased investment in management and enforcement for priority "paper parks" and networks will allow for the intended conservation benefit to materialize.

Species richness and biomass on reefs is a strong indicator of coral reef ecosystem health. Strong protection of coral reef sites will see increases in number of coral reef ecosystem species and biomass.

Protection of coral reef sites from local threats reduces/eliminates direct drivers of ecosystem degradation. Baseline measurement of threats will provide a value for an integrated local threat index. If protection is successful, these threats will be addressed and an assessment will conclude a decrease in the threat level. Improvements in wastewater quality can stop eutrophication that promotes harmful algal growth. Proper fishery management or no-take zones ensure the persistence of ecological important species and stops blast and cyanide fishing that damage coral reefs. Sustainable coastal development prevents sedimentation from covering reefs and protects mangroves and seagrasses.



1.5 Number of coral reef protection resolutions, declarations and laws passed for governing	Support from policy makers is important for protected area legitimization and enforcement. The number of supportive government resolutions, declarations, and laws passed as well as the magnitude of national budget
bodies. Including allocated national budget to	allocated regarding coral reef conservation will signify important governmental backing for protection
implement coral reef protected area management	policy.
and enforcement.	
1.6 Ratio of protected area costs covered by the	Sustainable tourism and other activities have the potential to generate significant revenue for management of
private sector vs. the public sector or grants((e.g.	MPAs and coral reef restoration activities through user fees, concessions, permits and more. Well-designed
costs for management, monitoring and MPAs should make self-financing a priority so conservation efforts can be long-lasting and not rely or	
enforcement)	term grants or the public sector.
1.7 MtCO2e per year sequestered through	Increased carbon sequestration will indicate successful protection of important coral reef associated
protection and/or restoration of threated	ecosystems and also contribute to mitigating climate change and provide co-benefits to coral reefs.
mangrove and seagrass ecosystems	

¹ The integrated local threat index will be modeled after one created by authors of the Burke et al. report: *Reefs at Risk Revisited*. The local threat index is based on a scale of 0 to 5 with 0 being low risk and 5 being high. The index is composed of threats from coastal development, watershed-based pollution, marine-based pollution and damage, and overfishing and destructive fishing. Available at: https://www.wri.org/publication/reefs-risk-revisited



Outcome 2: Transform the livelihoods of coral reef-dependent communities

IF fisher income from sustainable fisheries is higher than from non-sustainable fisheries and a greater proportion of fishers are employed in sustainable fisheries, and IF we see larger fish being caught, THEN the Fund will have helped reef-dependent communities transition to the sustainable management of their coral reef natural resources.

IF the number of local entrepreneurs and locals hired in sustainable business that have positive impact on coral reefs and associated ecosystems increases, and IF these businesses are generating a ROI, THEN the Fund will have supported the development of alternative livelihoods in viable sustainable businesses that reduce local pressure on reefs.

IF businesses in and around coral reef sites reduce their carbon footprint and mitigate waste generation, THEN the Fund will have supported a transition of the private sector to more environmentally conscience business practices.

Key outcomes indicators and rationale

Indicator Rationale

- 2.1 Fisher income (US\$/year) from sustainable fishery job vs. fisher income (US\$/year) from non-sustainable fishery job. Additionally, ratio of fishers employed in sustainable fisheries vs non-sustainable fisheries
- 2.2 Mean standard length of caught fish (cm/fish) vs. baseline measurement at starting time of project (t=0)
- 2.3 Number of local entrepreneurs (total # of individuals) and women managing (# of women) businesses with a direct or indirect positive impact on coral reef and associated ecosystems vs. baseline (t=0)
- 2.4 Number of locals (total # of individuals) and women (# of women) employed in businesses with a direct or

A major driver of coral reef ecosystem degradation is overfishing. If local fishermen are able to earn higher income from sustainable fishery jobs relative to non-sustainable fishery jobs than they are more likely to engage in sustainable livelihoods. Additionally, an increase in the ratio of employment in sustainable fisheries vs. non-sustainable fisheries will indicate a transition in local communities towards sustainable resource use.

If fishers see an increase in caught fish size and greater catch regularity, this indicates a more sustainably managed fishery. A greater proportion of larger fish, and more fish per catch, means a healthier coral reef ecosystem.

An increase in the number of businesses managed by local entrepreneurs and women will highlight capacity building efforts to empower local communities to protect their natural resources by engaging in a sustainable economy that has positive impacts on coral reefs and associated ecosystems.

A greater number of locals employed in sustainable businesses (includes sustainable fisheries and aquaculture) with positive impacts on coral reefs and associated ecosystems will signify the



indirect positive impact on coral reefs and associated	· ·
ecosystems vs. baseline (t=0)	activities that damage reefs.
2.5 ROI (%) of alternative livelihood initiatives supported	The rate of return on investments in alternative livelihood initiatives will indicate the capacity to
by the GFCR	attract additional private investment for continued growth. The ability for these initiatives to
	generate a return indicates they are implementing sound business models.
2.6 Carbon footprint of private sector (tons of	The private sector businesses working in and around coral reef sites must include actions to
CO ₂ /business/year) vs. baseline (t=0) mitigate their carbon footprint, which contributes to climate change and thus negatively im	
	coral reef ecosystems.
2.7 Number of waste management and water quality	To be ecologically responsible, the private sector must offset waste from economic activity by
initiatives implemented by the reef-linked business vs	implementing waste management/recycling and water quality projects; and reducing generated
baseline (t=0)	waste.



Outcome 3: Restoration and adaptation technology

IF there is a greater number of climate change resilient coral species identified and created, IF these species are used to restore degraded habitats quickly and at scale, and IF there is a measurable increase in coral cover that survives bleaching as a result of more resilient coral, THEN the Fund will have succeeded in developing restoration technology that is capable of regenerating degraded coral reef sites that are adapted to be resilient to the effects of climate change.

IF government and private sector investments into coral reef restoration increases substantially, THEN the Fund will have built confidence in coral reef restoration efforts to the point that the public and private sector see the financial value of investing in coral reef restoration.

Key outcomes indicators and rationale

Indicator	Rationale
3.1 Number of coral species resilient to climate change identified or created through breeding and genetic modification	A key need of coral reef restoration and adaptation is the availability of coral species that are resilient to climate change. Research is being done to discover species that are naturally climate change resilient. Research is also being done on breeding and genetically modifying coral reef species to be more resilient to climate change impacts. Increasing the knowledge and availability of coral reef resilient species will reflect advancements in restoration and adaptation technology. These species can be used to repopulate coral reefs under strict conditions with long-term results for sites impacted by ocean warming and acidification.
3.2 Success rate (%), speed and efficiency (e.g., m²/year) of coral reef restoration efforts (use past restoration efforts in the same region as a baseline)	Coral reef 'hard' restoration attempts often fail, wasting resources and effort. An increase in the success rate of coral reef restoration efforts must reflect technological progress based on best available science. Additionally, the speed and scale of restoration efforts needs to be increased to compensate for global coral reef degradation. Progress in this area will be reflected by the decrease in the time it takes to plant "x" coral fragments, decrease in time it takes to grow "x" coral recruits using larval seeding, etc.
3.3 Coral cover (%) that survives bleaching events after restoration efforts compared to past bleaching events of similar severity and location	Progress in adaptation technology of coral reefs will be represented by the ability for coral reefs to withstand bleaching events in restoration sites. Adaptation will be clear if corals are better able to survive periodic events of increased sea water temperature when compared with past similar rises in sea water temperature.



3.4 Government and private sector investments (US\$) into coral reef restoration efforts and coral reef restoration businesses

Greater government and private investment in coral reef restoration will indicate less risk in directing capital towards restoration activities due to progress in restoration and adaptation technology. At the moment, there is hesitation towards coral reef restoration businesses due to failed or low-impact attempts (high cost, uncertain impact).



Outcome 4: Recovery of coral reef-dependent communities to major shocks

IF crisis plans are incorporated into reef-linked businesses including parametric reef insurance schemes and favorable/crisis conscience loan terms, THEN businesses and initiatives that improve and conserve coral reef ecosystems will be better able to survive periods of crisis.

IF GFCR-linked initiatives are able to retain and continue supporting their workforce, THEN there will be a less unemployment which will avoid individuals resorting to unsustainable practices on coral reefs for subsistence and income during periods of crisis.

Key outcomes indicators and rationale

Indicator	Rationale
4.1 Number of crisis plans incorporated into reef-linked businesses and initiatives to mitigate and be more resilient to impacts of large shocks such as intense storms, disease outbreaks, severe bleaching events, etc. vs baseline $(t=0)$	A greater number of crisis plans in reef-linked businesses and initiatives will indicate GFCR's successful influence for better readiness of local actors to deal with large shocks.
4.2 Proportion (%) of crisis conscience loan terms and deferment plans incorporated into loan agreements for businesses and initiatives at GFCR sites vs. baseline $(t=0)$	A greater number of loan agreements that incorporate terms to help borrows cope with debt burdens during times of crisis will indicate that the GFCR has facilitated risk management strategies for supported businesses and initiatives to not fail during periods of crisis.
4.3 Number of parametric reef insurance schemes put in place vs. baseline (t=0)	An increase in the number of parametric reef insurance schemes applied to conservation efforts will indicate a stronger safety net for reef-dependent communities in times of crisis.
4.4 Proportion of workforce (%) retained in GFCR- linked initiatives and businesses during major shocks compared to non-GFCR linked businesses in similar sectors and geographies	During times of crisis workforces are often cut due to reductions or total losses of revenue streams. The ability for GFCR linked initiatives and businesses to retain their workforce or provided temporary alternative employment will indicate the fund is succeeding in deploying resources to support businesses and livelihoods during period of crisis.



Annex II: An example of Environmental Social and Economic Safeguards used by UNEP Project

ESES Principle and Safeguard checklist

Precautionary Approach

The project will take precautionary measures even if some cause and effect relationships are not fully established scientifically and there is risk of causing harm to the people or to the environment.

Human Rights Principle

The project will make an effort to include any potentially affected stakeholders, in particular vulnerable and marginalized groups; from the decision making process that may affect them.

The project will respond to any significant concerns or disputes raised during the stakeholder engagement process.

The project will make an effort to avoid inequitable or discriminatory negative impacts on the quality of and access to resources or basic services, on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups.²

Screening checklist	Y/N/ Maybe	Comment
Safeguard Standard 1: Biodiversity, natural habitat and Sustainable Management of Living Resources		
Will the proposed project support directly or indirectly any activities that significantly convert or degrade		
biodiversity and habitat including modified habitat, natural habitat and critical natural habitat?		
Will the proposed project likely convert or degrade habitats that are legally protected?		
Will the proposed project likely convert or degrade habitats that are officially proposed for protection? (e.g.;		
National Park, Nature Conservancy, Indigenous Community Conserved Area, (ICCA); etc.)		
Will the proposed project likely convert or degrade habitats that are identified by authoritative sources for		
their high conservation and biodiversity value?		

² Prohibited grounds of discrimination include race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. References to "women and men" or similar is understood to include women and men, boys and girls, and other groups discriminated against based on their gender identities, such as transgender people and transsexuals.



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Will the proposed project likely convert or degrade habitats that are recognized- including by authoritative	
sources and /or the national and local government entity, as protected and conserved by traditional local	
communities?	
Will the proposed project approach possibly not be legally permitted or inconsistent with any officially	
recognized management plans for the area?	
Will the proposed project activities result in soils deterioration and land degradation?	
Will the proposed project interventions cause any changes to the quality or quantity of water in rivers, ponds,	
lakes or other wetlands?	
Will the proposed project possibly introduce or utilize any invasive alien species of flora and fauna, whether	
accidental or intentional?	
Safeguard Standard 2: Resource Efficiency, Pollution Prevention and Management of Chemicals and Wastes	
Will the proposed project likely result in the significant release of pollutants to air, water or soil?	
Will the proposed project likely consume or cause significant consumption of water, energy or other resources	
through its own footprint or through the boundary of influence of the activity?	
Will the proposed project likely cause significant generation of Green House Gas (GHG) emissions during	
and/or after the project?	
Will the proposed project likely generate wastes, including hazardous waste that cannot be reused, recycled or	
disposed in an environmentally sound and safe manner?	
Will the proposed project use, cause the use of, or manage the use of, storage and disposal of hazardous	
chemicals, including pesticides?	
Will the proposed project involve the manufacturing, trade, release and/or use of hazardous materials subject	
to international action bans or phase-outs, such as DDT, PCBs and other chemicals listed in international	
conventions such as the Stockholm Convention on Persistent Organic Pollutants or the Montreal Protocol?	
•	



Will the proposed project require the procurement of chemical pesticides that is not a component of	
integrated pest management (IPM) ³ or integrated vector management (IVM) ⁴ approaches?	
Will the proposed project require inclusion of chemical pesticides that are included in IPM or IVM but high in	
human toxicity?	
Will the proposed project have difficulty in abiding to FAO's International Code of Conduct ⁵ in terms of	
handling, storage, application and disposal of pesticides?	
Will the proposed project potentially expose the public to hazardous materials and substances and pose	
potentially serious risk to human health and the environment?	
Safeguard Standard 3: Safety of Dams	
Will the proposed project involve constructing a new dam(s)?	
Will the proposed project involve rehabilitating an existing dam(s)?	
Will the proposed project activities involve dam safety operations?	
Safeguard Standard 4: Involuntary resettlement	
Will the proposed project likely involve full or partial physical displacement or relocation of people?	
Will the proposed project involve involuntary restrictions on land use that deny a community the use of	
resources to which they have traditional or recognizable use rights?	
Will the proposed project likely cause restrictions on access to land or use of resources that are sources of	
livelihood?	
Will the proposed project likely cause or involve temporary/permanent loss of land?	
Will the proposed project likely cause or involve economic displacements affecting their crops, businesses,	
income generation sources and assets?	

³ "Integrated Pest Management (IPM) means the careful consideration of all available pest control techniques and subsequent integration of appropriate measures that discourage the development of pest populations and keep pesticides and other interventions to levels that are economically justified and reduce or minimize risks to human health and the environment. IPM emphasizes the growth of a healthy crop with the least possible disruption to agro-ecosystems and encourages natural pest control mechanisms http://www.fao.org/agriculture/crops/thematic-sitemap/theme/pests/ipm/en/

⁴ "IVM is a **r**ational decision-making process for the optimal use of resources for vector control. The approach seeks to improve the efficacy, cost-effectiveness, ecological soundness and sustainability of disease-vector control. The ultimate goal is to prevent the transmission of vector-borne diseases such as malaria, dengue, Japanese encephalitis, leishmaniasis, schistosomiasis and Chagas disease." (http://www.who.int/neglected_diseases/vector_ecology/ivm_concept/en/)

 $^{^{5}\} Find\ more\ information\ from\ http://www.fao.org/fileadmin/templates/agphome/documents/Pests_Pesticides/Code/CODE_2014Sep_ENG.pdf$



Will the proposed project likely cause or involve forced eviction?	
Will the proposed project likely affect land tenure arrangements, including communal and/or	
customary/traditional land tenure patterns negatively?	
Safeguard Standard 5: Indigenous peoples ⁶	
Will indigenous peoples be present in the proposed project area or area of influence?	
Will the proposed project be located on lands and territories claimed by indigenous peoples?	
Will the proposed project likely affect livelihoods of indigenous peoples negatively through affecting the rights, lands and territories claimed by them?	
Will the proposed project involve the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	
Will the project negatively affect the development priorities of indigenous peoples defined by them?	
Will the project potentially affect the traditional livelihoods, physical and cultural survival of indigenous	
peoples?	
Will the project potentially affect the Cultural Heritage of indigenous peoples, including through the	
commercialization or use of their traditional knowledge and practices?	
Safeguard Standard 6: Labor and working conditions	
Will the proposed project involve the use of forced labor and child labor?	
Will the proposed project cause the increase of local or regional un-employment?	
Safeguard Standard 7: Cultural Heritage	,
Will the proposed project potentially have negative impact on objects with historical, cultural, artistic,	
traditional or religious values and archeological sites that are internationally recognized or legally protected?	
Will the proposed project rely on or profit from tangible cultural heritage (e.g., tourism)?	
Will the proposed project involve land clearing or excavation with the possibility of encountering previously	
undetected tangible cultural heritage?	
Will the proposed project involve in land clearing or excavation?	
Safeguard Standard 8: Gender equity	
Will the proposed project likely have inequitable negative impacts on gender equality and/or the situation of	
women and girls?	

 $^{^6}$ Refer to the Toolkit for the application of the UNEP Indigenous Peoples Policy Guidance for further information.



Will the proposed project potentially discriminate against women or other groups based on gender, especially	
regarding participation in the design and implementation or access to opportunities and benefits?	
Will the proposed project have impacts that could negatively affect women's and men's ability to use, develop	
and protect natural resources, taking into account different roles and positions of women and men in accessing	
environmental goods and services?	
Safeguard Standard 9: Economic Sustainability	
Safeguard Standard 9: Economic Sustainability Will the proposed project likely bring immediate or short-term net gain to the local communities or countries at	
Will the proposed project likely bring immediate or short-term net gain to the local communities or countries at	
Will the proposed project likely bring immediate or short-term net gain to the local communities or countries at the risk of generating long-term economic burden (e.g., agriculture for food vs. biofuel; mangrove vs.	

Additional Safeguard Questions for Projects seeking GCF-funding

Community Health, Safety, and Security	
Will there be potential risks and negative impacts to the health and safety of the Affected Communities	
during the project life-cycle?	
Will the proposed project involve design, construction, operation and decommissioning of the structural	
elements such as new buildings or structures?	
Will the proposed project involve constructing new buildings or structures that will be accessed by public?	
Will the proposed project possibly cause direct or indirect health-related risks and impacts to the Affected	
Communities due to the diminution or degradation of natural resources, and ecosystem services?	
Will the proposed project activities potentially cause community exposure to health issues such as water-	
born, water-based, water-related, vector-borne diseases, and communicable diseases?	
In case of an emergency event, will the project team, including partners, have the capacity to respond	
together with relevant local and national authorities?	
Will the proposed project need to retain workers to provide security to safeguard its personnel and	
property?	
Labor and Supply Chain	



Will UNEP or the implementing/executing partner(s) involve suppliers of goods and services who may have		
high risk of significant safety issues related to their own workers?		

Annex III: Budget by UNDG Category

Budget by UNDG Category	GFCR
1. Staff and other personnel	\$ 96,000
2. Supplies, Commodities, Materials	<i>V</i> 0
3. Equipment, Vehicles, and Furniture (including Depreciation)	
4. Contractual services	
5. Travel	\$ 30,916
6. Transfers and Grants to Counterparts	\$ 60,000
7. General Operating and other Direct Costs	
Total Direct Costs	\$ 186,916
8. Indirect Support Costs (Max. 7%)	\$ 13,084
TOTAL Budget	\$ 200,000