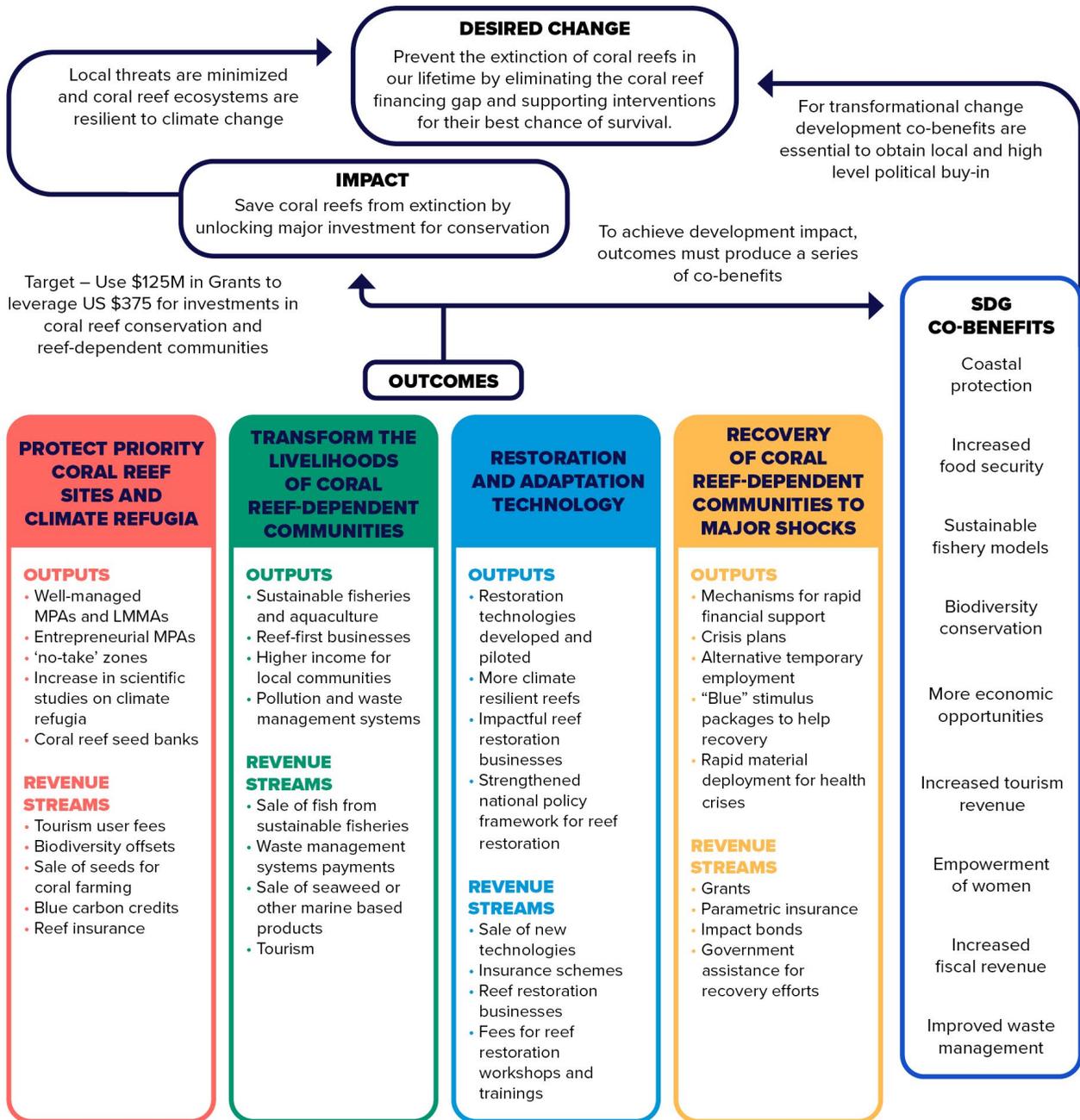




05

**THEORY
OF CHANGE**

THEORY OF CHANGE



LOCAL THREATS					
Overfishing	Rising ocean temperature	Ocean acidification	Nutrient loading	Coastal development	Natural disasters
Derelict fishing gear	Marine plastic	Invasive species	Unsustainable tourism	Sedimentation	Destructive fishing

● The Coral Crisis — 90% of coral reefs could die by 2050 without urgent action

● A billion people worldwide depended on coral reefs for coastal protection, food and income from tourism

● The amount of money needed to save coral reefs needs to be seven times greater than current funding levels

● Impact investment capital is significant and on the sidelines waiting for investment ready blue economy project

5.1

PROGRAMMATIC FRAMEWORK

Global Fund for Coral Reefs | IMPACT STATEMENT

Coral reefs are situated at the frontline of climate change, and since many are found in developing countries and small island nations these countries must be urgently supported. Significant injections of international funding are needed to help stakeholders actively pursue adaptation strategies to protect and restore reefs while also reducing pollution and damage so reefs can fully recover.

This is why the **Global Fund for Coral Reefs** is a *game-changer*. It will unlock major investment towards coral reef conservation and restoration in developing countries, and facilitate transformation of economies and livelihoods to reduce important drivers of coral reef degradation.

Multilateral development banks and private firms are eager to provide low-interest debt financing for blue infrastructure, but require well-conceived projects that already have project equity in place. The GFCR is the middle ground for private sector partners by offering critical risk equity capital, debt swap schemes, and grant funding to deliver exciting and impactful coral reef projects. Using targeted grants and investments to fund initiatives the GFCR can enhance global and local capacities to urgently deliver smart solutions at scale.

5.2

DRIVERS OF CHANGE

Due to the multiple drivers of degradation, interventions are required on several levels. Drivers on coral reefs range from the global (e.g. ocean warming, ocean acidification, increasing human populations) to the local (e.g. natural disasters, overfishing, destructive fishing, pollution, boat anchoring, etc.).

Drivers are defined as direct, those which physically impact coral reef organisms, or indirect, those that do not directly impact coral reef organisms but still lead to their degradation.

DIRECT GLOBAL DRIVERS

Ocean acidification and reduced coral growth

Increasing seawater temperatures and bleaching events

Damage to adjacent ecosystems (e.g., mangroves and seagrasses)

DIRECT LOCAL DRIVERS

Natural disasters (typhoons, tsunamis, flooding, etc.)

Overfishing

Destructive fishing (dynamite, poison, etc.)

Pollution (nutrients, chemicals, etc.)

Tourism

Sedimentation

Land reclamation

Invasive species and disease

Lost and abandoned fishing gear

Increased intensity of storms

Crown-of-Thorns starfish outbreaks

Unsustainable coastal development

Sand and coral reef mining

INDIRECT DRIVERS

Human population growth

Unsustainable consumption patterns

Political apathy

Lack of public awareness

Economic systems that do not take environmental costs into account

5.3

OUTCOMES, OUTPUTS AND RESULTS

The GFCR supports interventions designed to achieve the following four outcomes.

OUTCOME 1: Protection of priority coral reef sites including climate ‘refugia’

Although coral reefs are highly vulnerable to thermal stress and climate change, not all reefs are equally vulnerable. A growing body of evidence shows the existence of ‘climate change refugia’. These coral reefs suffer less degradation in the face of predicted ocean acidification and rising sea surface temperatures. Designated areas of protection for climate resilient coral reefs, such as MPAs, is a highly effective tool for conservation. Well-managed MPAs support greater biomass, higher biodiversity, provide substantial economic benefit and make coral reefs more resilient to damage degradation from climate change. It is an immediate priority to identify top climate resilient coral reef sites that can provide the highest level of ecosystem services and sustain biodiversity.

In a world of finite resources, identifying climate refugia and investing in their protection can yield strategic and global benefits for coral reefs by boosting the resilience of critical ecosystems and providing natural ‘seed banks’ for the repopulation of reefs around the world. Outcome 1 will identify climate change refugia and direct drivers of degradation to determine investment solutions that protect these refugia. Coral vaults would act as gene banks for species faced with extinction.

To help identify priority coral reef sites, GFCR will build on the work of the 50 Reefs initiative, UNEP Coral Futures, WWF Coral Reef Rescue Initiative. These studies and initiatives have worked to identify and assembled global portfolios of the world’s most climate change resilient reefs. It is believed that protecting the identified priority climate refugia coral reefs can help the ecosystems survive the impacts of climate change and may help repopulate neighboring reefs.

In addition to implementing new MPAs, the GFCR will also support projects that improve management and enforcement of existing MPAs. Although globally there are thousands of designated MPAs, they generally have limited funding, inadequate management and lack enforcement. In some countries, estimates are as high as 80-90% for MPAs that exist on maps but in reality offer very little protection to coral reefs, commonly known as “paper parks”.²⁹ The GFCR will look to support initiatives that transform paper parks into MPAs that generate true benefits for coral reef ecosystems, while involving the local community to take ownership and pride of their natural resources.

OUTCOME

Strategic coral reefs are protected (i.e. reefs with high biodiversity or produce ecosystem services; climate refugia and natural ‘seed banks’ with assigned value to protect intellectual property and patents³⁰) and ecosystem resilience is increased in the face of climate change.

Degradation drivers of coral reefs are mitigated or eliminated.

POTENTIAL OUTPUTS

Increase in well managed and enforced MPAs and LMMAs that protect and promote healthy reefs

Entrepreneurial MPAs

Increase in scientific studies on identifying climate refugia

Water quality/land-ocean interface projects roll-out to protect coral reefs

Elimination of destructive fishing practices and harmful gear from protection sites

Establishment of ‘no-take’ zones and nurseries within protected areas

Legal advice on intellectual property, potential uses and patents related to climate-resilient corals located in refugia

POTENTIAL REVENUE STREAMS

Ecotourism user fees

Debt-for-nature/adaptation swaps

Eco-resorts

Special use permits

Visitor centers

Biodiversity offsets

Blue carbon credits

Impact bonds

Patents

Provision of legal advice and expertise

Sale of seeds and fragments, storage of seeds and fragments, and coral farming

MPAs form an important part of the GFCR investment pipeline to protect priority coral reefs. MPA projects will be supported where there are functioning basic infrastructure and governance but working capital is required to improve services, enforce boundaries, increase community engagement and ultimately strengthen value chains to spur revenue generation.

Research commissioned by the World Wildlife Foundation (WWF) in 2015 found that expanding and effectively managing MPAs for habitat protection—protecting even 10% to 30% of marine or coastal areas—can result in benefits worth three times more than the cost of implementation.³¹ Benefits can be in the form of improved fish biomass and biodiversity, as well as density. The same study found the economic rate of return in expanding networks of MPAs to be as high as 24% (range 9% to 24%), and greater than the discount rate (3%) across every scenario. Authors of *The Coral Reef Economy* found the potential return on investment for the expansion of a no-take MPA in Mesoamerica would be 44:1. Returns in protection are proportional to the size of the investment; the larger the injection of capital the greater the levels of protection and the greater benefits achieved, including financial returns.

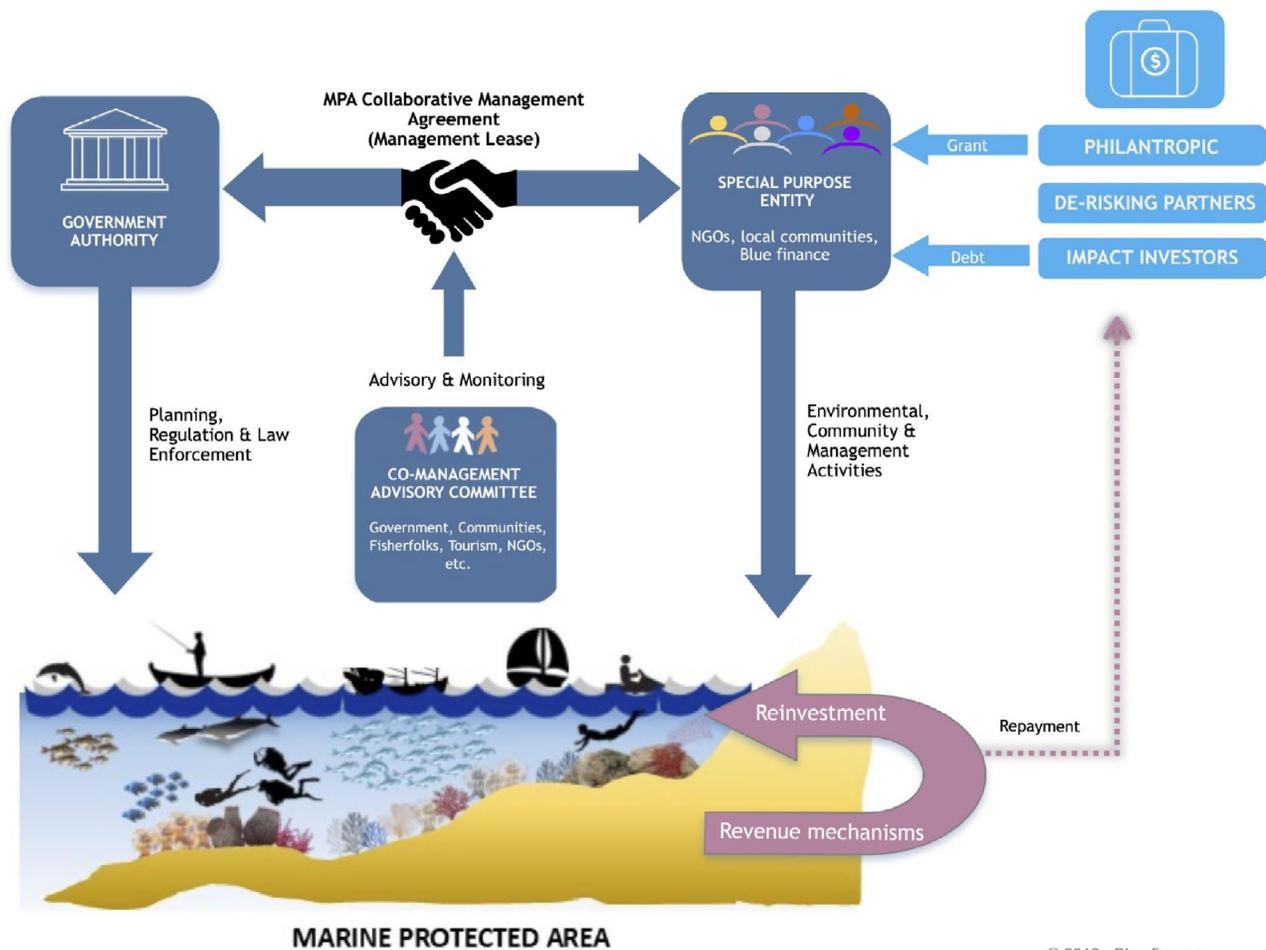


Figure 5: *The Blue Finance model.*
Source: http://blue-finance.org/?page_id=2321

One approach for making MPA management more effective and bankable through blended finance is using the Blue Finance model (Figure 5). Blue Finance facilitates the adoption of co-management agreements for public-private partnerships of MPAs. The model offers investors a minimum 8.5% Internal Rate of Return (IRR), after typical capital expenditures of \$3.5 million US dollars on the MPA with an investment spread over a two-year period. Blue Finance structures co-management agreements between the government and a non-profit Special Purpose Entity (SPE) governed by local stakeholders from locally-based NGOs, hotels, tourism businesses, fishery cooperatives and others from the MPA adjacent community. The SPE is responsible for MPA management and tourism enhancement activities such as compliance, community engagement, livelihood enhancement, and support to sustainable tourism. The SPE manages investments from impact investors and funnels them into revenue generating activities such as dive operators, visitor centers, or glass-bottom boats tours. Businesses conducting tourism within the MPA charge visitors a fee. Revenue is pooled under the SPE for MPA management and restoration, with a percentage set aside for repaying impact investors. The government’s role in co-management agreement is to enforce MPA boundaries.

Another investment vehicle to protect priority coral reef ecosystems is the Entrepreneurial Marine Protected Area (EMPA). This is where a protected area is primarily supported by profit-bearing businesses, most associated with blue sustainable tourism. Marine areas protected by entrepreneurial enterprises are considered impact investments because models are designed to produce ecological, social and economic benefits. Sustainable tourism entrepreneurs seek ecological business opportunities dependent on conservation outcomes and strong social and political relations with governments, civil society groups, and local communities. With sound business models and knowledge of the tourism market (e.g. existing infrastructure, tourism demand, risk, etc.) sustainable tourism in MPAs can generate significant revenue for coral reef conservation through the collection of ecotourism and entrance fees. Funds collected can be applied to management, enforcement and restoration efforts.

One of the first EMPAs was Chumbe Island Coral Park (CHICOP), established in 1991 in Zanzibar, Tanzania. The eco-lodge continues to provide ecological, socio-cultural, and economic benefits. The initial investment to establish CHICOP was \$1.2 million US dollars for managing terrestrial and marine conservation through an official concession from the government, and allowed the eco-lodge to operate within the protected area. After three years the occupancy rate increased by 60% and jumped to 85% after nine years. CHICOP generates incomes of approximately \$600,000 US dollars from 4,000 to 6,000 visitors each year. Importantly, the eco-lodge coral reef sanctuary is a protective breeding ground for fish, coral, and other species that go on to repopulate nearby overfished and degraded areas.

A similar example of an EMPA is the Misool Eco-Resort established in 2005 by private investors as an EMPA in Raja Ampat, Indonesia. The project had the support of the local community, along with national recognition and backing from partnerships with several international conservation non-profit organizations. The site is surrounded by an MPA that is managed by the eco-resort through a marine conservation agreement with the government and local communities. The eco-resort sets high rates for tourists who seek an all-inclusive experience of diving, snorkeling, observing baby turtle releases, or day tours. In addition to preserving the eco-resort island's coral reefs, the Misool Foundation uses its revenue to implement other environmental projects across Indonesia that include a marine reserve, community education, and recycling programme.

In addition to the Blue Finance model and EMPAs, we envision revenue streams that come from biodiversity offset credits (habitat banking), impact bonds, sale of climate resilient coral fragments.

OUTCOME 2: Transformation of the livelihoods of coral reef-dependent communities and sectors

The current global economic system does not take into account the cost of economic activities on the environment and thus tends to promote unsustainable behaviors and ecosystem degradation. Experts are calling for mass transitions to greener (or bluer) economies. Strategic investments made in highly reef-dependent communities can reduce local drivers of reef degradation and bolster the resiliency of coral reef ecosystems and adjacent communities to climate change.

As the goods and services coral reefs and their ecosystems decline with reef degradation, the impact on reef-dependent societies needs to be understood and managed. Coastal community livelihoods have to transform to protect their reefs and futures by applying sustainable practices and reducing dependence on coral reef resources. Public and private investments in education, skills-building, SMEs, mariculture and sustainable fisheries can help in this transition. GFCR support for developing sustainable fisheries can boost fishery yield and create opportunities for local fishers to sell catch at a premium. NGOs can remove inefficiencies from the market to connect local fishers to the consumer, providing more income and reducing the need for unsustainable fishing. Similarly, projects that develop mariculture for sustainable farming of fish, invertebrates, and seaweed can relieve fishing pressure on the reef and provide new sources of income. Seaweed farming and value chain establishment, as well as recycling nets, can all provide new types of livelihood and complement other revenue sources. Further, GFCR efforts to support eco-tourism projects and reef-first SMEs can address additional drivers of reef degradation while providing new economic opportunities for local communities who otherwise rely only fishing for income and subsistence.

OUTCOME

Reduced reliance and unsustainable practices in coral reef ecosystems as people are made aware of the crisis and motivated to make and support pledges to take positive action at scale.

Transition to sustainable fisheries and tourism. Private sector-led investments funneled into alternative livelihoods and reef-first businesses.

POTENTIAL OUTPUTS

Community-based projects for sustainable fisheries, seaweed farms, aquaculture, tourism, etc.

Sustainable value chain development and educational programmes to build skills for alternative careers and livelihoods

Women empowered through capacity building and safety nets

Reef-first businesses

Economic valuation of coral reefs and ecosystem services

Communication and educational campaigns to drive and sustain behavioral change

POTENTIAL REVENUE STREAMS

Sustainable fisheries (e.g. export sales from high value fish products including premiums for sustainability)

Sale of seaweed or other marine based products

Eco-tourism SMEs

Waste management systems

Bioprospecting

An excellent illustration of transforming a fishery to be sustainable is Blue Ventures' management approach for an octopus fishery in southern Madagascar that led to economic and environmental benefits. The octopus fishery in Madagascar accounts for 70% of the value of marine resources purchased by regional and exported companies. Blue Ventures helped establish temporary fishing bans during important octopus life-history periods in degraded reef areas. Research of the project showed a 461% increase in median recorded landings and 120% increase in catch-per-unit-effort. The mean catch per fisher doubled from 2.3kg per day to 5.9kg. Established in the early 2000s, it was one of the first community-based management systems where costs were covered by increased profits. The model has since been replicated throughout the region.

Another example of the potential for sustainable fisheries to yield environmental and economic benefit is Encourage Capital's 2016 blueprint for making small-scale fisheries in the Philippines more profitable and sustainable.³² The project targets 40 fishing communities and 19,000 fishers. An investment of \$11.7 million US dollars is being made over 10 years in equity and grants in fishing management strategies and seafood companies. The model assumes that consumers are happy to pay a 15% premium on sustainably sourced fish and that the managing fishery overexploitation will lead to a 20% increase fish biomass. Following a 10-year period, Encourage Capital believes its investors could gain a 20.7% targeted ROI on their Philippines sustainable fishery project.

Other investments to reduce drivers of degradation and transform the livelihoods of coastal communities can be made into blue tourism, recycling programs and wastewater treatment systems. For example, mitigating wastewater pollution in underserved areas creates jobs, benefits the health of the community and improves the quality of the coral reef ecosystem. To generate revenue and repay investors, a wastewater treatment company can collect service payments from the community, tourism sector, or government.

Furthermore, education investments that build local skills can diversify employment prospects and build an understanding of resource management and conservation in coastal populations. Job training in artisanal crafts, agriculture, or technology offers new economic opportunities for a community and steers people away from unsustainable coral reef ecosystem resource extraction activities.

OUTCOME 3: Restoration of coral reefs through new technologies and adaptive approaches

Given current climate and population growth projections we can expect most coral reefs around the world to experience considerable degradation. Preservation and restoration techniques are under development, but a greater number of investments must be made to increase the scalability and cost-efficiency of these mechanisms if there is to be large-scale impact for ecological resilience and adaptation. To date, restoration techniques have failed to keep pace with rates of decline. Technologies that might benefit from targeted investment include coral restoration; new technology to restore at scale; assisted coral evolution; coral gardening; direct transplantation; artificial structures; larval enhancement, and substrate stabilization.

To be successful, these technologies must be applied in areas with conditions that can support coral growth measures such as ample light, appropriate temperatures, and good water quality. To ensure the best possible conditions the effective parallel mitigation of local drivers, protection and management of restoration areas is a prerequisite for funded initiatives.

OUTCOME	POTENTIAL OUTPUTS	POTENTIAL REVENUE STREAMS
<p>Coral reef restoration and adaptation technologies are made scalable, cost-efficient, and applicable to a variety of regional contexts; with proven outcomes for ecological resilience.</p>	<ul style="list-style-type: none"> Restoration technologies developed and piloted Strategies for high-impact restoration Strengthened national policy frameworks based on robust business cases for coral reef restoration and maintenance Restoration guidelines and training on coral reef restoration 'In situ' water restoration projects Identification of priority restoration sites within targeted MPAs 	<ul style="list-style-type: none"> Fees for workshops and training for reef restoration and on new technologies Sale of new technologies Green-grey solutions for coastal and beach protection Fee for services to apply and provide technology training Insurance schemes Reef restoration ecotourism Biodiversity offsets Debt-for-nature/adaptation swaps Payments for ecosystem services

Initial grants and investments will go into developing the capacities of reef restoration businesses so they can be hired by local stakeholders to restore degraded reefs. Outcome 3 will generate benefits for local communities due to increased fish biomass, ecotourism, and enhanced coastal protection from greater live coral cover. Restoration companies could be remunerated through biodiversity offsets applied when developers purchase biodiversity equalizers for projects to compensate for damaging actions. The funds raised from biodiversity offsets may go into conservation and/or restoration activities.

Where appropriate, opportunities can be explored to duplicate restoration efforts and support groups like 1000 Mermaids and Mars Assisted Reef Restoration System. These initiatives help promote coral recruitment and growth by placing artificial structures in the water like “reef stars” and other man-made structures.

Repairs for a reef damaged by a severe storm must be implemented quickly to enhance the possibility of reef recovery. First responder “brigades” can be trained to assess damage, remove debris, make initial repairs, collect broken coral for future reattachment, and design repair strategies. Investments made in developing and advancing preservation and restoration techniques and technologies can be applied in a variety of regional contexts. By piloting and scaling up reef restoration efforts, we prove coral reefs can be restored and be more resilient to the impacts of climate change.

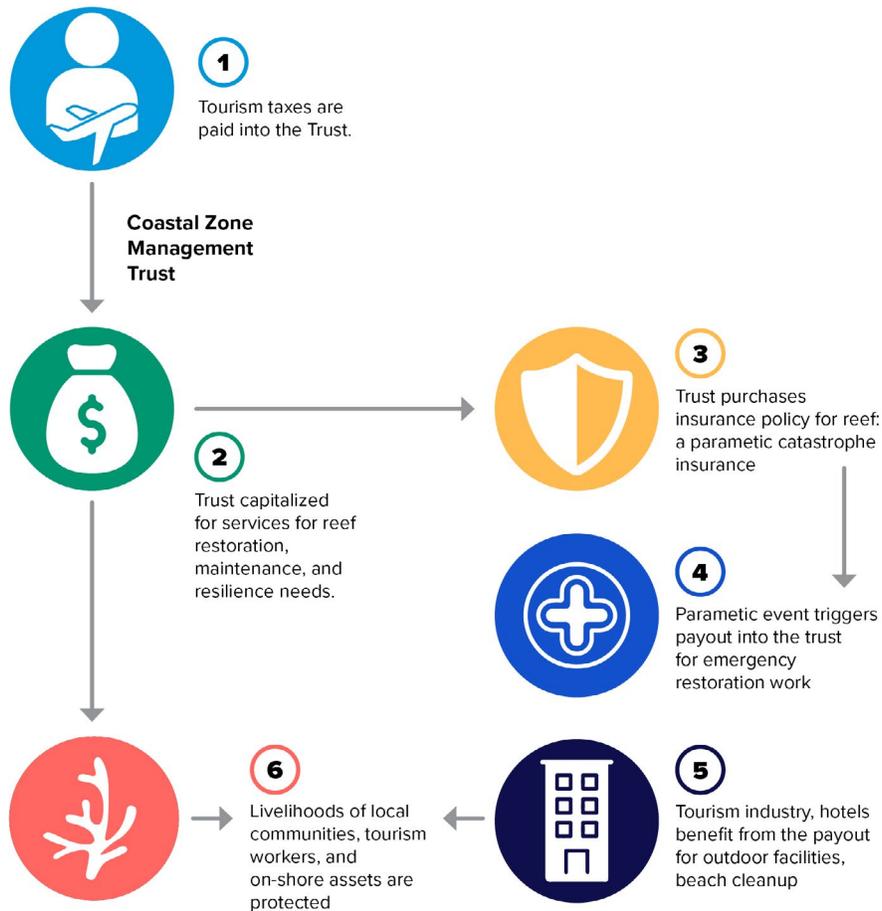


Figure 6: Parametric reef insurance.

Another potential means for generating revenue under Outcome 3 is parametric reef insurance. Coral reefs provide valuable services but can be damaged by natural disasters that reduce the reef’s ability to provide those services. Identifying insurable risks associated with a reef that protects on-shore assets (e.g. tourism assets, property, and communities) are essential components for structuring reef insurance. Current reef insurance models use parametric triggers to determine payout (e.g. hurricane wind speed). The cost of restoring reefs after a storm is less than the lost ecosystem services due to reef destruction.

By capitalising the local vehicle buying the insurance (a trust) it is possible to not only to have a payout in the case of disasters, but to also create a revolving loan vehicle for lending to on-shore facilities so they can disaster proof, mitigate ocean waste, and restore degraded reefs. Parametric insurance instruments can incentivize sound planning, management, and risk reduction through lowered premiums, while also ensuring rapid payouts in response to impacts.

To ensure that reef restoration efforts do not fail, GFCR will assess whether sites have proper environmental and enforcement conditions for success. Environmental impacts assessments are required before funds are disbursed and restoration can commence. Reef restoration technology is a dynamic space that GFCR plans to monitor following ICRI guidelines. Our technical committee will oversee grant investment decisions relating to reef restoration science.

OUTCOME 4: Recovery of coral reef-dependent communities in the face of major shocks and insecurity

The severe global health, social and economic impacts of COVID-19 are stark examples of risks associated with nature loss and degradation of natural ecosystems. The pandemic has brought much of the world to a sudden stop. Like COVID-19, climate change and nature loss are realities that countries must face today and tomorrow. Many similarities unite these two challenges. Like COVID-19, climate change will expose how multiple economic, social and institutional drivers exacerbate environmental risks, and lead to impacts on the availability of natural resources and the security of millions of livelihoods.

COVID-19 crisis has clearly demonstrated how governments, production systems and communities are unprepared to face multiple, major and simultaneous shocks. Social safety nets proved to be inadequate across the world as millions have lost their livelihoods. Additionally, protected areas, many of which rely heavily on tourism for financing, are encountering formidable challenges to continue enforcement and management activities as tourism revenue has plummeted. MPAs management authorities in many regions are struggling to pay staff, a problem compounded by regional loss of livelihoods and disruption of supply chains leading to more people fishing unsustainably in protected areas to feed their families and generate income. To mitigate this issue the GFCR will implement initiatives that apply a diverse set of business models in various sectors to avoid overreliance on tourism to fund conservation efforts.

Outcome 4 of the Fund will include safety net systems to activate during periods of crisis. Shocks to trigger Outcome 4 include major bleaching events, large storms, health crises, disruption of supply chains and others. The shocks must exhibit clear and demonstrable impacts on GFCR supported coral reef ecosystems to trigger Outcome 4 responses. Impacts include:

- MPA management and enforcement operations are weakened due to lack of tourism based financing.
- Food insecurity - extraction of coral reef ecosystem resources (e.g. fish, coral heads and other invertebrates) increases significantly.
- Energy insecurity - mangrove degradation increases significantly as people harvest fuelwood.
- Livelihood insecurity – SMEs supported by the GFCR experience significant challenges due to shocks induced by supply chain disruptions, leading to lay-offs and pay-cuts (e.g. sustainable seafood producers have difficulty getting product to consumers)

OUTCOME

Reef-dependent community livelihoods are more resilient to shocks, avoiding a resurgence of drivers of degradation for coral reef ecosystems. MPA management and enforcement operations are equipped to continue functioning during periods of crisis.

POTENTIAL OUTPUTS

Mechanisms in place for rapid financial support to reef-first SMEs and MPAs impacted by shocks. This includes the use of parametric reef insurance.

Crisis plans in place to mitigate impacts from supply chain disruptions, bleaching events, health crises, etc.

“Blue” stimulus packages to help recovery after shocks.

Alternative temporary employment during periods of crisis to aid recovery efforts and provide sources of income for those that have lost their livelihoods.

Rapid material deployment to deal with crisis

POTENTIAL REVENUE STREAMS

Grants

Parametric reef insurance

Impact bonds

Government assistance for recovery efforts

A safety net for reef-dependent communities will not only provide assistance to some of the most vulnerable people during shocks, but also reduce the need for affected people to return to unsustainable activities in coral reef ecosystems. If and when a crisis hits a coral reef site supported by the GFCR, already developed action plans will serve as a roadmap to guide the recovery process. Plans may include how to repurpose financial, material, and human capital in a disaster response setting. For example, after a large storm damages important infrastructure along the coastline, employees in GFCR supported tourism and fishery/aquaculture sectors can be temporarily reassigned to support the rebuilding effort.

The GFCR will consult with on-site implementing partners on the needs of the affected area to determine if and how much grant capital should be deployed to the site to ensure food security, energy security, and health during times of crisis and recovery periods. The GFCR and implementing partners will assist businesses with maximizing positive impact from “blue” stimulus packages provided by the GFCR or other stimulus packages from the national government.

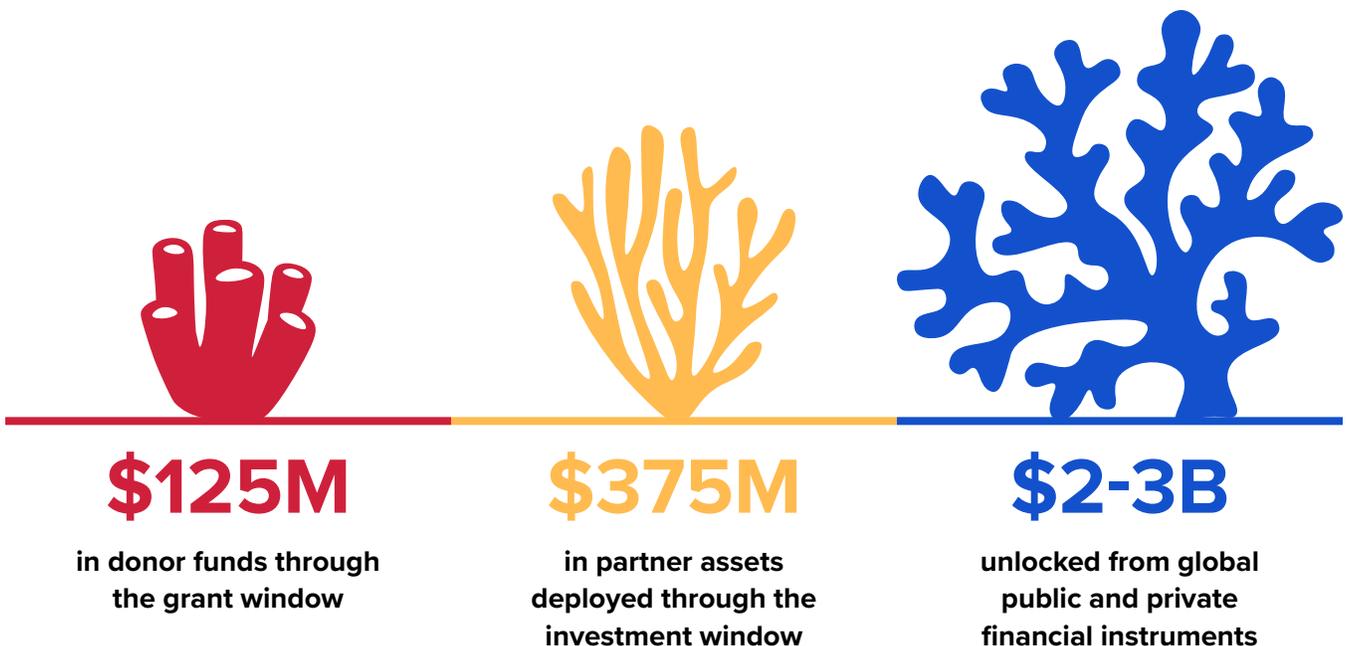
Additionally, parametric reef insurance will be incorporated into GFCR initiatives at priority coral reef sites. As discussed in Outcome 3, reef insurance will help support reef restoration activities but can also help cover financial losses to local businesses and MPAs who experience shocks. Further, in the case of a health crisis such as COVID-19, the GFCR will use grants to support efforts to deploy adequate equipment to impacted communities.

In addition to Outcome 4 outputs, the GFCR will work with its partner financial institution BNP Paribas to design flexible, crisis-conscience loan terms for borrows. In the event of a crisis, GFCR borrowers would have the option of deferring payments and/or freezing interest accrual until business operations can return to normal.

5.4

FINANCING MODELS FOR GFCR OUTCOMES

By leveraging \$125 million US dollars in grants and \$375 million U.S. Dollars of public and private investments managed by BNP Paribas Investment Manager the GFCR could mobilize a significant amount of capital (between \$2-3 billion US dollars). Finances will be used to sustainably manage coral reefs and assist the 500 million people dependent on healthy coral reef ecosystems. Structuring underused and fragmented investments through a global portfolio approach can steer global finances towards coral reef protection.



Because the supply of market-rate seeking commercial capital outpaces the availability of risk-tolerant concessionary capital and grants, the Fund takes a blended finance approach by making investments and offering grants that cater to various investment risk profiles.

5.4.1

STRUCTURE OF THE GFCR

The roles of grants and investments, as well as capital flows, are shown in Figure 7.

01

Grants are managed by the UN Grant Administrator and have a dedicated Executive Board and Secretariat. The GFCR will receive US\$ 125M in donor contributions from Member States and Private Foundations. Numerous international commitments, resolutions and declarations regarding Climate Change, SDGs and coral reef conservation will serve to mobilize resources from Member States. The influential philanthropic partners of the Fund (Paul G. Allen Family Foundation and the Prince Albert II of Monaco Foundation) are fundraising from the philanthropic sector on behalf of the Fund.

02

The GCFR uses donor funds to offer grants and develop a pipeline of revenue generating projects and monitor of project impacts and results. Grants are crucial for building the capacity of local communities, businesses, and governments to implement initiatives that generate revenue while reducing local drivers on coral reefs and strengthen climate resiliency. The revenue-generating businesses and mechanisms supported must be related to sustainable tourism, sustainable fisheries, carbon sequestration, and waste management, and commit to following strict criteria in order to have a minimal carbon footprint. Implementing partners such as World Conservation Society, World Wildlife Fund, The Nature Conservancy, BlueYou, Blue Finance and others are important for building capacity at the local level. Grants also support activities related to assessing the adaptation and resiliency of GFCR work, as well as ensuring that implemented projects meet UNDP social and environmental safeguards standards.

03

Investment capital goes through BNP Paribas who will be partnered with Althelia the asset manager specialized in the blue economy. BNP Paribas has the authority to funnel \$275 million US dollars of commercial and public investments into multiple project portfolios.

04

A GCF public investment of \$100 million US dollars serves to de-risk portfolios through guarantees, concessional loans, and early equity investments.

5.4.2 GRANTS

Grants will be used primarily for technical assistance and capacity building in identified projects and pipeline companies. The GFCR will disburse grants on a limited basis as the objective of the vehicle is to prove models are sustainable from financial, environmental, and social perspectives, with built-in measures to ensure that grant funding is not needed for the life of the investment. Grantmaking can be envisioned for financing studies once feasibility is established or near certain (i.e. to collect additional data), impact assessments, monitoring, and for enhancing capacity of associated enterprises in terms of financial skills, back office support, accounting, marketing, etc. Social enterprises may require more handholding than non-impact focused enterprises. Grants may also be used to establish regional technical assistance facilities that provide support to countries developing a blue economy in parallel with coral reef conservation.

POTENTIAL APPLICATION

Initially, greater emphasis on grants are needed to support foundational work, including building a business case and project pipeline for investments, with the balance shifting from grants to investments over time. Referring to the Fund Theory of Change, grants support work in sustainable/alternative livelihoods and education for coral reef dependent communities, global communications, and policymaking. In addition to capacity building, conservation-based grants are expected to fund guarantees, results-based payments, and other impactful initiatives for which grants are particularly well suited.

5.4.3 RECOVERABLE GRANTS

Under recoverable grants, non-profits agree to repay investors/donors the principal plus potential interest based on certain financial or programmatic milestones. They bridge philanthropy and investments in a flexible and patient manner, and repayment is only required under certain circumstances. It is designed specifically for very early-stage investments where entrepreneurs need risk tolerant and inexpensive capital, which is easily the case in the pipeline of coral reef investment opportunities. Recoverable grants are modelled on convertible notes to not have an expiration date and the conversion occurs only at valuations greater than a given threshold (i.e. against specific pre-set milestones). The objective of the recoverable grant is to enable successful ventures to recycle investment capital back into the chosen vehicle and support other enterprises.

POTENTIAL APPLICATION

A recoverable grant could be the development of a new recreation service linked to a reef, such as wildlife excursions, snorkeling in a reef area that is not yet an MPA, or increasing services in high conservation value/low tourism value areas. Recoverable grants finance a new service (training, infrastructure, marketing or promotions) and, if successful, can be repaid by fees charged.

5.4.4 GUARANTEES

A guarantee is an obligation undertaken by a guarantor to satisfy the payment of a debt or fulfilment of a contractual obligation on behalf of a debtor toward a beneficiary should the debtor fail to pay or comply with the terms of a contract. In other words, a guarantee could be considered “insurance” to protect an investor or lender in the event a debtor fails to pay an outstanding balance or meet a contractual liability. The guarantee will cover the financial obligation (partially or in full), lowering the financial risk of an investment.

Structuring and issuing guarantees complements the use of grants and expands the scope of financial instruments currently available. Notably, guarantees provide more rational choices about appropriate financing tools to use in project development, produce greater environmental impact, and increase on-the-ground performance in support of coral reef growth and protection.

POTENTIAL APPLICATION

Offering guarantees is in line with the UN vision to evolve from a “funding” (administering grant-funded development projects) to “financing” platform. With time, the UN plans to assist countries by providing financing and offering access to ways of combining and sequencing a diverse set of financial flows to achieve sustainable development results.

5.4.5 PAY-FOR-PERFORMANCE INSTRUMENTS

Outcome-based financing. Results-based financing (RBF). Impact bonds. These terms refer to instruments that link financing to pre-determined results, with payment made only upon verification that agreed-upon results have been delivered. RBF helps improve supply and demand side performance across sectors, but has seen limited application in the blue economy to date. It is still a viable and lucrative option as, in an RBF program, payments are made based on the quantity and quality of goods or services delivered after verification. Evidence from these interventions in terms of outcomes can strengthen core conservation functions, and increase efficiency and accountability.

POTENTIAL APPLICATION

This instrument is a new business model for the UN, but the organization is increasing its engagement in this space, supporting several impact bonds and pay-for-performance instruments, as well as the structuring of opportunities in administrative (MPTF Office), advisory (Executive Office), and impact measurement capacities. With respect to the blue economy this financing model could have several applications that include ocean and coastal biodiversity conservation and restoration, or youth unemployment programmes that focus on blue economy job growth and training.

An example of pay-for-performance is a bond linking payout to the regrowth of coral in a defined area.

5.4.6 DEBT FINANCING

For SMEs with business models that generate revenue (or have that potential) but need upfront financing for capital expenditures, or operational expenditures, debt financing is an ideal solution. The tenors under this vehicle will be long and rates at market or below, depending on the country. Openness to steady or current income as a replacement for, or complement to, short-term capital appreciation enables debt financing solutions and diminishes the liquidity barrier such that debt funds now outnumber equity in impact investing (on an asset-weighted basis for microfinance vehicles as these are still the largest), but also likely due to current income attributes attractive to long-term investors and aversion to private equity models where capital appreciation is early stage, unproven, or untested markets is at risk.

POTENTIAL APPLICATION

Debt financing could be applied to dive centres promoting ecotourism, growing established MPAs, or ecotourism sites that cater to high end tourists. In commercial concessions, a concessionaire pays a fee for the right to undertake a specific job in a protected area, in accordance with a 'user pays' principle; this might cover diving sites, guided tours, snorkeling, restaurants, and hotels in conservation areas. In management concessions, usually structured as PPPs, an authority (usually a government) outsources responsibility for a management of a protected area or other site to an agent with greater capacity to undertake management. Terms are usually fixed upfront in terms of expected use, fees, and repayment.

5.4.7 DEBT RESTRUCTURING (DEBT-FOR-NATURE SWAP)

Many SIDS and LDCs have the largest debt burdens in the world. In 2012, 12 of the 20 most indebted middle-income countries in the world were small island states. The existence of debt burden hinders the capacity of these governments to invest in climate adaptation or develop their economies. Restructuring a country's national or business debt; however, provides lower interest rates so savings can be funneled towards marine conservation actions.

One such example of debt restructuring is the debt-for-adaptation swap orchestrated by NatureVest (a division of The Nature Conservancy) and in collaboration with the Government of the Republic of Seychelles.³⁴ It is possible to restructure debt on a smaller scale for local businesses where, in return, the business is required to make their operations more eco-friendly by hiring more local staff and participating in coral reef conservation either financially and/or through action.

POTENTIAL APPLICATION

Debt-for-adaptations swaps are envisioned for SIDS or LDCs with heavy debt burdens and governments prepared to commitment to large-scale conservation initiatives. A local government, conservation advisors, and commercial investors negotiate debt-for-ocean terms (protecting 30% of an ocean area by expanding the MPA system in exchange for restructuring of debt) and convert debt held by other countries into more manageable duties for a local entity. A

conservation plan is put into effect for protection, restoration, and safe-use of a reef or reef-related assets. The country (government) repays the local entity that executes conservation measures. Ideally, a country develops its blue economy in parallel with pure conservation measures.

Another application is to develop a debt repurchase programme for companies that play a critical function in protecting and restoring coral reefs. Such a programme could repurchase debt and offer a refinancing option at more attractive rates for companies prepared to respect a series of conditions (inclusive of an associate monitoring and evaluation plan) that could positively affect reef resilience.

5.4.8 BLUE BONDS

Blue bonds are issued by governments, financial institutions, or another third-party organization to raise capital for marine conservation funding. The issuer of the bond sets the terms, including the price of the bond and interest rate. The price of the bond reflects a market's perceived risk and, in some cases, development banks or multilateral agencies provide guarantees or other credit enhancements to lower risk and raise the value of the bond. The revenue from bonds is then invested into SMEs, sustainable fisheries, and blue carbon initiatives. Increased tax revenue or agreements with recipients of blue bond funds are used to repay bond owners. Blue bonds can be leveraged into grants to structure a bond that creates 40 times more additional investments (think The Nature Conservancy Seychelles model) and can be used to protect predefined swathes of the world's oceans in a set amount of time.

POTENTIAL APPLICATION

Blue bonds are often funded by grants at the outset to establish feasibility. They can then be applied to any conservation actions that also generate returns through increased tax revenue or a loan agreement between the bond management entity (government, trust, or NGO) and recipient of funds. The GFCR can apply for the grant funding or public investments it endows to act as a guarantee that enhances the credit of a bond and raises its value.

5.4.9 REEF INSURANCE

Coral reefs can be damaged by hurricanes and other disasters that reduce their ability to provide valuable services. Identifying insurable risks associated with a reef that protects onshore assets, like tourism assets, property, and communities, are the essential components of structuring reef insurance. Local beneficiaries of the reef's coastal protection and other ecosystem services (e.g., government, commercial businesses) pay an annual or monthly premium to a reinsurance company. Reef insurance can cover the cost of reef restoration after a damaging event as well as provide periodic funding to coral reef site management activities to ensure the reef is healthy and outputting high-quality ecosystem services.



POTENTIAL APPLICATION

The cost of restoring a reef following a storm is less than the future losses that will be seen in environmental services and other human-made structures. Interested parties are needed to buy reef insurance to ensure restoration in the wake of a natural disaster—a move that involves discussions with local governments, tourism sectors, local industries, and/or community stakeholders.

5.5

RISKS AND MITIGATION STRATEGIES

The below table lists risks and mitigation strategies stakeholders and programmers may face/utilize throughout the initiative. Specific risk and mitigation strategies will be developed for each programme that is funded.

TABLE 1: Risk and mitigation strategies for the GFCR

RISKS	MITIGATION STRATEGIES
Contextual Risks	
<p>Conflict and safety/political insecurity in countries where funded initiatives are implemented, negatively affecting implementation (e.g. delays).</p>	<p>In some countries the political, economic, or social situation may be such that conflict or general insecurity may suddenly arise. Associated risks and volatility could negatively affect project implementation and slow or hinder progress and the achievement of outcomes.</p> <p>For each funded project and initiative a specific risk management framework will be developed that includes a country/regional assessment of direct and indirect political risks with a focus on possible conflict or instability. Specific risk mitigation measures will be identified and implemented, and risk logs monitored regularly, updated, and acted upon, as needed. All implementation arrangements should be designed to take risks into account and ensure that activities focus on the areas where implementation is realistic and possible.</p>

RISKS	MITIGATION STRATEGIES
Contextual Risks (cont.)	
<p>Natural disasters, extreme climatic events and hazards (e.g. hurricanes, tropical storms, prolonged drought) slow down or prevent implementation of initiatives and jeopardize the effectiveness of introduced measures in supported land- and seascape projects.</p>	<p>Natural disasters can have significant negative impact on country infrastructure, especially in SIDS and LDCs. While risk cannot be prevented, as outlined in Outcome 4 resources and activities will be repurposed as either post-disaster assistance or redirected towards other, more viable, seascape initiatives. Due diligence through examination of the historical occurrence of natural disasters in project areas will be conducted, and the Fund will avoid supporting projects in disaster prone areas.</p>
<p>Climate change and damaging effects on reefs due to rising sea surface temperatures and ocean acidification.</p>	<p>Many coral reef ecosystems around the world will be degraded thanks to climate change. Bleaching events are expected to increase, causing ocean acidification to make coral structures less resilient to disturbances. This reef loss will cause ecosystem service losses, putting at risk investment initiatives.</p> <p>This puts the Fund in a unique position, one that requires regular review and adaptation to rapid changes. To mitigate risk, the GFCR will put two critical measures in place:</p> <p>Fund governance, to keep pace with technological changes and approaches to coral reef conservation in the face of climate change and ecosystem degradation. The Board must consult routinely with leading coral reef scientists and practitioners to orient investments towards realistic solutions for coral reef recovery.</p> <p>Site-level action. Before project approval, scientific understanding of a site’s resiliency to climate change must be conducted so the viability of the proposed intervention is assessed against contextual and management parameters. This can be done through expert consultations or through an analysis of past work such. Only sites well suited to deal with climate change should be considered for funding. Additionally as outlined in Outcome 4, disaster response plans and actions will be incorporated into initiatives.</p>

RISKS	MITIGATION STRATEGIES
Contextual Risks (cont.)	
<p>Insufficient political commitment to ensure successful implementation of initiatives for marine conservation and sustainable fisheries.</p>	<p>While political commitment is influenced by a range of factors, highly visible and impactful media campaigns work well to secure political support—especially if public support is evident. A UN presence in recipient countries can engage with local governments to measure enthusiasm for supporting marine conservation activities. Countries already implementing, and with a good track-record of marine conservation, will be favored.</p>
Programmatic Risks	
<p>Lack of political will and support hinders efforts to expand national and transboundary MPA networks.</p>	<p>Establishment of protected areas within and across national boundaries is an effort that requires extensive engagement at all levels to generate sufficient interest in their legal establishment. To support these initiatives the UN will draw on its track record of working with governments, including the establishment of transboundary protected areas. Using its extensive global network of country offices that have strong links with national governments, NGOs, and civil society, the UN will facilitate dialogue among relevant stakeholders and build broad support for protected area expansion. An important part of this engagement will be to demonstrate the benefits protected areas bring to people and economic sectors. Additionally, the UN will use its capacities and experience in economic valuation and Targeted Scenario Analyses to support decision-making with sound science and data.</p>

RISKS	MITIGATION STRATEGIES
Programmatic Risks (cont.)	
<p>Resistance or low levels of participation of local communities in funded initiatives.</p>	<p>Community buy-in and interest is critical to successful implementation and outcomes of all funded initiatives. To address this risk initiatives are to be designed and implemented with community participation and extensive engagement where possible. Investment in bottom-up and demand-driven initiatives, identified by communities themselves, will be prioritized. To ensure support, focus will be placed on meeting the economic and social needs of communities by investing in marine-based economies, ‘blue’ job creation, and launch of investable local development projects.</p>
<p>Marine conservation initiatives are ineffective and fail to deliver on their vision and/or mission statements.</p>	<p>Only partners with well-established reputations and commitment to marine conservation will be authorized to collaborate on GFCR projects. They will be selected to minimize overlaps in mandates and maximize each other’s competencies. The composition and effectiveness of each coalition will be monitored and adjusted to ensure that consensus is built, work is coordinated, and the coalition delivers the maximum possible outcomes.</p>
<p>Global shocks to tourism and supply chains compromise supported GFCR MPAs and businesses to generate revenue and continue functioning.</p>	<p>As seen with the COVID-19 health crisis, global disruptions can happen almost instantaneously. The 2020 pandemic had serious impacts on conservation efforts around the world that rely heavily on tourism to finance operations. To mitigate this risk the GFCR will implement initiatives with diverse portfolios that are not over-reliant on tourism, Outcome 4 of the fund also aims to put in place safety nets to assist supported businesses, MPAs continue operations during periods of crisis. Additionally, Outcome 4 includes crisis response plans and parametric reef insurance schemes that will be activated when crises occur.</p>

RISKS	MITIGATION STRATEGIES
Programmatic Risks (cont.)	
<p>The GFCR fails to establish a pipeline of investable projects.</p>	<p>To avoid committing resources to initiatives that fail at establishing investable pipelines, GFCR will start by supporting projects that have already shown potential for scale-up and success. As the portfolio grows the GFCR may branch out to support riskier projects, but in the early stages the aim is for quick wins, established models, and results that serve as a proof of concept.</p> <p>The GFCR will also take advantage of international networks and partnerships to ensure a steady flow of investments. Collaborations include the Sustainable Ocean Fund, Blue Finance Association, Blue Natural Capital Financing Facility, NatureVest, and others.</p>
Institutional Risks	
<p>GFCR is mismanaged, compromising its operations and causing reputational damage.</p>	<p>UNDP has strict trust fund management procedures in place to mitigate such risk. All applicable policies and procedures are in place to ensure full oversight of the Fund, as well as full reporting, transparency and accountability functions.</p>
<p>The GFCR is not able to mobilize sufficient resources or interest from donors and investors to reach optimal operational levels or function at full capacity.</p>	<p>The GFCR will launch only if it has sufficient commitment from contributors to establish a first pipeline to attract additional investment. The potential de-risking of the project portfolio through public guarantees or GCF support will encourage other investors to join. The GFCR relies on the fundraising experience of its BNP Paribas investment manager to raise capital from private investors.</p>

5.6

SOCIAL AND ENVIRONMENTAL SAFEGUARDS

The GFCR has adopted UNDP Social and Environmental Standards (SES),³⁵ which underpin the UN commitment to mainstream social and environmental sustainability in all programmes and projects. The objectives of these standards are to:

- Avoid adverse impacts to people and the environment
- Minimize, mitigate, and manage adverse effects where avoidance is not possible
- Strengthen UN and partner capacities for managing social and environmental risks
- Ensure full and effective stakeholder engagement, including a mechanism to respond to complaints from affected individuals

SES promote a quality assurance and risk management approach for GFCR supported projects and programmes. Part of the process involves project-level screening with the aim of: integrating SES overarching principles of human rights, gender equality and environmental sustainability; identifying social and environmental risks and their significance; determining a project's risk category, and determining the level of social and environmental assessment/management required to address risks and effects. Standards are informed by an accountability mechanism that serves two functions:

01

Act as a stakeholder response mechanism so individuals and communities affected by projects have access to appropriate procedures for addressing project-related grievances.

02

Put into force a compliance review process to respond to claims if a project is not in compliance with UN social and environmental policies.

By applying the SES and accountability mechanism the GFCR can enhance the consistency, transparency, and accountability of its decision-making bodies and any resulting actions. This will improve performance and strengthen the possibility to achieve positive development outcomes.

TABLE 2: Key elements of UNDP Social and Environmental Standards

Overarching Policy	Project-level Standards	Policy delivery process and accountability
<p>Principle 1: Human rights</p> <p>Principle 2: Gender equality and women’s empowerment</p> <p>Principle 3: Environment sustainability</p>	<p>Standard 1: Biodiversity conservation and sustainable natural resource management</p> <p>Standard 2: Climate change mitigation and adaptation</p> <p>Standard 3: Community health and safety and working conditions</p> <p>Standard 4: Cultural heritage</p> <p>Standard 5: Displacement and resettlement</p> <p>Standard 6: Indigenous peoples</p> <p>Standard 7: Pollution prevention and resource efficiency</p>	<p>Quality assurance</p> <p>Screening and categorization</p> <p>Assessment and management</p> <p>Stakeholder engagement and response mechanism</p> <p>Access to information</p> <p>Monitoring, reporting and compliance review</p>