

# Global Fund for Coral Reefs



## Terms of Reference

2020 - 2030

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## LIST OF ACRONYMS

<b>AA</b>	Administrative Agent
<b>BAF</b>	Blue Action Fund
<b>BNCF</b>	Blue Natural Capital Financing Facility
<b>CHICOP</b>	Chumbe Island Coral Park
<b>EMPA</b>	entrepreneurial marine protected area
<b>GCF</b>	Green Climate Fund
<b>GEF</b>	Global Environment Facility
<b>GERF</b>	Global Ecosystem Resiliency Facility
<b>GFCR</b>	Global Fund for Coral Reefs
<b>ICRI</b>	International Coral Reef Initiative
<b>IRR</b>	internal rate of return
<b>IUCN</b>	International Union for Conservation of Nature
<b>LDCs</b>	least developed countries
<b>LMMA</b>	locally managed marine area
<b>MAR</b>	Mesoamerican Reef Fund
<b>MoU</b>	memorandum of understanding
<b>MPA</b>	marine protected area
<b>MPTFO</b>	Multi-Partner Trust Fund Office
<b>NGO</b>	non-governmental organization
<b>ORRAA</b>	Ocean Risk and Resilience Action Alliance
<b>RBF</b>	results-based financing
<b>ROI</b>	return on investment
<b>SES</b>	social and environmental standards
<b>SDG</b>	Sustainable Development Goals
<b>SIDS</b>	small island development states
<b>SME</b>	small and mid-size enterprise(s)
<b>SOF</b>	Sustainable Ocean Fund
<b>SPE</b>	special purpose entity
<b>TNC</b>	The Nature Conservancy
<b>UN</b>	United Nations
<b>UNEP</b>	United Nations Environment Programme
<b>UNDP</b>	United Nations Development Programme
<b>UNCDF</b>	United Nations Capital Development Fund
<b>USAID</b>	United States Agency for International Development
<b>USCTI</b>	United States Coral Triangle Initiative
<b>WWF</b>	World Wildlife Fund

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## The innovative approach of the Global Fund for Coral Reefs

To mobilize action and resources for coral reef protection and restoration the Prince Albert II of Monaco Foundation and Paul G. Allen Family Foundation—in partnership with the United Nations (UN)—developed the Global Fund for Coral Reefs (GFCR). The initiative is the first UN Multi-Partner Trust Fund for SDG 14, ‘Life Below Water’. Launched in 2020, the Fund is designed to raise \$500 million US dollars in capital by 2030.

To protect coral reefs and related biodiversity the GFCR has a dual focus:

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

The GFCR 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 GFCR 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, which are expected to be adopted by conventional parties in October 2020.

Following its launch, the GFCR will promote a ‘protect--transform-recover’ approach in priority locations to save and protect coral reefs in the face of serious decline and extinction.



Functioning reefs are still found in climate-cool spots around the world but need additional protection to prevent further loss and degradation.

Coastal societies will need to find new livelihoods and limit their dependence on reefs that no longer function, while reducing local threats to keep reefs above functional thresholds through strategic local management (e.g. marine protected areas and other management restrictions) so corals can recover.

Coral reefs need help in recovering when severely degraded by bleaching or other human activities.



### 2.1 Coral reefs are in danger

Coral reefs are undergoing rapid and remarkable transformation. In the past few decades, anthropogenic and climate pressures have been responsible for a loss of 25% to 50% of coral cover worldwide and the replacement of reef-building corals by non-reef organisms.

Local threats to coral reef ecosystems include overfishing, unsustainable tourism, coastal development, and pollution. Advances in fishing gear and (relatively new) capacity to freeze and export fish have placed more pressure on coral reefs across the world. The decline of herbivorous fish deprives reefs of species with ecologically important roles, such as grazing smothering algae growth. In the Indo-Pacific region, blast fishing and cyanide use for the reef fish trade is a major cause of reef degradation. It causes an immediate decline in fish and coral species abundance. Overfishing is the most pervasive immediate threat, affecting more than 55% of coral reefs worldwide.<sup>1</sup>

Coastal development and watershed-based pollution threaten about 25% of reefs. Poorly managed watersheds deposit nutrient rich and polluted run-off into coral reef ecosystems, suffocating algae and disrupting the metabolic processes of species. Sedimentation resulting from coastal development can cover a reef and increase turbidity in coastal waters, which reduces light available to corals' symbiotic photosynthesizing zooxanthellae.

Mangroves are important associated ecosystems that suffer dramatically from coastal development. The habitats capture sediment, sequester carbon and serve as fish nurseries for commercially important species. Mangroves, tidal marshes, and seagrass meadows sequester and store more carbon per unit area than terrestrial forests.<sup>2</sup> They have been destroyed at an alarming rate by farming, runoff pollution, aquaculture, and construction. In Southeast Asia, Thailand alone has lost 84% of its mangroves, with Malaysia, Myanmar, and the Philippines having lost more than 60% in each country. Over the past century, mangrove loss in the Western Indian Ocean is estimated to exceed 50% while 24% of mangroves in the Caribbean have been lost in the last 25 years.

Climate change threatens coral reef ecosystems at scale through bleaching and ocean acidification. Rising sea surface temperatures causes a stress response in coral polyps, which breaks down symbiotic zooxanthellae living within the coral. Extended periods of coral bleaching leads to coral death. Mass coral bleaching events have become five times more common worldwide over the past 40 years.<sup>3</sup>

Ocean acidification, meanwhile, is the decrease in ocean pH, resulting from continued uptake of anthropogenic carbon dioxide from the atmosphere. Lowered pH makes it difficult for calcifying organisms like corals to build their structures. In the Coral Triangle, scientists estimate the density of

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<sup>1</sup> Burke, L., Reynter, K., Spalding, M., Perry, A. (2011) *Reefs at Risk Revisited*. WRI publication. See, <https://www.wri.org/publication/reefs-risk-revisited>.

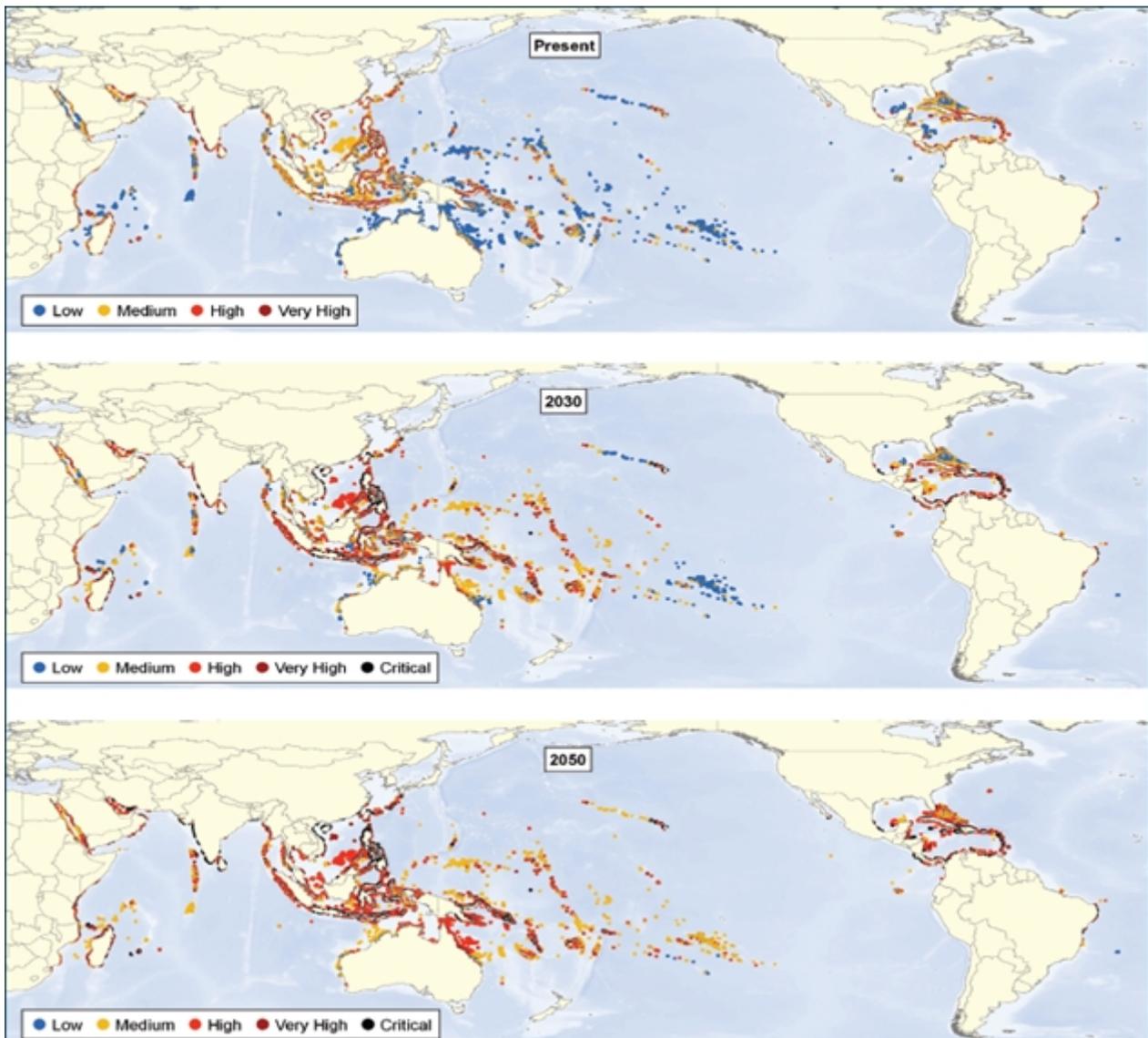
<sup>2</sup> <https://www.iucn.org/resources/issues-briefs/blue-carbon>

<sup>3</sup> Hughes, T. P. et al. (2018). Spatial and temporal patterns of mass bleaching of corals in the Anthropocene. *Science magazine*. See, <http://science.sciencemag.org/cgi/doi/10.1126/science>

coral skeletons will decrease up to 20% by 2100, increasing their vulnerability to external shocks.<sup>4</sup>

A 2018 Intergovernmental Panel on Climate Change report warns that without bold, decisive action over the next decade we will lose 70% to 90% of the remaining coral reefs by the middle of the century; this, even if global warming is limited to 1.5 degrees Celsius above pre-industrial levels (Figure 1). The United Nations<sup>5</sup> reported that 70% of the Earth's coral reefs are threatened, 20% have already been destroyed with no hope for recovery, and 24% are under imminent threat of collapse. Unless urgent action is taken, 90% of the world's reefs will be threatened by 2030 with nearly 60% facing high, very high, or critical threat levels.<sup>6</sup>

**Figure 1:** Threat levels to reefs in present day, 2030, and 2050. Reefs classified by integrated local threats combined with



projection of thermal stress and ocean acidification for 2030 and 2050. Source: <https://www.wri.org/publication/reefs-risk-revisited>

<sup>4</sup> Ocean acidification affects coral growth by reducing density. Mollica, N.R., Guo, W., Cohen, A.L., Huang, K.F., Foster, G.L., Donald, H.K., Solow, A.R. (February 2018). Proceedings of the National Academy of Sciences, 115 (8) 1754-1759. doi: 10.1073/pnas.1712806115

<sup>5</sup> <https://unchronicle.un.org/article/can-we-save-coral-reefs>

<sup>6</sup> Burke et al., op cit.

Intensifying anthropogenic impacts on coral reefs, coupled with increasing seawater temperatures and changing ocean chemistry, have transformed coral and fish communities, reduced coral growth rates, diminished the capacity of reef ecosystems to be resilient to shocks, undermined the ability of reef ecosystems to maintain their structures, and severely weakened their ability to provide valuable goods and services to people.

As resource exploitation and climate change intensifies, the International Coral Reef Initiative (ICRI) highlights five conservation activities to take now to save our reefs.

- ❖ **Creation, development and management of marine protected areas (MPA)** | MPAs are one of the most effective tools for coral reef conservation. The long-term management and protection of a site with clear regulation, management, and enforcement can replenish live coral cover, reef biodiversity, and fish populations. Locally managed marine areas (LMMA), largely or wholly managed by coastal communities, also have a positive effect on resource conservation and species protection.
- ❖ **Sustainable fisheries** | Sustainably managing coral reef fisheries can ensure a reef ecosystem retains the right balance of biodiversity. Biodiversity in coral reefs influences its functioning by promoting the complementary use of resources by species.
- ❖ **Restoration of coral ecosystems** | Flourishing reefs degraded by storms, bleaching and local pressures can be revived, building rich ecosystems through innovative scientific techniques and protection.
- ❖ **Suppression of external pressure factors** | Local drivers of reef degradation like pollution, coastal development and overfishing need to be minimized to protect reefs and render them more resilient to climate change effects.
- ❖ **Sustainable tourism** | High volume or irresponsible tourism is destructive to coral reef sites. Tourism needs to be managed well to safeguard reefs for the future. Responsible ecotourism has the capacity to provide financial returns for coral reef conservation activities and the coastal communities that rely on them.

Communities, organizations, and governments have taken note and are implementing these type of conservation activities around the world, yielding positive results.

## 2.2 Value of coral reefs

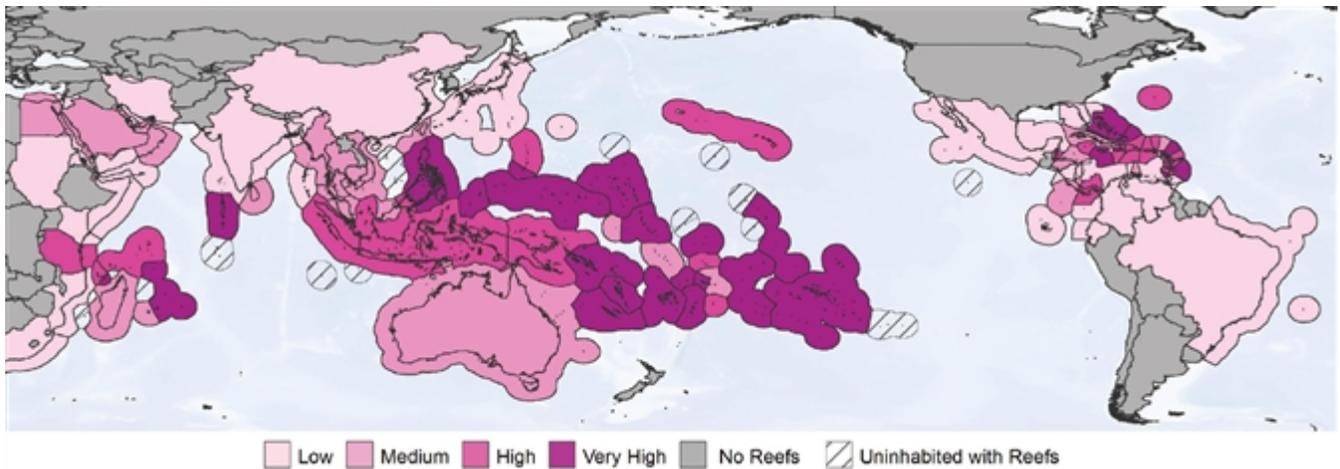
Coral reefs occupy 0.1% of the ocean floor but support 25% of all marine species. They provide food and resources for one billion people in over 100 countries and territories.<sup>7</sup> Coral reefs are essential for hundreds of millions of the poorest and most vulnerable who depend on them for food, income, and protection from storms and floods (Figure 2). The global annual value of coral reefs and associated ecosystems (i.e. mangroves and seagrass) ranges from \$375 billion US dollars to \$2.7 trillion US dollars.<sup>8,9</sup> As long as coral reefs benefit human communities and economies, underlining our reliance on these systems is crucial for mobilizing resources necessary for their survival.

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<sup>7</sup> <https://oceanconference.un.org/coa/CoralReefs>

<sup>8</sup> Costanza, R., d'Arge, R., de Groot, R. *et al.* (1997). The value of the world's ecosystem services and natural capital. *Nature* 387, 253–260. doi: [10.1038/387253a0](https://doi.org/10.1038/387253a0)

<sup>9</sup> Analysis of International Funding for the Sustainable Management of Coral Reefs and Associated Coastal Ecosystems. UN Environment, International Coral Reef Initiative and UN Environment World Conservation Monitoring Centre, 2018, International Year of Reefs, 2018, [Benefits of Coral Reefs](#).



**Figure 2:** Reef dependence is based on reef-associated population, reef fishery employment levels, nutritional dependence on fish and seafood, reef-associated export value, reef tourism, and shoreline protection from reefs. Source: <https://www.wri.org/publication/reefs-risk-revisited>

Coral fisheries provide an average annual seafood yield of 1.42 million tonnes, which translated to \$5.7 billion US dollars a year.<sup>10</sup> Across 99 countries, there are six million reef fishers and over a quarter small-scale fishers that rely on coral reefs, half of which are located in Southeast Asia.<sup>11</sup> Globally, one billion people depend on coral ecosystems for food provisions.<sup>12</sup>

Coral reef tourism accounts for \$36 billion US dollars a year in coral reef countries. Of that, \$19 billion comes from “on-reef” tourism: Diving, snorkeling, glass-bottom boating, and reef-related wildlife watching. The other \$16 billion is from “reef-adjacent” tourism, which includes enjoying beaches, local seafood, paddle-boarding, and other activities afforded by sheltering adjacent reefs.<sup>13</sup>

Reef structures protect coastal communities from storm waves, provide sand for beaches, and generate enormous recreational revenue for local businesses. The protective value of reefs is only now understood and financially modelled. Coral reefs play a vital and cost-effective role in protecting people and property. Healthy coral reefs can break-up as much as 97% of wave energy before they reach the shore. This dramatically reduces flooding and beach erosion in coastal communities behind the reefs. Coastline damage and beach erosion are correlated to reef loss—a one-meter loss in the height of a reef can double damage costs when severe weather impacts the coastline. One study found that 100-year storm events in places with degraded coral reefs would cause an increase in flood damage of 91% (\$272 billion US dollars). Coastal protection is an increasingly important service as sea levels rise and large storms become more common.

Coral reefs also serve as the 21<sup>st</sup> century's medicine cabinet. Many organisms found on reefs, including

<sup>10</sup> Cesar H., Burke L., Pet-Soede L. (2003) The economics of worldwide coral reef degradation. Zeist, Netherlands: Cesar Environmental Economics Consulting, p.23.

<sup>11</sup> Teh, L.S.L., Teh, L.C.L., Sumaila, U.R. (2013) A Global Estimate of the Number of Coral Reef Fishers. PLOS ONE 8(6): e65397. doi: [10.1371/journal.pone.0065397](https://doi.org/10.1371/journal.pone.0065397)

<sup>12</sup> Quass M., Hoffmann J., Kamin., Kleemann., Schact K. (2016) Fishing for Proteins: How marine fisheries impact on global food security up to 2050. A global prognosis. WWF.

<sup>13</sup> Spalding, M., Burke, L., Wood, S.A., Ashpole, J., Hutchison, J., zu Ermgassen, P. (2017). Mapping the global value and distribution of coral reef tourism, Marine Policy, Volume 82, pp. 104-113, ISSN 0308-597X. doi: [10.1016/j.marpol.2017.05.014](https://doi.org/10.1016/j.marpol.2017.05.014).

sponges, corals and sea hares, contain molecules that have potent anti-inflammatory, anti-viral, anti-tumour, and/or anti-bacterial effects. New treatments for Alzheimer's disease, heart disease, viruses and inflammation are developed from these molecules. More than half of all new cancer drug research focuses on marine organisms.

Ecosystem services provided by coral reefs and associated ecosystems are especially vital for achieving nature-dependent United Nations Sustainable Development Goals (SDGs), like SDG 14 'Life Below Water'. In total, coral reef initiatives contribute directly to 13 SDGs through entry points that include coral reef tourism, food security, shoreline protection, and human health and wellbeing.



Figure 3: How coral reef-centred projects contribute to the 2030 Agenda and SDGs

In addition to easily monetized ecosystem services and goods, there is also the cultural importance or heritage associated with coral reefs. Coastal communities that have grown alongside reefs have entrenched these ecosystems in their identities—manifesting in song, cuisine, sport, and storytelling. Even societies further from coral reefs can derive happiness knowing such ecosystems exist and that future generations will benefit from their continued presence.

### 2.3 Coral reef funding gap and landscape

Considering the immense value of coral reef ecosystems and expectation that continued degradation will take place, urgent action must be taken to protect, restore, and manage the world's coral reefs and benefits they provide. To date, investments in coral reef protection have not been adequate or commensurate with the current level of risk or value derived from coral reefs. Neither global nor regional policies have been ambitious or effective enough to prevent serious degradation. A Conservation for Biodiversity High-Level Panel assessment estimated that the global investment required for coral reef protection is approximately seven times greater than current funding levels. This is known as the “coral reef funding gap.”

Despite the urgent need for action to avoid coral extinction and reverse degradation, a small amount, less than 0.01%, of climate finance from development banks between 2010 and 2015 was allocated to

coral reef initiatives.<sup>14</sup> In 2018, United Nations Environment Programme (UNEP) and ICRI released a study<sup>15</sup> on the matter where the analysis examined the funding landscape for coral reef conservation between 2010 and 2016. Of the 314 projects identified, nearly 90% had a single country approach despite coral reefs being highly trans-boundary ecosystems. Nearly 60% of funding was concentrated in East Africa and the Caribbean, with areas like South East Asia and Southeast Pacific only receiving minute amount of resources (4% and 1.3% respectively). The data is astonishing considering the latter regions are highly dependent on reefs and theirs are rapidly degrading due to tremendous local and global pressure.

Adding climate change to the mix only increases the scale of the coral reef crisis. But while it calls for significant investments in coral ecosystems, 72% of 294 identified coral reef projects received less than \$1 million US dollars (40% received under \$100,000). Only 10% of projects had budgets in excess of \$10 million US dollars and these accounted for 90% of all donor-related funding. Nearly two-thirds of projects consisted of small-scale initiatives with one thematic focus. Furthermore, only 13% of projects focused on promoting sustainable and alternative livelihoods, and tourism, activities that can generate revenue and taxes, and reduce dependence on coral reefs along with development assistance.

Current funding is dominated by the public sector, specifically the Global Environment Facility (GEF), the Green Climate Fund (GCF), the European Union, and the European Commission (Framework Programme 7). Between 2010 and 2016, more than \$1.9 billion US dollars (close to \$300 million US dollars per year) was committed to coral reefs, mangroves, and seagrasses for monitoring, enforcement, conservation and sustainable management. Funds increased significantly after 2012, suggesting the response would grow based on international acknowledgment of the coral reef crisis.

At least six conservation trust funds focus primarily on marine and coastal conservation, and only one focuses entirely on reef ecosystems: the **Mesoamerican Reef Fund (MAR)**.<sup>16</sup> Created in 2004, MAR is regionally focused on the interconnected marine ecosystems of Belize, Guatemala, Honduras, and Mexico. It has used traditional donor support to finance reef conservation but has begun to explore other financing mechanisms.

In 2018, the World Bank established an umbrella multi-donor trust fund **PROBLUE** to support the protection of healthy and dynamic oceans. PROBLUE focuses on four themes with grants endorsed under each. PROBLUE secured \$150 million US dollars in pledges in 2018 and \$29 million was available as of June 2019. Contributions were made primarily by government agencies and public financial institutions.

Over 80% of PROBLUE grants focus on improving governance of fisheries and marine pollution

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<sup>14</sup> <https://www.climatechangenews.com/2018/03/06/worlds-climate-funds-ignoring-coral-reefs/>

<sup>15</sup> UN Environment, International Coral Reef Initiative, UN Environment World Conservation Monitoring Centre. (2018). Analysis of international funding for the sustainable management of coral reefs and associated coastal ecosystems.

Available at: [wcmc.io/coralbrochure](http://wcmc.io/coralbrochure).

<sup>16</sup> *50 Reefs*, Wildlife Conservation Society, Conservation Finance Alliance. (2018) Finance Tools for Coral Reef Conservation: A Guide. Available at: <https://www.icriforum.org/news/2019/02/finance-tools-coral-reef-conservation-guide>

management.<sup>17</sup> “Blueing” ocean sectors—that support economic opportunities for shipping and port authorities, coastal tourism, renewable energy and desalination—are allocated 8% of funds while integrated seascapes, which promotes cross-sectoral, upstream planning to small island developing states (SIDS) and coastal least-developed countries (LDCs), receives 4%. Although PROBLUE projects will affect coral reefs, Fund investments focus on all seascapes.

Created in 2016, the **Blue Action Fund (BAF)** is a non-profit based in Germany. The foundation is another major player in global ocean conservation, which, as of 2018, received 65 million euro in contributions from the German Federal Ministry for Economic Cooperation and Development, KfW Development Bank, the Swedish Ministry of Foreign Affairs, and Agence Française de Développement. BAF awards contributions to recognized NGOs in the form of grants to selected projects in MPAs, potential MPAs, and buffer zones. Focusing on the most vulnerable and significant coastal waters of Africa, Latin America, and Asia Pacific, the BAF mission is to be a flexible financial partner for NGOs with proven track-records in the field. Like PROBLUE, BAF does not have a coral reef focus. According to the foundation, as of August 2019, they have earmarked 22 million euro for ongoing and planned coral reef projects and 24 million euro for upcoming proposals in the Eastern Tropical Pacific and Central Africa.

As for the UN, there is no dedicated fund or joint programme for SDG 14. Although the UN provides resolute targets and indicators, analyses provided by UN INFO revealed only 60 out of 8,000 UN activities (<0.01%) are tagged to SDG 14 with 1.1% of the SDG budget allocated to “Life Below Water.”

Investments from individual government agencies are often limited and are used for certain geographic priorities. For instance, the U.S. National Fish and Wildlife Foundation’s Coral Reef Conservation Fund has less than \$2 million US dollars to award every year; it also focuses primarily on American states and territories. The large programs that have been implemented such as the U.S. Agency for International Development (USAID) Coral Triangle Initiative (USCTI), directed \$41 million US dollars to coral reef conservation. The project that ended in 2014 lasted five years and focused on supporting capacity development, fishery management, and strengthening regional policy in Coral Triangle Initiative countries. USCTI produced excellent outcomes in providing governments with knowledge to take greater control of their own marine resources. However, this one-time initiative highlights the need for a dedicated global coral reef fund that can sustain focus on progress for coral reef ecosystems.

The **Sustainable Ocean Fund (SOF)** is an impact investment vehicle managed by Althelia Funds (an affiliate of Natixis) that invests in marine and coastal enterprises that delivers marine conservation, improved livelihoods, and attractive economic returns.<sup>18</sup> The SOF focus is on sustainable fisheries and aquaculture, as well as coastal protection investments, tourism, and payments for ecosystem services for all seascapes. SOF is developing a \$100 million US dollar portfolio with the support of a \$50 million Development Credit Authority facility from USAID that provides principal protection guarantee. The Fund invested in sustainable fisheries in Latin America and mangrove protection in Africa. SOF, like

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<sup>17</sup> PROBLUE 2019 Annual Report. Available at: <http://documents.worldbank.org/curated/en/559541570047740595/pdf/PROBLUE-2019-Annual-Report.pdf>.

<sup>18</sup> See <https://althelia.com/althelia-climate-fund/sustainable-ocean-fund/>.

GFCR, is building a blended portfolio to pair financial returns with environmental and social outcomes.

The **Blue Challenge** launched by MAR, the Caribbean Biodiversity Fund, and PACÍFICO serves as an incubator for fishery, ecotourism and waste management enterprises. Three industries highly relevant to coral reef conservation and, if correctly designed, will yield positive ecological and social impacts in the region. As of now, Blue Challenge provides technical assistance to businesses in these sectors; however, the initiative may eventually be broadened to include financial support or investments.

In 2018, the international brokering and advisory company, Willis Towers Watson, created the **Global Ecosystem Resiliency Facility** (GERF) to create innovative finance and risk management solutions to strengthen ecosystem resilience. GERF specializes in risk transfer and risk pooling amongst investors, along with financing that examines the feasibility of a variety instruments like resilience bonds and reef insurance. GERF projects include coral reef and associated ecosystem protection in the Caribbean and supporting the resilience of fishing communities from hurricanes and coral decline. This includes developing risk and value models, and mapping marine ecosystems for Grenada and the Caribbean.

Other **private foundations** with ocean grant programs include:

- ❖ Bloomberg Philanthropies
- ❖ David and Lucile Packard Foundation
- ❖ Leonardo DiCaprio Foundation
- ❖ Marisla Foundation
- ❖ Mirpuri Family Foundation
- ❖ Moore Charitable Foundation
- ❖ Oak Foundation
- ❖ Paul M. Angell Family Foundation
- ❖ Paul G. Allen Family Foundation
- ❖ Planet Heritage Foundation, Inc.
- ❖ Pew Charitable Trusts
- ❖ Spring Point
- ❖ Tiffany and Co. Foundation
- ❖ Waitt Foundation
- ❖ Walton Family Foundation
- ❖ Wyss Foundation
- ❖ Prince Albert II of Monaco Foundation
- ❖ Bertarelli Foundation

Bloomberg Philanthropies committed \$130 million US dollars across two programming phases to its Vibrant Oceans program, which aims to promote adoption of science-based fisheries and marine protection policies in 10 countries, protect 50 reefs so they are resilient to climate change, and support 20 countries in achieving fishing activity transparency.

All funds and private foundations are doing important work for our oceans, but none have a blended finance approach dedicated to coral reefs on scale needed to mobilize and deploy sustainable and impactful investments.

Similar to our landscape analysis, a 2017 report, *Innovation for Coral Finance*,<sup>19</sup> commissioned by the International Coral Reef Initiative (ICRI) and funded by the Government of Sweden, conducted a literature review and interviews with experts. The study identified that the vast majority of funding for coral reef conservation from the public and private sector is grants and official development assistance.

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<sup>19</sup> Vertigo Lab (2017). Innovation for coral finance. ICRI publication 80p.

Meanwhile, innovative public and private financing mechanisms that can close the funding gap like blue bonds, payment for ecosystem services, impact investing, and biodiversity offsets are underutilized.



### 3. CALL TO ACTION

In acknowledgment of the urgent threat, the international community is collaborating on various levels to save oceans and coral reefs. In recent years, they have done this (in part) through the drafting and operationalization of numerous international commitments, resolutions, and declarations.

#### 3.1 The 2030 Agenda for Sustainable Development

The United Nations 2030 Agenda for Sustainable Development, adopted by all Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet. The agenda consists of 17 SDGs and 169 targets that include strategies to eradicate poverty, improve health and education, reduce inequality, and spur economic growth—all while tackling climate change and working to preserve the Earth’s oceans and forests.

SDG 14 ‘Life Below Water’ outlines several targets that, if achieved, will benefit coral reefs and the hundreds of millions of people who rely on them. SDG 14 targets are there to reduce marine pollution; regulate harvesting of fish; end overfishing; increase economic benefits to SIDS and LDCs through the sustainable use of marine resources, aquaculture and tourism; conserve 10% of coastal and marine areas, and strengthen the resilience of ocean ecosystems.

Beyond SDG 14, coral reef conservation efforts can offer opportunities to make headway on 13 other SDGs by conserving and reinforcing ecosystem services. Participation in coral reef conservation and restoration can fortify the commitments made by Member States, financial institutions, and philanthropic partners to mobilize resources for the 2030 Agenda for Sustainable Development.

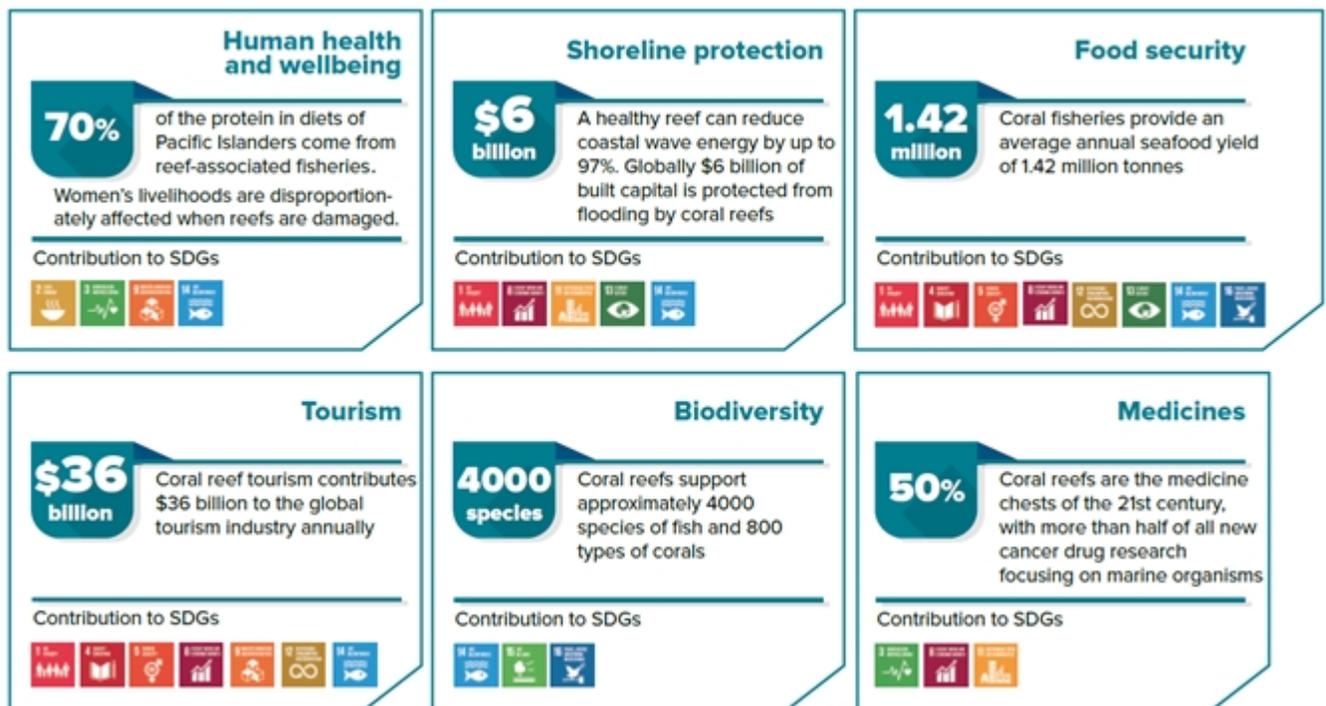


Figure 4: Snapshot of the SDGs that can be addressed through coral reef conservation

In March 2019, at the General Assembly of the Economic and Social Council, Member States signed the **UN Funding Compact for SDGs**, committing to increase the share of multi-year contributions and double levels of resources channelled through development-related, inter-agency pooled funds and single agency thematic capital. Member States are ready to scale-up investments for pooled funds provided a fair percentage of resources are redirected to seriously underfunded SDGs like 'Life Below Water'.

### 3.2 Other international commitments, resolutions and declarations

Funding support for coral reefs has been increasing steadily as shown by the 15-fold jump between 2010 and 2016 in coral reef and associated ecosystem funding (from \$55 million US dollars to \$864 million). The impact investing sector is growing, with the global market to be estimated at \$502 billion US dollars, which indicates significant capital is available to address the world's social and environmental challenges.<sup>20</sup>

At the 2017 *Our Ocean* Conference in Malta, Prince Albert II of Monaco presented the **Coral Reef Life Declaration**, which was signed by 15 countries. Some of the measures of the Declaration include:

- ❖ Supporting local adaptation and management strategies aimed at increasing the resilience of coral reefs regionally.
- ❖ Developing environmentally sustainable business models that actively promote the health of coral reefs by engaging the private sector.
- ❖ Working with the business community to reduce coral-related investment risk.
- ❖ Identifying and promoting the financial benefits of investing in coral reefs as assets of a sustainable blue economy.

These advancements spurred the ICRI declaration that 2018 would be the third **International Year of the Reef (IOYR)**. Done in response to increasing threats on coral reefs and associated ecosystems, IOYR goals covered:

- ❖ Heightening awareness of reef value and the threats they face.
- ❖ Promoting partnerships between governments, private sector, academia and civil society on the management of coral reefs.
- ❖ Identifying and implementing effective management strategies for conservation, increased resiliency, and sustainable use of ecosystems, and promoting good practices.
- ❖ Sharing information on best practices in relation to sustainable coral reef management.

Throughout the remainder of 2018, 19 government agencies, 35 NGOs, and six international governmental organizations held events and workshops that made progress on IOYR aims.

At the Fourth Session of the UN Environment Assembly in 2019, Resolution 4/13 on 'sustainable management of coral reefs' was adopted that recalled past commitments for strengthened implementation of sustainable coral reef management at the national and regional levels. The resolution highlights the fact that the 2015 deadline for the **Aichi Biodiversity Target 10** (to minimize multiple anthropogenic pressures on coral reefs and other vulnerable ecosystems impacted by climate change)

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<sup>20</sup> Global Impact Investing Network. (2019) Sizing the Impact Investing Market. Available at: <https://thegiin.org/research/publication/impinv-market-size>.

was not met. The 2019 resolution encourages Member States and others to take part in, and strengthen, the Global Coral Reef Monitoring Network while building awareness of the ecological, economic, social and cultural value of coral reefs and the threats they face.

At the 2019 G7 Environment and Oceans Ministers meeting in Metz, France, there was a call to **develop a new coral reef target as part of the post-2020 Global Biodiversity Framework**. This would encourage and support the identification of innovative financing to mobilize funding for coral reef conservation. Additionally, all seven members of the G7 and its observers (including Fiji, India, Mexico, and Norway) joined the **Ocean Risk and Resilience Action Alliance (ORRAA)**; a network that aims at:

*“Pioneering ground-breaking investment to regenerate coastal natural capital and build resilience in the most exposed and vulnerable regions and communities. To that end, the ORRAA will foster multisector cooperation between governments, financial institutions, the insurance industry, conservation organizations, and other stakeholders to unlock greater private investment in resilience.”*

Also at the G7, Canada, Germany, and Italy joined **ICRI** and Norway and India announced their reengagement in the initiative, along with France, Japan, U.K., U.S., Egypt, Fiji, Mexico, and Indonesia who were already members.

At the 74<sup>th</sup> United Nations General Assembly in September 2019, the International Environment Minister from the United Kingdom announced that ten countries had signed the **30-by-30 initiative** to designate 30% of the world’s oceans as MPAs by 2030. To achieve this goal, they formed the **Global Ocean Alliance** that will push for the adoption of 30-by-30 at the COP-15 Convention on Biological Diversity, which will be held October 2020 in Kunming, China.

### **3.3 “Build Back Better” after the global impacts of COVID-19**

As of late April 2020, the COVID-19 pandemic had confirmed cases in at least 185 countries. The interconnected fabric of our globalized world has been tested as nations battle the greatest health crisis in over a hundred years. Lockdown measures resulted in disrupted supply chains, closed businesses, halted tourism, job loss and the dismantling of millions of livelihoods. While the impact of the pandemic varies from country to county, it will most likely increase poverty and inequalities at a global scale, making the achievement of Sustainable Development Goals (SDGs) even more urgent.

In this spirit, the UN Secretary-General has proposed the following six climate-related actions to chart the path forward:

1. As we spend huge amounts of money to recover from the coronavirus, we must deliver new jobs and businesses through a clean, green transition.
2. Where taxpayers’ money is used to rescue businesses, it needs to be tied to achieving green jobs and sustainable growth.
3. Fiscal firepower must drive a shift from the grey to green economy and make societies and

people more resilient.

4. Public funds should be used to invest in the future, not the past, and flow to sustainable sectors and projects that help the environment and the climate. Fossil fuel subsidies must end, and polluters must start paying for their pollution.
5. Climate risks and opportunities must be incorporated into the financial system as well as all aspects of public policy making and infrastructure.
6. We need to work together as an international community.

Governments around the world are deploying what were once unimaginable sums to save businesses, protect livelihoods and rebuild a hobbling economic system. From the lessons learned now and with the repercussions of accelerating climate change and nature loss, UN leaders, Member States and development finance institutions like the World Bank, are pushing for stimulus packages focused on accelerating progress towards international initiatives like the Paris Agreements, SDGs, and Nationally Determined Contributions (NDCs).

These packages must help the world to “build back better” and address the current unsustainable patterns of consumption and production. Beyond direct health responses, new fiscal stimulus packages provide a generational opportunity to initiate a transformative green (and blue) recovery. Fundamental to this will be early action on a longer-term agenda to address climate change, avoid habitat loss and fragmentation, reverse the loss of biodiversity, reduce pollution and improve waste management and infrastructure. Sustainable, resource efficient, resilient and inclusive value chains are central to delivering Agenda 2030. These fundamental goals are strongly incorporated into the design of the GFCR with the objective of saving coral reef ecosystems and uplifting reef-dependent communities from poverty and lack of economic opportunity.

### 3.4 International Coral Reef Initiative

One of the most active partnerships between governments and organizations to preserve coral reefs and related ecosystems is ICRI. Founded in 1994 by the governments of Australia, France, Japan, Jamaica, the Philippines, Sweden, UK and the United States, ICRI now has more than 60 members from around the world—including 41 nations, NGOs, private industry, and intergovernmental organizations. ICRI emerged following the recognition that tropical and sub-tropical coral reefs, plus associated ecosystems, face serious degradation caused by anthropogenic stress and cohesive international action is needed to change the course. The main objectives of ICRI are to:

- ❖ Encourage the adoption of best practices in the sustainable management of coral reefs and associated ecosystems.
- ❖ Build government and partner capacities.
- ❖ Raise awareness at all levels on the plight of coral reefs around the world.

In the report, *Innovations for Coral Finance*, there are five key activities that need financing to improve coral ecosystem conservation.<sup>21</sup> 1) The first is the creation and development of marine protected areas

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<sup>21</sup> Vertigo Lab (2017). Innovation for coral finance. ICRI publication 80p.

(MPAs) which are the most important tool to ensure coral protection worldwide. They require increased and multi-source investments to support MPA design and management. 2) Development of sustainable fisheries to stop overexploitation of coral fish stocks and the destruction of nurseries and spawning grounds. 3) Suppression of external pressure factors from the open ocean (oil spills) and land (pollution, sediments, litter). 4) Sustainable tourism requires financing from the public and private sectors to develop better tourism practices, fund conservation, and create alternative livelihoods. 5) Restoration of coral ecosystems once other threats have been addressed to increase climate resilience and restore degraded reefs. To support these five key activities requires a range of current and innovative financing mechanisms.

In 2018, the Principality of Monaco and Paul G. Allen Family Foundation hosted a workshop to develop solutions that would increase and diversify investments for coral reefs. Workshop participants assessed how financing for sustainable coral reef management can be increased through existing or new multi-stakeholder funds that leverage public and private sector financing. The workshop stressed the need for a Global Fund for Coral Reefs that could harness the advantages of blended finance and increase resources for coral reef conservation. This Fund would need to take a threats-based and integrated approach in order to effectively address the main drivers of reef decline, including exacerbating effects of climate change, land-based pollution, and over-exploitation. In 2019, ICRI passed a **resolution of support for the creation of the GFCR**, recognizing that such a fund can make a significant impact. Unlocking major investments for coral reef conservation and restoration, GFCR also facilitates the transformation of economies and livelihoods. ICRI members are encouraged to engage in the GFCR design, development, launch and capitalization throughout 2020 and 2021.



#### 4.1 Why do we need the Global Fund for Coral Reefs?

The alarming predictions underline that without bold and decisive action the destruction to coral reef ecosystems will be irreversible by 2050. Coral reef loss is detrimental in terms of biodiversity and the rich cultures that have matured around them over thousands of years. Coral reefs provide coastal communities with sources of income where there are few economic opportunities, while also protecting infrastructure from severe storms, sequestering carbon and, if well managed, are a sustainable food source. The urgency of the situation calls for a new fund that can address:

- ❖ The multitude of drivers threatening coral reefs (overfishing, climate change, pollution, etc.)
- ❖ The geographic scope of coral reef ecosystems and coastal communities
- ❖ The existing funding gap
- ❖ A strategic and programmatic approach based on scaling best practices

As it stands, there is no dedicated global financial instrument for coral reef protection. What exists supports a wider 'Blue Economy' framework or operates on a country-by-country or project-by-project basis. Our immediate priority is to collectively pool efforts and resources for coral reefs by establishing a portfolio that shows how new, large-scale solutions—supported by private investment—can make a difference and provide capital for conservation in the areas it has been lacking.

### Added value of the Global Fund for Coral Reefs

The creation of the Global Fund for Coral Reefs provides an instrument to channel much needed investment capital toward coral reef conservation. The main benefits include:

- ❖ Creating efficiencies of scale (at a fund level and within countries) by directly addressing transaction cost barriers by blending finance and establishing investment management infrastructure to service a substantial pipeline of investments.
- ❖ Providing a “turn-key” blended finance solution for investments, building the confidence of project developers and governments to support and scale-up development of pipeline projects.
- ❖ Reducing the financial burden of reef management on governments and enabling more effective management of these sites.
- ❖ Building investor confidence and project manager readiness, which leads to growth in the “youthful” sector of natural capital impact investment.
- ❖ Reducing dependence on limited and short-term grant funding, enabling long-term planning, sustained management efforts, and effective impact monitoring over time.
- ❖ Establishing local entities for improved representation and participation local stakeholders, which is vital to securing social licenses to operate and build local capacity in addition to ensuring investments benefit local people and effectively address the SDGs.
- ❖ Strengthening environmental and social impacts to meet investor and institutional criteria.
- ❖ Reducing commercial and environmental-social-governance risk through a diversified portfolio of investment projects.
- ❖ Reducing the cost of funding for projects by blending impact capital with different risk-return profiles.
- ❖ Accelerating the investment readiness of projects.
- ❖ Helping investors monitor their impacts.
- ❖ Rationalizing the use of development finance, which is scarce.
- ❖ Developing projects that meet the needs of coastal communities, governments, and investors.

**GFCR is a catalytic instrument that gets out of the “business as usual” box that has hindered the design and roll-out of coral reefs solutions required for their survival.**

## 4.2 International commitments, SDGs, and the United Nations

The growing number of commitments and resolutions indicate a collective shift for urgent action to protect our oceans and coral reefs. Goal setting at the national level is a powerful force for mobilizing resources for conservation. The GFCR contributes to goals set by the Post-2020 Global Biodiversity Framework, ORRAA, the Coral Reef Life Declaration, 30-by-30, ICRI and others by creating a global demonstration fund that provides actors with a needed tool to work towards the protection of coral

reefs and the transformation of reef-dependent communities.

Coral reef conservation is entangled with targets and indicators for 13 other SDGs. The GFCR is a vector for achieving SDG 14 targets and making progress towards other sustainable goals by serving as a multi-partner trust fund for oceans. The GFCR supports the UN Secretary-General's call for transformative initiatives, with resilience being central, in areas with existing gaps and opportunities for collaboration in support of specific SDGs. The GFCR brings together UNDP, UNEP, and UNCDF under the umbrella of SDG 14 with each organization offering unique contributions.

- ❖ UNDP provides expertise in policy reform and taps into its large network of country-based teams so they can play a convening role.
- ❖ UNEP brings conservation and marine environment expertise.
- ❖ UNCDF shares its proficiency in financial structuring with LDCs and other partners.

This exciting new collaboration serves to demonstrate how UN organizations can leverage each other's competencies to implement large-scale initiatives that deliver positive impacts across several SDGs. This power enables the UN to put more political pressure on Member States to cooperate and get involved in the cause.

### 4.3 Lessons learned from COVID-19

The magnitude of the COVID-19 crisis has clearly demonstrated how governments, production systems and communities are unprepared to face multiple, major and simultaneous shocks. As a result, reef-dependent communities are experiencing hardship as supply chains and globalized revenue streams (i.e. tourism) they depend on have been jeopardized.

The Covid-19 crisis shows:

- ❖ The disastrous consequences of over-dependence on tourism to generate funds for conservation and specifically management of protected areas, especially in SIDS and LDCs. In many countries, enforcement and management capacity has been heavily reduced due to the pandemic-led crash of the tourism sector with no immediate recovery in sight.
- ❖ That global supply chains can fail, which combined with a reduction of household revenue can lead to food insecurity for the most vulnerable. For coastal communities, this can translate in increased pressure on already fragile coral reef ecosystems.
- ❖ A global pandemic or disaster can affect the global and local economy, forcing national governments to reallocate financial resources to immediate responses and recovery plans. There is a high risk and fear that such economic plans will have to prioritize non-sustainable solutions. Instead, it is critical that we leverage and mobilize private investment to rebuild better and reinforce local resilience.

However, these lessons learned have led to renewed emphasis on local communities and businesses to be more independent and to rely on their natural resources and human capital to be resilient to global shocks. By enhancing the capacity of reef-dependent communities to protect and effectively manage their coral reef ecosystems they can safeguard important ecosystem services and biodiversity that may be the basis for their survival when global systems fail or disaster strikes.

The GFCR can help make reef-dependent communities more resilient to global shocks like COVID-19 by developing site portfolios that are not over-reliant on a single sector (e.g. tourism) and are instead well diversified to include sustainable fisheries, responsible aquaculture, waste management, blue carbon and other revenue

streams to promote reef health, social stability and economic sustainability. When the Fund supports ecotourism initiatives, it will insist on activities that cater to domestic visitors as well as foreign travellers to bolster the resiliency of the local tourism sector and support communities during unexpected downturns.

The GFCR will serve to assess potential future risks including scenarios of major crisis. Through the development of parametric insurance mechanisms that unlock financing for restoration, rebuilding, and protection of livelihoods when it is most needed, the Fund will provide available capital in times of crisis to support livelihoods and businesses that are vulnerable to sudden economic slowdowns and disasters. Crisis grants may also be reserved in case of unexpected similar future shocks.

The GFCR will also work with its partners to put additional risk mitigation measures in place. For instance, the manager of the Fund's investment window, will be supported to include flexible, crisis-conscience loan terms for borrowers. Where in the event of a crisis, borrowers could have the option of deferring payments and/or freezing interest accrual until business operations can return to normal liberating additional funds to support immediate response and longer-term recovery. These favourable terms for borrowers are uncommon in underdeveloped and at-risk communities.

Finally, the Fund's presence in areas affected by disasters brings the added advantage of a faster response action by the UN and implementing partners (such as NGOs) to assist recovery and rebuilding efforts. On the ground partners will help collect data and submit situation reports to the GFCR Secretariat who would then coordinate actions to meet the urgent needs of the affected community/ies. The GFCR is an opportunity to give communities in coral reef regions the tools they need to cope with the enormous consequences of disasters in a globalized society.

#### **4.4 Seizing on partnerships**

The GFCR encompasses a coalition of global partners committed to reef protection. All members share a vision to develop and test global financing instruments capable of closing the coral reef funding gap. The Prince Albert II of Monaco Foundation<sup>22</sup> has long been active in marine conservation issues, supporting the Because the Ocean Initiative, Association Monégasque sur l'Acidification des Océans, and Beyond Plastic Med. The foundation's projects revolve around the themes of conservation of endangered species, development of MPAs, ocean acidification, and studies on climate change and its effects. The Prince has also organized several high-profile events to promote awareness and mobilize collective action for ocean issues.

The Paul G. Allen Family Foundation<sup>23</sup> supports ocean, climate and biodiversity projects, including the Allen Coral Atlas<sup>24</sup> and research on human-assisted evolution of coral to develop stocks of climate resilient coral that can survive sea temperature increases. The foundation partnered with Bloomberg Philanthropies and the Tiffany and Co. Foundation on the 50 Reefs action agenda, which identifies the top reef systems with the most hope of withstanding future changes in ocean conditions. A leader in the philanthropy sector, The Paul G. Allen Family Foundation has the influence to set priorities for the philanthropic community and mobilize resources for GFCR.

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<sup>22</sup> <http://www.fpa2.org/>

<sup>23</sup> <https://www.pgafamilyfoundation.org/>

<sup>24</sup> <https://allencoralatlas.org/>

As mentioned in Section 3.4, because ICRI passed a resolution of support for the GFCR it is envisaged that ICRI members will play an ongoing, advisory role to the GFCR board. Members can rely on their expertise to recommend priorities for the fund's 10-Year Investment Plan.

The GFCR's blended finance model is comprised of a grant window and an investment window. To manage the investment window, the GFCR is partnered with BNP Paribas, the largest French commercial bank, to serve as the Investment Manager. BNP Paribas will use its expertise and network to source investment capital and mobilize it towards portfolios of return generating coral reef conservation projects. Although the bank is experienced in large-scale sustainable development projects, such as the Tropical Landscape Finance Facility in Indonesia, they require additional capacity to manage portfolios of marine conservation projects. To address this issue, GFCR and BNP Paribas are partnering with Althelia Funds, to serve as the asset manager. Althelia's expertise in impact-driven investments in the blue economy and marine natural capital stem from their Sustainable Ocean Fund. GFCR, in partnership with BNP Paribas and Althelia, will have the technical capacity to manage investments for assets such as blue bonds, impact bonds, sustainable fisheries, and debt for environmental and ecotourism small and mid-size enterprises (SMEs). Further, BNP Paribas is a GCF accredited institution, allowing the GFCR the opportunity to co-apply for GCF public investment capital to enhance credit and de-risk coral reef conservation projects for impact investors.

Forging partnerships consisting of the UN, philanthropy, Member States and a financial institution within a single trust fund will serve to demonstrate the power of blended finance-based cooperation with aligned objectives. Successful outcomes using the GFCR partnership model have potential to be replicated for other funds and generate large-scale pooled fund impact for multiple SDGs.

#### 4.5 The case for investing in coral reefs

Conservation finance experts urge the use of a blended model of public and private capital to close the coral reef funding gap. Although government and philanthropic donors are essential, they are insufficient to address the challenges at hand and private investment capital is increasingly needed to scale impact. Traditional grants can be used to develop diversified and sustainable self-generated revenue flows that can attract investment resources towards "blue capital" and coral reef conservation.

A collaborative study between UNEP, ICRI, and the International Sustainability Unit, *The Coral Reef Economy: The business case for investment in the protection, preservation and enhancement of coral reef health*,<sup>25</sup> examined the value, cost and benefits of a coral reef economy. Experts found that shifting the trajectory of declining reef health toward healthy, well-managed ecosystems could unlock tens of billions of dollars in additional annual financing. However, if no action is taken the private sector could lose big economically. Tourism, commercial fisheries and coastal development sector in Mesoamerica, for example, could lose up to \$3.1 billion US dollars a year by 2030 if reef degradation continues.

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<sup>25</sup> UN Environment, ISU, ICRI and Trucost. (2018). *The Coral Reef Economy: The business case for investment in the protection, preservation and enhancement of coral reef health*, p. 36. Available at: [https://wedocs.unep.org/bitstream/handle/20.500.11822/26694/Coral\\_Reef\\_Economy.pdf?sequence=1&isAllowed=y](https://wedocs.unep.org/bitstream/handle/20.500.11822/26694/Coral_Reef_Economy.pdf?sequence=1&isAllowed=y)

Conversely, a shift towards healthy reefs by in Mesoamerica alone could unlock an additional \$2.5 billion US dollars annually across the three sectors. Since similar conclusions have been made in Indonesia and the Coral Triangle, it highlights the financial business case and potential returns for innovative and sustainable finance mechanisms that redirect investments to the coral reef economy.

In a 2020 report by the Blue Natural Capital Financing Facility, highlighted that the value of nature-based solutions to improve infrastructure investments and to render coastal communities more resilient and projects more financially attractive.<sup>26</sup> Blue infrastructure projects, meaning projects that utilize marine resources in a sustainable manner, can be designed with a holistic view that optimizes green-grey infrastructure and creates new revenue generating opportunities for local communities. Additionally, nature-based solutions can reduce the maintenance costs of grey infrastructure. For example, integrating wetland restoration with rock breakwaters combines the flood control and wave attenuation value of wetlands with the benefits of engineered structures to stabilize the coastal zone. We invite the reader to view the excellent graphics in the report showing the holistic blue infrastructure approach that can be applied to coastal communities (see link in footnote 26).

In addition to financial returns, societal benefits may exceed those seen in the private sector. Some examples include wastewater treatment that improves habitat quality and yields health benefits for local communities, or erosion management that reduces agricultural losses, or the expansion of sustainable fisheries to preserve fish diversity and stocks, upping local sources of protein.

Attracting investments requires business models that yield returns. Luckily, the high value of coral reef ecosystems means they are suited for a diverse set of financial tools. Activities like expanding marine protected areas produce economic benefits in the range of 3:1 to 20:1.<sup>27</sup> A report produced by the Wildlife Conservation Society, Conservation Finance Alliance, and 50 Reefs outlines a mix of thirteen compelling finance mechanisms for coral reef conservation.<sup>28</sup> Some of the tools have long since been implemented while others are in pilot stages. Investment and market-based tools include blue bonds, user fees, pay for performance bonds, debt-for-nature swaps, and reef insurance.

Considering the current size of the global impact investing market is valued at \$502 billion US dollars, there is significant capital to address the world's social and environmental challenges. Thought leaders and changemakers are spurring to action to unlock this funding. Groups like Swiss Re, Coral Vita, Blue Finance, NatureVest, and GRID-Arendal intend to attract investments through revenue generating schemes like parametric insurance for corals, sustainable fisheries, co-management agreements for MPAs and for-profit coral restoration. Acceleration in the development and implementation of financing mechanisms is needed to access private investment for coral reefs and associated ecosystems. The International Union for Conservation of Nature (IUCN), a membership union composed of government and civil society organizations, recently launched the Blue Natural Capital Financing Facility (BNCFF),

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<sup>26</sup> Thiele, T., Alleng, G., Biermann, A., Corwin, E., Crooks, S., Fieldhouse, P., Herr, D., Matthews, N., Roth, N., Shrivastava, A., von Unger, M. and Zeitberger, J. (2020). Blue Infrastructure Finance: A new approach, integrating Nature-based Solutions for coastal resilience. IUCN, Gland, Switzerland. Visit: <https://bluenaturalcapital.org/wp2018/wp-content/uploads/2020/03/Blue-Infrastructure-Finance.pdf>

<sup>27</sup> Reuchlin-Hugenholtz, E. & McKenzie, E. (2015). Marine protected areas: Smart investments in ocean health. WWF, Gland, Switzerland.

<sup>28</sup> 50 Reefs, Wildlife Conservation Society, Conservation Finance Alliance. (2018). Finance Tools for Coral Reef Conservation: A Guide. Available at: <https://www.icriforum.org/news/2019/02/finance-tools-coral-reef-conservation-guide>.

which aims to protect, restore, and enhance natural ecosystems to support climate adaptation and mitigation efforts through the creation of ecosystem-centered sustainable businesses. The BNCFF partners with implementing partners in assessing, preparing, and structuring blue natural capital opportunities, turning them into bankable investments as part of a potential blended finance approach.

Despite these promising initiatives, however, there is still currently a disconnect between grant and investment entities. NGOs and organizations that are working to bring investment capital into marine conservation often struggle to secure funding in the early stages of project development. For the initiatives to have a pipeline of bankable and proven business models that will yield conservation and social outcomes they necessitate start-up grants for financial structuring, de-risking and capacity development. When an organization requests a grant the process can be lengthy and hit several roadblocks, including hurdles set up by private foundations due to hesitation about inexperience in funding revenue-generating business models related to coral reef conservation.

For the global community to meet its coral reef conservation ambitions, we need blended finance vehicles that allow for more resources to be secured. **The GFCR is *that* financial vehicle.** The fund is designed to award grants that support the pipeline creation of investment-ready initiatives through financial structuring, capacity development, de-risking, and technical assistance. The growth of a proven and large portfolio of ‘reef-first’ business models will shore up credibility and spread risk, which can attract investments from the private and public sector brought in by BNP Paribas and managed by Althelia. And while this blended finance approach should not be a permanent approach for sites, as markets mature, the use of development finance may be gradually minimized and replaced with 100% impact investments.

The GFCR priority will always be to protect coral reefs ecosystems, but doing so by scaling-up impact and making conservation initiatives sustainable by helping them become self-financing.

#### 4.6 Links to other initiatives

The UN is afforded a unique position given its current partnerships with the Prince Albert II of Monaco Foundation and Paul G. Allen Family Foundation. These links offer opportunity and access to other key initiatives. Collaboration with the funds, incubators, and programs listed below and in Section 6.3 are expected to help accelerate the launch of the GFCR, secure quick wins, and achieve priority outcomes.



The **Joint SDG Fund** is an UN inter-agency, pooled mechanism for integrated policy support, and strategic financing. The Fund is focused on providing assistance to projects that produce efficient results for the 2030 Agenda for Sustainable Development and aim to secure significant, ongoing resources by brokering innovative financing solutions.

The GFCR aligns well with the Joint SDG Fund vision of fostering collaboration amongst UN agencies, working towards SDG achievement, and implementing innovative financing solutions. Procuring grant funding from the Joint SDG Fund is an excellent way to help establish a first pipeline of investment-ready

projects in Member States that will eventually accept investment capital for marine conservation activities.



The **GCF** is the world’s largest fund dedicated to helping developing countries reduce greenhouse gas emissions and enhance national ability to respond to climate change. Set-up by the UN Framework Convention on climate change in 2010, the Fund channels climate finance to developing countries and pays particular attention to societies highly vulnerable to the effects of climate change. They use public investment to stimulate private finance for climate resilient development.

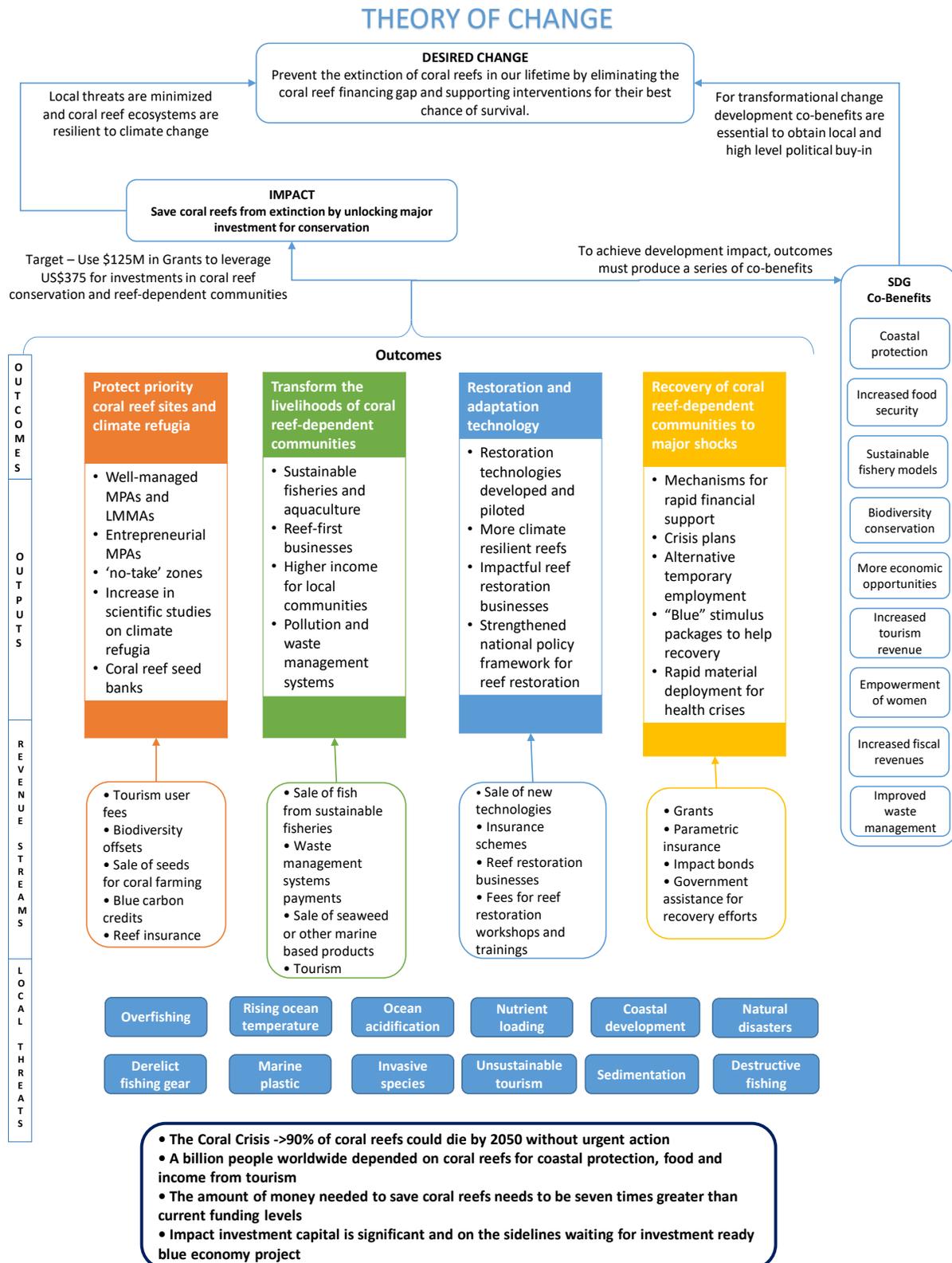
Both the GCF and GFCR provide assistance to SIDS and LDCs, which sit at the frontline of climate change. The GFCR envisions using BNP Paribas’, acting as the Investment Manager, GCF accreditation to request sizeable public financing to serve as guarantees, concessional loans, or equity to de-risk investment portfolios—channeling private investments toward blue conservation projects.



The Paul G. Allen Family Foundation partnered with Tiffany & Co. Foundation and Bloomberg Philanthropies to fund the **50 Reefs** initiative. The initiative aims to identify an optimum portfolio of reefs for targeting coral reef conservation that have the potential to survive the impact of climate change. By making the identified coral reefs priority conservation sites, they will have the ability to repopulate neighboring reefs that suffer degradation from climate change.



## 5. THEORY OF CHANGE



## 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

- Increasing seawater temperatures and bleaching events
- Ocean acidification and reduced coral growth

## DIRECT LOCAL DRIVERS

- Natural disasters (typhoons, tsunamis, flooding, etc.)
- Overfishing
- Destructive fishing (dynamite, cyanide, etc.)
- Pollution (nutrient loading, chemicals, etc.)
- Tourism
- Sedimentation
- Land reclamation
- Invasive species
- Lost and abandoned fishing gear
- Increased intensity of storms

## INDIRECT DRIVERS

- Human population growth
- Unsustainable consumption patterns
- Political apathy
- Lack of public awareness
- Economic systems that do not take environmental costs into account
- Damage to adjacent ecosystems (e.g. mangroves and sea grasses)

### 5.3 Outcomes, outputs and results

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

#### Outcome 1: Protect priority coral reef sites and climate change-affected '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. <sup>i</sup>

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”.<sup>29</sup> 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	Potential outputs	Potential revenue streams
<p>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 patents<sup>30</sup>) and ecosystem resilience is increased in the face of climate change.</p> <p>Degradation drivers of coral reefs are mitigated or eliminated.</p>	<ul style="list-style-type: none"> <li>• Increase in well managed and enforced MPAs and LMMAs that protect and promote healthy reefs</li> <li>• Entrepreneurial MPAs</li> <li>• Increase in scientific studies on identifying climate refugia</li> <li>• Water quality/land-ocean interface projects roll-out to protect coral reefs</li> <li>• Elimination of destructive fishing practices and harmful gear from protection sites</li> <li>• Establishment of ‘no-take’ zones and nurseries within protected areas</li> <li>• Legal advice on intellectual property, potential uses and patents related to climate-resilient corals located in refugia</li> </ul>	<ul style="list-style-type: none"> <li>• Ecotourism user fees</li> <li>• Debt-for-nature/adaptation swaps</li> <li>• Eco-resorts</li> <li>• Special use permits</li> <li>• Visitor centers</li> <li>• Biodiversity offsets</li> <li>• Blue carbon credits</li> <li>• Impact bonds</li> <li>• Patents</li> <li>• Provision of legal advice and expertise</li> <li>• Sale of seeds and fragments, storage of seeds and fragments, and coral farming</li> </ul>

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.<sup>31</sup> 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

<sup>29</sup> Pieraccini, M., Coppa, S., and De Lucia, G. A. (2017). Beyond marine paper parks? Regulation theory to assess and address environmental non-compliance. *Aquatic Conserv: Mar. Freshw. Ecosyst.*, 27, pp. 177– 196. doi: [10.1002/aqc.2632](https://doi.org/10.1002/aqc.2632).

<sup>30</sup> See <https://qz.com/1305587/basf-owns-the-majority-of-the-worlds-patents-on-the-genes-of-sea-creatures>.

<sup>31</sup> Reuchlin-Hugenholtz E. & McKenzie, E. (2015). Marine protected areas: Smart investments in ocean health. WWF, Gland, Switzerland. Available at: [https://www.panda.org/wwf\\_news/?248461/MPAs---Smart-Investment-in-Ocean-Health](https://www.panda.org/wwf_news/?248461/MPAs---Smart-Investment-in-Ocean-Health)

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.

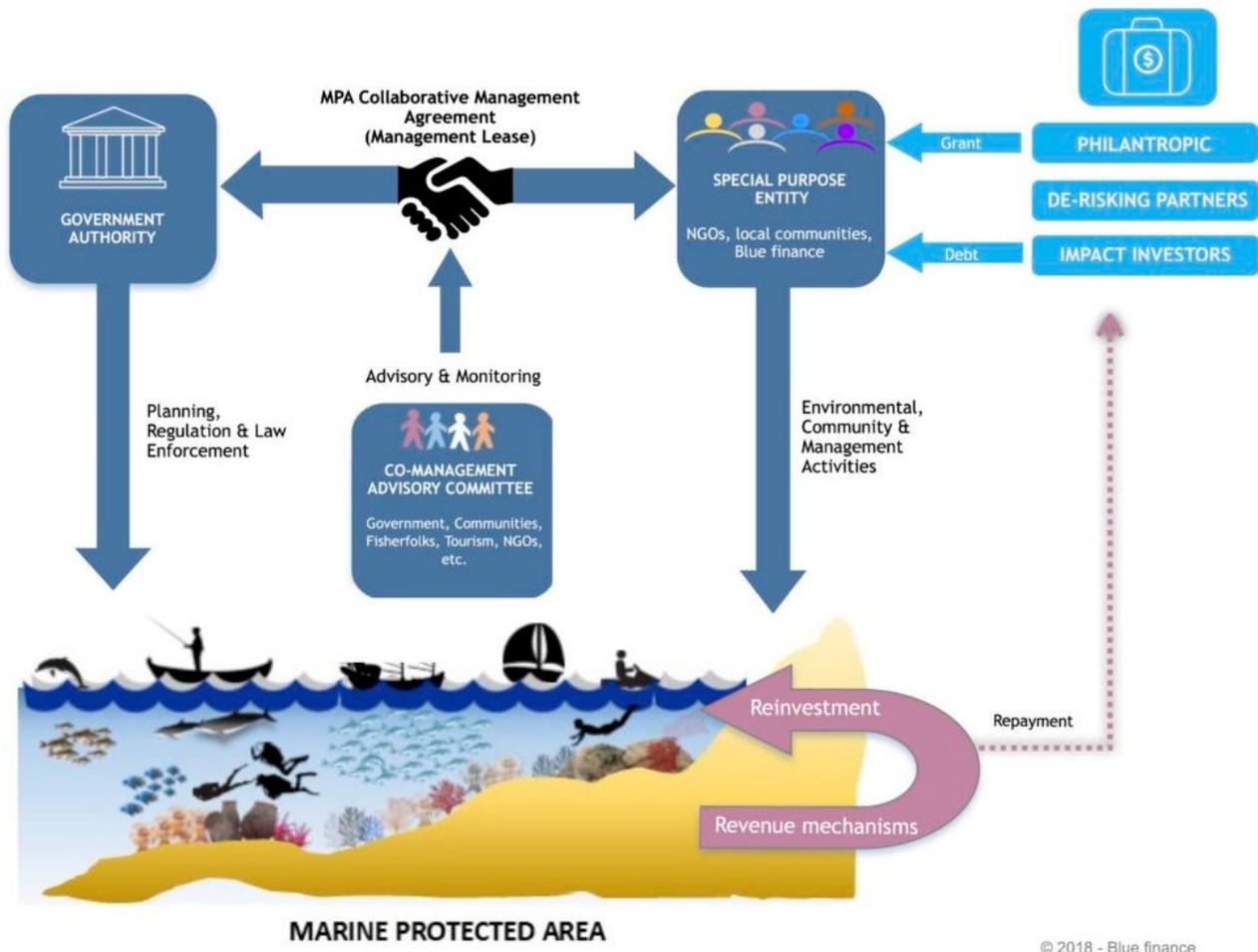


Figure 5: The Blue Finance model. Diagram available [here](#)

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: Transforming the livelihoods of coral reef-dependent communities**

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	Potential outputs	Potential revenue streams
<p>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.</p> <p>Transition to sustainable fisheries and tourism. Private sector-led investments funneled into alternative livelihoods and reef-first businesses.</p>	<ul style="list-style-type: none"> <li>• Community-based projects for sustainable fisheries, seaweed farms, aquaculture, tourism, etc.</li> <li>• Sustainable value chain development and educational programmes to build skills for alternative careers and livelihoods</li> <li>• Women empowered through capacity building and safety nets</li> <li>• Reef-first businesses</li> <li>• Economic valuation of coral reefs and ecosystem services</li> <li>• Communication and educational campaigns to drive and sustain behavioral change</li> </ul>	<ul style="list-style-type: none"> <li>• Sustainable fisheries (e.g. export sales from high value fish products including premiums for sustainability)</li> <li>• Sale of seaweed or other marine based products</li> <li>• Eco-tourism SMEs</li> <li>• Waste management systems</li> <li>• Bioprospecting</li> </ul>

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.<sup>32</sup> 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 and adaptation technologies

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
Coral reef restoration and adaptation technologies are made scalable, cost-efficient, and	<ul style="list-style-type: none"> <li>Restoration technologies developed and piloted</li> <li>Strategies for high-impact restoration</li> </ul>	<ul style="list-style-type: none"> <li>Fees for workshops and training for reef restoration and on new technologies</li> </ul>

<sup>32</sup> Markham, A., Wachowicz, K., O’Shea, T. (2016). The Isda Strategy: An Investment Blueprint for Small-Scale Fisheries in the Philippines. Encourage Capital. Available at: <https://www.issuelab.org/resource/the-isda-strategy-an-investment-blueprint-for-small-scale-fisheries-in-the-philippines.html>

<p>applicable to a variety of regional contexts; with proven outcomes for ecological resilience.</p>	<ul style="list-style-type: none"> <li>• Strengthened national policy frameworks based on robust business cases for coral reef restoration and maintenance</li> <li>• Restoration guidelines and training on coral reef restoration</li> <li>• 'In situ' water restoration projects</li> <li>• Identification of priority restoration sites within targeted MPAs</li> </ul>	<ul style="list-style-type: none"> <li>• Sale of new technologies</li> <li>• Green-grey solutions for coastal and beach protection</li> <li>• Fee for services to apply and provide technology training</li> <li>• Insurance schemes</li> <li>• Reef restoration ecotourism</li> <li>• Biodiversity offsets</li> <li>• Debt-for-nature/adaptation swaps</li> <li>• Payments for ecosystem services</li> </ul>
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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 to major shocks**

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	Potential outputs	Potential revenue streams
<p>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.</p>	<ul style="list-style-type: none"> <li>• Mechanisms in place for rapid financial support to reef-first SMEs and MPAs impacted by shocks. This includes the use of parametric reef insurance.</li> <li>• Crisis plans in place to mitigate impacts from supply chain disruptions, bleaching events, health crises, etc.</li> <li>• “Blue” stimulus packages to help recovery after shocks.</li> <li>• Alternative temporary employment during periods of crisis to aid recovery efforts and provide sources of income for those that have lost their livelihoods.</li> <li>• Rapid material deployment to deal with crisis</li> </ul>	<ul style="list-style-type: none"> <li>• Grants</li> <li>• Parametric reef insurance</li> <li>• Impact bonds</li> <li>• Government assistance for recovery efforts</li> </ul>

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.

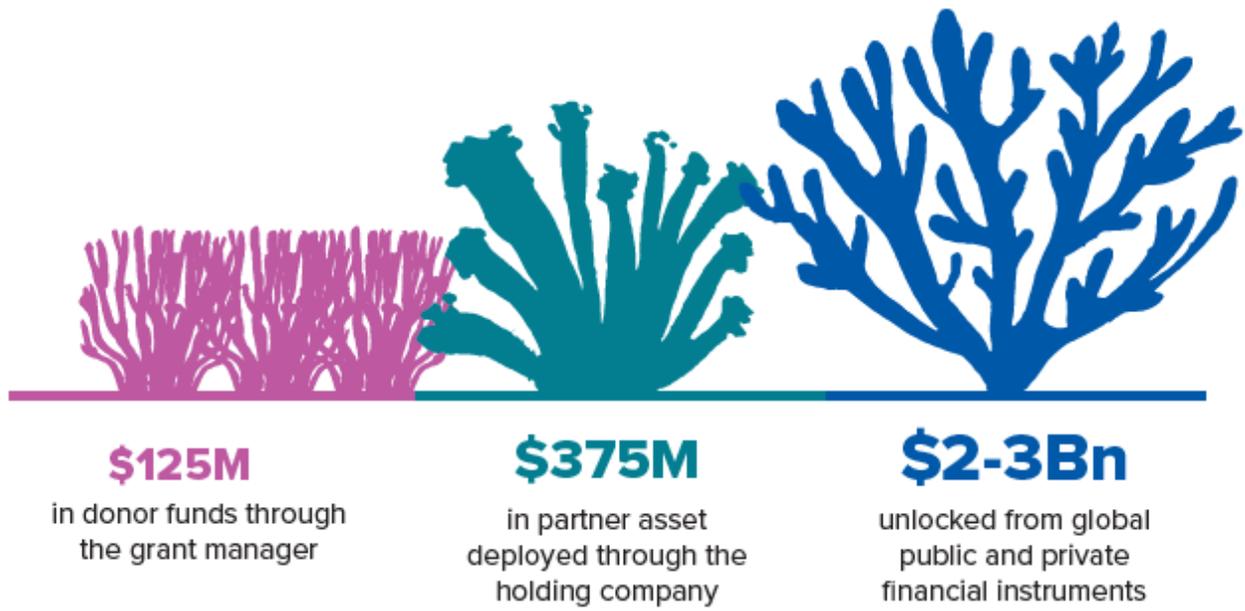
The GFCR will consult with on-site implementing partners on the needs of the affected area to determine if and how much grant capital should be deployed to the site to ensure food security, energy security, and health during times of crisis and recovery periods. The GFCR and implementing partners will 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.

**1)** 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.

**2)** The GFCR 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.

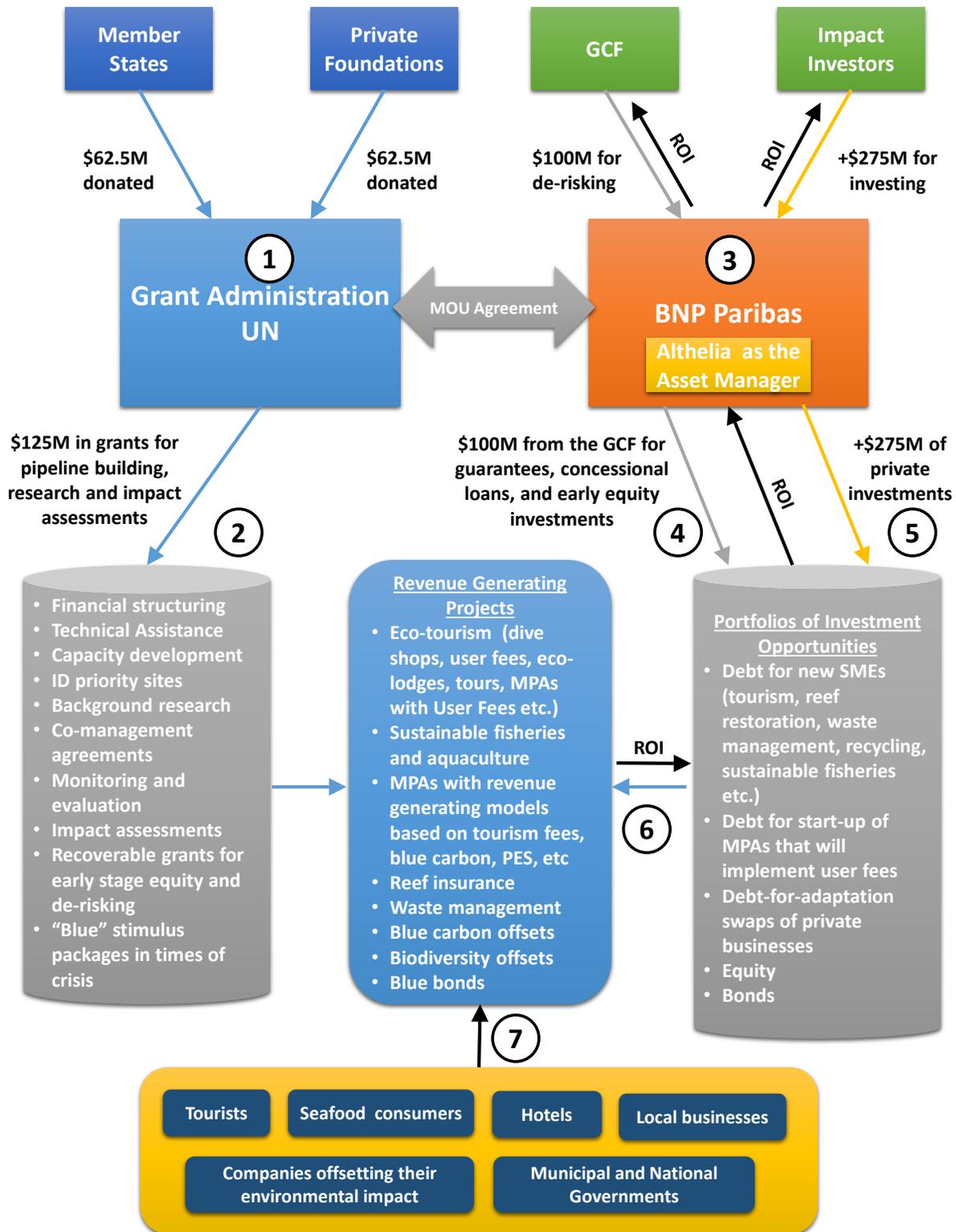
**3)** Investment capital goes through BNP Paribas who will be partnered with Althelia the asset manager specialized in the blue economy. BNP Paribas has the authority to funnel \$275 million US dollars of commercial and public investments into multiple project portfolios.

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

**5)** GCF involvement provides impact investors with the confidence to invest in the unfamiliar market of marine natural capital.

**6)** Revenue generating projects will seize on investment capital for scaling-up efforts while ensuring their business models provide benefits for coral reef ecosystems.

**7)** A portion of the revenue generated will pay off debts with an ROI for investors. Additionally, in many cases revenue will be used for MPA management and improvement.



**Figure 7:** GFCR's blended finance model and flow of capital. Circled numbers corresponded to capital flow stages described above in Section 5.4.1.

Financing of coral reef conservation will be sequenced and structured on a seascape/investment case-by-case. Below is a quick description of financing mechanisms are included in our blended finance approach. For a more detailed description of coral reef conservation financing mechanisms and business models, see Annex II or refer to, *Finance Tools for Coral Reef Conservation: A Guide*.<sup>33</sup>

#### 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

<sup>33</sup> 50 Reefs, Wildlife Conservation Society, Conservation Finance Alliance. (2018). *Finance Tools for Coral Reef Conservation: A Guide*. Available at: <https://www.icriforum.org/news/2019/02/finance-tools-coral-reef-conservation-guide>.

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.<sup>34</sup> 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 intuitions, 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.

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<sup>34</sup> Silver, J.J. and Campbell, L.M. (2018). Conservation, development and the blue frontier: the Republic of Seychelles' Debt Restructuring for Marine Conservation and Climate Adaptation Program. *International Social Science Journal*, 68: pp. 241-256. doi: 10.1111/issj.12156

### 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
	<b>Contextual risks</b>
<b>Conflict and safety/political insecurity in countries where funded initiatives are implemented, negatively affecting implementation (e.g. delays)</b>	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.  For each funded project and initiative a specific risk

	<p>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>
<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>
<p>Insufficient political commitment to ensure successful implementation of initiatives for marine conservation</p>	<p>While political commitment is influenced by a range of factors, highly visible and impactful media campaigns</p>

<p><b>and sustainable fisheries</b></p>	<p>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>
<p style="text-align: center;"><b>Programmatic risks</b></p>	
<p><b>Lack of political will and support hinders efforts to expand national and transboundary MPA networks</b></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>
<p><b>Resistance or low levels of participation of local communities in funded initiatives</b></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><b>Marine conservation initiatives are ineffective and fail to deliver on their vision and/or mission statements</b></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><b>Global shocks to tourism and supply chains compromise supported GFCR MPAs and businesses to generate revenue and continue functioning</b></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</p>

	<p>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>
<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>
<b>Institutional risks</b>	
<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>

## 5.5 Social and environmental safeguards

The GFCR has adopted UNDP Social and Environmental Standards (SES),<sup>35</sup> 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

<sup>35</sup> Available at: [https://info.undp.org/sites/bpps/SES\\_Toolkit/default.aspx](https://info.undp.org/sites/bpps/SES_Toolkit/default.aspx)

- ❖ 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:

- 1) Act as a stakeholder response mechanism so individuals and communities affected by projects have access to appropriate procedures for addressing project-related grievances.
- 2) 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><b>Principle 1:</b> Human rights</p> <p><b>Principle 2:</b> Gender equality and women’s empowerment</p> <p><b>Principle 3:</b> Environment sustainability</p>	<b>Standard 1:</b> Biodiversity conservation and sustainable natural resource management	<b>Quality assurance</b>
	<b>Standard 2:</b> Climate change mitigation and adaptation	<b>Screening and categorization</b>
	<b>Standard 3:</b> Community health and safety and working conditions	<b>Assessment and management</b>
	<b>Standard 4:</b> Cultural heritage	<b>Stakeholder engagement and response mechanism</b>
	<b>Standard 5:</b> Displacement and resettlement	<b>Access to information</b>
	<b>Standard 6:</b> Indigenous peoples	<b>Monitoring, reporting and compliance review</b>
	<b>Standard 7:</b> Pollution prevention and resource efficiency	



## 6.1 Legal architecture

### 6.1.1 The UN Multi-Partner Trust Fund Office

UN multi-partner trust funds are financial vehicles designed to support international development initiatives and partnership platforms with clearly defined programmatic purpose and a results framework based on a shared Theory of Change.

“Pooled funding mechanisms have a strong track-record in strengthening coherence and coordination, broadening the contributor base, improving risk management and leverage, and provide better incentives for collaboration within the UNDS or across pillars in relevant contexts”

António Guterres, UN Secretary General (December 2017 report on repositioning the UNDS)

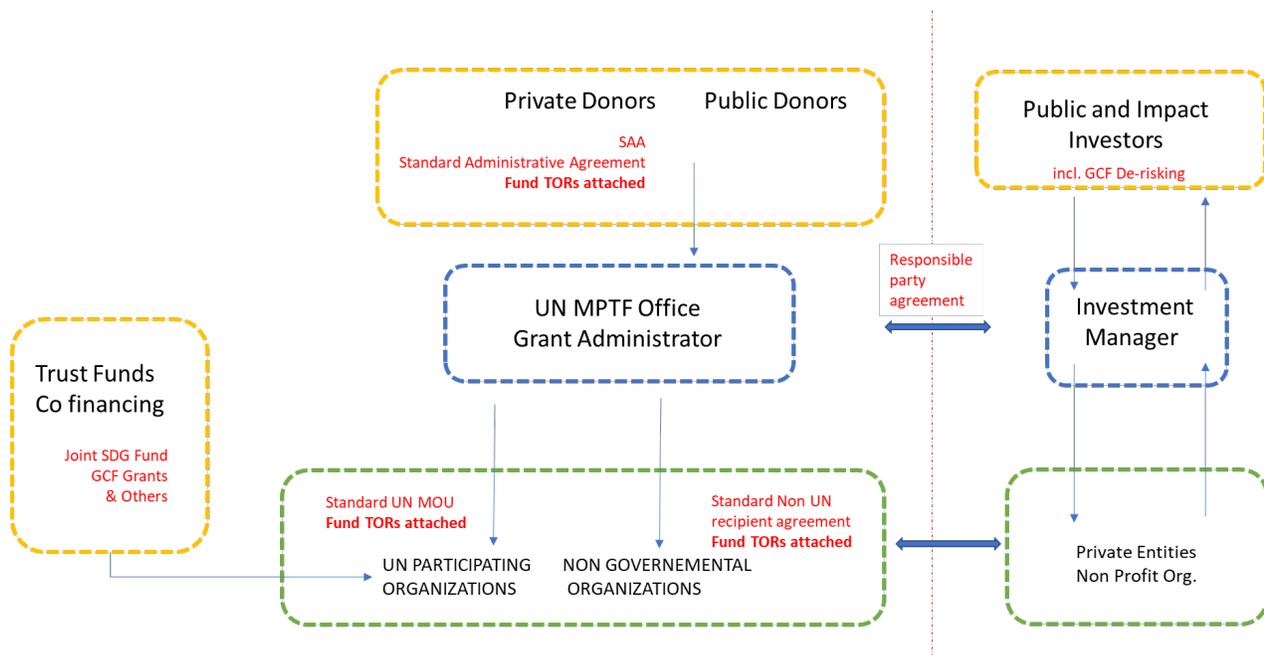
Although these funds can be designed in different ways they always involve leading actors and multiple implementing partners. Contributions can be received from a diverse set of donors to enable a collective response through shared financing and joint support towards agreed goals. UN Multi-Partner Trust Fund resources are co-mingled in a single trust fund account.

The UN Multi-Partner Trust Fund Office (MPTF Office)<sup>36</sup> was established in 2006 as the dedicated United Nations center of expertise for the design and administration of pooled financing mechanisms. The MPTF Office has supported the UN system, development partners and national governments in establishing over 180 multi-donor trust funds and Joint Programmes. The cumulative capitalization of \$12 billion US dollars covers more than 100 partner countries and contributors, along with 60 direct fund recipients that include UN organizations, the World Bank, NGOs, and national governments.

While the GFCR is an innovative financial mechanism, its legal architecture is based on a standard set of agreements developed by the UN and partners to provide a solid fiduciary framework, high transparency, joint decision-making processes, standard operating modalities, and a credible programming/allocation cycle. Conflict of interests and due diligence will be fire-walled via a dual trustee function split between grants and working capital regulated through responsible party agreements.

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<sup>36</sup> Visit: <http://mptf.undp.org/>



**Figure 8: Legal architecture of the GFCR**

### 6.1.2 The Global Fund for Coral Reefs – Grant Window

The UN and donors established the GFCR by appointing the UN MPTF Office as Administrative Agent (AA), which is also known as “Grant Administrator.” The MPTF Office is responsible for fund design, establishment, and grant supervision, and the appointment is legally mandated through the signing of a Memorandum of Understanding (MoU) between UNDP, UNEP, UNCDF, and the MPTF Office. This arrangement is the foundation for the GFCR, describing the type of financial modalities and set-up. The MoU is based on standard UN procedures and sets operational arrangements such as receiving contributions from donors, overseeing programmatic and financial accountability of implementers, transferring funds, communication and visibility, and reporting on project activities alongside audit, fraud, corruption, unethical behavior, sexual exploitation, and any abuses of power. Fund terms of reference are annexed to the MoU and are an integral part of any agreement. UN funds, programmes, and specialized agencies can access GFCR financing by signing a standard MoU for a specific project.

Non-UN entities can also directly apply for GFCR financing; however, they need to be non-profits, or non-governmental, civil society organizations with proven and strong fiduciary standards similar to the UN. The Grant Administrator will conduct a fiduciary assessment and, if approved, sign a financing agreement with non-UN organizations. Specific fiduciary requirements, such as external audits and controls, will be specified on a case-by-case basis. Non-UN entities not eligible for direct access can receive funds through a dedicated managing agent that assumes full fiduciary accountability on their behalf. Existing UNDP small grant modalities or any large NGO or similar programme will be asked to take on the role of managing agent(s) for such an arrangement.

Donors are expected to sign a contribution agreement, Standard Administrative Agreement, which is a template applicable to any contributor. The latest update to this agreement was carried out in December 2019 to include sexual exploitation and abuse clauses. Public and private donors; however, will contribute to the Fund under the same terms. Private entities, foundations or companies with direct involvement in arms, tobacco, in violation of UN sanctions, pornography, the unregulated and/or illegal sale or distribution of wildlife, gambling, and violation of human rights and child labor will not be cleared as fund donors. The MPTF Office maintains a strict due diligence process for any private participants on behalf of fund partners as per UN regulations.

### **6.1.3 The Global Fund for Coral Reefs – Investment Window**

While the Grant Window of the GFCR will be managed by the Executive Board, the Investment Window will be managed by BNP Paribas who has recruited Althelia Funds to serve as the Asset Manager. An MoU will be signed between the UN and BNP Paribas, and the UN and Althelia Funds. The MoU will establish the framework of decision and operation modalities for deploying investment capital to projects supported by the Grant Window. The framework will ensure that investment capital is sourced to projects that have strict environmental and social criteria.

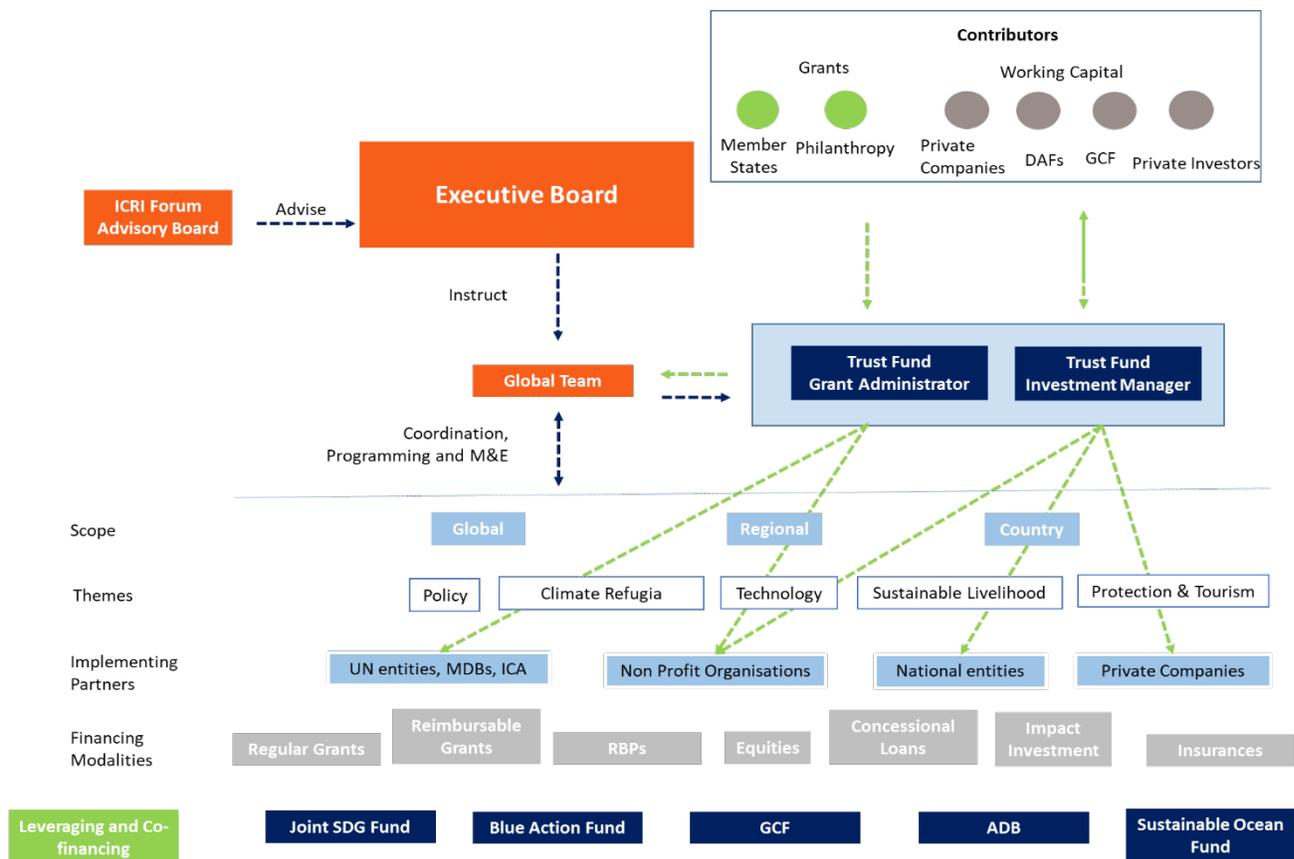
The MPTF Office has used the UNDP Risk Assessment Tool to conduct Due Diligence on BNP Paribas. BNP will provide the source of the investment capital they are deploying to projects to adhere to the transparency requirement of UN financing instrument. Due diligence for Althelia Funds has been done by BNP Paribas during their Asset Manager selection process as well as the GFCR fund design team. No questionable activities by Althelia Funds were red flagged during the process.

Further, the Fund's Secretariat will require BNP Paribas to conduct financial reporting on their investment portfolios. The GFCR will also monitor the social and environmental impact of the projects supported by grants and investments.

## **6.2 Governance arrangements**

The governance arrangements of multi-partner trust funds rely on an efficient and effective decision-making and oversight framework to ensure streamlined allocation processes and clear lines of accountability. They feature innovative solutions that combine the roles of a Grant Administrator and Investment Manager to better blend and sequence different sources of funding. This approach will enable combining spending modalities and allow for the design of different business models.

These arrangements are built on, and informed by the five principles of **innovation, transparency, accountability, public-private partnership, and integrated programming**. Overall governance arrangements, decision-making processes and financial flows are depicted in the figure below.



**Figure 9: Proposed governance structure for the GFCR**

The governance architecture of the GFCR has three main components: governance by an Executive Board supported by an Advisory Board, day-to-day management coordinated by a dedicated Global Team, and fiduciary management supported by two trustees (Grant Administrator and Investment Manager). GFCR governance consists of a governing body that takes all decisions related to the Fund and the use of its resources, plus an advisory body that provides political and partner engagement frameworks. Both structures take into account the multilateral nature of the Fund, building on existing organizations and forums.

### 6.2.1 Executive Board

The Executive Board offers general oversight for all Fund activities, taking decisions on strategic direction, the allocation of resources, and overall performance of the portfolio. The Executive Board will manage the grant window while the investment window will be managed by the BNP Paribas the Investment Manager. The Executive Board meets bi-annually (in person/virtually) or as frequently as required to efficiently carry out the following roles and responsibilities:

1. Strategy setting
  - ❖ Determining Fund global strategic direction.
  - ❖ Contributing technical leadership on strategic priorities.
  - ❖ Reviewing of Theory of Change.

- ❖ Approving investment plans.
  - ❖ Reviewing annual performance.
  - ❖ Sharing knowledge, expertise, and technology to support investment plan agendas.
  - ❖ Meeting periodically with the Investment Committee to align on priorities and project sites
  - ❖ Approving revisions to Fund ToRs and any extension of the Fund.
2. Partnerships and advocacy
- ❖ Activating representatives at the global and regional levels to support GFCR objectives.
  - ❖ Supporting coordination with other global initiatives focused on coral reef protection.
  - ❖ Representing the Fund in global conferences and other spaces dedicated to ocean and coral reef protection.
3. Fundraising
- ❖ Overseeing the GFCR resource mobilization strategy.
  - ❖ Fundraising globally for capital by committing respective organizations/government and asking them to make introductions to other prospective donors.
  - ❖ Utilizing major events and public moments to showcase investments made to the Fund and making the case for others to offer support.
  - ❖ Helping crowdsource financing for specific deals and partnerships.
4. Financial allocation
- ❖ Overseeing the relationship between grant and investment trustees.
  - ❖ Approving grant investment plans and grant project proposals.
  - ❖ Overseeing allocation of capital and blended solutions for grants.
  - ❖ Overseeing GFCR risk management procedures, including policies relating to earmarking, due diligence, conflicts of interest, and audits of fund recipients.
  - ❖ Sourcing the Investment Manager with investment opportunities that meet the GFCR's criteria for environmental and social impact.
5. Budgeting and human resources
- ❖ Reviewing overall fund financial performance on a bi-annual basis.
  - ❖ Overseeing the Global Team's annual operating and programmatic budget, and work plan.
  - ❖ Overseeing additional direct budget lines for operations support.
  - ❖ Reviewing Global Team staff performance on annual basis.
6. Monitoring and evaluation
- ❖ Overseeing global monitoring and evaluation process and results framework.
  - ❖ Overseeing process of developing annual reports and financial statements.
  - ❖ Overseeing GFCR knowledge management procedures.

At its first meeting, the Executive Board will review and approve its own rules of procedures, which were prepared by the Global Team. These Rules of Procedure may be amended by the Executive Board when necessary to enhance its functions. Composed of a committed group of individuals (8-12 members) that reflect the diversity of partners involved, the Executive Board is biased towards being leaner so as to increase member ownership and decision-making efficiency. The composition of the Executive Board is as follows:

Public Donors (Member States)	Philanthropic Donors	United Nations
<ul style="list-style-type: none"> <li>❖ Four seats</li> <li>❖ Two permanent seats for the highest contributing donors</li> <li>❖ Two rotational seats for remaining donors on a rolling basis</li> </ul>	<ul style="list-style-type: none"> <li>❖ Four seats</li> <li>❖ Two permanent sets for founding members: Paul G. Allen Family Foundation and the Prince Albert II of Monaco Foundation</li> <li>❖ Two rotational seats for remaining private donors on a rolling basis</li> </ul>	<ul style="list-style-type: none"> <li>❖ Two rotational seats</li> <li>❖ The following three agencies sitting on the Board during the first cycle: UNEP, UNDP, UNCDF</li> </ul>

The First Chair of the Executive Board is the highest contributor to the GFCR in 2020 and is appointed for a two-year period starting January 2021. The head of the Global Team, and the grant and investment trustees are ex-officio members of the Executive Board.

All representatives have the right to participate fully in meeting deliberations, and decisions are taken by consensus. During any discussion where a decision is to be made Executive Board members should disclose, in advance, any personal or organizational conflicts of interest that could conflict with GFCR mandates or operations. Details on alternates, rotations, observers, conflict of interest disclosure, recusals, chairmanship, decisions process, quorum, and meeting organization will be elaborated in Executive Board rules and procedures.

### Notes on Conflict of Interest

Members of the Executive Board should not participate in the decision of approving any initiative where their organization will receive funds or act as a technical partner. Foundations on the Executive Board will be donors only and not permitted to receive funds from the GFCR.

Apart from these general requirements, any potential conflict of interest should be disclosed to the Chair of the Executive Board prior to decision meetings. Conflicts of interest declared or brought to the attention of the Board after a decision has been made will trigger its prompt re-examination.

### 6.2.2 Advisory Board

The Advisory Board is a multi-stakeholder forum whose role is to foster consultation, dialogue, and knowledge exchange among Fund stakeholders. Its responsibilities are to:

- ❖ Discuss progress, challenges, and lessons learned, and share coral reef protection and management best practices.
- ❖ Recommend actions to improve Fund performance and impact.
- ❖ Promote collaboration with other initiatives.
- ❖ Support fundraising efforts.
- ❖ Discuss developments in international initiatives and potential impacts on or engagement with the Fund.
- ❖ Advise on strategic issues put forward by the Executive Board.

IRCI and/or its members are best placed to provide this advisory function. The Advisory Board is expected to meet once a year around the same time as ICRI meetings. The Chair of the Executive Board and head of the Global Team are Board members as well.

### 6.2.3 Global Team

The Global Team supports the Executive Board and manages the day-to-day management and operation of the Fund. The Team has management, technical, and operational expertise, and one of its primary roles is to develop the Fund investment plans and manage approval of project or programme proposals in accordance with financial decisions made by the Executive Board. The Global Team guarantees that successful innovative blended solutions are developed in accordance with agreed-upon objectives and criteria specified in the Terms of Reference and subsequent guidelines.

To ensure operational agility the Global Team is led by a Senior Fund Manager with discretion to act and respond quickly to Fund-specific needs. Responsible for supporting and monitoring innovative breakthroughs, the Team oversees an ambitious investment agenda, liaises with broader partnership, fundraises, and assists the Executive Board with additional functions. Additional tasks the Global Team is responsible for include:

## **Partnerships and resource mobilization**

- ❖ Developing a fundraising strategy and taking the lead on resource mobilization efforts.
- ❖ Developing and promoting investment plans aligned with Fund theory of change and financing models.
- ❖ Promoting blended solutions and coordination between the Grant Administrator and Investment Manager.
- ❖ Managing relationships with partners and supporting GFCR governance bodies.
- ❖ Engaging new partners at the global level.
- ❖ Leading communications, advocacy, and engagement efforts.
- ❖ Mobilizing financing for Global Team core operations.

## **Innovative programming**

- ❖ Diagnosing and mapping innovative and disruptive solutions for coral reef protection.
- ❖ Lead prioritization and portfolio consolidation.
- ❖ Proposing recipients for, and facilitating the disbursement capital across, GFCR investment plans.
- ❖ Liaising with implementers, providing technical support.
- ❖ Monitoring implementers in executing respective programme actions.

## **Technical expertise**

- ❖ Gathering and providing technical expertise on coral reef protection and strategic priorities.
- ❖ Providing information on global breakthroughs in the design proposal stage.
- ❖ Offering knowledge management capabilities.

## **Operations**

- ❖ Playing a central legal and administrative role.
- ❖ Liaising with Fund custodians and monitoring GFCR performance (e.g. leverage ratio, compliance requirements, due diligence of recipient organizations).
- ❖ Coordinating reporting, monitoring and evaluation processes for portfolios in line with the GFCR results framework.
- ❖ Collating Fund actions and results, and drafting the annual report.
- ❖ Developing the rules and procedures, manuals, and guidelines necessary to manage the Fund.
- ❖ Continuous risk management of the Fund by monitoring for political and natural disaster risks.
- ❖ Collecting and assessing environmental, financial, and social impact reporting from implementing partners and financial reporting from the Investment Manager.
- ❖ Production of an annual report that compiles impact assessments, reports, and lessons learned from implementing partners and the Investment Manager into a single cohesive document with summaries and recommendations.

To ensure GFCR activities are informed by the latest research and insights in the field, the Global Team may choose to designate and consult a small group of Senior Advisors with expertise in Fund strategic priorities on an as-needed basis. The budget required to perform tasks dedicated to Global Team functions are to be agreed on and approved annually by the Executive Board, and charged to the Fund account as direct costs. Based on a \$500 million US dollar capitalization over 10 years, the Global Team budget should be in the \$15 million US dollar range, which includes the Grant Trustee fee.

The Global Team will be housed by the UN and co-situated with the Investment Manager's team sourced by BNP Paribas and Althelia.

#### **6.2.4 Grant Administrator**

The Grant Administrator acts as Administrative Agent/Trustee for the Fund, providing grant fiduciary oversight and other support services in accordance with legal frameworks set-up between founding partners and donors. The Administrative Agent uses a pass-through modality where each recipient UN and non-UN organization applies its own procedures, provided they meet the minimum requirements outlined in the MoU and Terms of Reference with regards to safeguards and fiduciary principles.

The Trustee is responsible for the following design and administration functions:

- ❖ Support Fund design.
- ❖ Execute and coordinate all administrative and management functions including the receipt of grant contributions and piloting of the programming cycle.
- ❖ Oversee the design, development, and maintenance of an integrated platform for programme design, management, and reporting.
- ❖ Provide advice and recommendations on implementation performance and cash management.
- ❖ Ensure monitoring and control of operational risks (regularly update the risk monitoring matrix).
- ❖ Develop the resource mobilization strategy, if required.
- ❖ Secure contributions from donors.
- ❖ Administer funds in accordance with GFCR regulations, rules, policies, and procedures.
- ❖ Transfer funds according to directives from the Chair of the Steering Committee.
- ❖ Provide donors with financial consolidated reports.

In addition, the Trustee provides real-time financial data feedback generated directly from its accounting system so partners and the general public can track contributions, transfers, and expenditures. The Trustee charges a cost for performing Grant Administrator functions in line with legal and contribution agreements. This direct, identifiable, and incurred cost should not exceed one percent of fund capital.

#### **6.2.5 Fund Investment Manager**

The GFCR will establish a holding company to build robust capital and fee structures that accommodate a growing regulatory environment and measure impact, while providing ongoing support like technical assistance. Holding companies are open-ended vehicles with unspecified investment horizons. They are able to absorb new deals into existing structures, allowing for the provision of capacity support, if required by investees.

The strategy for managing working capital requires the insight of BNP Paribas and Althelia Funds to act as the Investment Advisor/Manager of the GFCR regardless of structure. The partnership established with BNP Paribas enables the mobilization and management of working capital. BNP Paribas' partnership with Althelia Funds, acting as the asset manager, ensures that working capital is dispersed to the best viable business models that can generate conservation impact and return for investors. The United Nations, BNP Paribas and Althelia Funds are jointly developing a partnership agreement (MOU) that described the operational modalities between the grant and the investment windows.

BNP Paribas and Althelia Funds will mobilize impact investments, de-risk international public instruments, and invest directly or through trusted partners in local projects, particularly in SIDS or countries with high level of risks. The invest manager can invest commercially, seeking a level of return that reflects the risk being taken. Furthermore, the investment manager is expected to have capabilities to collect co-financing from public international investors like GCF to lower the overall risk and levels of return. BNP Paribas and Althelia Funds will be supported by the GFCR Global Team and implementing partners through the design of specific metrics to identify, measure, and report on the sustainability and development impact of projects.

It is expected that BNP Paribas' GCF accreditation will attract capital that can absorb some of the excessive risks and also attract impact investment capital. It is expected that concessionary funding can come in the form of guarantees, subsidized and/or subordinated loans, and equities from public investors.

In the proposal narrative BNP Paribas assumes the role of General Partner and Althelia the role of Investment Manager, setting up the investment Fund/holding company and establishing an Investment Committee. This Committee will take investment decisions independent from the Executive Board but in collaboration as defined in the operating modalities. The GFCR will be the sole source of investment opportunities to the Investment Committee in line with the Fund's investment criteria ("guidelines"). Full financial due diligence of investment decisions taken will be at the discretion of BNP Paribas, Althelia Funds and the Investment Committee. The Global Team, in support of reaching Fund objectives, would act in an advisory role to BNP Paribas and Althelia Funds. Regarding the Investment Committee, the Global Team will act as observer—unable to vote on investment decisions or take up a role in fund management. However, the Investment Committee will meet bi-annually, or more if needed, to coordinate with the Grant Window Executive Board to align on priorities, project sites, NGO partners and supported businesses.

BNP Paribas and Althelia Funds must fulfil the mandatory requirements:

- ❖ Satisfied all legal obligations regarding registration, taxation, and other legal charges in their home country.
- ❖ Must not have been found guilty of any crime or liable for civil acts of gross negligence or wilful misconduct related to the exercise of their profession (includes BNP Paribas party and individuals representing the Fund).
- ❖ Must submit documents proving they fulfilled legal obligations in relation to registration, taxation, and other legal charges in their home country.
- ❖ Must have a stable financial standing.
- ❖ Show documented resources, competences, and experience in fund management and doing transactions that potentially contribute to achieve SDG targets.
- ❖ Show documented experience of executing and managing investments in developing countries or states with similar characteristics, plus any additional, relevant experience.

In addition, BNP Paribas and Althelia Funds will describe the due diligence process used to assess, execute, and monitor potential investments, and outline experience in deploying a company's different financial instruments. It is equally important for BNP Paribas to be able to understand how the role relates to the financial instruments outlined in GFCR business models (Annex II) for which they will draw on the expertise of Althelia Funds. BNP Paribas is expected to propose a fundraising strategy, along with approach, timelines, and milestones. They will propose a model for attracting capital with different risk-return profiles, and advise on the ideal size of fund, average size of investments, fees and compensation, and remuneration caps to make the Fund an economically attractive proposition.

### 6.3 Implementing partners

Fund operations will be implemented by UN organizations and non-UN organizations. Non-UN organizations include non-profits with a legal existence in any country. Non-profit organizations with a total annual budget of less than \$200,000 US dollars cannot be contracted directly as implementing partners; however, the organization can access funds as a sub-contractor through organizations that fit the criteria.

Each implementing partner assumes full programmatic and financial accountability for the funds disbursed to it by the Grant Administrator. They are expected to establish a separate ledger account under their own financial regulations and rules for the receipt and administration of funds disbursed by the Grant Administrator. All implementing partners are to carry out activities outlined in the approved proposal, and in accordance with the regulations, rules, directives and procedures applicable, using their organizational standard implementation modalities. Overall coordination, monitoring and evaluation is to be carried out by the GFCR Global Team with implementing partners providing necessary information and data access.

While respecting individual rules and regulations, implementing partners are to concern themselves with risks of fraud, corruption and other contextual and programmatic hazards as identified by the GFCR Executive Board. Implementing partners are expected to be proactive in reporting risks to the

Administrative Agent and the Fund Global Team.

### **6.3.1 UN Implementing Partners**

**UN Environment** – (Formerly UN Environment Programme, UNEP) Is the leading global environmental authority for setting the global environmental agenda, promoting coherent implementation of UN environmental projects for sustainable development, and serving as an advocate for the environment around the world. Its mission is to provide leadership and encourage partnerships by inspiring, informing, and enabling governments and citizens to improve their quality of life without compromising that of future generations. UN Environment is mandated to work on the sustainable management of coral reefs through its Coral Reef Unit, Governing Council decision 21/12, and United Nation Environment Assembly Resolutions 2/12 and 4/13. It will support the GFCR by providing strategic direction for Fund activities, technical advice/expertise on issues affecting coral reefs, and effective solutions to the coral reef crisis.

**UNDP** – UN Development Programme services facilitate access to resources such as knowledge, skills, networks, technology, finance, and business opportunities—elements that can enhance private sector competitiveness while providing incentives and impetus for a bottom-up transformation towards sustainable business practices. Because UNDP has a convening role at all institutional and systems levels it is well situated to build multi-stakeholder engagements across public and private sectors, turning dialogue into action. UNDP efforts in the blue economy are critical for bringing actors together to deliver development solutions, whether on the protection or investment side. Part of UNDP convening power comes from its presence at the country level, which makes mapping potential markets, including identifying local clients, simplified and feasible.

Furthermore, UNDP is situated to support deal flows, identifying those that are vulnerable but receptive, where government is on-board contractually to help, and where behavioral change and broader advocacy campaigns can support implementation. Through community awareness and outreach, UNDP can make sure appropriate financing instruments make it to the fore—from marketing to education, investment monitoring and evaluation, UNDP communicates best practices to scale success.

**UNCDF** – The capital investment agency for the United Nations, UNCDF primarily focuses on initiatives for the world’s 47 LDCs. With a capital mandate and instruments, the organization designs finance models to unlock public and private resources to reduce poverty and support local economic development. UNCDF attempts to reach pockets of poverty where available resources for development are scarce and financial markets are not fully developed, resulting in skewed benefits and excluding large segments of a population. Involved in advocacy, advisory services, and investments, UNCDF is most active in the thematic areas of financial inclusion and local development. UNCDF will provide technical assistance to GFCR and support the development of blended solutions at the local level. In the event that a donor such as a Member State would like to support the GFCR with public investment capital in

addition to traditional grants, UNCDF will be able to issue debt instruments such as guarantees, concessional loans, and recoverable grants. Private investment and GCF capital will be managed solely by BNP Paribas as the Investment Manager.

### **6.3.2 Non-UN Implementing Partners**

Implementing NGOs have expertise and access to partners critical for achieving the GFCR vision and SDGs. The Fund will support NGOs with a proven track-record of making positive gains for coral reefs or that have the capacity to develop blue economies. To minimize transaction costs the GFCR will aim to partner with only ten to twenty non-UN implementing partners with strong reputations and expertise.

Establishing an initial pipeline of investment-ready projects is a critical first-step for the GFCR. A landscape analysis found that outside sustainable fisheries, there is a lack of blue economy projects being designed and implemented. To develop a pipeline of projects that will serve as proof of concept or qualify for scaling-up, the GFCR will look to NGOs already active in developing market-based solutions for coral reef conservation in reef-dependent communities.

The following are examples of potential implementing partners the GFCR could partner with; all are active in marine conservation and/or applying blended finance tools to marine environments.

**Blue Finance** has a track-record of establishing blended finance solutions for the management and sustainable financing of MPAs. The NGO implements collaborative management agreements between non-profit partners and local governments, providing technical assistance, as well as management and marketing expertise. In the Dominican Republic, Blue Finance designed a 10-year agreement between the government and an SPE composed of local NGOs, local tourism businesses, and other associations to co-manage an 8,000km<sup>2</sup> MPA. The project secured major debt financing from impact investors and blended this with philanthropic grants that are repaid via revenue generated from tourism user fees.

**Blue Natural Capital Finance Facility (BNCFF)** is a newly formed finance initiative supported primarily by the government of Luxembourg and managed by IUCN. The initiative transforms coastal conservation projects into investable assets, making them attractive for private financiers. They address global coastal ecosystem challenges by enhancing biodiversity and ecosystem services and leveraging blue capital to close market gaps. BNCFF current support projects in aquaculture and plastic recycling. Their expertise and network make them well equipped to develop blue bond and carbon initiatives.

**Blue Ventures** is a science-led social enterprise that applies commercial strategies to marine conservation to maximize financial, social, and environmental wellbeing. Blue Ventures works in the Indian Ocean, Southeast Asia, and Caribbean to rebuild fisheries, create learning networks, establish blue carbon and aquaculture projects, and promote small-scale ecotourism to create alternative sources of income for fishery dependent families. The organization works with local communities to build their capacities to sustainably manage marine resources.

**Blueyou** is a consulting company with a mission to transform global seafood production in service of securing a more sustainable future. They provide direct access to consumer markets for small-scale fisheries, and offer technical assistance and capacity building for sustainable fishery management. Blueyou empowers local fishery stakeholders and authorities. For the seafood business, they provide traceability assurance and supply chain integrity with direct sourcing access to selective small-scale fisheries. Their actions support the livelihoods of coastal communities, promote sustainable resource management, and deliver high quality seafood to buyers.

**Conservation International** engages its partners to help coastal communities and national governments obtain environmental and societal benefits by designing marine conservation initiatives. The organization creates tools for ocean policy, fisheries and aquaculture, and supports the creation and management of ocean areas important for local communities. In the Pacific, Conservation International supports the Pacific Oceanscape initiative in pursuing the sustainable development, management, and conservation of 10% of the world's oceans.

**The Nature Conservancy** collaborates with partners on new protection measures to reduce threats and implement coral reef restoration projects. By applying a blend of scientifically-relevant interventions, financial innovation, policy development, and capacity building it accelerates coral reef conservation. Their geographic scope covers projects off the coast of East Africa, Southeast Asia, Australia, the Pacific and more. In 2014, The Nature Conservancy formed NatureVest, a dedicated conservation finance platform for developing investable conservation deals and attracting private investment. In 2018, NatureVest and partners structured a debt-for-adaptation swap which funds the Seychelles Marine Spatial Plan.

**World Conservation Society** is an NGO that aims to conserve the Earth's largest wild places in 15 priority regions that account for more than 50% of global biodiversity. The Society helps protect 90% of coral species as its scientists conduct monitoring at over 900 coral sites. To protect coral reefs the NGO drives international collaboration to strengthen reef fishery management and evaluate the impact of conservation investments around the world. World Conservation Society partners with NGOs and local communities to implement MPAs and increase sustainable coral reef fisheries.

**World Wildlife Fund** is an international NGO active in the field of wildlife preservation and reducing the human footprint on the environment. WWF implements coral reef projects in the Coral Triangle, Mesoamerican reef, coast of East Africa, and Southwest Pacific. The NGO identifies resilient reefs and reduces local threats in priority locations while supporting dependent communities. WWF partners with the Coral Reef Rescue Initiative to protect coral reefs around the world.

## 6.4 Contributors

Contributions to the Fund are accepted from Member States, private foundations, international financial institutions, regional bodies, intergovernmental organizations, non-governmental organizations, private sector and individuals. Prior to accepting a contribution from a non-state actor, the Grant Administrator and Global Team conduct due diligence to ensure planned contributions are in line with relevant UN

policies. Due diligence may include consultations with the Executive Board and participating UN organizations.

Contributors are encouraged to provide un-earmarked funds; however, contributors may earmark their investments for a specific country or outcome. Earmarked finances will be reflected in the contribution agreement.

Contributions can be accepted in any fully convertible currency as long as deposited into the bank account designated by the UN MPTF Office. The value of a contribution payment, if made in other than US dollars, will be determined by applying the operational UN rate of exchange for the date of payment.

#### 6.4.1 Capitalization projection of the GFCR

Although the following are estimates, they are presented in the terms of reference to visualize how different public-private capital can be ultimately raised and deployed. Estimates provide capitalization targets, minimum viability, and reasonable annual portfolio margins.

\$500 million	Overall ambition and target level for a global Fund like the GFCR
\$125 million	Amount of public and private grants mobilized and programmed over 10 years
\$375 million	Amount of public and private investment the GFCR aims to redistribute
\$60-65 million	Amount of grants programmed over 4-5 year investment cycles; set as a target for pledging events
\$5 million	Minimum cash deposit needed to set-up the GFCR

As a public-private partnership, the GFCR attempt to match private and public grants, giving an additional target of \$25-40 million US dollars for both Members States and philanthropists in 2020 including a junior tranche for the Investment Window. Grants should be contractually committed for at least two four to five-year programming cycles.

**Table 3: Capitalization projection 2020-2030**

GFCR Technical Assistance & Investments Blending Model						
	First Close			Second Close		
	Technical Assistance (Grants)	Fund (Investments)	Total	Technical Assistance (Grants)	Fund (Investments)	Total Capital commit by end of 2nd close
Private Capital Fundraised	25	45	70	37	180	287
Public Capital Fundraised	25	15	40	38	35	113
% Junior Tranche requested		30%			20%	20%
GCF - Concessional Loans		0	0			100
Investment Window Total						375
Grant/TA Window Total						125
Total Capitalization						500

**The \$500 million US dollar target was set by a group of experts** to position the Fund as a blended finance flagship for SDG 14. The perfect level of ambition for a global instrument, it will inject sufficient capital into the GFCR to test and scale-up initiatives that can tackle the multiple drivers affecting coral reefs in a comprehensive and sequenced approach.

**The \$125 million US dollars in public and private grants** will be mobilized over 10 years. This benchmark is to be highlighted at all pledging events. Donors will consist of contributions from Member States and private philanthropy foundations, and high-net-worth individuals. Donors will not be requested to commit for a 10-year period. Investment cycles and replenishment periods are planned in three to five-year increments (with some only able to commit on an annual basis). A minimum cash deposit of \$5 million is needed by December 2020 to operationalize the GFCR. Following that, it is envisaged that an average of \$10-20 million US dollars be deposited into the Fund on an annual basis.

The Fund will program \$10-20 million US dollars in grants for projects every year. A midterm evaluation and second replenishment are planned for 2024. This will allow for revisions to the theory of change and overall approach to be made and, if needed, a chance to increase contributions or mobilize new donors.

The Fund partners including the United Nations will joint efforts to mobilize donors funding to support the junior capital. It will be critical in the financial de-risking of the investment window. The objective will be to raise a **circa \$50 million US dollars of donor capital (20% Junior Tranche)** to support the total Private Capital of \$250 million US dollars. This would be staged as presented in the table above between a first and a second close (estimated timelines are Q1 2021 and Q4 2023). The first tranche would have a slightly higher junior tranche to start (30%). In addition, the GFCR is preparing through BNP PARIBAS a submission to the GCF for a \$100m co-financing as concessional loan modality. The detail modality for the junior capital can be discussed with each donor, with the possibility to a revolving mechanism if the source is a grant.



### 7.1 Programmatic arrangements

Funding will be programmed through a phased investment cycle. Taking into consideration the large amount of envisaged initiatives, fragmented pipeline, competitive priorities and innovative Fund approach, the Global Team will be required to structure and incubate the GFCR portfolio approach. The Global Team will develop a 10-year Fund Investment Plan for Executive Board consideration, allowing flexibility for funding allocations and sequencing. The following arrangements are guiding principles to build a \$500 million US dollar global portfolio. It combines a conservation and market-based approach, which is different from standard Trust Fund operating procedures whose arrangements are not centered around cycles of open calls for proposals.

This approach assumes the upfront disbursement of resources to the Global Team so it can carry out strategic studies and oversee portfolio development, provide technical assistance, policy advice and monitoring, and deliver quality assurance for each programme under its purview.

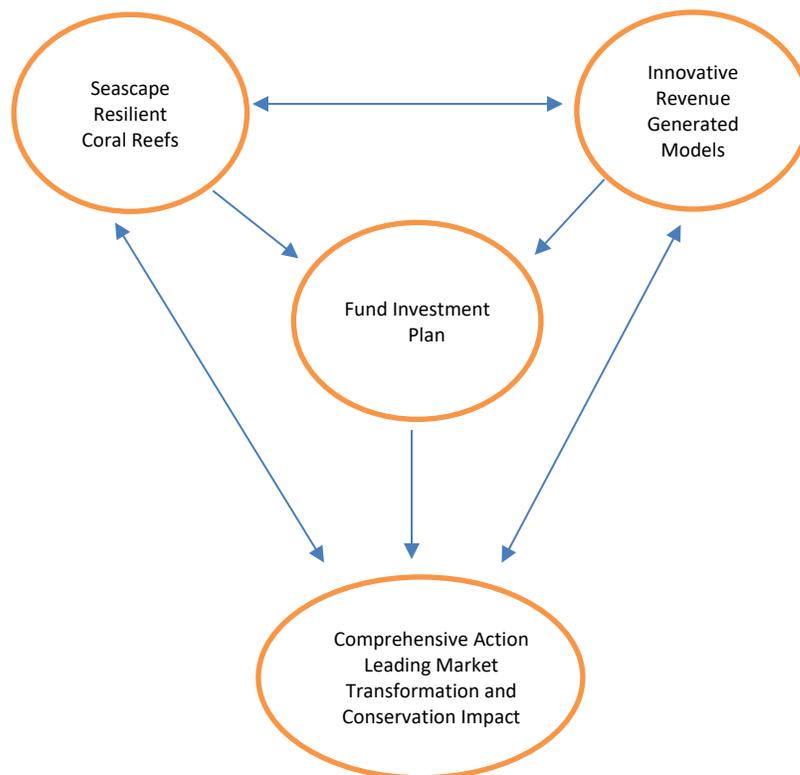


Figure 10: Programmatic approach of the GFCR

## Phase I: Preparation of the Fund Investment Plan

Site identification will be carried out by the Global Team with the support of Fund Partners. UNDP, UNEP, Member State donors, the Prince Albert II of Monaco Foundation, the Paul G. Allen Family Foundation, other donors, and those in the ICRI network will be consulted to identify priority coral reef and associated ecosystem seascape projects based on biodiversity and conservation criteria described under Outcome 1 of the Theory of Change (Section 5.3). The 50 Reefs initiative, with its climate-resilient reefs rationale, is used as a reference point (Appendix III). The following criteria are covered by the identification exercise:

- ❖ Define metrics for priority coral reefs and associated ecosystems (% of live coral cover, x-amount of hectares to be protected, level of fish density, biodiversity status ratio, sea current and land/seascape typology and topography, etc.).
- ❖ Apply Vulcan satellite mapping and monitoring systems when possible.
- ❖ Identify drivers negatively affecting coral reefs and associated ecosystems, including recommendations to mitigate (e.g. overfishing or agricultural runoff).
- ❖ Identify and validate targeted interventions, providing justification.
- ❖ Complete an area-based financial ecosystem evaluation.

In addition to environmental impact site selection criteria, BNP Paribas and Althelia will consult the Global Team on their ability to operate in selected sites. As these two entities will be deploying the investment capital, it is critical they have the mandate and capacity to operate in selected regions.

The Global Team will circulate an expression of interest to carry out an inventory of innovative and scalable revenue generated models. This call has no geographic boundaries or outcome restrictions and be widely advertised. The objective is not to allocate GFCR financing but rather scan existing opportunities and frame future partnerships. The call will be open to any organization and the following criteria will be covered in the inventory:

- ❖ Impact on drivers and coral reef protection
- ❖ Proposed blended finance mechanisms and overall ratio of grant/working capital
- ❖ Market analysis, revenue potential and financial sustainability
- ❖ Potential for scaling-up and replication
- ❖ Scale of positive impact for coastal and reef-dependent communities
- ❖ Gender and social inclusion reflected in the business model

Based on research findings, a GFCR Investment Plan will be elaborated by the Global Team or a third party that reflects the appropriate expertise that needs to be recruited. The plan will refine the scope of the Theory of Change, prioritize priority seascapes, and highlight the financing strategy for individual funding cycles. The plan should set specific investment objectives and propose an adequate mix of implementation modalities, while also drawing down a comprehensive plan of action with a clear geographic and thematic scope, timeline, expected deliverables (incl. indicative costed outputs), and associated financial allocation envelope that takes co-financing into consideration. The Fund Investment

Plan is developed in close collaboration with BNP Paribas and Althelia and approved by the Executive Board. A strategic tool to demonstrate needs and provide a clear and focused scope for donors and implementing partners, the plan reflects comprehensive actions that simultaneously address the drivers of coral reef degradation in targeted locates, while proposing market-based approaches for generating adequate and sustainable revenues.

Once the Investment Plan is approved by the Executive Board, it will be published as a reference document with statements of intended contributions to the SDGs and Convention on Biological Diversity targets reflected.

## **Phase II: Project Development**

At any time, Implementing Partners can submit online concept notes to the Global Team based on geographic and programmatic priorities in the Investment Plan. The Global Team may decide to directly select implementing partners based on the pre-selection during the initial expression of interest, or advertise an open call for proposals over a specific period. Calls can be limited to specific outcomes/outputs or geographic scopes. The Executive Board can give instructions to the Global Team about this matter.

The minimum requirement for project proposals are: 1) Expected results and indicators are aligned with strategic objectives of the GFCR, 2) proposed activities are identified in consultation with beneficiaries, and 3) indicative budgets and financial tools are presented in narrative format, this includes a risk analyses, proposed executing partners, and geographical scope.

A list of criteria can be found in Annex I and a template will be available on the GFCR website and MPTF Office (Administrative Agent) Gateway.

### **Proposal assessment process**

#### *Concept note screening*

The Global Team conducts initial screening and assessments of concept notes. If accepted, fully-detailed project document must be submitted for review.

#### *Technical review of detailed project documents*

The Global Team conducts a systematic and comprehensive technical assessment of full project proposals. If **Technical Advisory Panels** are established they should consist of authoritative experts from outside the UN system to assist with technical analysis. Projects cleared by the Global Team are shared (executive summary and project document) with the Executive Board through a dedicated **online management platform**. The Executive Board has 10 business days prior to any decision process on submitted proposals.

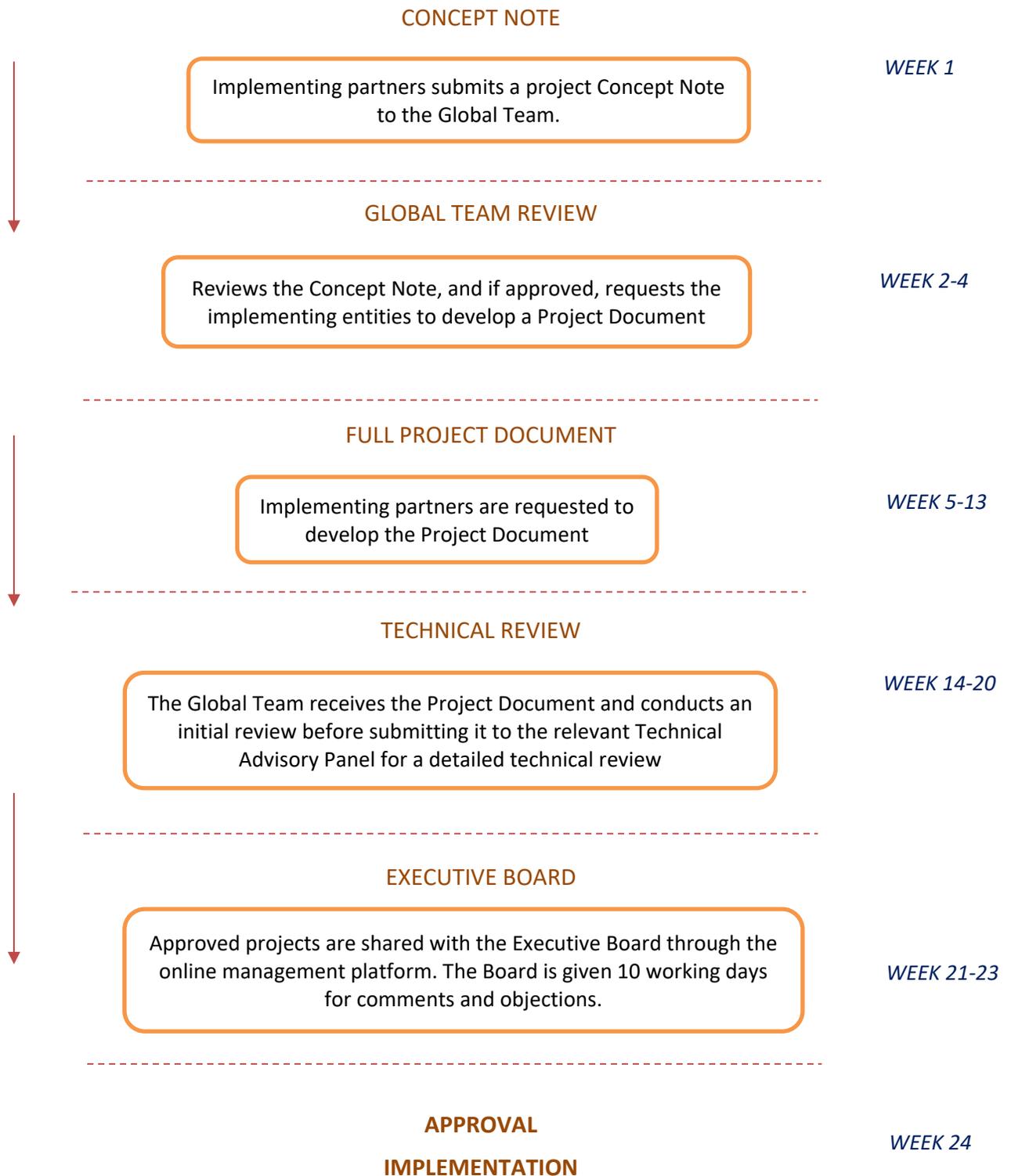
#### *Approval*

Proposals are approved by the Executive Board over the online platform and/or in regular meetings. If no objections are raised by the Executive Committee within the set time frame projects are approved. In case of objections, proposals are to be reviewed again in the upcoming Executive Board meeting.

*Circulation of approved projects*

The Global Team shares a final list of approved projects with the Executive Board and relevant counterparts. The entire process is transparent and all relevant documents are available online. The overall process from concept clearance to project development and approval of projects should not take more than six months.

## Project development schematic



## Gender equality and women's empowerment

Gender equality and women's empowerment are programmatic principles embodied in all UN programmes and initiatives. The GFCR must ensure adequate attention is paid to these principles in all of its programming. The Fund recognizes that no development initiative is gender neutral, including marine conservation and blue economy, and the needs and realities of women, men, boys and girls must be adequately addressed to avoid gender-blind interventions. Although attention and action for gender equality and women's empowerment is expected by all partners, it is the overall responsibility of the Global Team to support the development of gender sensitivity, expertise, knowledge and capacity at points of programming. This might include:

- ❖ Ensuring gender parity among staff, and representation at all governing levels of the Fund. A request for similar representation can be made for implementing partner organizations to enforce.
- ❖ Ensuring that gender mainstreaming is included in any operational guidelines.
- ❖ A gender analysis must be included in the development of the Investment Plan.
- ❖ Guaranteeing that GFCR governing principles promote equitable access and benefits for women and men by way of promoting women-led or focused organizations as implementing partners.
- ❖ In project/programme implementation, advocate for:
  - Consultations with women stakeholders in terms of project development.
  - Inclusion of technical, social, and gender expertise across project planning and implementation.
  - Establishment of sex-disaggregated baselines and indicators to measure effects on women.
  - Sufficient financial resources allocated towards gender equality and women's empowerment.

## 7.2 Risk management strategy

The objective of a risk management strategy is to achieve objectives while taking into consideration the risks and context in which a project operates. Based on identified risks, the Global Team and Assets Manager will develop a risk management strategy to accelerate implementation and increase impact; ensuring that interventions meet "do no harm" principles, verify that resources are used for forecasted purposes, and improve risk management capacities.

The risk management strategy will:

- ❖ Develop a shared understanding of risks faced in targeted locations or markets to not only local shocks but global shocks that could disrupt supply chains and revenue streams
- ❖ Define risk appetite or tolerance (risk profile)
- ❖ Identify known risks and risk-holders
- ❖ Establish policies regarding identified risks

- ❖ Determine risk treatment through mitigation or adaptation measures (e.g. control risk spread)
- ❖ Establish information strategies and common messages about risks

Every programme approved under the GFCR shall comply with the Fund risk management strategy. Adherence will be determined via selection criteria used during the programme review. The risk management strategy is not a replacement for programme risk evaluations and/or management procedures.

### 7.3 Monitoring, evaluation, and reporting

#### Reporting

For each approved project implementing partners provide the Global Team and Grant Administrator with narrative progress reports and financial annual statements that have been prepared in accordance with each organization's accounting and reporting procedures, and as agreed upon in the legal agreements co-signed by the Grant Administrator.

Annual and final reports are results-oriented and evidence based. They give a summary of results and achievements compared to expected outcomes in the programme document. Programmatic and financial performance indicators are monitored at outcome and output levels.

#### Monitoring and evaluation

The Global Team is responsible for the continuous monitoring and evaluation of programmes, providing guidance to implementing partners on performance indicators and methods of data collection and analysis. The Global Team consolidates programme-level information in a central, results-based management system. Performance data is gathered at outcome and output levels, linking program-related and financial result indicators so evaluators can measure GFCR efficiency and effectiveness. On-site monitoring plans will need to be developed and carried out by UN agencies and implementing partners using funds from the grant window. On-site UN agencies and implementing partners will share monitoring and evaluation reports with the Global Team.

#### Output level

Output indicators are specific to each programme and reflect changes in skills and abilities, or the new products and services that can be sourced with resources provided by the Fund. Evaluating performance against each output indicator involves taking external factors into account alongside pre-identified assumptions and risks. Implementing organizations are responsible for meeting the first level of results, collecting data, and reporting process/findings.

#### Outcome level

Signature outcome indicators are defined in the Result Framework (Annex IV) and outlined in the Fund Investment Plan. Implementing partners are obligated to report against selected outcome indicators. The evaluation of performance indicators take external factors into account, as well as previously identified assumptions and risks in each theory of change. Gathering data is a mandatory element to be reflected in every annual report drafted by implementing partners.

External evaluations are required to assess programme performance and at the mid-term and, if necessary, around the time of programme closure. Evaluations are used to analyze programme performance and demonstrate the validity of theories of change. GFCR mid-term and final (independent) evaluations will be commissioned by the Executive Board to assess overall Fund performance, inclusive of design, management, and functioning against global objectives. In the evaluation specific recommendations may be provided to the Executive Board to guide revisions to the theory of change, governance arrangements, and/or programming cycles. The GFCR Fund-level evaluation(s) will follow the UN Evaluation Group norms and standards. The Executive Board in consultation with the Advisory Committee will issue the management response to the evaluation(s) at the Fund level. The cost of the evaluation will be covered from the contributions to the Fund.

### **Transparency**

The MPTF Office website, Gateway (<http://mptf.undp.org>), is a web-based service portal that provides real-time financial data drawn directly from the UNDP accounting system. Once established, the GFCR will have a separate page on the Gateway portal so partners and the general public to follow-up on contributions, transfers and expenses, and download documents and reports.

The Global Team and Administrative Agent will ensure GFCR programmes and actions are posted on the Gateway portal in a timely fashion and, from their side, implementing partners are to take appropriate measures to promote the Fund and leverage the visibility of contributor results. Information shared with the media regarding beneficiaries, official press releases, reports and publications must acknowledge the role of the Fund. The GFCR website will also provide regular updates.

### **7.4 Amendments, duration and termination**

The present Terms of Reference can be modified at any time by the Executive Board.

The Global Fund for Coral Reefs is to run for a duration of 10 years with an end date of December 2030. Extensions may be approved by the Executive Board in consultation with Participating UN Organizations and the Administrative Agent. The Fund will terminate upon completion of all funded programmes and following satisfactory conclusion of all commitments and liabilities—the latest being December 2030.

Notwithstanding the completion of initiatives financed by the Fund, any unutilized balances will continue to be held in the GFCR account until all commitments and liabilities incurred through programme implementation have been satisfied and programme activities are brought to an orderly conclusion. Any balance remaining in the Fund account or participating organization ledgers will be used for mutually agreed upon purpose by donors, the Executive Board, and Administrative Agent.



**Global Fund for Coral Reefs project selection criteria**

Category	Criteria	Weight in category	Weight of total
1. Mandatory criteria	1.1 Submission is appropriate, complete and follows guidelines outlined in the call for proposal	Pass/Fail	
	1.2 Feasible timeframe (2-8 years) with quantitative milestones on a semi-annual basis	Pass/Fail	
	1.3a Clearly delineated impact metrics positively affecting coral reefs and associated ecosystems (e.g., x hectares protected, x% increase in fish density, x% increase in biodiversity, etc.)	Pass/Fail	
	1.3b Drivers negatively affecting coral reefs and associated ecosystems identified and clear actions to mitigate (e.g. overfishing: impose a no-take zone, agricultural runoff: introduce upstream regulation and enforcement)	Pass/Fail	
	1.3c Monitoring plan adequately described tied to delivering proposed impact metrics and appropriately resourced	Pass/Fail	
	1.4 Clearly delineated impact metrics for positively affecting coastal and reef-dependent communities (e.g. providing alternative incomes for xx fishers, coastal protection for xx households, etc.)	Pass/Fail	
	1.5 Co-investment from local sponsors (can be in the form of funding or in-kind/staff time)	Pass/Fail	
	1.6a Revenue generation schemes are included	Pass/Fail	
	1.6b Already revenue generating	Pass/Fail	
	1.6c If Point 1.6a is 'Fail' then does the proposal include a clear, feasible route to market and eventually secure financial sustainability?	Pass/Fail	
1.7 Clear budget with overhead/management accounting for no more than 18% (breakdown by outcome and output)	Pass/Fail		
2. Relevance	2.1 Relevance of approach according to GFRC vision and the SDGs (drivers addressed and use of blended finance mechanisms)	X/5	75%
	2.2 Rationale for the proposal and potential for scaling-up and replication	XX/10	

	2.3 Theory of Change (clarity and quality of)	XX/10	
	2.4 Conservation and biodiversity outcomes are project priorities and tied to milestones appropriately timed and measured (clearly stated; % increase in live coral cover, reduction of invasive species, increase in fish density, hectares protected, reduction in pollution, etc.)	XX/20	
	2.5 Blue finance mechanisms are viable and include appropriate timeline to implementation (business models using blue bonds, debt, guarantees to attract investment, etc.)	XX/15	
	2.6 Scale of positive impact for coastal and reef dependent communities. (i.e. number of benefactors and type)	X/5	
	2.7 Addresses multiple drivers of stress on coral reefs and associated ecosystems (e.g. actions taken to reduce poor water quality, as well as destructive fishing practices) with clear metrics, timelines, and route to delivery	X/5	
	2.8 Project aims to address issues of gender and social inclusion with clear metrics, timelines, and delivery routes (e.g. more economic opportunities for women)	X/5	
3. Delivery and operations	3.1 Roles and responsibilities (clarity and appropriateness of governing and policy frameworks) with local employment favoured and gender balanced	X/5	25%
	3.2 Capacities (technical capacities and/or abilities) to access, readiness of actors involved, baseline metrics, capacity for monitoring and reporting impacts	X/5	
	3.3 Duration and milestones (clarity and appropriateness of), with risks and mitigating factors delineated	X/5	
	3.4 Budget adequacy (cost-efficiency and appropriateness)	X/5	
	3.5 Stage of development—is the concept past the idea stage, demonstrated by financing secured, signed partnership agreements, signed contracts with the community or government, IP produced, or other contractual evidence	X/5	



Given the diversity of coral reef ecosystems and limited, *proven*, scalable revenue streams, the legal structure of the Fund is flexible, long-term, and lean in terms of costs and resourcing. While sustainable finance has grown via assets under management, geographical reach, and investor base schemes it has been notably slow to adopt structures aligned to the needs of conservation-focused investments.

Fund structures, the most common conservation finance vehicles, have often left investors and investees dissatisfied when set against the cost of doing business. The typical fund structure is closed, distributes all profits in 7 to 9 years, forces holdings to liquidate within that period, and provides limited non-financial support to investees.

By contrast, the Coral Reef Fund can establish a holding company to allow for patient capital and fee structures that accommodate a growing regulatory environment and impact measurement, while providing ongoing support like technical assistance. Holding companies are open-ended with unspecified investment horizons for holdings, simplifying the process of adding deals as they manifest, as well as allowing for the provision of capacity support by investees, if needed.

The cost structure of funds can be prohibitive. Given the expectation for increased regulatory requirements, at the request of governments and investors, the cost of managing small funds may prove prohibitive, especially for relatively complicated underlying holdings as is the case with coral reef investments. This is one reason why a market gap exists for financing blue economy projects. Global Fund for Coral Reefs investments are designed for the long term:

- ❖ Unlikely to have a 2-5 year average investment period or an exit within that window.
- ❖ Less mature than private equity targets in terms of business model formation, revenue generation, and operating experience, they benefit from greater support and longer holding periods.
- ❖ Requiring ongoing fundraising as new opportunities surface; holding companies can be open to ongoing fundraising cycles, if needed.
- ❖ A diversity of structures in the underlying portfolio means that projects generating financing enable the holding company to deliver dividend payments. This compensates for longer term holdings and a 'patient capital' approach desirable in impact investing.

Addressing the issues affecting coral reef health requires new sources of capital where traditional markets have failed—if tried at all. Using this vehicle is being discussed with thoughtful, mission-aligned investors with longer-term horizons for impact and financial returns, but still accommodate the business models below. GFCR instruments will ultimately be blended given the unique profiles of potential

investees, as they necessitate a range of flexible financing modalities across risk/return expectations of investors and donors.

### **Sourcing an Investment Manager**

Managing the day-to-day work of financial instruments, including front and back office operations, administration and execution, requires the expertise of an investment manager. Although current partners bring a specific set of skills, but often not investment management, the goal is to partner with a global commercial bank and review proposed models for managing selected investment vehicles.

Based on proposed models, we will consider using strategic partnerships and geographically-specific managers. For example, identifying deal flow in Fiji is best done through a local investment vehicle with a manager with knowledge about the region.

The GFCR will build a \$40 to \$50 million US dollar annual portfolio with a broader pipeline behind it, consisting of deals in the \$2 to \$5 million dollar range, as defined by the theory of change. The financial partner/investment manager should procure working capital ex-ante, which is to be supplemented by risk capital secured by the Fund and other partners like the GCF.

#### **The Coral Reef Fund Pipeline**

The ambition is to build a robust and investable pipeline, blending financing sources and revenue streams. One investment model under consideration at the GFCR is the marine protected area. Globally, there are thousands of designated MPAs but they generally face limited funding, inadequate management, lack of enforcement tactics, and are often designed to effect limited community impact. This means existing MPAs receive limited support from affected communities, governments, and private businesses. However, from an impact perspective, MPAs have proven successful in protecting biodiversity and much-needed ocean habitats, making ecosystems more resilient in the face of climate change and ocean acidification.

MPAs form an important part of our investment pipeline, helping stakeholders identify opportunities with functioning basic infrastructure and governance but that need working capital to improve services, marketing, and engagement with the community. The bottom line is to strengthen the value chains that lead to revenue generation.

Returns on investment in protection are proportional to the size of the investment. The greater the size and the level of protection, the greater the benefits. [Research commissioned by WWF in 2015](#) found that expanding and effectively managing MPAs for habitat protection—even 10% to 30% of marine or coastal areas—can result in benefits worth more than three times the cost of implementation. The same study found the economic rate of return in expanding networks of MPAs to be as high as 24% and greater than the discount rate (3%) in every scenario considered.

We envision revenue streams from ecotourism, dive fees and licensing, park management and leasing, fisheries (improved catch and fish populations), and potentially CO<sub>2</sub> credits as the cherry on the sundae (thanks to improved sequestration). The [examples](#) highlight potential revenue models like \$1.2 million US dollars generated per year in Bonaire due to dive fees, or a Belize management agency for MPAs that generates entrance fees from the more than 40,000 annual visitors (to cover 60% of operating expenses). A company with more than \$2 million in assets that adopts a Blue Finance model can support projects that offer a minimum 8.5% IRR after typical capital expenditures for MPAs of \$3.5 million US dollars with an investment spread of two-years.

## **Included business models**

A quick note on **cashflows**: Because the blue economy is only now maturing, proposed revenue streams in some of these models might be limited by geography, demand, supply sophistication, and market factors. Most sustainable revenue streams come from tourism and visitor taxes. Donations are another source of financing, which are sizeable and predictable in some cases and, as a result, can be modelled as a sustainable cashflow.

**Grants** meanwhile have formed the backbone of conservation, particularly in marine areas. We anticipate a significant portion of the vehicle to be grant financed, which is necessary for capacity building, convening, marketing and communication, and (most crucially) engaging stakeholders like the government. At GFCR we intend to test innovations, like reef enhancement and regrowth, using grants as a method of financial support. Grants are necessary for de-risking the crowding of capital and to also take these models to new markets. Once feasibility studies are complete (often also grant funded), post-execution monitoring and evaluation of milestones must be financed, along with identifying impacts and exploring cross-cutting components like gender equality in marine protected areas and how women may be adversely affected.

The GFCR will disburse grants on a limited basis as the objective of the vehicle is to prove models that are sustainable from financial and social perspectives, and that have built-in measures to ensure grant funding is not needed for the life of the investment. Furthermore, grant financing can assist associated enterprises with financial skills, back office support, accounting, and marketing. Social enterprises may require more handholding than non-impact focused enterprises.

**Example/potential application:** Traditional investors are not in the business to own, operate, or mentor companies, which is why the GFCR will act as the bridge—someone has to take on the role if we hope to accelerate coral reef focused enterprises. Target investees—particularly early stage businesses in LDCs—will benefit from investor knowledge and support more than they would under a traditional fund. Holding companies offer flexible solutions, blending finance, distributing grants, or combining them with other instruments to own and operate an investment or ‘buy and hold’, and provide ongoing support.

Grants are the traditional model used by the United Nations, GEF, and GCF for policymaking, de-risking, and testing innovations for addressing the SDGs. In the case of coral reefs, the scope for grant financing is wide and often necessary for basic services like capacity building (supporting the government in developing ecosystem-service based models), education (better engaging tourists for sustainable use of reef ecosystems), technical assistance (training local communities to repair reefs post-disaster), and policymaking (driving conservation-linked regulations, measurement and enforcement). Grants have been used by UNDP in ocean and coral reef-linked projects around the world.

In **recoverable grants**, non-profits agree to repay investors/donors the principal plus interest based on certain financial or programmatic milestones. They flexibly bridge philanthropy and investments.

Recoverable grants are also tax deductible for American donors (in France the model is *Titre Associatif*) and repayment is only required under certain circumstances. Designed specifically for early-stage investments, these grants are best for entrepreneurs who need access to risk tolerant and inexpensive capital. Recoverable grants are modelled on convertible notes and come without an expiration date, where the conversion occurs only at valuations greater than a given threshold. The objective of the recoverable grant is to recycle investment capital from successful ventures back into the vehicle and support other enterprises. In that respect, it equitably integrates a modest financial return by focusing on environmental value creation. For more mature projects where repayment is expected, project finance is more appropriate. Traditionally, this type of instrument is usually provided to special purpose entities, such as resource exploration or pre-drilling phases (geothermal).

**Example/potential application:** A recoverable grant can help develop a new recreation service linked to the reef, like wildlife excursions, snorkeling in an area that is not yet an MPA, or making improvements to high conservation value/low tourism value areas. The grant finances new services and functions that, if successful, repay debt through fees charged for services. If repayment is foregone, fees generated can be used for monitoring and evaluation, research, or improved park management.

A **guarantee** is an obligation undertaken by a guarantor to satisfy the payment of a debt or fulfilment of a contractual duty on behalf of a debtor that fails to pay or comply with the terms of a contract.<sup>37</sup> Guarantees complement the use of grants and expand the scope of financial instruments currently available to coral reef projects. Notably, guarantees provide more rational choices about appropriate financing tools used in project development. Guarantees should not be designed to make un-bankable projects viable but be thought of as addressing market imperfections, and provided to commercially viable projects that face additional barriers to financing. Activities eligible for guarantee financing must show positive financial rates of return. Striking the right balance between the development impact of a guarantee and financial sustainability is critical in the design and implementation of guarantee transactions. The Global Fund for Coral Reefs intends to produce greater environmental and development outcomes on-the-ground in support of coral reef growth and protection.

**Example/potential application:** Offering guarantees is in line with the UN vision of evolving from "funding" to "financing" models. A clear example of guarantees being put to work for the oceans is the World Bank (from the IBRD) guarantee of \$5 million in the form of a blue bond for the Seychelles to support repayment to investors.

**Pay-for-performance instruments, outcome-based financing, results-based financing, and impact bonds** all refer to instruments that link financing to pre-determined results, with payments made upon verification that agreed-upon results have been delivered. Results-based financing helps improve

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<sup>37</sup> UNDP/GEF Climate Change Advisory Note: Guarantees.

supply- and demand-side performance across sectors, with limited application to the blue economy to date, but certainly viable. Payments are made based on the quantity and quality of goods or services delivered after verification. Evidence from these interventions have been shown to strengthen core conservation functions, and increase efficiency and accountability. We can easily envision a bond that links coral regrowth to a healthy monetary payout.

**Example/potential application:** This new business model for UNDP supports the structuring of opportunities in administrative (MPTFO) and advisory (Executive Office) capacities, including impact measurement. With respect to the blue economy, results-based financing has several applications that warrant exploration; these include ocean and coastal biodiversity conservation and restoration, and youth unemployment programmes that focus on blue economy jobs and training.

**Debt models.** For SMEs with revenue generating business models (or potentially revenue generating) but that need upfront financing for capex or opex, debt financing is an ideal solution. In this vehicle, tenors are long and rates sit at market or below depending on the country. For maximum efficiency countries of operation should have very high interest rates (6% in Fiji or 9% in PNG) that are generally difficult for small customers to access.<sup>38</sup> Openness to steady or current income as a replacement for, or complement to, short-term capital appreciation has enabled debt financing solutions and diminished liquidity barriers. Debt funds now outnumber equity in impact investing (on an asset weighted basis, including 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 in early stage, unproven, or untested markets is at risk.

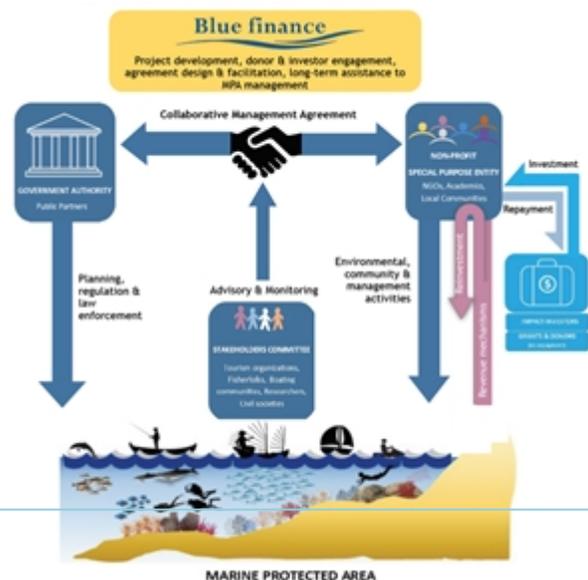
**Example/potential application:** Debt financing lends itself easily to concession models and MPA development (in mature markets). Two types of tourism concessions, commercial and management, can be debt financed but commercial concessions generally generate greater income because higher interest rates are charged at the outset. In commercial concessions a concessionaire pays a fee for the right to undertake a specific operation in a protected area that is in accordance with a 'user pays' principle. In management concessions, usually structured as PPPs, a concessional authority (usually

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<sup>38</sup> See, <https://tradingeconomics.com/fiji/lending-interest-rate-percent-wb-data.html>.

government), outsources responsibility for the management of a protected area or other site to an agent with greater capacity to undertake oversight. Terms are usually fixed upfront for expected use, fees, and repayment.

Partners are also engaging in debt financed, but really blended, vehicles to benefit the oceans. Blue Finance has engaged with one of the largest MPAs in the Caribbean, which is now under a co-management scheme in the Dominican Republic



### Note on Fee Generation for Servicing Debt

With the types of projects targeted by the GFCR, particularly in developing MPAs and among tourism assets, the goal is to balance income generation with public access to a public good or supporting access to a protective public asset like a reef. Tiered fees are one way to approach this—identifying different categories based on the type of use (hiking, cycling, pets walking) and tiering charges accordingly. This mechanism is important for service debt, which can be deployed for developing MPA infrastructure and generating cashflows.

Fees can be raised to diminish tourists after a tipping point or simply generate more income throughout their sustainable use. International commitments require 10% of marine and coastal areas to be protected by 2020, an aim that has not been achieved in most countries. Recent studies show that 65% of existing MPAs have inadequate budgets for basic management and 90% have inadequate numbers of staff (linked to budgets). As a result, many MPAs fail to meet their social and ecological objectives. Debt financing and recoverable grants to support MPA operating costs can be one solution to enable better management and hence environmental impact.

where \$3 million US dollars of finance is being structured by impact investors and donors across a 10-year time frame. The company is expected to become financially sustainable and generate its own income from statutory MPA user fees and an innovative “edutainment” visitor center. Blue Finance secured major debt financing for the MPA from impact investors through the Sustainable Ocean Fund, which was blended with philanthropic grants.

**Equity.** It is unlikely the GFCR will make equity investments due to the nature of the pipeline, but equity could be an option for established ecotourism operators, privately held MPAs, luxury tourism lodges/hotel chains, and SMEs or businesses with a verifiable balance sheet and proven revenue generation, or clear revenue generation potential. In terms of direct investments, equity is appropriate for promising coral tech or ocean tech opportunities (e.g. coral reef restoration technology).

**Example/potential application:** From our perspective, the Sustainable Ocean Fund is a pioneering impact investment vehicle that invests in marine and coastal enterprises that deliver marine conservation, improved livelihoods, and attractive economic returns. A recent analysis, led by partner EDF, demonstrated that profits in the global fishing sector could grow by \$51 billion US dollars a year, a 115% spike compared to today, if fisheries were sustainably managed. The Sustainable Ocean Fund will make investments into real asset and management improvements in coastal fisheries, sustainable aquaculture projects, seafood supply chain, and other select coastal projects. At the same time, it will apply best-in-class social and environmental governance with target impacts that include improved food and climate security, livelihoods, and ecological biodiversity.

**Blue bonds (debt swaps or debt restructuring).** Blue bonds leverage philanthropy upfront to catalyze up to 40 times more in additional investments (as per the Seychelles model). Financing is then used to protect predefined areas of the world's oceans in a set amount of time. This debt restructuring instrument is most relevant for SIDS and LDCs where proceed use is linked to coral reefs or where debt relief is needed. Blue bonds can provide annual cash flows into a trust or other local vehicle for investments in coastal protection and resilience. Making fiscal space for an indebted country, savings from debt refinancing is used to invest in marine protection efforts that revitalize fisheries and protect coral reefs. The mechanism works by giving a leg up to local government, conservation advisors, or commercial investors to negotiate debt-for-ocean deals, converting debt held by other countries into more manageable debt held at the local level. Following this step, a conservation plan is put into place for protection, restoration, and safe-use of the reef and reef-related assets. The country (government) repays the local entity that carries out conservation measures.

**Example/potential application:** The first completed model was the Seychelles Blue Bond that sought to offset the Seychelles debt repayment burden in exchange for pre-agreed conservation financing that was managed locally. This blended finance structure involved significant donations for the debt swap to enable the corresponding bond. The Nature Conservancy bought nearly \$22 million US dollars of outstanding \$406 million dollar sovereign debt in return for a third of the country's marine areas to be designated as protected. Commercial capital was then used to restructure the nation's sovereign debt, leading to lower interest rates and longer repayment periods to free up \$430,000 US dollars a year for the blue economy in the Seychelles. The 10-year \$15 million dollar bond was structured by the World Bank (which provided a \$5 million guarantee) and further backed by a \$5 million US dollar concessional loan from the GEF (which partially covered bond interest payments). Other investors included Nuveen, Prudential Financial, and Calvert Impact Capital, offering loans that were used to support fishermen, the expansion of marine protected areas, improving governance of priority fisheries, and develop the Seychelles blue economy.

Grants and loans were channeled through the Blue Grants Fund and Blue Investment Fund that were managed by the Seychelles Conservation and Climate Adaptation Trust and Development Bank of Seychelles. The blue bond tested the willingness of private donors to step in at a sovereign level to offset

government debt in exchange for conservation progress.

Since then, the Nordic Investment Bank launched a “Nordic-Baltic Blue Bond” in January 2018 raising SEK2 billion (\$219 million US dollars) for wastewater treatment projects, water pollution prevention, and water-related climate change adaptation initiatives. In April 2018, Morgan Stanley, alongside the World Bank, sold \$10 million worth of blue bonds with the aim of solving curbing plastic waste pollution in oceans.

Taking this model one step further we can test the willingness of bond investors to forego interest payments in exchange for progress made on coral and other blue economy issues. A potential application is to take advantage of the growing body of bond-focused work at UNDP to issue an “SDG Programmatic Bond,” which is essentially acts as debt restructuring tool just like in the Seychelles.

For a country like Maldives, where the debt burden is high and difficult to service due to its size and interest rates, as well as limited government resources for large-scale conservation, an instrument with a programmatic and financing component is innovative enough to addresses coral reef destruction and/or maintenance of sustainable ecosystems. The “bond” could offer investors a lower interest rate based on programmatic components tied to corals. Proceeds can be used to repay the original or more expensive debt while a medium-term coral (SDG 7) spending plan is developed by the government and funded by interest (cost) savings. UNDP and partners, like TNC, can identify uses for coral-linked proceeds and seek development finance institution (DFI) re-financing for partners for the debt.

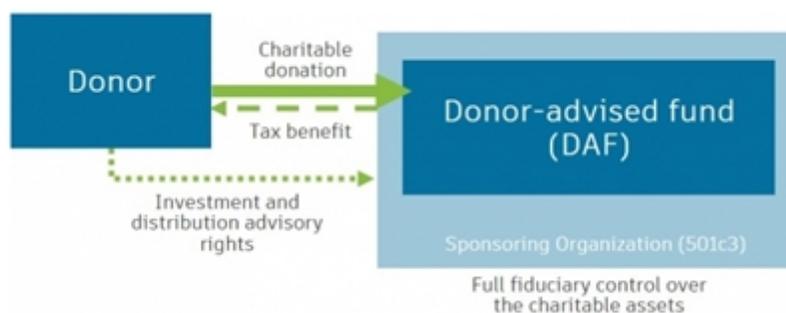
**Reef insurance.** Coral reefs can be damaged by hurricanes and other disasters that reduce their ability to provide much needed services to communities. Identifying the insurable risk associated with a reef that protects on-shore assets, such as tourism, property, and communities, are essential components for structuring reef insurance. The cost of restoring reefs after a storm is less than the losses in environmental services, and even less than other human-made structures that provide the same. Interested parties are needed to buy reef insurance to ensure its restoration—a requirement that comes down to discussions with local governments, tourism sector, or local industries dependent on healthy reefs, and community stakeholders.

In Mexico reef insurance is being expanded and is making inroads in Southeast Asia and the Caribbean. By capitalising local entities that buy insurance it is possible to offer payouts in the case of disasters *and* create a revolving loan vehicle to lend to on-shore facilities for disaster proofing and mitigation. Parametric insurance instruments can incentivize sound planning, management, and risk reduction through lowered premiums, while leading to rapid payouts in response to impacts.

**Example/potential application:** In a model structured by Swiss Re, the government of Quintana Roo, Mexico, purchased a parametric insurance product that paid out up to \$3.8 million US dollars to repair hurricane damage to the reef. The insurance is triggered if wind speeds above 100 knots are registered within covered areas with a payout split of 50% for reefs and 50% for beaches. The insurance policy was

financed by the Coastal Zone Management Trust, an organization formed in March 2018 to promote the conservation of coastal areas in the Mexican Caribbean. UNDP followed the process closely in partnership with TNC and determined it was the first successful policy. As a result, UNDP now works on the feasibility of adapting the policy for the Philippines, Indonesia, Fiji, and Solomon Islands. TNC, in the meanwhile, continues to focus on Caribbean projects (with the Dominican Republic next). Other partners interested in reef insurance include AXA XL Catlin and Willis Towers Watson.

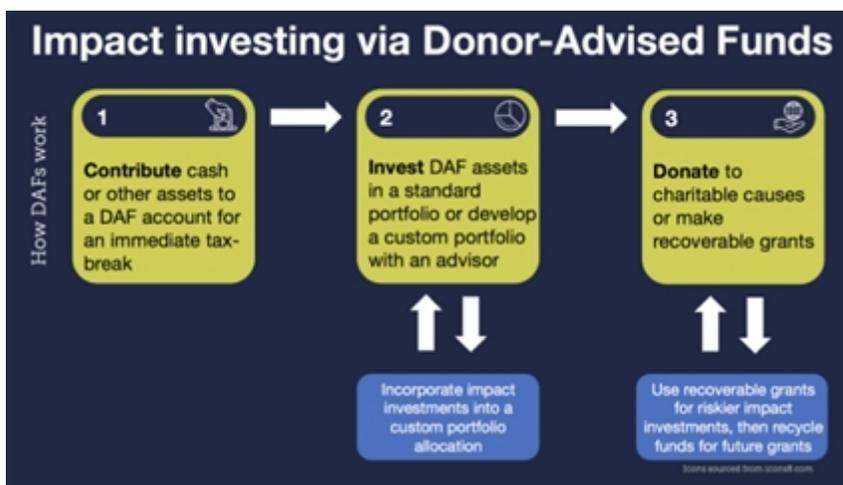
**Donor advised funds.** According to a recent Stanford Social Innovation Review article there has been a missed opportunity for using donor advised funds to make impact investments in support of market-based solutions to the SDGs.<sup>39</sup> These funds enable donors to establish a charitable account with a sponsoring organization that will be later used to support charitable activities. Donors receive an immediate tax deduction and maintain advisory privileges over fund investments and ultimate distribution for charitable purposes. In return, the sponsor gains control and authority over management of the funds, which can be used to make grants and impact investments. As of 2018 there was over \$110 billion US dollars in charitable assets waiting to be deployed. Donor advised funds are less bureaucratic than setting up a private foundation, less expensive to



establish and manage, and do not require an annual payout of 5% like their foundation counterparts. Although they lack a minimum distribution requirement expenditure responsibilities must be carried out. Because these funds are specifically linked to grantmaking and program-related investments for private foundations it is important to ensure funds are spent for charitable purposes. The vast majority of donors using donor advised funds today issue one-time, non-recoverable grants to nonprofits. If tweaked, these could be at the forefront of recoverable loans, debt and equity, recycling financial returns and reinvesting crucial capital needed in early stage innovations (coral reef models), seeding new sectors, or driving impact in complex sectors like the blue economy.

<sup>39</sup> Visit [https://ssir.org/articles/entry/how\\_to\\_use\\_donor\\_advised\\_funds\\_to\\_make\\_impact\\_investments](https://ssir.org/articles/entry/how_to_use_donor_advised_funds_to_make_impact_investments).

**Example/potential application:** This model can be used to collect individual contributions and deploy capital. Gaining traction in conservation, donor advised funds have been in forestry and landscape regeneration and are popping up in the blue economy as well, although with limited visibility. Accessible through charitable accounts at many American banks and brokers, they can be channeled to various causes. In the northwest of the United States, the Vermont Land Trust and Vermont Community Foundation have put this tool to work. The Land Trust uses donor advised capital held at the Vermont Community Foundation to fund land-acquisition projects throughout the state. Once land is acquired, the Land Trust places conservation easements on properties and resells the land to mission-aligned buyers. Funds from sales are then used to repay investors at a below-market rate of return.



In the case of oceans, we can use donor advised funds in the same manner as The Ocean Foundation (<https://www.oceanfdn.org/our-work/services/advised-funds>). They promote these funds to donors, reminding them about their flexibility to contribute cash, securities, real estate, and/or other assets to support the oceans across a range of coastal and ocean conservation activities, all the while creating a charitable legacy and offering tax deductions. At the Ocean Foundation, a donor advised fund can be channeled via a fund investment.

### Governance

Long-term, the so-called “thoughtful” ownership of companies or projects in a portfolio is important for any type of financial vehicles, allowing for in-depth engagement with investees. Of the potential investees, the majority will benefit from mentoring along with maintaining owner/operator relationships. The corresponding governance framework should accommodate active and passive investors, whereby investors and donors who can and wish to support an operation can do so through this vehicle, generating cash flows to fund other projects or businesses along the way.

If a critical funding mass is reached the holding company can consider issuing shares to raise additional capital, increasing the pool of potential owners and a diversified governance structure. Appropriate skill sets need to be recruited. For example, holding companies benefit from being providing shared services to their portfolio companies. Aggregating needs across a diverse portfolio of entities in poorer (or resource-limited) countries is a target essential to raise efficiencies. Back office and control infrastructure housed by a holding company can create efficiencies that generate saving on timing and

costs versus managing them for individual holdings.

The GFCR will have a broad geographic focus but the Fund will focus efforts on underfunded regions at the outset. Marine regions of South Asia and the Southeast Pacific only receive minimal (4% and 1.3% respectively) coral reef funding. The high biodiversity of these geographic regions and reef-dependence of coastal communities make these areas a conservation priority for GFCR stakeholders. Plans include supporting projects in SIDS and LDCs that are underfunded, providing the opportunity to make progress on multiple SDGs simultaneously (e.g. no poverty, good jobs, economic growth, climate action, gender equality, good health, etc.).

Underfunded SIDS and LDCs with resilient coral reefs will be the top priority. To identify these sites the GFCR will draw on findings from projects like 50 Reefs and input from coral reef experts. Focusing on these regions allow for maximum positive impact to result for coral reef ecosystems and coastal communities.

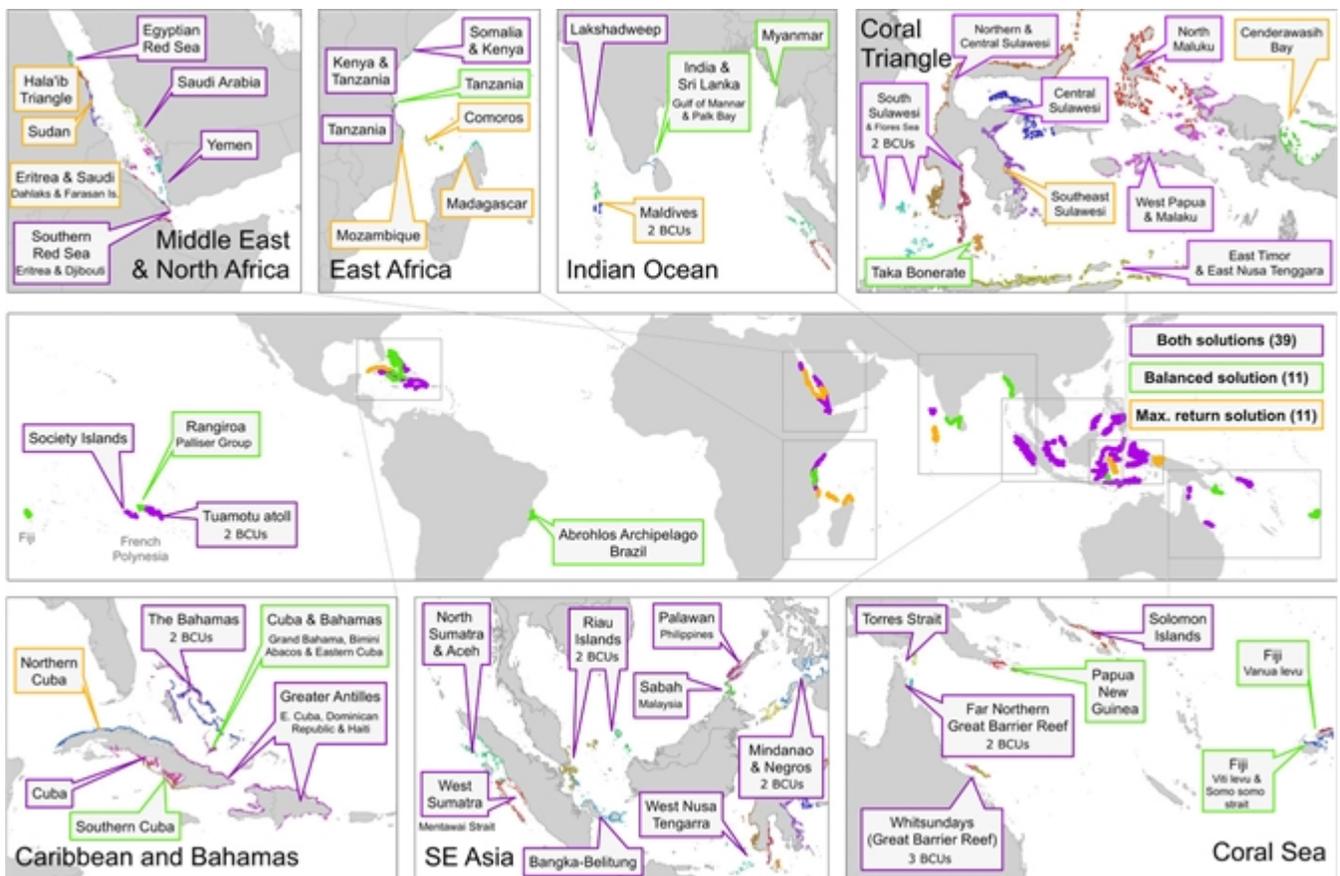


Figure 11: 50 reef sites identified as the most resilient to climate change.

Source: <https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/conl.12587>



<b>Goal:</b> 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
<b>Relevant SDG Indicators</b>
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
<b>Fund Goal Signature Indicators for Priority Ecosystems</b>
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
<b>Mandatory monitoring indicators</b> – 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>i.e.</i> , nitrogen, phosphorus), pollutants and turbidity due to suspended sediment
Marine debris ( <i>e.g.</i> , plastics, derelict fishing gear)
Impact and occurrence of natural disasters at coral reef sites ( <i>e.g.</i> , 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
<b>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</b>	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.
<b>1.2 Annual capital expenditures (US\$/yr) for strengthened management and enforcement capacities of MPA and LMMA networks</b>	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.
<b>1.3 Species richness (# of species/ha) and fish density (# of fish/ha) in protection areas compared to previous levels</b>	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.
<b>1.4 Integrated local threat index<sup>40</sup> 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)</b>	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.
<b>1.5 Number of coral reef protection resolutions, declarations and laws passed for governing bodies. Including allocated national budget to implement coral reef protected area management and enforcement.</b>	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 allocated regarding coral reef conservation will signify important governmental backing for protection policy.

<sup>40</sup> 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>

<p><b>1.6 Ratio of protected area costs covered by the private sector vs. the public sector or grants (e.g. costs for management, monitoring and enforcement)</b></p>	<p>Sustainable tourism and other activities have the potential to generate significant revenue for management of MPAs and coral reef restoration activities through user fees, concessions, permits and more. Well-designed MPAs should make self-financing a priority so conservation efforts can be long-lasting and not rely on short-term grants or the public sector.</p>
<p><b>1.7 MtCO<sub>2</sub>e per year sequestered through protection and/or restoration of threatened mangrove and seagrass ecosystems</b></p>	<p>Increased carbon sequestration will indicate successful protection of important coral reef associated ecosystems and also contribute to mitigating climate change and provide co-benefits to coral reefs.</p>

## Outcome 2: 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
<b>2.1 Number of coral species resilient to climate change identified or created through breeding and genetic modification</b>	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.
<b>2.2 Success rate (%), speed and efficiency (e.g., m<sup>2</sup>/year) of coral reef restoration efforts (use past restoration efforts in the same region as a baseline)</b>	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.
<b>2.3 Coral cover (%) that survives bleaching events after restoration efforts compared to past bleaching events of similar severity and location</b>	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.
<b>2.4 Government and private sector investments (US\$) into coral reef restoration efforts and coral reef restoration businesses</b>	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 3: 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
<b>3.1 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</b>	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.
<b>3.2 Mean standard length of caught fish (cm/fish) vs. baseline measurement at starting time of project (t=0)</b>	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.
<b>3.3 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)</b>	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.
<b>3.4 Number of locals (total # of individuals) and women (# of women) employed in businesses with a direct or indirect positive impact on coral reefs and associated ecosystems vs. baseline (t=0)</b>	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 transformation of reef-dependent communities away from unsustainable resource extraction and activities that damage reefs.
<b>3.5 ROI (%) of alternative livelihood initiatives supported by the GFCR</b>	The rate of return on investments in alternative livelihood initiatives will indicate the capacity to attract additional private investment for continued growth. The ability for these initiatives to generate a return indicates they are implementing sound business models.

<b>3.6 Carbon footprint of private sector (tons of CO<sub>2</sub>/business/year) vs. baseline (t=0)</b>	The private sector businesses working in and around coral reef sites must include actions to mitigate their carbon footprint, which contributes to climate change and thus negatively impacts coral reef ecosystems.
<b>3.7 Number of waste management and water quality initiatives implemented by the reef-linked business vs baseline (t=0)</b>	To be ecologically responsible, the private sector must offset waste from economic activity by implementing waste management/recycling and water quality projects; and reducing generated waste.

**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
<b>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)</b>	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.
<b>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)</b>	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.
<b>4.3 Number of parametric reef insurance schemes put in place vs. baseline (t=0)</b>	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.
<b>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</b>	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.