

Global Fund for Coral Reefs

FULL BUSINESS CASE (FBC) – HIGH VALUE (OVER £2 MILLION VALUE OF PROCUREMENT)

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Global Fund for Coral Reefs

Cover Sheet

PROGRAMME SUMMARY	Contribution to the Global Fund for Coral Reefs, a Multi-partner Trust Fund integrating public and private grants and investments that aims to combat the global threats to coral reefs and their marine biodiversity. The GFCR has the desired change to 'Prevent the extinction of coral reefs in our lifetime by eliminating the coral reef financing gap and supporting interventions for their best chance of survival'.
COUNTRY / REGION	<i>ODA eligible countries (focus on SIDS), year 1 likely to include Fiji, Indonesia, Philippines, Maldives, Kenya and Tanzania</i>
PROGRAMME VALUE	<i>£5,000,000</i>
START DATE	<i>June 2021</i>
END DATE	<i>March 2022, though if successful we may look to fund GFCR again in future years</i>
OVERALL RISK RATING	<i>Risk Potential Assessment score = Low</i>

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ACRONYMS

BAF	Blue Action Fund	MEL	Monitoring, Evaluation and Learning
BCR	Benefit Cost Ratio	MDB	Multilateral Development Bank
BCU	BioClimatic Units	MoU	Memorandum of Understanding
BPF	Blue Planet Fund	MPA	Marine Protected Area
BMZ	Federal Ministry of Economic Cooperation and Development	MPTF	Multi-Partner Trust Fund
BNP	Banque Nationale de Paris	NGO	Non-Governmental Organisation
CBD	Convention on Biological Diversity	NPV	Net Present Value
CFA	Conservation Finance Alliance	OCPD	Ocean Country Partnerships Programme
COP26	Conference of the Parties 26	ODA	Official Development Assistance
CTF	Conservation Trust Funds	OT	Overseas Territory
Defra	Department for Environment, Food and Rural Affairs	R&D	Research & Development
EB	Executive Board	RDEL	Resource Departmental Expenditure Limit
EDI	Equality, Diversity and Inclusion	RPA	Risk Potential Assessment
FBC	Full business case	SAA	Standard Administrative Agreement
FCDO	Foreign and Commonwealth Development Office	SES	Social and Environmental Standards
FLD	Front Line Delivery	SDG	Sustainable Development Goal
FTE	Full Time Equivalent	SIDS	Small Island Developing State
G7	Group of Seven (intergovernmental organisation)	SPE	Special Purpose Entity
GCF	Green Climate Fund	SR	Spending Review
GDP	Gross Domestic Product	SRO	Senior Responsible Officer
GEF	Global Environment Facility	ToC	Theory of Change
GFCR	Global Fund for Coral Reefs	UK	United Kingdom
GOAP	Global Ocean Accounts Partnership	UN	United Nations
HACT	Harmonised Approach to Cash Transfer	UNDP	United Nations Development Programme
HMG	Her Majesty's Government	UNCDF	United Nations
HMT	Her Majesty's Treasury	UNEP	United Nations Environment Programme
ICF	International Climate Finance	UNFCCC	United Nations Framework Convention on Climate Change
ICRI	International Coral Reef Initiative	UNGA	United Nations General Assembly
ICPP	Inter-Governmental Panel of Climate Change	USD	United States dollars
INGOs	International Non-Governmental Organisations	VfM	Value for Money
KPI	Key Performance Indicator	WTO	World Trade Organisation
LMMA	Locally Managed Marine Area	WWF	World Wide Fund for Nature

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Intervention Summary

What support will the UK provide?

This business case supports a contribution of £5 million into the Global Fund for Coral Reefs (GFCR), the first Multi-Partner Trust Fund for Sustainable Development Goal (SDG) 14¹ which integrates public and private grants and investments for coral reefs with particular attention on Small Island Developing States. An investment of £5 million will span one year (FY21/22) and will be made as a contribution to the GFCR, with the intention to commit up to £10 million across length of the Blue Planet Fund. The UK has contributed to several UN Multi-Partner Trust Fund's in the past. This project will follow the standard UN structures and procedures including using the UN's Standard Administrative Agreement which the UK has experience in signing.

Summary of programme & its objectives

The GFCR has the desired change to 'Prevent the extinction of coral reefs in our lifetime by eliminating the coral reef financing gap and supporting interventions for their best chance of survival'. The GFCR will promote a 'protect-transform-restore-recover' approach² in priority locations to save and protect coral reefs in the face of serious decline and extinction.

An initial investment of £5 million will be allocated to the grant window to the GFCR. Grants will be managed by the UN Grant Administrator, with a dedicated Executive Board and Secretariat. The UK will take a seat on the Executive Board, where we will have influence over the programming. Grants will be delivered on the ground by implementing partners, with partners being selected based on an initial expression of interest or an advertised open call for proposals over a specific period.

Why is UK support required and why now?

Coral reefs are amongst the most valuable ecosystems on earth, harbouring incredible biodiversity, supporting 25% of marine life³ and providing a myriad of benefits to thousands of species⁴. As well as being some of the most valuable ecosystems on earth, coral reefs are also amongst the ecosystems most vulnerable to unsustainable human activity.

¹ The UN Sustainable Development Goal 14: 'Life Under Water', the aim of this goal is to conserve and sustainably use the oceans, seas and marine resources for sustainable development. There are 17 Sustainable Development Goals (SDGs) in total, adopted by all United Nations Member States in 2015, which are an urgent call for action by all countries - developed and developing - in a global partnership.

² Global Fund for Coral Reefs, Terms of Reference 2020-2030, http://globalfundcoralreefs.org/wp-content/uploads/2021/01/GFCR_TermsOfReference.pdf

³ ISRS Consensus Statement on Coral Bleaching Climate Change: https://www.icriforum.org/sites/default/files/2018%20ISRS%20Consensus%20Statement%20on%20Coral%20Bleaching%20%20Climate%20Change%20final_0.pdf

⁴ Burke, L., K. Reytar, M. Spalding, and A. Perry. 2011. Reefs at Risk Revisited. Washington, D.C., World Resources Institute (WRI), The Nature Conservancy, WorldFish Center, International Coral Reef Action Network, UNEP World Conservation Monitoring Centre and Global Coral Reef Monitoring Network, 114p. (pdf, 6.4M) (via) Reef Resilience Network: <https://reefresilience.org/value-of-reefs/>

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To date, investments in coral reef protection have not been adequate or proportionate with the current level of risk or value derived from coral reefs, which has led to a ‘coral reef funding gap’.

GFCR provides a credible framework of programmes to drive real change – it has already secured donor commitments including the Paul G Allen Foundation, Germany’s Federal Ministry of Economic Cooperation and Development (BMZ), and the Prince Albert of Monaco Foundation. UK support will provide critical funding to allow the GFCR to become viable and we expect will also help to leverage further donors to amplify the Fund’s impact. Countries already engaged include Canada and Sweden.

UK investment at this point is important, the Dasgupta review states that to reverse the trends of ecosystem degradation we must act now. Through our COP26 and G7⁵ Presidencies, the UK will show global leadership, using our influence to build momentum and advocate for greater action, championing global collaboration. The conservation, protection and restoration of Coral Reefs is integral to the achievement of the relevant goals and targets under the 2030 Agenda for Sustainable Development. Driving forward ambition and supporting the ‘Super Year’ for the ocean and nature, 2021 will be a vital year to raise the profile of ocean, climate and nature issues. The HMG International Nature Strategy sets out how we must use 2021 as a spring board for an ambitious global, integrated approach to halt biodiversity loss by 2030.

What are the main project activities and where?

In country activities may include; establishing Marine Protected Areas (MPAs), coral restoration, developing sustainable aquaculture and financial mechanisms such as carbon credits, insurance products and blue bonds. The GFCR has identified a total of 55 countries that are eligible for funding (UK support will only go towards those that are ODA eligible). So far identified countries for early investment include Fiji, Philippines, Indonesia, Maldives, Kenya and Tanzania. The main project activities will include direct funding for in-country grants, which will be agreed upon via the Executive Board. A proportion of funding will also go towards the GFCR secretariat function, monitoring, evaluation and learning (MEL).

Strategic alignment

The investment will be part of the Government’s manifesto commitment to establish a £500 million Blue Planet Fund. The investment would meet several HMG and departmental drivers such as the International Climate Finance, responding to the Dasgupta Review, the International Nature Strategy, the 25 Year Environment Plan, the Commonwealth Blue Charter, COP26 and G7 Presidencies, and COVID-19 recovery. This investment would help to achieve the Prime Minister’s commitment of spending £3 billion on climate change solutions that protect and restore nature and biodiversity over the next five years, which in turn will contribute towards the £11.6 billion International Climate Finance target.

⁵ G7: The Group of Seven is an intergovernmental organization consisting of Canada, France, Germany, Italy, Japan, the United Kingdom and the United States. The heads of government of the member states, as well as the representatives of the European Union, meet at the annual G7 Summit.

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What are the expected results?

Overall, the Fund expects co-investments from other funds and private investors at the project level of between \$2bn and \$3bn. Estimating the cost of improved management of coral reefs at \$45 per hectare, we estimate a UK investment of £5m could protect over 4,180ha of reefs, support over 1060 fishers and protect 16,420 people.⁶ It would also provide a UK Benefit Cost Ratio of 4.73. However, given the wide range of activities expected under the GFCR these should be taken as guides only. Each individual project will be assessed separately to understanding the value for money they offer.

The two best scoped projects in the GFCR pipeline already expect to positively impact more than 75,000 ha of marine ecosystems, 40,000 ha of mangroves and provide additional food security and income for 120,000 people.

Risk and assurances

A Risk Potential Assessment has been carried out for this project; the investment scored low overall. An Integrated Assurance and Approvals Plan has been developed and approved for the project, which is appropriate and proportionate to the complexity and spend. All four Managing Public Money Accounting Officer tests have been met.

⁶ The UK breakeven cost per hectare is \$212.

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1. Strategic Case

1.1 Context and need for a UK intervention

1.1.1 *The problem*

Coral reefs are amongst the most valuable ecosystems on earth, harbouring the highest biodiversity of any ecosystem⁷, supporting 25% of marine life⁸ and providing a myriad of benefits to thousands of species⁹. To give an idea of how valuable coral reefs are to humanity; more than 1 billion people benefit directly from coral reef resources for food and as well as a source of income through fishing and tourism activities¹⁰ - coral tourism contributes \$36 billion annually to the global tourism industry¹¹. Beyond tourism, the economic benefits of healthy coral reef ecosystems cannot be underestimated: they provide a global net benefit of circa \$9 billion USD per year, due to their ability to reduce shoreline erosion and protect coastal housing, beaches and agricultural land¹².

As well as being some of the most valuable ecosystems on earth, coral reefs are also amongst the ecosystems most vulnerable to unsustainable human activity. Many local factors influence the health and long-term resilience of coral reefs, however, climate change has emerged as a dominant and very fast growing threat (IPCC 2014)¹³. In a scenario of up to 2°C warming, coral reefs would all but disappear (99% eradication), and even if warming does not exceed 1.5°C, up to 90% of coral reefs would be lost¹⁴. In 2011, 75% of the world's coral reefs were rated as threatened, with more than 60% under immediate and direct threat from local stressors¹⁵.

The effects of climate change on marine ecosystems are accelerating, identifying and protecting areas of the ocean where conditions are most stable is a key approach for climate change adaptation. The decline in coral reefs is global, with all reefs showing some form of decline, however the rate and extent of reef degradation has significant regional and localised variation due to differences in global and regional ocean conditions and the intensity of local stressors. As evidenced throughout historical periods of climate change, climate refugia (areas retaining suitable habitat despite regional climate change) are likely to be critical in preventing considerable loss of biodiversity. Therefore, this is why climate refugia have been recommended by many

⁷ IUCN, 2021. Coral reefs and climate: <https://www.iucn.org/resources/issues-briefs/coral-reefs-and-climate-change#:~:text=Coral%20reefs%20harbour%20the%20highest,combined%20with%20growing%20local%20pressures.>

⁸ ISRS Consensus Statement on Coral Bleaching Climate Change: https://www.icriforum.org/sites/default/files/2018%20ISRS%20Consensus%20Statement%20on%20Coral%20Bleaching%20Climate%20Change%20final_0.pdf

⁹ Burke, L., K. Reytar, M. Spalding, and A. Perry. 2011

Reefs at Risk Revisited. Washington, D.C., World Resources Institute (WRI), The Nature Conservancy, WorldFish Center, International Coral Reef Action Network, UNEP World Conservation Monitoring Centre and Global Coral Reef Monitoring Network, 114p. (pdf, 6.4M) (via) Reef Resilience Network: <https://reefresilience.org/value-of-reefs/>

¹⁰ UNEP (2004) in Reef Resilience Network

<https://reefresilience.org/coral-reef-fisheries-module/coral-reef-fisheries/importance-of-reef-fisheries/>

¹¹ Mapping the global value and distribution of coral reef tourism <http://dx.doi.org/10.1016/j.marpol.2017.05.014>

¹² Coral Reef Life Declaration

<https://www.icriforum.org/sites/default/files/CORAL%20REEF%20LIFE%20Declaration.pdf>

¹³ Hawthorne L. Beyer et al (2018) Risk-sensitive planning for conserving coral reefs under rapid climate change Conservation Letters. 2018;11:e12587

¹⁴ Summary for Policymakers of IPCC Special Report on Global Warming of 1.5°C approved by governments <https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/>

¹⁵ [Reefs at Risk revisited https://pdf.wri.org/reefs_at_risk_revisited.pdf](https://pdf.wri.org/reefs_at_risk_revisited.pdf) (2011) [Reefs at Risk revisited https://pdf.wri.org/reefs_at_risk_revisited.pdf](https://pdf.wri.org/reefs_at_risk_revisited.pdf) (2011)

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authors as a key component of any climate change and biodiversity adaptation program.¹⁶

Developing countries are home to two-thirds of the world's coral reefs¹⁷. The people that use and rely on the coral reef are a hugely important solution for the protection of biodiversity and conservation of the ecosystem¹⁸. Coral reefs are an essential ecosystem for many Small Island Developing States (SIDS), providing multiple ecosystem services for their communities¹⁹. SIDS are particularly vulnerable to climate change due to their susceptibility of many sustainable development challenges for example high reliance on ecosystem services, exposure to natural disasters or extreme events, remote location, limited funding, education and health services²⁰.

The increase in anthropogenic threats to coral reefs, coupled with warming seas and ocean acidification, has resulted in the loss of half of the world's live coral cover over the last 30–50 years. The pressures facing reefs have decimated coral and fish communities, reduced coral growth rates, diminished reef ecosystem resilience, undermined structural integrity of coral skeletons, and severely weakened their ability to continue providing valuable ecosystem goods and services to people. The global costs of coral bleaching are calculated to range from \$20 billion (a moderate bleaching scenario) to over \$84 billion (a severe bleaching scenario)²¹.

To date, investments in coral reef protection have not been adequate or proportionate with the current level of risk or value derived from coral reefs²². Neither global nor regional policies have been ambitious or effective enough to prevent serious degradation²³. There is an identified gap in finance directed towards coral reefs protection (the “coral reef funding gap”) which has been analysed through many reports, notably through the Conservation for Biodiversity High-Level Panel assessment, who estimated that the global investment required is greater than seven times current levels²⁴. Significant injections of international funding are needed to help stakeholders actively pursue adaptation strategies to protect and restore reefs while also reducing anthropogenic stressors so reefs can fully recover.

1.1.2 Global alignment

The project is globally aligned and supports UK commitments to the United Nations (UN) Sustainable Development Goals (SDG) and targets adopted by all members

¹⁶ Keppel et al. 2012; Tzedakis et al. 2002 Jones et al. 2016

¹⁷ ReefBase: <http://www.reefbase.org/main.aspx>

¹⁸ Whittingham E, Campbell J, Townsley P. Poverty and reefs. A global overview. DFID-IMM-IOC/UNESCO; 2003. 72pp.

¹⁹ Mehdi Hafezi, Alyssa L. Giffin, Mohammad Alipour, Oz Sahin, Rodney A. Stewart, Mapping long-term coral reef ecosystems regime shifts: A small island developing state case study, *Science of The Total Environment*, Volume 716, 2020, 137024, ISSN 0048-9697, <https://doi.org/10.1016/j.scitotenv.2020.137024>.

²⁰ Ali et al., 2018. Sustainable coastal ecosystem management—an evolving paradigm and its application to Caribbean SIDS. *Ocean Coast. Manag.*, 163 (2018), pp. 173-184

²¹ Conservation International. 2008. *Economic Values of Coral Reefs, Mangroves, and Seagrasses: A Global Compilation*. Center for Applied Biodiversity Science, Conservation International, Arlington, VA, USA. (pdf)

²² Global Fund for Coral Reefs, Terms of Reference 2020-2030, http://globalfundcoralreefs.org/wp-content/uploads/2021/01/GFCR_TermsOfReference.pdf

²³ Global Fund for Coral Reefs, Terms of Reference 2020-2030, http://globalfundcoralreefs.org/wp-content/uploads/2021/01/GFCR_TermsOfReference.pdf

²⁴ Global Fund for Coral Reefs, Terms of Reference 2020-2030, http://globalfundcoralreefs.org/wp-content/uploads/2021/01/GFCR_TermsOfReference.pdf

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states in 2015. The conservation, protection and restoration of coral reefs is integral to the achievement of the relevant goals and targets under the 2030 Agenda for Sustainable Development, supporting the UN Decade of Ecosystem Restoration (2021-2030), the UN Decade of Ocean Science (2021-2030), and the implementation of the UN Environment Assembly resolution 4/13 on sustainable coral reef management.

The UK is also a founding committee member of the Global Coral Reef Research & Development Accelerator Platform, which aims to advance research, innovation and capacity building in all facets of coral reef conservation, restoration, and adaptation, strengthen existing commitments to enhance coral reef conservation, and prevent their further degradation.

Additionally, as a founding member to the International Coral Reef Initiative (ICRI) the UK is committed to the preservation of the world's coral reefs and associated ecosystems. The ICRI passed a resolution of support for the creation of the Global Fund for Coral Reefs in 2019, recognising that such a fund can make a significant impact. Along with all other ICRI members the UK is encouraged to engage with the GFCR particularly through the design, development, launch and capitalisation.

1.1.3 HMG objectives and alignment

This project will support Defra strategic objectives and wider HMG commitments. This section highlights the various initiatives that the project is aligned with.

In January 2021 the Prime Minister, at the One Planet Summit, announced a £3 billion commitment to climate change solutions that protect and restore nature and biodiversity over the next five years. This supports the UK's commitment to doubling our International Climate Finance to £11.6 billion in the same timeframe.

The HMG International Nature Strategy sets out how we must use 2021 as a spring board for an ambitious global, integrated approach to halt biodiversity loss by 2030. There is no pathway to net zero without massive escalation of efforts to protect and restore nature, which will in turn protect livelihoods, reverse biodiversity loss and tackle climate change.

The HM Treasury (HMT) Dasgupta Review published in February 2021 recommends the need for 'a financial system that channels financial investments – public and private – towards economic activities that enhance our stock of natural assets and encourage sustainable consumption and production activities.'²⁵

Through the 25-year environment plan the UK is committed "to be sure that tropical rainforests, coral reefs, abundant wildlife and the astonishing beauty of the natural world survive to thrill and support the livelihoods of future generations" and "to Provide international leadership and lead by example in tackling climate change and protecting and improving international biodiversity". This also supports our commitments made in the 25-year environment plan, to continue to work with the Commonwealth

²⁵ The Economics of Biodiversity: The Dasgupta Review. 2021. Headline Messages. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/957629/Dasgupta_Review_-_Headline_Messages.pdf

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Secretariat and our Commonwealth partners to draw up an ambitious plan for a Commonwealth Blue Charter.

Investing into coral reef protection would support the UK's membership of the Commonwealth Blue Charter Action Group on Coral Reef Protection and Restoration, whose purpose is to highlight good practices in the restoration of coral reefs. As a member the UK can use share successful case studies and practices from coral reef focussed investments among the Commonwealth.

Driving forward ambition and supporting the 'Super Year' for the ocean and nature, 2021 will be a vital year to raise the profile of ocean, climate and nature issues. Through our COP26 and G7 Presidencies, the UK will showcase global leadership, using our influence to build momentum and advocate for greater action, championing global collaboration. Delivering on the departments goals will require ambitious international commitments under the Convention on Biological Diversity (CBD) and the United Nations Framework Convention on Climate Change, among others. Strong partnerships and international collaborations underpinned by adequate financing to support capacity building and the development of innovative technology and creative solutions will be required.

Additionally, the UK has ambitions to build back better and promote a clean and green recovery to COVID-19. Biodiversity focused investments have the potential to help reef-dependent communities to become more resilient to global shocks like those caused by 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.

1.1.4 Blue Planet Fund alignment

This investment will form part of the Government's Manifesto Commitment to establish a £500 million Blue Planet Fund (BPF), to help protect the ocean from plastic pollution, warming sea temperatures and overfishing (more detail in Annex B). The investment will be fundamental to delivering on the commitment and launching the BPF in 2021 and beyond.

This investment has been allocated out of the BPF 2021/22 budget. Through the BPF design and Theory of Change (ToC) exercise we have identified four core themes: climate change, biodiversity, marine litter and sustainable seafood. This investment is cross-cutting but predominantly falls under the theme of biodiversity. Under this theme two core investment problems have been identified: 1. insufficient public and private investment into sustainable ocean economies and 2. fiscal measures and policies incentivising unsustainable use of the marine environment.

For the biodiversity theme of the BPF in particular, enabling and scaling up private sector finance in support of the sustainable ocean will be key to ensuring vulnerable marine habitats including seagrass, mangroves and coral are protected and enhanced. The following outcome has been highlighted as a priority under the BPF: **'Increased finance mobilised towards sustainable ocean economy'**. To see how this investment will fit into the BPF ToC see Annex C.

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An identified pathway to impact of the BPF is through coral reefs and other vulnerable marine habitats. Coral reefs are of global importance to wider environmental sustainability, food security, disaster relief and social and cultural wellbeing. Well-managed and protected coral reefs generate important socioeconomic opportunities for coastal communities, underpinning the UK Government's strategic objectives in the 25 Year Environment Plan.

Under the BPF we have committed to supporting projects with clear management actions to address reefs under threat. Identified routes to achieve this are by galvanising UK leadership through GFCR, the ICRI Action Plan and supporting the Global Coral Reef Monitoring Network Action Plan. This will provide an opportunity to share knowledge, improve ocean science and evidence on corals and support sustainable livelihoods by building capacity in developing countries, while contributing to projects which aim to protect and recover reefs and transform coastal societies that depend on them.

1.2 GFCR overview

The Global Fund for Coral Reefs (GFCR) is the first Multi-partner Trust Fund (MPTF) for SDG 14²⁶ which integrates public and private grants and investments. The fund's objective is to combat the global threats to coral reefs and consequently their marine biodiversity by mobilising resources to implement the CBD Post 2020 Global Biodiversity Framework and support SDG 14.

The GFCR became an official UN fund in July 2020. The Fund seeks to invest \$500 million USD through blended finance in coral reef conservation over the next 10 years. The GFCR will offer risk equity capital and grant funding to deliver impactful projects with particular attention on Small Island Developing States (SIDS). The Fund has a dual focus:

- Facilitate the uptake of innovative 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 and Multilateral Development Banks (MDBs).

The GFCR has the objective of saving coral reef ecosystems and transform reef-dependent communities from poverty and lack of economic opportunities. The GFCR will promote a 'protect-transform-restore-recover' approach²⁷ in priority locations to save and protect coral reefs in the face of serious decline and extinction.

1.2.1 Projects and activities

The programming cycle will begin in January 2021 and start with an initial pipeline of five or more sites for 2021 projects. UK funding along with other seed funding donations will be invested into the 2021 programming cycle. In parallel to this, work will begin to enable additional countries to begin implementing projects from 2022.

²⁶ The UN Sustainable Development Goal 14: 'Life Under Water', the aim of this goal is to conserve and sustainably use the oceans, seas and marine resources for sustainable development. There are 17 Sustainable Development Goals (SDGs) in total, adopted by all United Nations Member States in 2015, which are an urgent call for action by all countries - developed and developing - in a global partnership.

²⁷ Global Fund for Coral Reefs, Terms of Reference 2020-2030, http://globalfundcoralreefs.org/wp-content/uploads/2021/01/GFCR_TermsOfReference.pdf

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The minimum requirement for any project proposals is 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.

Case Study – Fiji activities

One the first project proposals of the GFCR is the Fiji pilot, if agreed by the Executive Board it will be one of the first projects funding would go towards.

The total budget: \$60 million, of which 8% will be funded from the GFCR, other donors include SDG fund and Green Climate Fund (GCF) as well as impact investment e.g. leveraged through the GFCR investment window.

The activities included in the Fiji pilot include:

- Co-management agreement for Special Purpose Entity (SPE)¹ management of Locally Managed Marine Area (LMMA) networks (SPE will protect, manage and monitor LMMAs). Including revenue generating activities: eco-tourism, visitor centre, sustainable fisheries, blue carbon (mangroves)
 - SPE contributes to: Monitoring marine habitats, Improvement of ecosystems, Community engagement, Community livelihood enhancement, Zonation and compliance, Support to tourism activities, Maintenance and Management.
- Sanitary landfill to address land-based waste
- Fertiliser factory (produces natural fertilizer from sugar cane waste, less eutrophication and chemicals to threaten reef)
- Technical assistance facility – incubate 20+ projects already in the pipeline of local investment manager Matanataki

Project partners: Fijian government, Athelia fund, LEACH Fiji and Matanataki

The GFCR has identified a wide range of project activities that could take place through the grant window and the investment window²⁸. These include:

Direct conservation activities:

- Marine Protected Areas (see Figure 1)
- Coral restoration

Indirect conservation activities:

- Sustainable fisheries
- Sustainable mariculture/aquaculture
- Ecotourism
- Plastic waste management
- Coastal agriculture
- Sewage and waste-water treatment

²⁸ The GFCR has two windows; grant and investment, the grant window is the enabling window for the wider investment window of the fund. The fund is also structured with a first close (target \$60m) and a final close for each of the windows. The UK's £5m will be invested into the first close of the grant window of the GFCR.

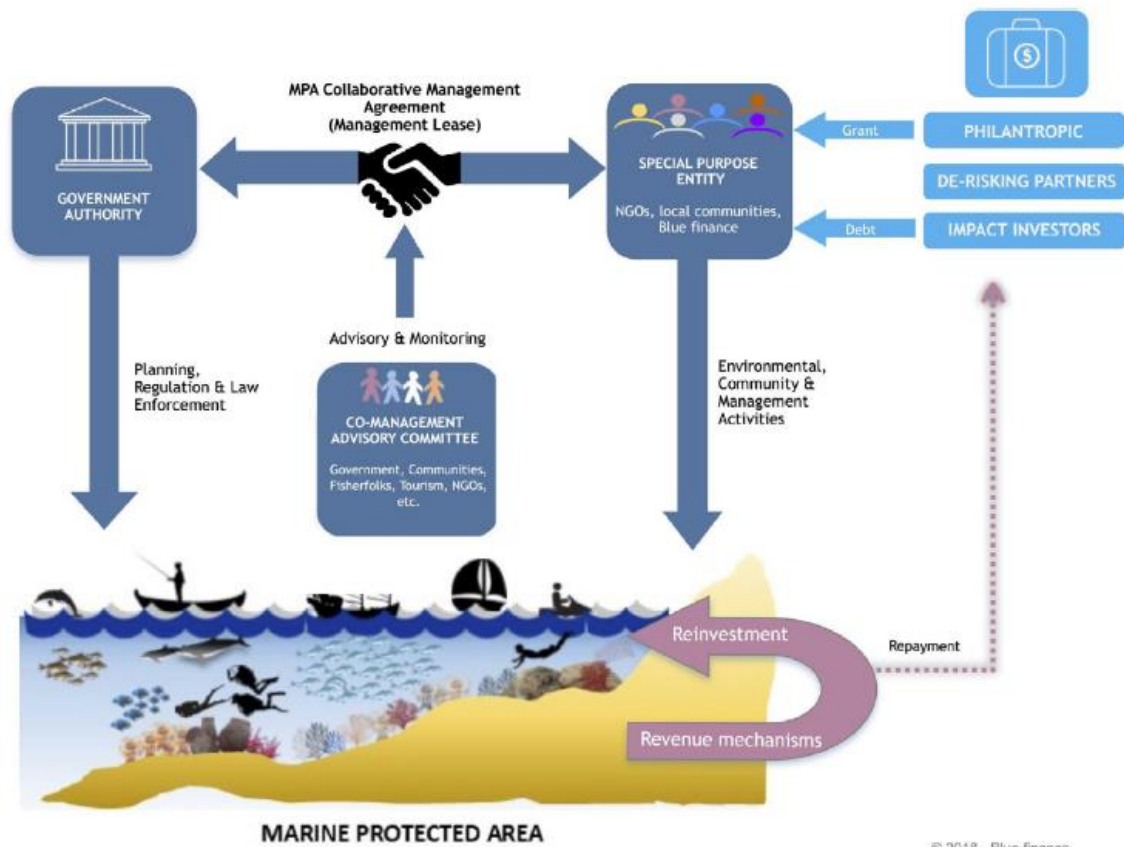
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- Other land-based pollutants management
- Green shipping and cruise ships
- Clean energy
- Coastal infrastructure

Finance instruments / mechanisms

- Debt conversion
- Blue bonds
- Blue carbon
- Insurance products
- Conservation Trust Funds
- Incubator or Technical Assistance Facility
- Investment funds / incubator funds
- Sustainable livelihoods mechanisms
- Pay for success
- Project finance for performance

The GFCR will utilise the blended finance model to link the grant and investment windows, making sure there is strong coordination between the two. To produce long-term sustainable solutions, early investments will start through the grant window with the aim of maturing into investment window projects over the 10 years.



© 2018 - Blue finance

Figure 1 Blue Finance MPA model

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Example – Marine Protected Area (MPA) model and how it can generate revenue.

Globally there are thousands of designated MPAs, but generally they face limited funding, inadequate management, and lack of enforcement and often lack of buy-in from the local community, government and private businesses¹. Therefore, a potential pipeline idea of the GFCR is to invest in a model that identifies and seeks opportunities in established MPAs to improve services, marketing and local community engagement which ultimately leads to revenue generation. Example revenue streams include ecotourism, dive fees and licensing, fisheries (improved catch and fish populations), and incentives such as CO2 credits.

1.3 Project overview

1.3.1 How the UK can address the challenge through GFCR?

To meet the challenges and strategic objectives outlined in previous sections this business case sets out an investment into the GFCR.

Through investment into the GFCR the UK could help leverage a vast amount of funds including private finance, a step towards closing the 'coral reef funding gap'. The GFCR has the potential to create an effective enabling environment and mobilise large amounts of finance for the protection of reefs. In total the Fund expects to leverage between \$2bn and \$3bn for a \$500m investment.

The UK investment going directly into the grant window of the GFCR will support on the ground projects in country. In the appraisal case it is estimated, based on break even analysis, only using benefits directly attributable to coral reefs, at the median cost of \$45/ha that a UK investment of £5m could protect over 4,180ha of reefs, support over 1060 fishers and protect 16,420 people. It would also provide a UK Benefit Cost Ratio of 4.73.

Reputationally the UK is a global leader in ocean protection and a lack of investment in these crucial ecosystems would be a clear gap in the UK's approach to marine conservation and sustainable use of the ocean. Financially, as highlighted in the options appraisal, a UK developed fund or bilateral programme is likely to cost more money than investing in the GFCR due to the administrative burden, therefore supporting that the GFCR is better Value for Money (VfM).

Even though this is a new fund, it is in accordance with the UN MPTF's financial regulations and rules. The MPTF is a trusted body which the UK has previously contributed to several funds e.g. UN Sri Lanka SDG Multi-Partner Trust Fund and Malawi One UN Fund. Therefore, there are well managed and proven UN structures in place to enable success of the GFCR.

1.3.2 What type of support will the UK provide?

The UK would be a public donor by contributing to the Fund and consequently become a member state of the GFCR. The UK would commit to funding £5 million to the grant window of the Fund in financial year 2021, through a Standard Administrative

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Agreement (SAA), the UN MPTF standard template which the UK has signed through its various contributions to other funds.

The fund is new and relatively innovative in approach, tackling the root causes of coral reef issues via capital investment, therefore the grant window is seen as a less risky place to direct our contribution, the investment window has a higher delivery and success risk.

The funding source is the UK's Official Development Assistance (ODA) budget, for which the BPF has been allocated £25.65 million in FY 2021/22. Legal powers are in place through the International Development (Official Development Assistance Target) Act 2015.

The intention is to invest £10 million into the GFCR over the 5 years of the BPF, via a cost extension to this business case. Due to the implications of a one year Spending Review (SR) (2021-22) and the wider strategic timeline of this investment, the first year's investment will be completed as a one year business case. The aim will then be to develop a multiyear business case from April 2022, if the next SR allows. A one-year business case gives us the opportunity to assess the success of the project in year one and its VfM, which will be used to inform the decision to provide future funding to the GFCR. Although multi-year business cases are typically more efficient, the requirement to secure HMT approval to such a case this year (due to the one-year SR period) would compromise the UK's position at the next Executive Board meeting, leading to less influence of the GFCR in 2021.

1.3.3 Membership and Executive Board

The UK investment into the GFCR, would enable the UK to become a Member State and sit on the GFCR Executive Board. The Board provides general oversight, sets Fund strategy, promotes partnerships and advocacy, takes part in fundraising, allocates finances, and is responsible for the overall performance. The board is constructed of public donors (Member States), philanthropic donors and the UN. The first Chair of the Executive Board is the highest contributor to the GFCR in 2020 and is appointed for up to two years starting January 2021.

The UK will have influence through the Executive Board and the opportunity to chair it in the future. Through the seat on the Board the UK can influence project selection and country focus, as well as ensuring the Fund aligns with UK HMG strategic priorities. A seat on the Board also allows the UK to look for opportunities to collaborate with other HMG initiatives to strengthen partnerships and overall impact.

The Paul G Allen Foundation was appointed chair in the first Executive Board meeting, this will be reassessed in December 2021. So far other committed donors include Germany's Federal Ministry of Economic Cooperation and Development (BMZ), and the Prince Albert of Monaco Foundation.

The fund has a range of partners international and in-country that will support with finding and developing the pipeline from incubators and accelerators, to developers, to NGOs and civil society. Project proposals will be agreed via consensus by the Executive Board.

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1.3.4 Country focus

The GFCR has a global focus, but a particular focus on SIDS. Country focus has been analysed on three levels; major coral regions; countries; and focal areas using Bioclimatic Units (BCUs)²⁹. The investment strategy will be to focus efforts in focal areas. A total of 55 countries have been selected, which identifies the global reach of the fund, programming may only take place in these countries. Further analysis undertaken by the Conservation Finance Alliance reduced this list to 33 countries, which will be recommended to the Executive Board as the main target countries.

To select priority countries the GFCR have and will continue to build on the work of the 50 Reefs initiative, UNEP Coral Futures and the World Wide Fund for Nature Coral Reef Rescue Initiative. These studies have worked to identify and collect global data of the world's most climate change resilient reefs. It is thought that protecting the identified priority climate refugia coral reefs can help the ecosystems survive the impacts of climate change and may help repopulate neighbouring reefs³⁰.

There will be opportunities to influence country focus through the Executive Board, as a member and potential at some point as chair of the EB, where we will align direction with UK priorities and the BPF country prioritisation. Additionally, UK funding will only be directed to Official Development Assistance (ODA) eligible countries as set out in the agreement.

1.4 Impacts, outcomes and outputs

1.4.1 Theories of change

This intervention has been selected as a result of the BPF Theory of Change (ToC), which can be found in Annex C. The GFCR predominantly targets the biodiversity outcome of the BPF of '*Improved marine biodiversity and livelihoods by protecting and enhancing marine ecosystems, reducing pressures and increasing resilience, and enabling sustainable and equitable access to, and use of, these resources*'. However, the investment and its associated activities will be highly cross-cutting, details of how this investment will follow the BPF ToC are highlighted in Annex C.

The GFCR also has its own ToC, as seen in figure 2, with the ultimate desired change to '*Prevent the extinction of coral reefs in our lifetime by eliminating the coral reef financing gap and supporting interventions for their best chance of survival*'. Aspects of all four the BPF themes (climate change, biodiversity, marine litter and sustainable seafood – more background in Annex B) are highlighted as threats within the GFCR ToC showing strong alignment.

²⁹ Bioclimatic Units: areas defined in the current publication as containing approximately 500 km² of coral reefs, which have lower vulnerabilities to heat stress (coral bleaching and mortality) and storms and are well-connected to surrounding systems.

³⁰ Global Fund for Coral Reefs, Terms of Reference 2020-2030, http://globalfundcoralreefs.org/wp-content/uploads/2021/01/GFCR_TermsOfReference.pdf

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THEORY OF CHANGE

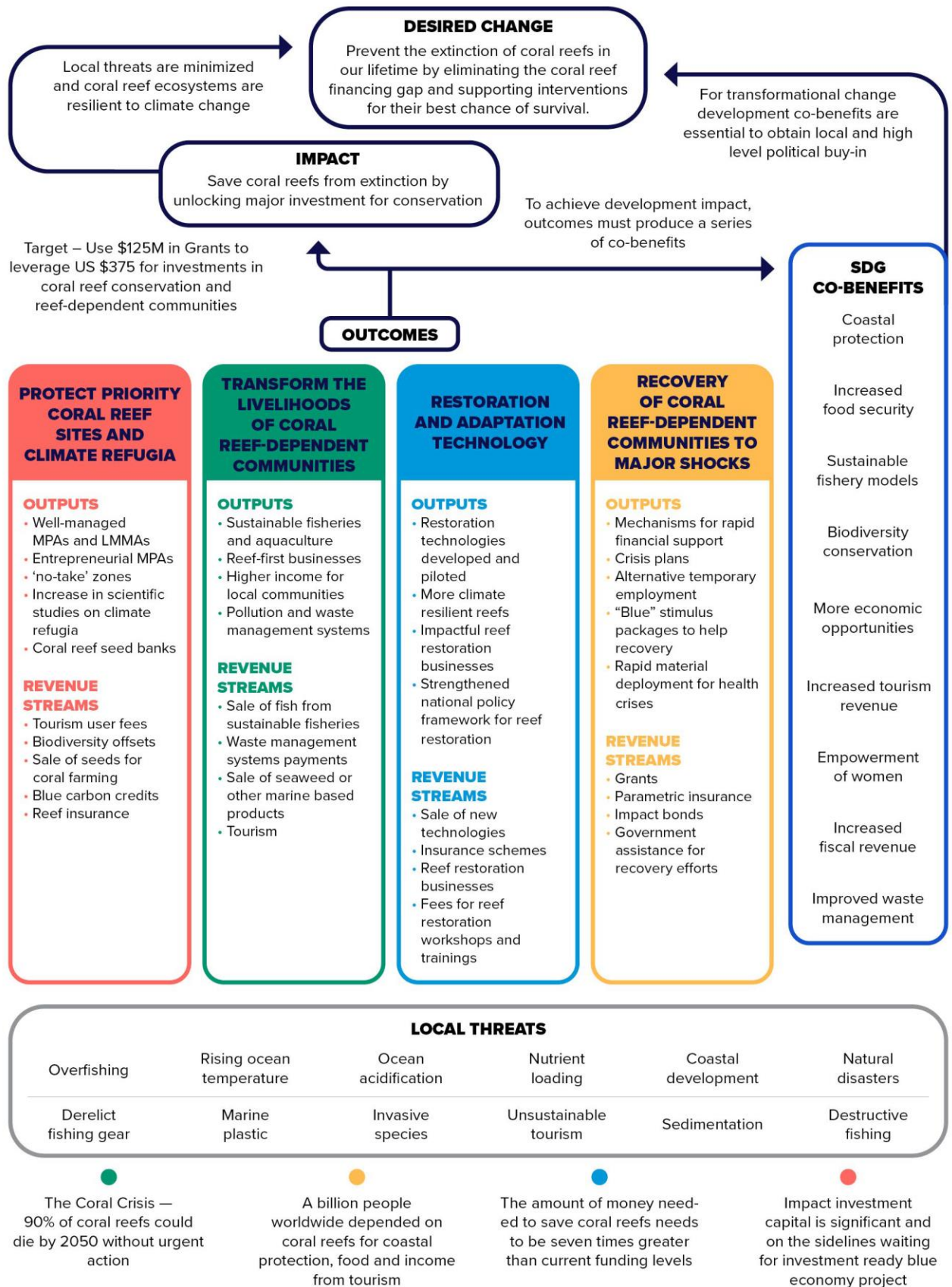


Figure 2 GFCR Theory of Change framework

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1.4.2 GFCR outcomes and outputs

The GFCR has four identified outcomes, as described in Table 2. The GFCR will support interventions designed to achieve these outcomes.

Table 1 The outcomes and potential outputs of the GFCR

	Outcome details	Potential Outputs
Outcome 1: Protect priority coral reef sites and climate change- affected refugia	<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 patent) and ecosystem resilience is increased in the face of climate change.</p> <p>Degradation drivers of coral reefs are mitigated or eliminated.</p>	<p>Increase in well managed and enforced MPAs and LMMAs that protect and promote healthy reefs</p> <p>Entrepreneurial MPAs</p> <p>Increase in scientific studies on identifying climate refugia</p> <p>Water quality/land-ocean interface projects roll-out to protect coral reefs</p> <p>Elimination of destructive fishing practices and harmful gear from protection sites</p> <p>Establishment of 'no-take' zones and nurseries within protected areas</p> <p>Legal advice on intellectual property, potential uses and patents related to climate-resilient corals located in refugia</p>
Outcome 2: Transforming the livelihoods of coral reef- dependent communities	<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 funnelled into alternative livelihoods and reef first businesses.</p>	<p>Community-based projects for sustainable fisheries, seaweed farms, aquaculture, tourism, etc.</p> <p>Sustainable value chain development and educational programmes to build skills for alternative careers and livelihoods</p> <p>Women empowered through capacity building and safety nets</p> <p>Reef-first businesses</p> <p>Economic valuation of coral reefs and ecosystem services</p> <p>Communication and educational campaigns to drive and sustain behavioural change</p>
Outcome 3: Restoration and adaptation technologies	<p>Coral reef restoration and adaptation technologies are made scalable, cost-efficient, and applicable to a variety of regional contexts; with proven outcomes for ecological resilience.</p>	<p>Restoration technologies developed and piloted</p> <p>Strategies for high-impact restoration</p> <p>Strengthened national policy frameworks based on robust business cases for coral reef restoration and maintenance</p> <p>Restoration guidelines and training on coral reef restoration</p> <p>'In situ' water restoration projects</p> <p>Identification of priority restoration sites within targeted MPAs</p>
Outcome 4: Recovery of coral reef- dependent communities to major shocks	<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>	<p>Mechanisms in place for rapid financial support to reef-first SMEs and MPAs impacted by shocks. This includes the use of parametric reef insurance.</p> <p>Crisis plans in place to mitigate impacts from supply chain disruptions, bleaching events, health crises, etc.</p> <p>"Blue" stimulus packages to help recovery after shocks.</p> <p>Alternative temporary employment during periods of crisis to aid recovery efforts and provide sources of income for those that have lost their livelihoods.</p> <p>Rapid material deployment to deal with crisis</p>

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1.4.3 Project outcomes and outputs

Due to the nature of the Fund and payment mechanism detailed in section 1.3.2, UK specific outcomes and outputs cannot be defined. The UK contribution will be aggregated with other donor contributions, so it will not be possible to track the specific projects and activities it is used for. However as established in the appraisal case, an attribution methodology can be used to estimate UK outputs and this is what will be used to track and report progress.

Therefore, it is more appropriate in this case to have high-level critical success factors which are more focussed on the Fund itself rather than the UK's contribution.

Critical success factors:

- 5 or more pipeline projects started by March 2022
- \$50 million pledged for 2021-25 into the grant window by June 2021
- \$60 million invested into the investment window July 2021
- \$125 million pledged for the grant window by December 2021

1.5 Cross overs and connections

There are similar funds which have been established in this field such as Ocean Risk and Resilience Action Alliance, Blue Action Fund, PROBLUE, Global Environment Facility (GEF) and Global Ocean Accounts Partnership. Whilst there is complementarity with all these organisations given the strong mission alignment, the GFCR is also sufficiently different to warrant separate investment, see Table 1 for further details on connections and differences.

The GFCR will look to build and complement existing initiatives in countries for maximum impact. Furthermore, the GFCR will work to develop enabling environments by addressing policy, capacity and financial barriers in countries that previous initiatives may have overlooked. The GFCR Global Team is already closely connected to these programmes and will engage with relevant organisations in each geography as it identifies the pipeline in order to collaborate, co-invest and share knowledge.

Table 2 Comparison between GFCR and similar funds

Programme	Purpose & objectives	How it differs from GFCR
Blue Action Fund (BAF)	Provides grants to conservation projects that hope to establish, enlarge or better manage MPAs and promote sustainable livelihoods in coastal communities.	Grants that are distributed mainly for marine and coastal conservation projects. Does not have a coral reef focus.
Global Environment Facility (GEF)	Set up to tackle our planet's most pressing environmental problems. Provides grants and mobilises finance through co-finances projects around the world.	Development of national and sub-national ocean economic activities. Focus on global environmental benefits.
Ocean Risk and Resilience Action Alliance (ORRAA)	Multi-sector model which aims to pioneers finance and insurance models that incentivise investment into nature-based solutions, with a focus on protecting the regions and communities that need it most.	Financial mechanisms to increase ocean resilience, notably insurance models which GFCR cannot commit investment to yet. Will provide crucial foundation for the activities of the

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		GFCR grant window. No coral focus.
ProBlue	The World Bank's umbrella multi-donor trust fund, that supports the sustainable and integrated development of marine and coastal resources.	Development of national and sub-national ocean economic activities. Fund investments focus on all seascapes, no coral focus. Contributions are primarily by government agencies and public financial institutions.
Global Ocean Accounts Partnership (GOAP)	Objective is to support countries to develop and subsequently embed ocean accounts so that they can be used to inform inclusive and sustainable decisions relating to marine resources	Takes stock of the state of a habitat on a regular basis and uses this information to make decisions. No coral reef focus, pilot sites are country focused and led by need.

Importantly the GFCR differs from all these initiatives, as these funds do not have a coral reef focus coupled with a blended finance model, where the focus is on increasing the investable pipeline through a close collaboration between the grant and investment windows. Furthermore, the GFCR also differs by its focus, targeting sites where reefs are the most resilient and interventions can reverse their degradation. The science concludes that this will give the coral biome the best chance of adaptation and survival, as well as offering the best VfM.

1.6 Gender equality and inclusion

1.6.1 Gender representation in the BPF

The BPF is committed to considering and incorporating the role, equality and inclusion of gender throughout our programming. All programmes funded through the BPF will be required to deliver in line with relevant UK legislation, such as the UK International Development (Gender Equality) Act 2014. Gender has been integrated into the design of the fund through the following:

- **Cross-cutting themes:** gender consideration is one of the cross-cutting themes of the BPF and integrated into the underpinning outcomes that steer the direction of the programmes;
- **BPF equality, diversity and inclusion (EDI) strategy:** sets out the BPF approach to ensuring that we include a mixed portfolio where EDI is mainstreamed throughout, as well as including programmes where EDI is specifically targeted;
- **Investment criteria:** The BPF will only invest in programmes that meet the required criteria.
- **Monitoring, evaluation and learning (MEL):** The BPF have designed fund-level indicators disaggregated to provide information on gender, such as number of projects or planning and/or governance processes with increased inclusion of local people and knowledge in decision making to improve the marine environment. Mid- and end-of-programme reports will investigate the potential impacts of the intervention on gender through targeted studies.

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1.6.2 Gender representation in GFCR

The GFCR has adopted UNDP Social and Environmental Standards (SES), gender equality will be an overarching principle in project-level screening. Gender equality and women's empowerment are programmatic principles embodied in all UN programmes and initiatives³¹. The GFCR is obligated to ensure adequate attention is paid to these principles in all of its programming. The Fund recognises 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 interventions³². Furthermore, empowerment of women is highlighted as an SDG co-benefit of the GFCR as detailed in the GFCR Theory of Change (ToC) (see figure 2).

³¹ Global Fund for Coral Reefs, Terms of Reference 2020-2030, http://globalfundcoralreefs.org/wp-content/uploads/2021/01/GFCR_TermsOfReference.pdf

³² Global Fund for Coral Reefs, Terms of Reference 2020-2030, http://globalfundcoralreefs.org/wp-content/uploads/2021/01/GFCR_TermsOfReference.pdf

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2. Appraisal Case

2.1 Introduction

The appraisal case evaluates the options for investment and where appropriate the expected results of these options. This case considers six delivery partners which address the issues laid out in the strategic case as well as meeting the BPF investment criteria. Where it was difficult to evaluate project impacts and effectiveness quantitatively, a qualitative evaluation has taken place.

The BPF investment criteria are based on the BPF theory of change, and the principles and conditions which are important for a project to deliver the greatest benefits for the world's poorest, the greatest environmental outcomes and prove VfM. The investment criteria draw upon HMG's Strategic Framework for ODA and aim to help embed its priorities within the BPF's delivery. VfM considerations are central to any appraisal and therefore embedded across all investment criteria.

Only those options which are considered sufficient across the BPF investment criteria and strategic goals are then considered for quantitative analysis. The options which we consider against the above criteria are:

- 1) Do nothing
- 2) UK developed fund
- 3) Bilateral programming
- 4) Global Fund for Coral Reefs
- 5) Global Environment Facility (GEF) additional investment
- 6) PROBLUE

Below we briefly describe the options and how they score against the stage one and two investment criteria.

Option 1: Do nothing/no additional actions

Under a do nothing scenario the UK would not make additional investments for the protection of coral reef ecosystems. Coral reef ecosystems will continue to be significantly underinvested in. It is likely that without intervention by the UK and other donors, as well as mobilised private capital, the pressures on reefs will grow with the resulting degradation and loss of reefs increasing, having the consequential impacts on livelihoods and food security. The UK has, thus far, been seen to provide global leadership in ocean protection and use with the Global Ocean Alliance (30by30) and similar initiatives spearheaded by the UK. A lack of investment in these crucial ecosystems would be a clear gap in the UK's approach to marine conservation and sustainable use. This represents the counterfactual used in this business case but consistently scores poorly against both stage one and stage two investment criteria, scoring just 5 out of a possible 52 (see summary table 3 for scores).

Option 2: UK developed fund

Under option 2 the UK would develop a standalone funding mechanism to mobilise private finance for the protection of coral reefs globally, likely via a contracted fund manager. The UK would have significant control over this fund and able to determine where and on what the money could be spent. Other donors could be invited to

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participate and contribute to the fund, strengthening UK collaboration and leadership in ocean issues, however the appetite of donors to contribute to a UK badged fund may be limited. This would be very much slower in delivery and more costly in administration than investing in already operating programmes, therefore it might require a greater level of investment than other options. This options scores well against the stage one criteria. This option however scores less well against the stage two criteria.

Option 3: Bilateral programming

Similar to option 2, the UK develops separate bilateral programmes with interested countries which the UK see as a priority for reef protection and in the greatest need for financing. It is unlikely that bilateral funding will attract other donor funds or mobilise private finance, however it would allow the UK to develop relationships with key strategic partners on ocean issues in the tropic and sub-tropics. Given that this is less likely to attract additional funding it is unlikely the proposed budget of £5 million will be sufficient to shift the dial on coral reef degradation. Further the administrative burden of bilateral programming can be significant. This option scores well against stage one investment criteria because it could be designed to meet all key objectives, however it is significantly weaker against stage two criteria.

Option 4: Global Fund for Coral Reefs (GFCR)

Under option 4 the UK provides a contribution to the GFCR of £5 million. The GFCR is currently the only global fund focused on mobilising private finance for the protection of coral reefs by investing in reducing the pressures that they face. The GFCR is a relatively new fund with a limited track record and therefore does pose potential risks for a UK investment. Equally the investment model, whilst rational and logical, is yet to be proven to be effective. However, the potential for the fund to create an effective enabling environment and mobilise large amounts of finance for the protection of reefs in a pioneering way is there as such it scores well against the BPF investment criteria.

Option 5: Global Environment Facility (GEF) additional investment

This option considers investment in the GEF additional to that which the UK already invests. The UK are one of many donors to the GEF and the facility does crucial work on issues of global importance, one of which includes coral reefs. The UK is unable to earmark funding to specific issues in the GEF and therefore only some of the UK finance might go to coral reefs. However, the fund is well established with a proven track record on funding environmental causes globally and already operates programmes in some of the key coral reef areas such as the Coral Triangle Initiative.

Option 6: PROBLUE additional investment

PROBLUE is an 'umbrella' trust fund housed at the World Bank and funded by multiple donors. The fund is designed to support the sustainable and integrated development of marine resources whilst ensuring health oceans. The fund aligns well with the UK priorities and the UK is considering an investment into PROBLUE separately to this business case. This option considers whether an additional investment, over and above any that might or might not be proposed by the UK for other reasons, for the

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specific protection of coral reefs is possible and desirable. The fund scores very well against both stage one and two investment criteria.

2.2 Investment Criteria Summary

At stage one only option 5, the GEF, is ruled out. Option 5 is ruled out specifically due to the lack of focus of the GEF on the marine environment when compared to the other options under consideration. This is a gateway criteria and therefore rules it out for further consideration.

Options 2, 3, 4 and 6 all scored very close and are therefore were taken forward to be considered against the business case strategic criteria.

2.3 Strategic case scoring

The final stage of assessment, we assess the options that pass the investment criteria against the strategic criteria from the business case.

Option 1: Do nothing/no additional actions

A do nothing option provides no additional investment or action on behalf of the UK to fund actions to support coral reefs or reduce the pressures that these habitats face. This means that habitats which support 25% of marine life, directly benefit a billion people, providing a source of food and income for coastal communities, and contribute \$36 billion annually to the global tourism industry could be lost. With the degradation and loss of these habitats coastal communities will face more exposure to shoreline erosion and inundation. Whilst the UK investment alone cannot solve all of these problems it is seen as a leader in marine protection, where the UK goes others follow. This has been evidenced by the 30 by 30 initiative and how we are looked to provide leadership in climate and wider nature financing. What the UK invests in and uses her political capital to pursue is seen as a powerful international signal both in governments but also to the private sector – often of far greater value than the direct investment itself (e.g. climate financing). If the UK chooses not to invest in coral reef protection it sends a clear signal to international partners that this is less important. An assessment of undertaking no additional actions to support coral reef habitats when assessed against the BPF investment criteria and strategic criteria showed that that a do nothing or no additional actions options remains insufficient to address the challenges and presents a risk to reef dependent livelihoods and global marine biodiversity. Therefore, **doing nothing is ruled out.**

Option 2: UK developed fund

A UK developed fund could be well targeted and provide good support to reef dependent livelihoods. It offers the opportunity to closely align operations with ODA strategic framework and country plans, as well as clearly badge operations as 'UK funded'. This would offer exposure for Global Britain branding. It could also build on the smaller projects of the Darwin initiative in relation to coral reefs³³.

³³ These are smaller projects (<£250,000) but offer some experience to build upon see e.g. <https://www.darwininitiative.org.uk/project/DPLUS061/> or <http://www.darwininitiative.org.uk/project/DPLUS010/>

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It scores less well however on the ability to use innovative finance vehicles, which presents a risk that the financial delivery model fails to match that required and therefore reduces potential additionality and value for money. It is also likely to require significant HMG management. Further, the lead time to design and prepare such a fund would present a very high risk of failing to disburse the allocated finance in 2021/22. Therefore this is **ruled out as an option**.

Option 3: Bilateral programming

Bilateral programmes offer the opportunity for the UK to develop new relationships or strengthen existing bonds with partner countries. This type of programming could be directly targeted at coral reefs and the other priorities of partner countries in accordance with the UK strategic framework.

The risk however is that the limited funding available would only offer the opportunity to do work on a limited scale in one or two countries. The approach would be highly unlikely to mobilise additional finance or use innovative finance instruments³⁴. The limited finance available through this option would risk only acting on a single pressure which reefs face and failing to tackle the problem in a holistic manner. Risking constraining the project impact and vfm of the investment. Similar to option 2, this option has significant delivery and financial risks as well; a long lead time (although shorter than option 2) will be required to engage and select partner countries and begin delivery.

Option 4: Global Fund for Coral Reefs (GFCR)

The GFCRs is the only fund which is dedicated, at scale, to the protection of coral reefs and the reduction of pressures on these ecosystems. Significant investment of \$6.1 million³⁵ (£4.4 million³⁶) has already be secured from Germany and philanthropic organisations to begin fund design and pipeline development. The fund design allows, and incentivises, acting on multiple pressures and a focus on the connectivity of ecosystems. The pipeline of projects and countries is strong with programming already in place which is expected to provide livelihood support for both reef dependent communities and create non-reef jobs. It is therefore ready for investment in this financial year.

Option 5: Global Environment Facility (GEF) additional investment

This was ruled out in the investment criteria stage. The facility would provide a known partner with a successful track record of delivering on environmental issues. However, as the UK cannot earmark finance to any environmental issue the marine focus of the Blue Planet Fund finance could not be guaranteed, therefore risking delivery against Blue Planet Fund strategic goals and Ministerial aspirations. This risk could not be mitigated and as such this delivery option is **ruled out**.

Option 6: PROBLUE additional investment

³⁴ It is likely that we would need to constrain the finance vehicle to grants, which given the expected lack of connection to the wider financial community lacks ability to mobilise equity or similar finance.

³⁵ All dollars in this business case referred to US dollar values unless otherwise stated.

³⁶ Converted from USD to GBP at £1:\$1.39. All £ refer to GBP unless otherwise stated.

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PROBLUE is not directly targeted at coral ecosystems or the pressures that they face and as such does not focus on reef dependent livelihoods. It also does not focus on mobilising private sector finance, rather ‘blueing’ existing Bank-executed projects. It is however expected to provide support to livelihoods in fisheries and aquaculture, tourism, maritime transport and offshore renewable energy and government institutions. An investment would offer the UK the opportunity to influence the wider multilateral architecture as the UK would be expected to sit on the partnership council. Investment and delivery risks are generally low as the World Bank is a trusted and experienced delivery partner and PROBLUE has moving into its second phase of operation. However, given the lack of focus on coral reefs and the central role these play in the rationale for intervention in this business case, PROBLUE is **not carried forward** for this investment.

2.4 Preferred delivery partner

The options analysis presented above indicates that the preferred option would be an investment into the **Global Fund for Coral Reefs (Option 4)**, which scored highest against both the BPF investment criteria and strategic criteria. In the remainder of this section we consider three investment options. Where possible, we outline our assessment of the quantitative VfM of the GFCR. Due to uncertainties on the nature of the exact projects under the GFCR breakeven analysis is primarily used to give an indication of minimum results required to achieve VfM.

2.5 Investment level options assessment

The grant facility of the GFCRs is expected to reach £32.4 million (\$45 million³⁷) at ‘first close’ mid 2021, with the target of £90 million (\$125m) committed funds by December 2021. Funds secured so far are outlined in the financial case and amount to a total of \$16.5m, excluding any UK investment. In this assessment we considered three investment levels for the initial UK investment into GFCRs as a grant payment:

- a) Low; £3 million in year one in a single tranche
- b) Medium; £5 million in year one, split over two tranches
- c) High level; £10million split over two tranches.

A. Low investment

The UK could consider a **small year one investment into the GFCRs in the region of £3 million**. A £3 million investment would equate to 20% of the current commitments to the GFCR. However, as other investors make commitments the UK share of funds in the GFCR would fall; £3 million equates to 9% of the ‘first close’ of the grant window and 3.3% of target of total committed funds by December 2021.

Compared to other options, a £3m investment would reduce the exposure of the UK to any perceived or actual delivery risks associated with this new fund. An investment of £3m compared to the medium level of £5m is unlikely however to change the

³⁷ It is worth noting that the GFCR TOR has just been updated and this indicates that they have increased the ambition of first close from \$45m to \$50m which will marginally alter this figure. This information was too late to fully update the analysis in this business case.

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reputational risks associated with any failure of the fund as the UK would still be recognised as a multi-million-pound investor. Therefore, the risk exposure of £3m is very similar to that of a £5 million investment.

Within the GFCR a financial commitment of 3.3% of the grant window would limit the UK's influence. The GFCR's strategic target is to identify a small set of core investors as members of the Executive Board. This is designed to keep board meetings manageable and allow for effective, consensus, decision making and will only include the largest donors. With 3.6 USD (c.£2.5m) raised from member states just to start up the fund – not to enable investments – it is likely that a commitment of £3 million would place the UK as one of the smaller future investors. The data in Table 9 (Financial Case) shows Germany for example have committed £8.6 million (\$12m) in 2021/2022. Therefore £3 million from the UK, about a third of Germany's contribution, would likely lower our influence and ability to direct influence activities. Possibly meaning that the fund is less likely to focus on our priority countries and/or regions or preferred activities.

To some extent, the UK investment is a signal to other investors in our confidence of these type of conservation fund; a perceived low investment level sending a signal that these perceived risky investments are just that. Whilst it is a qualitative judgement, the perception of an investment of circa 3.3% (£3m) of the fund value (excluding GCF) is likely to send a weaker signal when compared to the medium of high investment options considered.

As described in the strategic case, the problem of coral reef degradation and underinvestment is chronic. Internationally, it is unlikely that an investment of £3 million would show that the UK has a clear understanding of the scale of the problem or signal the UK's commitment to tackling it. The GFCRs has six projects in design phase with two in detailed approvals (Fiji and the Philippines). £3 million is only just enough to fund the Fiji case study described below.

A lower investment however would provide the UK with a chance to track the fund, be exposed to key conversations and investment considerations (although not having full influence over these) before making a heavy commitment. This would provide the UK government with an opportunity to 'see before you buy' and potentially invest more significant sums at a later date.

Whilst it is a qualitative judgement a UK commitment of £3m appears low compared to other investors and may limit our influence in the GFCR. Compared to the medium option this option does not appear to provide the risk-mitigating actions (reputational and delivery) that would justify this level of investment. However, it is **recommended as a 'do minimum' option** for this business case.

B. Medium investment

The medium investment level considered is £5 million (\$7m). This payment would be made in two tranches, one upon signature of the grant agreement and a further payment made in September, upon the condition of further finance being committed to the fund and projects coming forward.

A £5 million investment by the UK is a large commitment when compared to currently committed finance; it equates to 46% of funds committed so far, and about 60% of

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Germany's commitment. However, it would only equate to around 15% if the grant window at 'first close' and 8% of the targeted \$125m by December 2021. This level of investment allows space for other donors to contribute to the grant window whilst still placing the UK in a strong position to lead and influence GFCR programming, country selection and direction.

The two tranche payment structure allows the second payment to be released on the condition that the GFCR brings in other finance from other donors and has a healthy pipeline. This reduces the risk exposure of the UK and helps ensure good progress is made by the GFCR towards the \$125m fund raising target.

A £5 million investment would send a strong signal to coral reef countries around the world that the UK is committed to helping them to tackle the pressures facing coral reefs, whilst supporting livelihoods and growth, and helping them attract the finance required to provide a sustainable solution.

As the Fund is a new fund it does not yet have a detailed and large investable pipeline. Two projects (Fiji and Philippines) have so far been approved to be developed whilst further projects in Kenya, Tanzania, Indonesia, Maldives and Bahamas³⁸ have presented concepts to the board. They have been asked to come back with detailed proposals at the next meeting. This small pipeline of projects means that there is a potential risk of the fund not being able to develop a pipeline of investable projects at the pace required. However, the second UK payment tranche would not be released until we were confident in this.³⁹

The second risk worth highlighting is the GFCR failing to mobilise sufficient resources (from both donors and investors) to operationalise the grant facility or to fully capitalise the investment fund. As with the pipeline risks, the two tranche payment structure should mitigate this risk to some extent. Equally, a strong signal from key donors, such as the UK and Germany, should help the GFCR mobilise other donors. Other risks of a £5m investment are explored in the management case.

Being a new fund the GFCR does carry risks, however a commitment of £5 million, in our judgement, balances the delivery risks of a new fund alongside the need to signal the UK commitment to tackling the pressures facing coral reefs.

For the UK to maintain influence and our board position into the future, investments would be required of similar amounts at least every 3 years. By which point the fund would have established a track record of delivery and therefore reduce UK risks. It is therefore the **preferred option**.

c. High investment

The alternative is a higher level of investment (£10 million). This would send a powerful signal of the UK's commitment to tackling the problems that coral reefs face globally and place us as a global leader in this area. However, capitalising up to 30% of the grant window at first close limits the space for, and ability to, mobilise other donors to

³⁸ The UK will not be investing in the Bahamas as it is not ODA eligible.

³⁹ We remain in negotiations with the delivery partner as to the exact conditions.

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the fund. It also limits the opportunity for the UK to make future investments into the grant facility once a fund track record has been established.

This level of investment carries with it delivery risks, with the GFCRs unlikely to be able to spend the currently committed funds and the UK grant funding within one year as the pipeline is still in development. With a very limited amount of funding so far dispersed. Whilst at this time we have no expectation of the fund creating reputational risks for the UK, an investment of 30% of the grant window would expose the UK to these risks if they materialised.

A higher level of initial investment would move the UK out of step with the current and future donors to the fund as well as overly expose the UK to the delivery risk of this new innovative fund. Therefore, this higher level of investment is **rejected at this stage**.

2.6 Value for money assessment – effectiveness: Expected results

2.6.1 Environmental and poverty benefits

The options appraisal demonstrated that the GFCRs is the best fit with the BPF investment criteria and the strategic criteria identified in the problem statement. Successful delivery of the GFCR programme can be expected to provide a range of possible developmental and environmental benefits.

Local livelihoods can be expected to be supported through increased fisheries, protein availability, new jobs in non-marine industries such as waste recycling, tourism supported jobs such as in visitor centres or as guides or from park entrance fees, as well as marine industries such as rangers. Additional revenue streams may also be created from tourism, or losses avoided due to maintaining the ecosystem in good condition.

Local environmental and ecosystem service benefits can be expected also such as provisioning services but also, crucially regulating and bequest services provided by the ecosystems which have pressured reduced or removed as a result of the fund.

Increased carbon sequestration and storage in reef-associated coastal habitats such as mangrove forests or seagrasses is of both local benefit and, given the transboundary nature of climate change, global benefit. Equally, the ocean ecosystem is highly interconnected with local protection having impacts globally. For example, larval dispersion from protected systems has been shown to benefit ecosystems far outside the boundaries of the immediate areas⁴⁰.

Given the portfolio of projects under each individual country investment, everything from improved waste management to risk insurance to marine protected areas, it is extremely difficult to assess the expected results for the GFCR on an unknown portfolio. However, two projects in Fiji and Indonesia are well scoped and therefore provide an indication of the potential of projects under the GFCRs (see Box 2 and 3).

⁴⁰ In a study of the orange clown fish in PNG was shown to disperse beyond the single MPA with dispersers accounting for up to 10% of the recruitment in the adjacent MPAs (<https://www.pnas.org/content/106/14/5693>).

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The results from these projects suggest that they provide good VfM with high levels of expected results, Net Present Value (NPV) and Benefit Cost Ratio (BCR). Further projects in Kenya, Tanzania, PNG, Indonesia, Maldives and Bahamas have been presented to the Executive Board as outline concepts but at this stage are insufficiently scoped to allow us to use them for VfM and results analysis. If the UK makes an investment into the GFCR BPF analysts will assess each project for value for money.

Box 2: Case Study Fiji

The GFCR will contribute 8 per cent of the financing of a \$60 million project in Fiji, with further contributions from GCF and SDG. The project will operate in multiple sites on the two main islands of Fiji the programme is expected to deliver on local marine managed areas, landfill and waste treatment, and reducing the impact of fertilizers on the marine environment.

By 2030 the project is expected to deliver

- 30 locally managed marine areas (10 by 2022), and protection for 30,000ha of coral reef ecosystems
- food security and income protection for more than 40,000 fishers
- avoid destruction of 0.5hapa of mangrove forested destroyed
- increase in the fish stock in the 1000ha increasing harvested by 560MTpa
- reduce or avoided GHG emissions by 36,600MT pa
- avoid \$1billion/pa in tourism revenue losses
- 3,000ha of farmland that boarder coastal and waterways will be serviced
- increases in water quality and marine health across a marine area of 8,000ha

The NPV at a project level of the LMMA, landfill and fertiliser projects are estimated at \$8.6m and a BCR of 1.44⁴¹. This excludes the tourism benefits, including these the BCR becomes 188.

See Annex F for a detailed description of the outputs and vim assessment.

Box 3: Case Study Philippines⁴²

The Philippines programme is expected to cost \$12.1 million and focus on under resourced and enforced MPAs in three areas of the Philippines. The projects are expected to be implemented over 10 years, with benefits accruing over subsequent years. Project activities include nature-based tourism, blue carbon schemes, hatchery and aquaculture farmer support, and support for

⁴¹ The GFCR NPV is estimated at \$26.6m if full attributable, a BCR of 18.4.

⁴² See annex for detail of results and value for money assessment.

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sustainable fisheries. The expectation is that by 2030 \$50 million could be raised to scale up projects across the region.

The expected outputs and outcomes for the proposed 8 projects under the first investment in the Philippines are:

- **80 MPAs are effectively managed** in Verde Island Passage, Tanon Strait and Calamian Islands
- At least **36,000 ha of coral reef**
- At least **40,000 ha of mangroves**
- **80,000 vulnerable people** are protected⁴³

Undertaking a basic VfM assessment of these expected outcomes and a partial valuation of the benefits at the project level suggests these projects will provide a NPV of \$18.5 million and a BCR of 2.53.

See Annex F for a detailed description of the outputs and vim assessment.

2.6.2 Analysis of UK finance

As discussed above the unknown nature and likely wide range of possible projects into which the GFCR might invest means that providing a reliable and accurate estimate of results and VfM at this early stage is challenging. We have provided an estimate of the VfM of the two well scoped projects in Fiji and the Philippines in Box 2 and 3, but these are not necessarily representative of the whole of the GFCR and therefore linear scaling of the expected results is not recommended. Other country projects have come to the board in concept note form and a full submission is expected at the next Executive Board meeting. These will be assessed for VfM by BPF analysts before the UK Executive Board representative signs-off on these further investments.

We considered three levels of investment for the UK into the GFCR: low, medium and high. The strategic rationale behind each and the risks associated with these options are discussed earlier, this analysis suggested that a £5m investment was the preferred option. Here, we provide a simple quantitative assessment of these options.

To assist decision making, and provide a demonstration of VfM, we developed a simple model of the GFCR which only considered the primary objective of the fund; protecting coral reefs. The analysis considered a project which used the UK money to implement and manage marine protected areas on reef systems. The analysis only valued ecosystem services relating to coral reefs. All other benefits which could result from a GFCRs investment, such as improved or protected mangroves systems, waste management or greenhouse gas emissions avoided, were excluded from this analysis due to uncertainty, which likely **makes the analysis extremely conservative**.

We undertook two types of analysis. We performed a break-even analysis to understand how many hectares of coral reefs would have to be protected and losses avoided in order that the benefit cost ratio was equal to one, in other words, the point at which the monetised benefits are equal to the UK investment in the GFCRs. The

⁴³ Project proposal suggests 80,000 communities, we believe that this is more likely to mean 80,000 people or households.

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breakeven analysis provides an indication of the minimum number of hectares of reef which would need to be protected to ensure **minimum value for money**.

Secondly, a median estimate of area protected and BCR was provided using cost figures in Balmford et al (2004)⁴⁴. In an extensive review of MPA management costs Balmford et al (2004) estimated costs of management to be a median of \$45/ha⁴⁵ (2021 prices). It must be recognised however that costs of management of MPAs vary heavily. Primarily costs are determined by the size of the area, geographical proximity to inhabited areas and management and cost structure (e.g. locally or centrally managed) of the area as well as by country. Therefore **these results should be treated with some caution**.

2.6.3 Method

Above we have mentioned repeatedly the uncertainties associated with the results described here. To handle some of this uncertainty we have assumed low additionality and optimism bias, high discount rates, a basic level of service provision and valued only benefits directly attributable to coral reefs.

The model considered and monetised benefits directly relevant to coral reefs including:

- production values (reef fish production and tourism revenues)⁴⁶,
- regulating services (moderation of extreme events, waste treatment and erosion prevention)⁴⁷ and
- cultural services (aesthetic, existence and bequest values)⁴⁸
- carbon benefits were not assessed⁴⁹.

Using further data from Teh et al (2013) we can estimate the number of fishers and the number of people vulnerable to extreme weather events impacted by GFCR investments. Detailed methods, assumptions and results are described in Annex F.

2.6.4 Results

In terms of investment per unit area all options⁵⁰ breakeven at the equivalent to \$212/ha/yr over 30 years⁵¹. Balmford et al (2004)⁵² median estimated cost of management of \$45/ha⁵³ (2021 prices) is less than a quarter of the costs per hectare for this project to breakeven.

⁴⁴ <https://www.pnas.org/content/101/26/9694>

⁴⁵ Authors estimated price to be \$26.98/ha in 2000 prices, price stated assumed an inflator of 2.5%.

⁴⁶ Valued using data in Teh et al (2013) and Spalding et al (2017)

⁴⁷ Valued using ESVD global average values for these services

⁴⁸ Valued using ESVD global average values for these services

⁴⁹ It should be noted that carbon storage and sequestration benefits will have global benefits as well as local benefits but these are not assessed separately to other services due to the focus on the breakeven analysis on coral reefs and not the associated ecosystems.

⁵⁰ The linear nature of the analysis means the breakeven cost per hectare is equally across all investment levels considered.

⁵¹ After the removal of administrative and M&E costs.

⁵² <https://www.pnas.org/content/101/26/9694>

⁵³ Authors estimated price to be \$26.98/ha in 2000 prices, price stated assumed an inflator of 2.5%.

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The results for each option are shown in Table 3, given the simple structure of the analysis the results are fully linear between the options.

The medium level of investment breaks even when protecting 880ha of coral reefs. This is the equivalent to around 2% of the reef area in Haiti, less than 0.005% of the world's reef area or less than 0.1% of the area protected in the first tranche of UK Marine Conservation Zones. We estimate that at the breakeven point the £5m investment would support 120 fishers and protect 2,500 coastal people. These breakeven estimates are far below the estimated results from the Fiji and Philippines investments, suggesting so far the GFCR is demonstrating value for money even in more complicated investments.

Table 3: Estimated results at the breakeven point for each investment option

	A. £3million		B. £5million		C. £10million	
	Breakeven	\$45/ha	Breakeven	\$45/ha	Breakeven	\$45/ha
Reef area protected (ha)	520	2,480	880	4,180	1790	8,340
Number of fishers supported	140	640	120	1,060	440	2,120
Number of people protected	2,060	9,780	2,480	16,420	6,940	32,840
NPV	£0	£15,560,000	£0	£26,125,000	£0	£52,250,000
BCR	1	4.73	1	4.73	1	4.73

At the median cost of \$45/ha we estimate that a UK investment of £5m could protect over 4,100ha of reefs and support over 1000 fishers and 16,000 coastal people. It would also provide a UK BCR of 4.73.

The results are directly scalable to other investment levels and therefore this analysis cannot be used to decide on investment levels. It does however suggest that even at the higher level of investment (£10m) the area of reefs required to be protected to ensure a minimum value for money is only 7% of that protected under the Fiji or Philippines proposals.

The analysis suggests that the project is likely to more than breakeven – whatever the level of investment, thus providing value for money. It is important to recognise however that the GFCR is not just concerned with marine protected areas but also other interventions which remove pressures from reefs such as reducing runoff and leaching into the marine environment. As explained above we have not considered these interventions as part of the breakeven analysis which has focused on valuing the outcome of the intervention – protection of reefs. However, the difference between the breakeven and the median estimate of the cost of improved management (\$45/ha) also suggests that there is headroom in the project to invest in more costly interventions than marine management, such as low-cost ecosystem restoration and infrastructure projects and still provide good VfM.

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The quantitative analysis does not indicate a change to the preferred option or the do minimum options outlined in the previous section. The preferred option remains an investment of £5m in two tranches in year one.

2.7 Value for Money - Efficiency of delivery: Administration fees

The administration fees remain the same percentage independent of the investment made by the UK. The GFCR administrative fee structure is designed to avoid the cascading of fees and high management costs, which should promote VfM in delivery. It remains the same structure independent of the chosen UK investment level. There are three stages of fees;

1. UN trust fund management fee (percentage of funds under management)
2. GFCR secretariat function cost (absolute amount)
3. Project delivery organisations administration fee (percentage of project cost)

First, the UN manages the trust and levies a 1 per cent management charge on the full value of the trust fund each year. Secondly, the secretariat function provided by the global fund team is allocated funds every year depending on the requirements of the fund. This year the Executive Board allocated \$840,000 (£604,000) for the secretariat function including staff salaries, on-costs, travel and other functions. Current 2021 contributions from the public donors (governments and foundations), including £5m from the UK, amount to \$13.1m. Therefore, the secretariat fee in percentage terms is 6.4 per cent. However, as more funds are committed the percentage share allocated to the secretariat functions can reasonably be expected to fall.

The third administration fee levied is that by the project implementors/contracting parties (International Non-Governmental Organisations (INGOs) largely). They have the ability to levy up to 7 per cent of project cost in administration fees. Therefore, adding the management charge, secretariat function costs and project delivery organisations administration fees total administration fees can be expected to be a maximum of 14.4%. However, as mentioned above this can be expected to fall as more funds are committed.

The fees allowed to be charged by the project delivery partners under the GFCRs are lower than the GEF and the GCF. The Secretariat fees of the GFCRs are higher than those of the GEF and the GCF as a percentage. However, it is worth noting that these two funds are significantly more established than the GFCRs and spend in absolute terms a lot more (e.g. GCF is \$61.8m). This data suggests that GFCRs do have comparable administrative costs to other delivery options and/or international funds. The fee structure is independent of the level of UK investment considered.

2.8 Co-financing

There are likely to be a range of co-financing arrangements under GFCR to ensure that the projects can be successful; finance within the GFCR (i.e. other donors contributing to the fund), finance coming from the GCF and additional finance at the project level.

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The grant facility of the GFCRs is expected to reach £32.4 million (\$45 million⁵⁴) at 'first close' mid 2021, with the target of £90 million (\$125m) committed funds by December 2021. Funds secured so far are outlined in the financial case and amount to a total of \$16.5m, excluding any UK investment. We understand that other interested countries include Sweden, France, Norway, Netherlands, Denmark, Australia, Canada, Japan and the EU, although no public commitments have yet been made. We will use the UK influence on those countries with which we have good relations to help the GFCR bring further donors into the fund to ensure the grant facility is fully capitalised.

The fund is applying for \$125m in funding from the GCF (to which the UK also contributes), with the expectation of approval by the end of the year. We will work with the UK representative to the GCF on how we can most effectively support the GFCR proposal to the GCF.

To fully fund the projects into which the GFCR invests, the GFCR expects to mobilise a further £1.4bn – £2.2bn (\$2bn-\$3bn) in additional funding from other private and public sources. Judging from the current proposals considered by the GFCR other public funding sources include other donors and international funds such as the joint SDG fund, GCF, GEF and similar. Judging by the pilot programmes presented as case studies and leverage in other multilateral funds with similar set ups (e.g. GCF) this appears realistic but ambitious. Project financing is a complex web of overlapping funds and investors, therefore it is not recommended that this additional finance is counted as UK mobilised, but we will monitor this for M&E purposes.

2.9 Conclusion

The options appraisal demonstrated that the GFCRs is the only delivery option which provided a good fit with the BPF investment criteria and the strategic criteria identified in the problem statement. The fee structure used by the fund suggests that the fund should be efficient in delivery, minimising administration and project costs, ensuring the maximum funding reaches those who need it. The two case studies demonstrated that these two projects are likely to provide value for money to the GFCRs with BCRs of 1.5 and 2.5. These projects are the only ones which have so far been well scoped by the GFCRs. The wide range of interventions proposed by the GFCR for future projects means that any targets/estimated results of environmental and livelihood benefits is likely to be highly indicative. For this reason we have focused the quantitative analysis on breakeven points.

The breakeven analysis suggests that should the UK money **prevent losses of 880ha of reef area over a 30 year period** this will have provided value for money for the UK investment. We identified data which indicated that the actual costs of reef management were likely to be significantly lower than estimated in the breakeven analysis, suggesting the BCR should be well above one for the UK investment. Future projects will be subject to a VfM analysis by UK BPF analysts at the Executive Board stage.

Preferred option

⁵⁴ It is worth noting that the GFCR TOR has just been updated and this indicates that they have increased the ambition of first close from \$45m to \$50m which will marginally alter this figure. This information was too late to fully update the analysis in this business case.

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We consider **an initial investment of £5 million in two tranches in year one** provides the appropriate balance between risk and influence for the UK, with consideration for further investments to maintain the UK's board position in the future. Quantitative analysis showed that the breakeven point is sufficiently low to give us high confidence in this providing value for money to the UK investment.

Do minimum option

The **do minimum alternative option should be considered as lower investment in GFCR (£3m)**. Given the risks,⁵⁵ outlined in the delivery partner options appraisal, associated with both UK-badged corals fund (option 2) and bilateral funding (option 3), and the lack of focus on corals of either the GEF (option 5) or PROBLUE (option 6) it is unlikely other delivery partners would be appropriate to meet our objectives. However, a lower level of finance would bring some advantages to the UK. This would still ensure that the UK was involved in the GFCR from the early stages and thus able to guide it towards our priorities. The approach would use an appropriate financing mix to tackle the issues that corals face (although at a lower scale). However, this level of financing would mean that the UK might not be able to take seat on the executive board (and therefore have lower influence in the fund direction than the preferred option). The quantitative analysis has indicated that £3m investment would lead to fewer results than a higher level of commitment. There is a further risk that a limited UK investment could also act as a signal to other partners, donors and private investors that the fund is more risky and less stable, or the issues is of lower importance, thus risking mobilising additional finance to the levels required to tackle the problem in a holistic manner.

⁵⁵ Specifically the long lead time

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3. Commercial Case

3.1 Competency of the delivery organisation

The GFCR is the first Multi-partner Trust Fund for SDG 14 which integrates public and private grants and investments, which became an official UN fund in July 2020. The fund sits under the body of the UN, an intergovernmental organisation that aims to maintain international peace and security, develop friendly relations among nations and achieve international cooperation.

The GFCR will be managed through the UN Multi-Partner Trust Fund Office (MPTF Office) the legal structure of which is shown in Figure 3. 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 limited via a dual trustee function split between grants and working capital, which will be regulated through responsible party agreements.

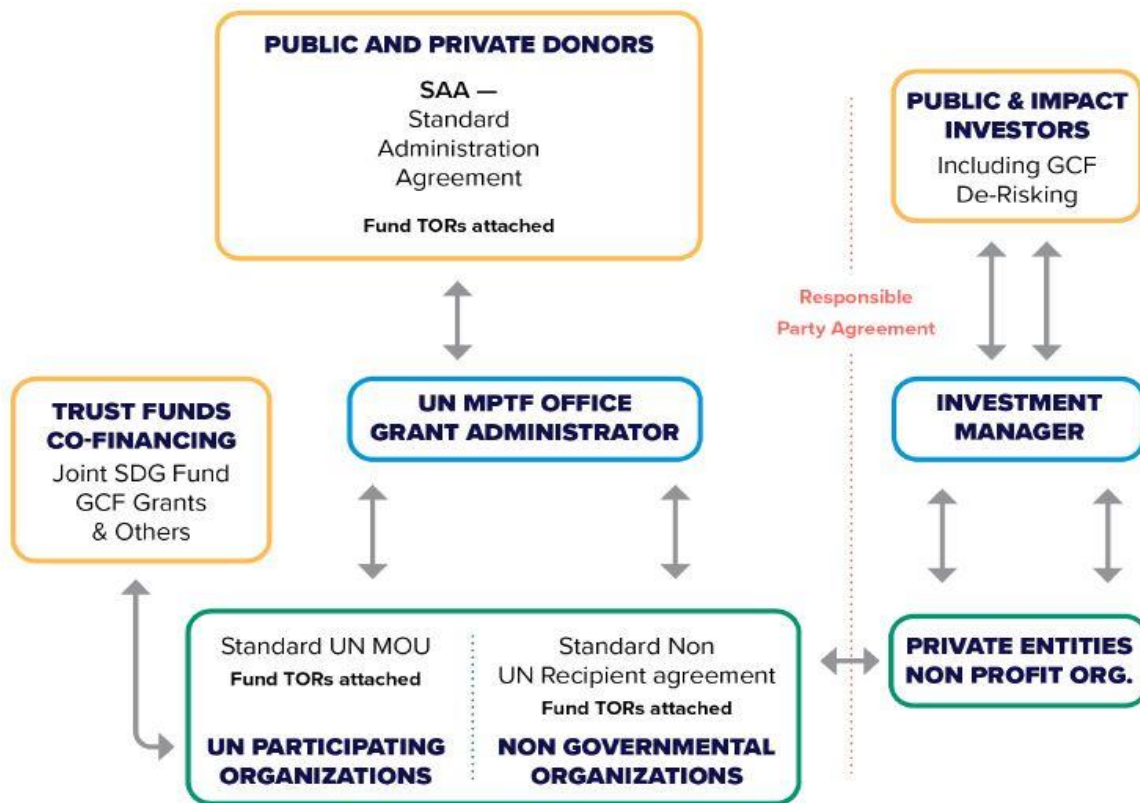


Figure 3 The legal structure of the GFCR

3.2 Due diligence

The Project Manager has undertaken due diligence checks against the delivery partner, this includes the Defra Group Commercial due diligence checklist which found no issues and a scored a green recommendation meaning very limited risks. The GFCR team also provided a completed due diligence questionnaire, answering a

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variety of due diligence questions from governance and internal control, ability to deliver, financial stability to downstream delivery, none of which raised any issues.

The GFCR has its own due diligence structures in place which deal with downstream delivery, for example when assessing implementing partners for the grant window. The Fiduciary assessment is carried out through Harmonized Approach to Cash Transfer (HACT) following the standard UN procedures and an independent verification by a potential implementing partner is contracted by the MPTF Office to confirm their suitability to receive funding. The HACT is a risk tool which is used by a number of UN agencies when dispersing funds downstream, further information can be found [here](#).

The MPTF Office has used the UNDP Risk Assessment Tool to conduct due diligence on BNP Paribas, the Investment Window Manager. BNP Paribas 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 Fund the Asset Manager 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 Fund were red flagged during the process.

3.3 Why is the proposed funding arrangement the right one for this intervention, with this delivery partner?

Having considered the alternative options to deliver the desired outcomes of this business case, such as competing this opportunity, the conclusion was that a direct award to GFCR is the most optimal route to market due to their specialised offering. GFCR are in a strong position to deliver on our shared vision, as described in the strategic case, and UN agencies have a strong track record in this area including other projects funded by Defra. GFCR are also in a unique position to deliver on our expectations and requirements because no other fund has a coral reef focus coupled with a blended finance model. 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, which Defra funding would mobilise. Whilst other funds may undertake projects on coral reefs, the GFCR using targeted grants and investments to fund initiatives can enhance global and local capacities to urgently deliver smart solutions at scale.⁵⁶

Furthermore, the GFCR is different from other funds by targeting sites where reefs are the most resilient (more details in section 1.5). No other investment in this area would have the support of three UN agencies (UNDP, UNEP, and UNCDF) working together under the umbrella of SDG 14. Each organisation brings its own distinct offering to the Fund, which are:

- 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

A contribution is the most appropriate funding mechanism for this project. Defra will be making an investment into the Fund, taking a seat on the Executive Board, where

⁵⁶ GFCR (2021). Theory of Change, http://globalfundcoralreefs.org/wp-content/uploads/2021/01/GFCR_TheoryofChange.pdf

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we will have good influence over where funding is disbursed. However, Defra funds will be mingled with other donor's and currently we do not know where all funds for FY21/22 will be spent. For this reason, the Agreement will not specify the exact deliverables nor what the funding will be spent on, as this will be determined later by the Executive Board. Therefore, the Fund will only be able to provide detailed reporting from a Fund level perspective only, as oppose to tracking Defra funding in isolation. However, as seen in the appraisal case an attribution methodology will be used to track spend and report against BPF Key Performance Indicators (KPIs). In addition, Defra will be required to sign the Donor Agreement, as oppose to our standard Grant Agreement.

3.4 Management and Governance

The governance structure of the GFCR (Figure 4) has three key components: overall 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)⁵⁷.

Governance arrangements are built on and informed by the UNs five principles which are innovation, transparency, accountability, public-private partnership, and integrated programming.

The Grant Administrator and the Investment Manager will be responsible for coordination of the implementing partners, such as the UN agencies, MDBs, NGOs and private companies. The GFCR Global Team will be responsible for the coordination, programming and monitoring and evaluation, which will receive its instructions from the Executive Board (which the UK will be a member of) who are advised by the ICRI advisory board.

As referred to in the economic and financial cases, this initial investment will go towards the grant window of the Fund. Grants will be delivered on the ground by implementing partners, partners will be selected either based on an initial expression of interest exercise, or an advertised open call for proposals over a specific period, ran in accordance with standard UN practices and procedures.

3.5 Social and environmental safeguarding

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

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

3.6 Budget and payment mechanisms

Defra will have a seat on the Executive Board of the GFCR, where Defra will be able to input into how investments are made. However, Defra will not have absolute

⁵⁷ Global Fund for Coral Reefs, Terms of Reference 2020-2030, http://globalfundcoralreefs.org/wp-content/uploads/2021/01/GFCR_TermsOfReference.pdf

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discretion over investments made as part of the GFCR. Therefore, writing a precise budget breakdown will not be possible at this stage. For the same reason, the exact deliverables cannot yet be known. The strategic case however does describe the activities which Defra's investment could be spent on. Also, the workings of the Executive Board are discussed further in section 5.1.

Full payment will be made towards the beginning of the Financial Year, estimated June 2021 at this stage, in advance of the activities commencing. As described above, the Executive Board will decide what activities the funds will be spent on.

3.7 Domestic Subsidy UK

The funding delivered in this project needs to ensure compliance with the following 3 regimes:

1. World Trade Organisation (Agreement on Agriculture)
2. New subsidy controls under the EU-UK Trade and Cooperation Agreement (Chapter 3)
3. Northern Ireland Protocol Art 10

Relevant WTO and UK subsidy colleagues have been consulted and provided the following advice. The project does not provide support to agricultural producers or processors, so it is outside the scope of the WTO Agreement on Agriculture. The fund will not provide an economic advantage to any economic undertakings in the UK as there are no grants being made in the UK, so there is not possibility of economic advantage to countries on the UK mainland or Northern Ireland as no subsidy exists under regimes 2 or 3.

3.8 Key contractual arrangements

UNDP MPFT Standard Administrative Agreement (SAA) will be used to govern the relationship between Defra and the GCFR. This template will be used by all contributors of the Fund and will therefore standardised the approaches to reporting, monitoring, auditing, however recognising the individual needs of investors which will be reflected in dates and unique clauses in the agreement. The UK has signed various UN MPFT SAA's previously, therefore there should be no issues.

Information on admin fees can be found in the appraisal case (section 2.5.1).

3.9 Commercial risks

The key commercial risks in this investment include:

- Limited control over where and how our funds are spent.
- Fluctuations in exchange rates could cause a reduced sum of money. In the event of adverse currency movement, there will be reduced potential for project delivery
- Difficulty in directly being able to attribute every £ to specific activities and outcomes

Those mentioned above are discussed further within the main business case risk register, section 5.6.

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4. Financial Case

4.1 Nature and value of the expected costs

The total contribution of funding from Defra for this project is £5 million in financial year 2021/22, financed from Defra ODA allocation. Currently Defra’s proportion of the funding equates to 53% of the GFCR total investments for period, however this percentage is likely to decrease as other donors are expected to join the Fund this year.

The GFCR has requested between \$10-15 million for a country to become a member state, therefore our intention will be to fund at least £10 million across the timeline of the BPF, via a cost extension to this business case. We are not in a position to commit to a future years spending profile, however future year funding will be a priority as the BPF is manifesto committed spend. The money required for future years will be sort from the next SR (2022/23) to fund additional £5 million across the timeline of the BPF.

Our UK investment will contribute towards the grant window of the fund, see Figure 4 for details on the blended finance structure.

Due to the nature of the GFCR where donor funds are co-mingled, specific outputs cannot be assigned to specific donors, however donors do have the opportunity to influence the pipeline of projects through the Executive Board. Defra’s investment will be made as a contribution, which is the most appropriate mechanism to release funding.

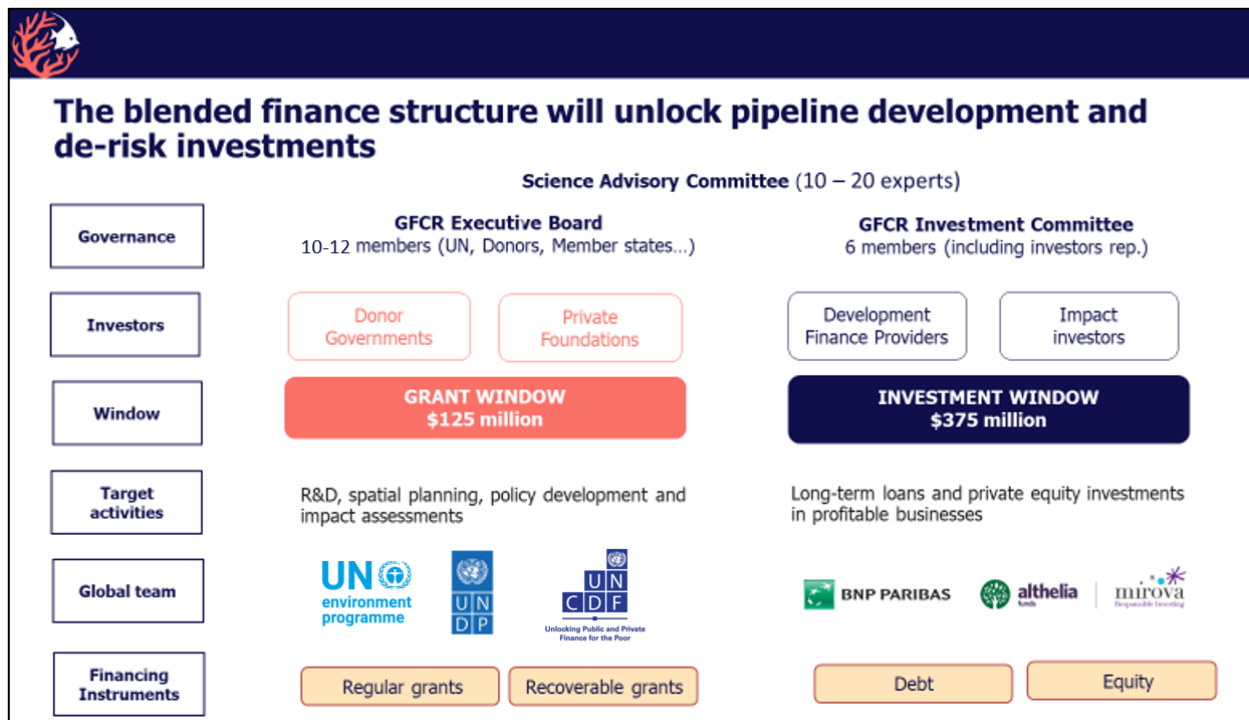


Figure 4 GFCR blended finance structure

4.2 Other investors

So far 6.1 million USD has been secured for the initial operationalisation of the Fund in 2021 (3.6 million USD Member States, 2.5 million USD Philanthropy). This includes an investment from Germany’s Federal Ministry of Economic Cooperation and

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Development (BMZ), the Paul G. Allen Family Foundation and a contribution from the Prince Albert of Monaco Foundation.

4.3 Accounting Officer Tests

Affordability (and financial sustainability): the first year of this investment has an allocated budget from financial year 2021/22, subsequent investment will be delivered subject to the agreed availability of future budgets.

Regularity: the project will be managed in accordance with HMT's Managing Public Money guidance and in line with the Defra ODA guidance. Legal powers are in place through the International Development (Official Development Assistance Target) Act 2015. This project meets the ODA requirement that the activity must promote the economic development and welfare of developing countries as its main objective.

Propriety: ODA funding will be allocated under Section 1 of the International Development Act 2002 and expenditure will be in accordance with this legislation and all ODA requirements. The project will not breach any parliamentary control procedures or expectations, Defra Board governance structures will be followed which are guided by the Corporate Governance Code. Additionally, payment in advance has HMT approval for this project.

Value for money: the recommended option for funding has been appraised carefully against alternatives, including a do nothing option as well as alternative funding mechanisms and delivery approaches.

Feasibility: the need for investment has been outlined in the strategic case, the investment can be realistically be implemented accurately, sustainably and to the intended timescale. The delivery partner is an experienced UN body and has well established processes in place to provide assurance that the programme will be delivered as intended.

The Accounting Officer Assessment pro forma can be found in Annex G.

4.4 Front Line Delivery Costs

Within HMG, managing the UK's contribution, as well as influencing and participating in key decisions, will require the below staff dedication (Full Time Equivalent (FTE)). Defra has sufficient Front Line Delivery (FLD) resources under the current SR to fund staffing cost for this project budget. Recruitment is not required, these resources are already in place.

Table 4 Defra staff dedication (FTE)

Internal HM Government staff dedication (FTE)	
Grade	DEFRA
G7 (London)	0.1 x £71,279
G7	0.1 x £65,724
HEO (London)	0.3 x £44,615
Total	£27,084.80

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4.5 How will funds be paid out?

The investment will be made as a contribution to the GFCR. This will be made as two payments directly into the Fund, in advance, and will be paid into the UNDP MPTF Office account.

The GFCR are a new fund which does not have the funds upfront and as a UN fund require money in the bank before committing to partners and therefore we will make payment in advance. The UN has an agreement in place with HMT to allow for this, and the UN MPTF are included in this exemption. The Defra financial regulation team have also approved payment in advance.

Defra will not be expected to pay any more than the £5 million, therefore there will be no over-run costs.

Table 5: Payment schedule

Milestone	Expected date of invoice	Estimated amount of funding payable
1 st tranche	June 2021	£2.5 million
2 nd tranche	September 2021	£2.5 million

4.6 International Climate Finance proportion

It is likely that a proportion of this project will be accountable as International Climate Finance (ICF). Climate change will be a cross cutting theme throughout the GFCR, and climate change mitigation will be reported on within the Fund's Key Performance Indicator (KPI) framework (see Annex A).

The estimated percentage of ICF in this programme will be calculated and will be reassessed throughout the lifetime of the project. The project will be in compliance with ICF regulations and reporting, which are already embedded into the BPF Monitoring, Evaluation and Learning (MEL) framework.

4.7 Financial management: monitoring, reporting, accounting

4.7.1 Defra financial management requirements

We require annual audited and quarterly unaudited financial reports, which will be detailed in the contribution agreement. Table 8 below indicates when reports will be required.

Table 6: Financial reports and when they are required

Document	Lead	Description	Form	Cycle	Expected Deadline
Financial report	GFCR Grant Administrator and Investment Manager	Quarterly report on spend	TBC	FY21/22	May 2021
					August 2021
					December 2021
					April 2022

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External financial audit	GFCR Grant Administrator and Investment Manager	Final financial report	TBC	FY21/22	April 2022
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4.7.2 GFCR financial management requirements

All donors of the GFCR are expected to sign a contribution agreement, the Standard Administrative Agreement.

All implementing partners are required to undertake financial annual statements, as agreed upon in the legal agreements co-signed by the GFCR Grant Administrator.

On the investment side the Fund's Secretariat require BNP Paribas, as the investment manager, to conduct all financial reporting on their investment portfolio. Further details of the finance model and financial flows can be found in Figure 5.

The GFCR will produce financial reports quarterly, which will be made public. Implementing partners will provide narrative reports every six months. Formal annual reports from each implementing partner will be combined and presented to the Executive Board.

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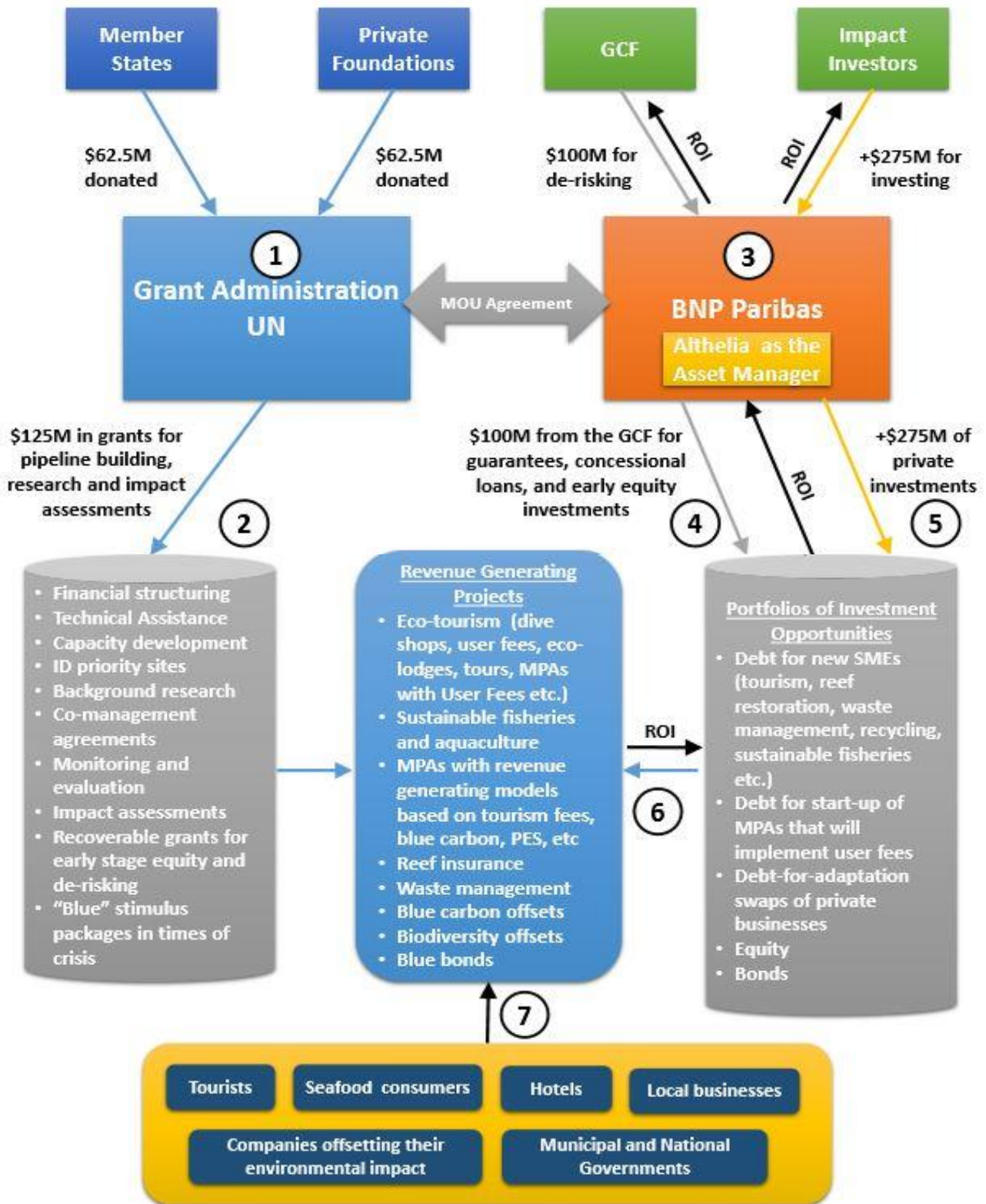


Figure 5 GFCR blended finance model and capital flow

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4.8 Financial management

There is no expected accrued costs, leftover funds or interest as a result of this investment. The investment will be paid out in pounds sterling and transferred into US dollars by the delivery partner, therefore there is no financial risk due to fluctuating exchange rates on our side.

4.9 Financial fraud and risk assessment

In line with ODA guidance, Defra expects all organisations to have a zero-tolerance approach to fraud and corruption; acting immediately if it is found, working with authorities to bring perpetrators to account and pursuing aggressive loss recovery approaches. Therefore, the GFCR must and do have systems in place to detect and combat fraud. A full fraud risk assessment has been completed for this investment, which the Defra counter fraud team have reviewed.

UNDP have a zero tolerance for fraud and corruption⁵⁸. Implementing partners are responsible for familiarising 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. Standard UN procedures and operational arrangements are in place set out in the MoU between UNDP, UNEP, UNCDF, and the MPTF Office, which include fraud, corruption, and any other abuses of power. Standard UN procedures include the following preventative measures:

- fraud awareness
- building fraud prevention into programme and project design
- management of the risk of fraud and corruption
- fraud risk assessment
- internal control system
- integrity and other best practices
- application and adherence to standards and codes of conduct

4.10 Provision for Defra to Withdraw Funding

The scenarios of potential suspension of funding, termination and returns to DEFRA and how they might be triggered, including by the monitoring and reporting cycle, are as follows:

Table 7: Scenario timing and reporting trigger

Scenario	Timing and reporting trigger (if relevant)
Occurrence of any illegal or corrupt practice	Annual Reviews (by Defra), monthly updates (from the delivery partner)

⁵⁸ UNDP policy against fraud and other corrupt practice. 2015. Pdf: https://www.undp.org/content/dam/undp/documents/about/transparencydocs/UNDP_Anti-fraud_Policy_English_FINAL.pdf

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<p>“Extraordinary circumstances that seriously jeopardise the implementation, operation or purpose of the programme”</p> <p>This is primarily designed to cover instances of force majeure. We assess this may also provide some cover in extreme cases of under-delivery.</p>	<p>Annual Reviews (by Defra), monthly updates (from the delivery partner)</p>
<p>“If GFCR does not fulfill its commitments according to the cooperation contract”</p>	<p>At the time if/when this happens or if identified as part of Annual and monthly reporting, Annual Reviews, independent evaluations at mid-term points</p>

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5. Management Case

5.1 What are the management and governance arrangements for implementing the intervention?

5.1.1 Roles and Responsibilities

A grant agreement will be signed, setting out the roles and responsibilities of Defra and the GFCR, this will be the UNDP MPTF Standard Administrative Agreement as a requirement of the GFCR.

The GFCR will be responsible to day-to-day management of the project, with Defra taking an oversight position. The Defra Project Manager and UN MPTF Office will communicate monthly via virtual meetings, to track progress against the workplan, the regularity will be monitored and adapted depending on need.

5.1.2 Defra governance arrangements

The Defra Project Manager will be required to report to the BPF Programme Board, which has oversight of all BPF investments, their timelines and the potential risks. There will also be requirements to report to the Marine & Fisheries programme board, and the BPF Joint Management Board on a regular basis.

The project will also be required to report to the ODA Board. The role of the ODA board is to provide accountability and assurance for Defra's ODA budget and to provide strategic direction for Defra's ODA spend. The ODA board meets quarterly and consists of Senior Civil servants from FCDO and Defra. Within Defra the ODA Board has a remit to:

- Monitor the strategic direction for ODA spend in Defra
- Monitor the implementation of Defra's ODA strategy and policy priorities
- Clear Business Cases for ODA spend above £5 million
- Monitor progress against the results set out in business case
- Monitor and advising on significant risks to implementation
- Recommend remedial actions to the SRO if operational or financial performance is off track
- Ensure ODA rules are met
- Ensure consistency with X-Whitehall ODA rules.

5.1.3 GFCR governance arrangements

Under the GFCR grants are managed by the UN Grant Administrator and a dedicated Executive Board, which the UK will sit on for the duration of the BPF (+1-2 years), and a Secretariat. The Executive Board is made up of public donors (member states), philanthropic donors and the UN. As well as managing the grant window 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 meets three times a year (in person/virtually) or as frequently as required to efficiently carry out the its roles and responsibilities. All representatives have the right to participate fully in meeting deliberations, and decisions are taken by consensus.

The investment window of the GFCR will be managed by the BNP Paribas allocated Investment Manager. BNP Paribas will use its expertise and network to source investment capital and mobilise it towards portfolios of return generating coral reef

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conservation projects. GFCR and BNP Paribas have partnered with the Althelia Funds, to serve as the asset manager. Using the Althelia Fund's expertise in impact-driven investments in the blue economy and marine natural capital stemming from their Sustainable Ocean Fund.

5.2 HM Government staffing – Resource Requirements

The project will require minimal Defra resource, resources will be mainly required to monitor progress, keep up governance arrangements and partake in Executive Board meetings. A combination of the Project Manager, Grade 7 and Grade 6 of the International Blue Finance team will be required to attend the biannually Executive Board. Please see the FLD requirements in table 4.3 of the financial case for cost details. Recruitment is not required, these resources are already in place.

5.3 How will progress and results be monitored, measured and evaluated

5.3.1 Defra monitoring, evaluation and learning requirements

As a BPF investment the project will follow the BPF Monitoring, Evaluation and Learning (MEL) framework. This sets out how MEL activities will support the BPF to identify what impact it is achieving, which activities and approaches are working or not, help to assess the programme's value for money and performance, and contribute to the global evidence base for intervention areas.

MEL activities will likely include (this will be developed as the project starts to deliver):

- **routine monitoring** of activities to track their impact, results and progress, such as through annual reviews, which help departments manage the programme's performance and maintain VfM;
- a process of **mid-term and end-term evaluation** of projects and programmes to assess their contributions and identify if they are meeting or have met milestones and expectations for performance and delivery;
- promoting **learning** and building the evidence base where this is weak to inform future programming and adaptive management of projects.

A logframe will be developed in collaboration with GFCR, detailing a defined set of outputs for the investment with specific indicators, which will allow progress to be monitored.

5.3.2 GFCR monitoring, evaluation and learning requirements

The GFCR global team have their own monitoring, evaluation and reporting framework. The global team and grant administrator will be supplied with narrative progress reports and annual financial reports from implementing partners. Narrative reports will be submitted every 6 months and the Executive Board will be updated on work regularly and on request for spotlight presentations. Formal annual reports from each implementing partner will be combined and presented to the Executive Board.

Annual and final reports will be results-oriented and evidence based, giving 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.

The GFCR global team will be responsible for the continuous monitoring and evaluating of all fund programmes, this data will be consolidated into programme-level

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information in a central, results-based management system. Performance data will be gathered at the outcome and outputs level.

5.4 Milestones and Workplan

A high-level overview of milestones for this project is below. Due to the nature of the contribution agreement and the structure of this being an UN MPTF, UK specific milestones are limited.

Table 8 High-level milestones and expected dates

	Milestones	Expected date
1.	Second Executive Board meeting (the UK's first as a member)	June 2021
2.	First close of the GFCR grant window (\$50 million)	June 2021
3.	First close of the GFCR investment window (\$60 million)	June/July 2021
4.	Grant window \$125 million pledged in total, to be mobilised and programmed over 10 years	December 2021
5.	End of year one investment	March 2022

Table 9 GFCR workplan, including sources of funds and use of funds (2021/22)

	2021	2022	Total
Sources of Funds			
Paul G Allen Family Foundation	2 000 000 USD	2 000 000 USD	4 000 000 USD
Prince Albert II of Monaco Foundation	500 000 USD		500 000 USD
UK	7 000 000 USD		7 000 000 USD
Germany	3 600 000 USD	8 400 000 USD	12 000 000 USD
Total: Sources of Funds	13 100 000 USD	10 400 000 USD	23 500 000 USD
Use of Funds			
Trustee Fee	131 000 USD	104 000 USD	235 000 USD
Global Team	840 000 USD	1 000 000 USD	1 840 000 USD
M& E	200 000 USD	400 000 USD	600 000 USD
CFA	50 000 USD	100 000 USD	150 000 USD
Asset Manager	500 000 USD		500 000 USD
Fiji	1 000 000 USD	1 000 000 USD	2 000 000 USD
Philippines	700 000 USD	2 000 000 USD	2 700 000 USD
Indonesia	2 600 000 USD	1 000 000 USD	3 600 000 USD
Maldives	600 000 USD	500 000 USD	1 100 000 USD
Kenya - Tanzania	850 000 USD	2 000 000 USD	2 850 000 USD
Bahamas	600 000 USD	1 000 000 USD	1 600 000 USD
Country 7	100 000 USD	1 000 000 USD	1 100 000 USD
Country 8	100 000 USD	1 000 000 USD	1 100 000 USD
Country 9	100 000 USD	1 000 000 USD	1 100 000 USD
Country 10	100 000 USD	1 000 000 USD	1 100 000 USD
Total Grants	8 471 000 USD	13 104 000 USD	21 575 000 USD

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5.5 KPIs

All BPF projects and programmes will be required to report against at least one BPF Key Performance Indicator (KPI), but ideally all relevant BPF KPIs. The KPIs are designed to reflect the BPF theory of change and the key poverty reduction and environmental conservation aims of the fund. BPF KPIs remain under development and methods will be produced to enable projects to report on greater number of BPF KPIs as the BPF progresses. BPF KPIs mirroring ICF KPIs have agreed and published methods and will be reported on initially.

It is likely that this project will be monitored against the following BPF KPIs, including all relevant ICF KPIs:

- **KPI 1 (ICF KPI 11 & 12):** Volume of finance mobilised for purposes which match BPF objectives.
- **KPI 2 (ICF KPI 1 & 2):** Development Outcome: Number of people, as a result of BPF finance, with improved outcomes: i) income; ii) ability to cope with the effects of climate change; iii) climate resilience; iv) food security and nutrition; v) waste management.
- **KPI 7 (ICF KPI 6):** Net change in greenhouse gas emissions– tonnes of GHG emissions reduced or avoided as a result of BPF finance.
- **KPI 8:** Area of marine ecosystems protected, enhanced or under sustainable management practices as a result of BPF projects.
- **KPI 9:** Changes in marine natural capital asset extent and condition as a result of BPF funding.

As well as Defra requirements this project will be monitored by GFCR's own KPIs, of which each of the funds four outcomes have a list of corresponding indicators listed in Annex A.

5.6 What are the risks and how will they be managed?

A full risk register will be developed during programme design, and risks will be managed in accordance with HMG guidance and reported to the BPF Programme Board. When appropriate risks will also be escalated to the Marine and Fisheries Programme Board, as well as the ODA Board. A Risk Potential Assessment (RPA) has also been carried out, overall the project scored low.

Initial project level risks have been outlined in table 8. Categories considered, in line with organisational risk management, include external context, delivery, safeguards, operational, fiduciary and reputational.

Table 10 Initial project level risks and mitigation measures

Risk type	Risk description	Impact	Likelihood	Mitigation measure
External context	Political instability of countries where GFCR activities are taking place	Medium	Medium	We will work closely with GFCR to align country focus through our position on the Executive Board. We will work closely with the FCDO across the BPF, ensuring alignment of projects and monitoring of target countries and their stability. For each funded project and initiative, the GFCR will create a specific risk

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				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. Risk logs will be 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.
External context	Natural disasters, extreme climatic events and hazards slow down or prevent implementation of initiatives and jeopardize the effectiveness of projects.	Medium	Medium	While risk cannot be prevented, resources and activities could be repurposed or redirected should an event hit to support sustainable recovery. Due diligence through examination of the historical occurrence of natural disasters in project areas will be conducted.
Delivery	COVID-19 may impact delivery of activities due to travel restrictions, as well as reducing the capacity of on the ground delivery partners.	Medium	High	COVID-19 recovery is embedded into the GFCR strategy and a high priority for the UK. 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.
Delivery	The GFCR fails to establish a pipeline of investable projects	High	Low	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. The Fund will also take advantage of international networks and partnerships to ensure a steady flow of investments.
Safeguards	Investment made with the best intentions but has unintended social or environmental impacts	Medium	Low	The GFCR has adopted UNDP Social and Environmental Standards (SES), which underpin the UN commitment to mainstream social and environmental

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				sustainability in all programmes and projects.
Operational	Limited control over where and how our funds are spent.	Low	Low	We will work in collaboration with GFCR, as a member state of the Executive Board the UK will have influence over how and where funds are spent. Influence could be greatly increased if the UK becomes Chair of the board. The investment will be timed with the next EB meeting in May, where the UK will be able to
Fiduciary	Fluctuations in exchange rates could cause a reduced sum of money. In the event of adverse currency movement, there will be reduced potential for project delivery	Low	Low	We will monitor exchange rates and raise concerns if there is potential for a large loss of funds. There is possibility to adjust the timing of payments to avoid liquidity risk if necessary, however it should be noted that perfect matching may not be possible. GFCR will need to be able to absorb some currency fluctuations and accept that the total amount the received may slightly differ.
Fiduciary	Difficulty in directly being able to attribute every £ to specific activities and outcomes (a common feature of multilateral funds)	Low	High	UK funding will be identifiable on the UNDP MPTF gateway, the MPTF allow real-time access to funding status including contributions, transfers, expenditures per project, donor, partner country and agency, data which can be used to analyse attribution accurately, although the physical direction of funding cannot be due to mixing with other funds. We will have a strong MEL strategy in place through the wider BPF framework to identify results from UK finance and a transparent methodology for attributing those results. Estimated attribution has already been calculated in the appraisal case, please see Annex E for further details. The method used is based on the ICF finance KPIs and is conservative to ensure that the UK does not over claim or double count finance mobilised.
Reputational	The GFCR is not able to mobilise sufficient resources or interest from donors and investors to reach optimal operational	High	Low	The potential de-risking of the project portfolio through public guarantees or GCF support will encourage other investors to join. The GFCR has experienced fundraising capabilities through BNP Paribas investment

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	levels or function at full capacity.			manager to raise capital from private investors. The claw back clauses in the agreement will ensure UK aid is not wasted if GFCR cannot fulfil its commitments as made in the agreement.
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5.7 GFCR implementing partners

The Fund has a number of implementing partners who are responsible for Fund operations, these are both UN organisations and non-UN organisations. This list currently includes:

UN organisations	Non-UN organisations
United Nations Environment	Blue Finance
United Nations Development Programme	Blue Natural Capital Finance Facility
UNCDF	Blue Ventures
	Blueyou
	Conservation International
	The Nature Conservancy
	World Conservation Society
	World Wildlife Fund

5.8. Safeguarding

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

The objectives of these standards are to⁵⁹:

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

SES will ensure that a quality assurance and risk management approach is taken for all GFCR supported projects and programmes. This will be done via 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 effects⁶⁰.

⁵⁹ Global Fund for Coral Reefs, Terms of Reference 2020-2030, http://globalfundcoralreefs.org/wp-content/uploads/2021/01/GFCR_TermsOfReference.pdf

⁶⁰ Global Fund for Coral Reefs, Terms of Reference 2020-2030, http://globalfundcoralreefs.org/wp-content/uploads/2021/01/GFCR_TermsOfReference.pdf

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5.9 Stakeholder analysis and communications

As an investment into a multi-donor international fund that will deliver in developing countries, stakeholder engagement and comms will be relatively light touch. We expect to do some bespoke comms around the launch of the investment (see below) but otherwise it will form a small part of the broader BPF-level comms and stakeholder engagement strategy. In delivering its activities we expect GCFR to undertake strategic stakeholder engagement in-country, and this will be monitored as part of the investment's overall approach to programme management.

There are a series of events throughout 2021 where an announcement for this investment may be made. Depending on timing and other planned announcements, it is likely that this will be part of the UK's G7 presidency events in June or at the UN Biodiversity Conference (CBD COP 15) in October, timing an announcement prior to or in the run up to these events will give the best opportunity to leverage other donors. We will work with the GFCR and various HMG teams to make this as impactful as possible.

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Annex A GFCR Key Performance Indicators

Table 11 GFCR results framework for the overall goal of the fund

Goal: To prevent the extinction of coral reefs in our lifetime by eliminating the coral reef financing gap and supporting interventions that give coral reefs the best chance of survival
Relevant SDG Indicators
SDG Target 14.2.1 - Proportion of national exclusive economic zones (EEZs) managed using ecosystem-based approaches
SDG Target 14.5.1 - Coverage of protected areas in relation to marine areas
SDG Target 14.7.1 - Sustainable fisheries as a percentage of GDP in small island developing States, least developed countries and all countries
Fund Goal Signature Indicators for Priority Ecosystems
Species richness and overall biomass found in coral reef and associated ecosystems
Percentage of live coral cover in priority coral reef sites
Percentage of priority coral reef sites under effective protection and management
Ratio of grants vs. investment for coral reef conservation activities
Mandatory monitoring indicators – In addition to blended finance and conservation initiatives, the Fund will support the global collective effort of monitoring conditions in coral reef ecosystems. Below, the key metrics the Fund will monitor.
Bleaching event frequency and severity
pH of ocean water at coral reef sites
Water quality in terms of nutrient overloading (<i>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)

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Table 12 GFCR outcome 1 key outcome indicators and rationale

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
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	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.
1.2 Annual capital expenditures (US\$/yr) for strengthened management and enforcement capacities of MPA and LMMAs networks	Investments in MPA and LMMAs 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.
1.3 Species richness (# of species/ha) and fish density (# of fish/ha) in protection areas compared to previous levels	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.
1.4 Integrated local threat index⁴⁰ 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)	Protection of coral reef sites from local threats reduces/eliminates direct drivers of ecosystem degradation. Baseline measurement of threats will provide a value for an integrated local threat index. If protection is successful, these threats will be addressed and an assessment will conclude a decrease in the threat level. Improvements in wastewater quality can stop eutrophication that promotes harmful algal growth. Proper fishery management or no-take zones ensure the persistence of ecological important species and stops blast and cyanide fishing that damage coral reefs. Sustainable coastal development prevents sedimentation from covering reefs and protects mangroves and seagrasses.
1.5 Number of coral reef protection resolutions, declarations and laws passed for governing bodies. Including allocated national budget to implement coral reef protected area management and enforcement.	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.
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)	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.
1.7 MtCO₂e per year sequestered through protection and/or restoration of threatened mangrove and seagrass ecosystems	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.

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Table 13 GFCR outcome 2 key outcome indicators and rationale

Outcome 2: Restoration and adaptation technology	
<p>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.</p> <p>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.</p>	
Key outcomes indicators and rationale	
Indicator	Rationale
2.1 Number of coral species resilient to climate change identified or created through breeding and genetic modification	A key need of coral reef restoration and adaptation is the availability of coral species that are resilient to climate change. Research is being done to discover species that are naturally climate change resilient. Research is also being done on breeding and genetically modifying coral reef species to be more resilient to climate change impacts. Increasing the knowledge and availability of coral reef resilient species will reflect advancements in restoration and adaptation technology. These species can be used to repopulate coral reefs under strict conditions with long-term results for sites impacted by ocean warming and acidification.
2.2 Success rate (%), speed and efficiency (e.g., m ² /year) of coral reef restoration efforts (use past restoration efforts in the same region as a baseline)	Coral reef 'hard' restoration attempts often fail, wasting resources and effort. An increase in the success rate of coral reef restoration efforts must reflect technological progress based on best available science. Additionally, the speed and scale of restoration efforts needs to be increased to compensate for global coral reef degradation. Progress in this area will be reflected by the decrease in the time it takes to plant "x" coral fragments, decrease in time it takes to grow "x" coral recruits using larval seeding, etc.
2.3 Coral cover (%) that survives bleaching events after restoration efforts compared to past bleaching events of similar severity and location	Progress in adaptation technology of coral reefs will be represented by the ability for coral reefs to withstand bleaching events in restoration sites. Adaptation will be clear if corals are better able to survive periodic events of increased sea water temperature when compared with past similar rises in sea water temperature.
2.4 Government and private sector investments (US\$) into coral reef restoration efforts and coral reef restoration businesses	Greater government and private investment in coral reef restoration will indicate less risk in directing capital towards restoration activities due to progress in restoration and adaptation technology. At the moment, there is hesitation towards coral reef restoration businesses due to failed or low-impact attempts (high cost, uncertain impact).

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Table 14 GFCR outcome 3 key outcome indicators and rationale

<p>Outcome 3: Transform the livelihoods of coral reef-dependent communities</p> <p>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.</p> <p>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.</p> <p>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.</p>	
<p>Key outcomes indicators and rationale</p>	
Indicator	Rationale
<p>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</p>	<p>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.</p>
<p>3.2 Mean standard length of caught fish (cm/fish) vs. baseline measurement at starting time of project (t=0)</p>	<p>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.</p>
<p>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)</p>	<p>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.</p>
<p>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)</p>	<p>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.</p>
<p>3.5 ROI (%) of alternative livelihood initiatives supported by the GFCR</p>	<p>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</p>
<p>3.6 Carbon footprint of private sector (tons of CO₂/business/year) vs. baseline (t=0)</p>	<p>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.</p>
<p>3.7 Number of waste management and water quality initiatives implemented by the reef-linked business vs baseline (t=0)</p>	<p>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.</p>

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Table 15 GFCR outcome 4 key outcome indicators and rationale

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

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Annex B Blue Planet Fund Background

Identifying we are now at a pivotal moment, the 2019 Conservative Manifesto formally committed to “*establish a new £500 million Blue Planet Fund to help protect our oceans from plastic pollution, warming sea temperatures and overfishing*”⁶¹. Reflecting the value of the ocean to the development agenda, the Conservative Party earlier stated that this would be “resourced from the International Aid budget”.⁶²

Recognising, the indivisible link between ocean health and its effect on poverty alleviation and the sustainable development prospects of the world’s most disadvantaged communities, the Blue Planet Fund (BPF) will ‘*protect and enhance marine ecosystems through the sustainable management of ocean resources, to reduce poverty in developing countries*’.

Based on evidence from the World Bank⁶³, reports by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES); the Biodiversity and Sustainable Development Advisory Council’s report into UK Official Development Assistance and the High Level Panel for a Sustainable Ocean Economy; we have identified four key themes that underpin this overarching impact. A specific outcome has been agreed under each theme:

- Biodiversity
*Improved **marine biodiversity** and livelihoods by protecting and enhancing marine ecosystems, reducing pressures and increasing resilience, and enabling sustainable and equitable access to, and use of, these resources.*
- Climate change
*Improved resilience, adaptation to and mitigation of **climate change**, particularly through enabling and investing in inclusive nature-based solutions.*
- Marine pollution
***Marine pollution** reduced through action on land-based and sea-based sources that also contributes to improved livelihoods and healthier environments.*
- Sustainable Seafood
***Seafood** produced and distributed in ways which support healthy ecosystems, do not overexploit marine stocks, provide sustainable inclusive and equitable livelihoods and enhance resilience to climate and socioeconomic shocks.*

⁶¹https://assets-global.website-files.com/5da42e2cae7ebd3f8bde353c/5dda924905da587992a064ba_Conservative%202019%20Manifesto.pdf

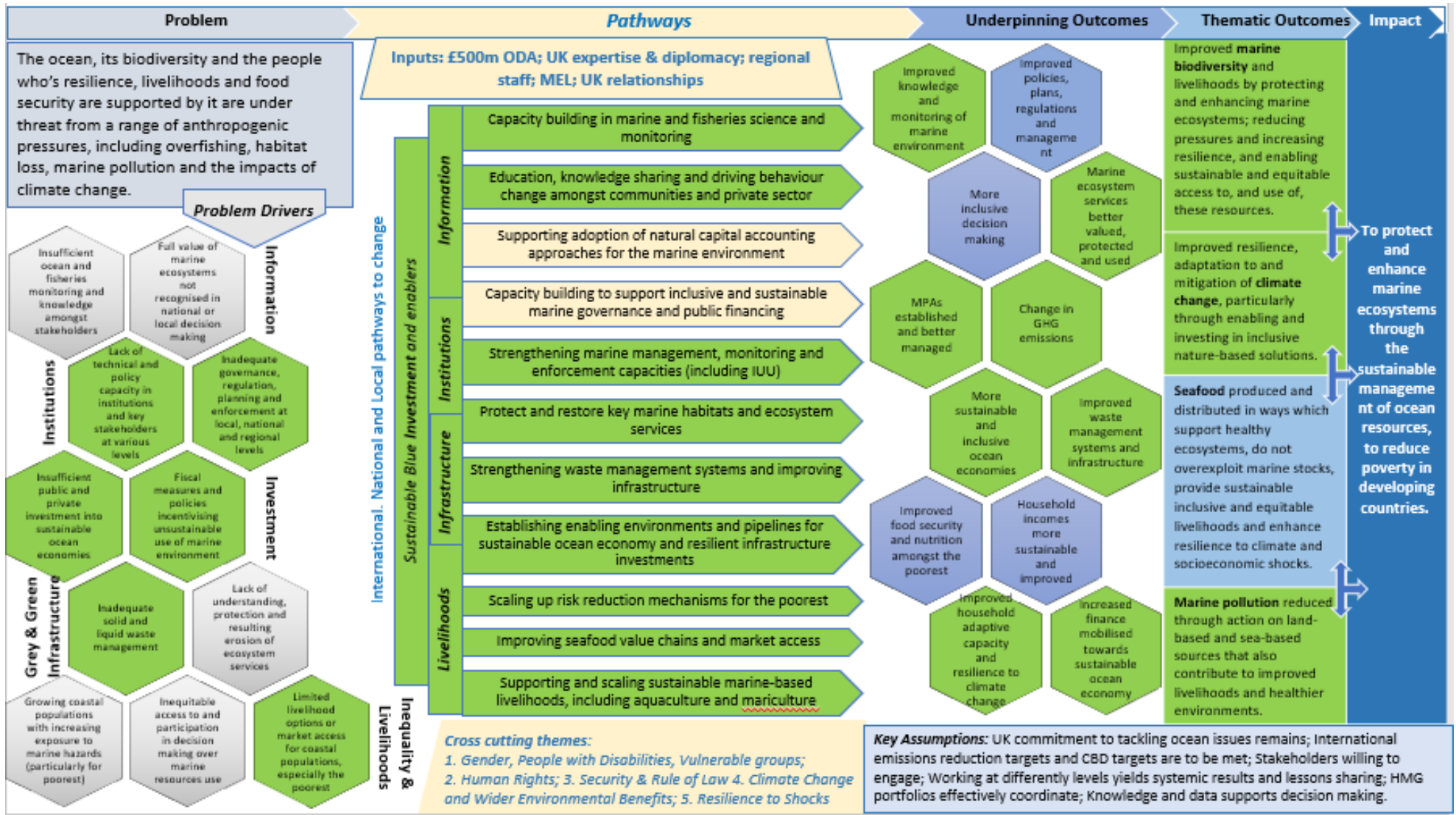
⁶²<https://www.conservatives.com/news/vote-blue-go-green>

⁶³<https://www.worldbank.org/en/results/2013/04/13/oceans-results-profile>

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Annex C Alignment with Blue Planet Fund Theory of Change

The flow of the GFCR investment is shown through areas highlighted in green below.



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Annex D 4 E's Framework

Value for money (VfM) considerations are central to any appraisal and therefore embedded across all investment criteria. This is analysed through the lens of the 'four E's':

- Economy - buying inputs of the appropriate quality at the right price
- Efficiency - how well we convert inputs into outputs
- Effectiveness - how well the outputs from an intervention achieve the desired outcome on poverty reduction
- Equity - how well the spend benefits those who need it most

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Annex E Case studies detailed assessment

Case Study: Fiji

The programme in Fiji is expected to raise a total of \$60million in finance, including GCF, SDG and GFCR contributions. The GFCR accounts for 8% of the total financing. Operating across multiple sites on the two main islands of Fiji the programme is expected to deliver on local marine managed areas, landfill and waste treatment and reducing the impact of fertilizers on the marine environment. All estimated results, costs and leverage calculations are taken from project documentation provided to the UK by GFCR. Not currently being board members, the version that we have seen is insufficiently detailed to verify the results.

Locally managed marine areas (LMMAs) projects are expected to cover 30 areas by 2030, with a 10 MMAs covered by 2022. Implementing activities such as eco-tourism and visitor centres, blue carbon and sustainable fisheries. Phase one is expected to cost about \$3m, with a GFCR contribution of 20%. Results from the 30 MMAs are expected to provide at least **30,000ha of coral reef ecosystems** under active management, supporting the **food security and incomes for more than 40,000 fishers**. By 2030 this is expected to have **leveraged \$6m** from private sources.

The second of the three phase one projects is western sanitary landfill, establishment of regional transfer stations and second phase material recycling facilities. This is expected to **avoid 0.5hapa of mangrove forested destroyed** by leachate and **increase in the fish stock in the 1000ha** of marine environment estate protected leading to an increase in **fish harvest by 560MT**. It is expected that better managed waste and avoided loss of blue carbon habitats will **reduce GHG emissions by 30,000MT pa**⁶⁴. It is suggested that this would avoid \$1bnpa in tourism losses, although we are not clear how this figure was calculated and seems ambitious.

The final pilot phase project supports the development and deployment of a locally produced non-synthetic fertiliser. The fertiliser will be made of green and animal waste along with wood chips and liquid waste. These products will be deployed on three sugar cane farms (Fiji's primary agricultural commodity) and a coastal resort. It is expected that **3,000ha of farmland that border coastal and waterways will be serviced**, with expected **increases in water quality** and marine health across a marine **area of 8,000ha**. It is further expected that **6,600 MT CO₂e pa** will be mitigated as a result of the use of the organic fertiliser.

Value for money

A limited assessment of the VfM can be undertaken, based on the results that can be most reliably monetised. The Ecosystem Service Valuation Database (ESVD) includes Fiji-specific valuations of Mangroves and coral reefs. Coral reef values include existence and bequest values (Int\$5,457/hapa), direct food provision (\$108-\$189/hapa) and tourism and recreation (\$66 - \$552/hapa, although these are conservative as both were done in relatively low density tourist areas). Adding these values together would likely provide a misleading valuation. Further there are other supporting services which no value has been attached (e.g. coastal protection).

⁶⁴ As reported by the project, no further analysis has been undertaken.

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Therefore we used a simple average value of the individual services of £1274/hapa⁶⁵, this provided an extremely conservative figure for valuation. To identify the area of coral reef impacted we estimated 25% of the LMMA area was coral reef associated and per annum losses were 1% and per annum degradation 2%.

The same database contains values for mangroves of \$966/hapa for tourism and recreation, direct production values of food (\$353/hapa) and timber (\$32/hapa) and aesthetic valuation of \$6.10/hapa. As with the valuations of coral reefs these data have a number of gaps in services not locally valued and are unlikely to be reliably if added together. However a conservative estimate would be to suggest that the value of mangroves (excluding Co2 sequestration benefits) might be in the region of \$353/hapa to \$966/hapa, although they may be higher. However, we use a simple average of all services valued of \$340/hapa⁶⁶ to value the averted losses in mangroves area of 0.5hapa as reported in the expected results of the project.

The projects either increase the sequestration of carbon or avert the production of carbon, leading to a significant climate benefit. The benefit is monetised in line with HMG guidance valued at central carbon prices.

The final benefit which we valued is the increase in fish yields. Using aggregate data from Teh et al (2009)⁶⁷ of the value of subsistence and artisanal catches in Fiji we calculated that a 1MT of fisheries products to be worth \$2,700.

The project documents also estimate a benefit of tourism losses avoid of \$1bnpa. This was considered ambitious and no further detail on the analysis was given to justify this calculation. It is therefore excluded from our headline figures.

Assessing coral, mangrove, carbon and additional fisheries yield benefits as discussed above; and assuming 50% additionality⁶⁸, 10% discount rate with benefits assessed over a 20 year time horizon, the NPV of the project first and second phase⁶⁹ is \$8.6m and a BCR of 1.44. This excludes the tourism benefits, including these the BCR becomes 188.

Case Study: Philippines

The Philippines programme is expected to cost \$12.1million and focus on under resourced and enforced MPAs. The projects are expected to last 10 years, with benefits accruing over subsequent years. The pilot phase pipeline is in the Verde Island Passage MPA costing \$3.8million, a further five projects across 3 MPA networks are in development. All estimated results, costs and leverage calculations are taken from project documentation provided to the UK by GFCR. Not currently being board members, the version that we have seen is insufficiently detailed to verify the results.

⁶⁵ Values taken from the ESVD and averaged over all the services provided (Existence \$5457/hapa, recreation and tourism valued at both \$66/hapa and \$552/hapa, and food provision valued at £189 and £108/hapa) . Likely therefore a large underestimate of the value.

⁶⁶ Calculation taken as an average of all service values in ESVD; Tourism \$966/hapa, raw material \$32/hapa, food £353/hapa, aesthetic \$6.1/hapa

⁶⁷ <https://www.sciencedirect.com/science/article/pii/S0308597X09000323?via%3Dihub>

⁶⁸ This assumes that 50% of the results would have been achieved even without the GFCR or the projects intervention.

⁶⁹ i.e. full \$60m spend

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Proposed pilot phase projects are:

- nature-based tourism which includes underwater attractions, MPA equipment and a visitor centre.
- Blue carbon credit scheme focused on the restoration and protection of mangrove habitats
- Mud crab hatchery and farmer equipment to reduce dependence on wild capture.

An additional five projects are expected to run between 2021 and 2023:

- Two further MPA-focused nature-based tourism projects
- An expansion of the blue carbon credit scheme
- Extensive aquaculture project
- A project supporting sustainable reef fisheries.

It is expected that two thirds of the financing will be debt financing, with catalytic finance coming from the GFCR and other sources. In the longer term the expectation is that by 2030 \$50m could be raised to scale up projects across the region.

Expected results

The 8 projects proposed under the first investment in the Philippines will occur in the Verde Island Passage, Tanon Strait and Calamian Islands, each area having a network of MPAs. The projects are expected to allow **the 80 MPAs** across the three areas to be effectively managed, benefit more than **80,000 vulnerable people**⁷⁰, protect at least **36,000 ha of coral reef** and **40,000 ha of mangroves**. Based on current loss rates this can be expected to avert 1,600 ha of mangroves and 360 ha of coral reefs from being lost and a further 720ha of reefs being degraded pa.

Value for money analysis

The direct cost of this project is \$12.1million and it is expected to operate over 10 years, we have assumed that the benefits will continue to accrue for at least another 10 years to 2040. We have valued three environmental benefits associated with this project. We take the average values for coral reef services in the Philippines from the ESVD of \$5,300/ha.pa and for Mangroves as \$2,400/ha.pa, these values are average values across many studies which cover provisioning, existence and other services, they do not include coastal defence or carbon values. The values are simple averages and as such the value of specific reefs and mangroves are likely to be higher. We have further valued the carbon at central non-traded carbon prices. In line with guidance⁷¹, ecosystem service values were discounted at 10% and carbon at 3.5%. Further, we have assumed that without the investment half of the activity would have occurred anyway. This provides an NPV of \$18.5m and a BCR of 2.53, which is consider extremely conservative due to the valuation approach taken.

⁷⁰ Project proposal suggests 80,000 communities, we believe that this is more likely to mean 80,000 people or households.

⁷¹ It is standard practice in ICF appraisals to value local benefits with a 10% discount factor representing the need for more immediate solutions and a 3.5% discount factor for global public goods and services. Environmental benefits, other than carbon, are not normally given the lower discount factor and this is inline with the recommendation by the independent Dasgupta Review of the Economics of Biodiversity.

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Annex F GFCR detailed appraisal methods

The options appraisal demonstrated that the GFCRs is the only option which provided a good fit with the BPF investment criteria and the strategic criteria identified in the problem statement. The fee structure used by the fund suggests that the fund should be efficient in delivery, minimising administration and project costs. The two pilot programmes described above indicate good VfM figures, even with the conservative estimates that we have used to value some – but not all – of the benefits.

Break-even analysis

As discussed the unknown nature and likely wide range of many of the GFCR future projects and thus outcomes means providing an estimate of VfM is challenging. To assist decision making we developed a simple model of the GFCR which only considered the primary objective of the fund, coral reefs. All additional benefits, such as Mangroves, were excluded from this analysis, which makes it extremely conservative. We then performed a break-even analysis to understand how many hectares of coral reefs would have to be protected and losses avoided in order that the BCR was equal to one, in other words, the point at which the benefits are equal to the investment.

Benefit valuation

The model considers benefits related to production values, regulating services and cultural service relevant to coral reefs. Although coral reefs are thought to be a sink for carbon there is some question in the literature on the overall impact of this⁷² and therefore to be precautionary in our analysis carbon sink values are not included.

Production values for the countries under consideration for investment by the GFCRs are taken from Teh et al (2013) and Spalding et al (2017). Spalding et al (2017) provide estimates of reef-associated visitor (tourist) expenditure per hectare of coral reef by country, averaging \$2,294 per hectare per annum. Using The et al (2013) estimates of the value of reef fish extracted and the multiplier impact of this through local supply chains food production is valued at \$972phapa. Other production values are excluded in the analysis. We initially only consider production values in the break even analysis due to greater uncertainties associated with non-market valuations used.

The ESVD is used to value regulating and cultural services. Regulating services considered are moderation of extreme events, waste treatment and erosion prevention. Cultural services considered include aesthetic, existence and bequest values. The ESVD does not contain valuations of coral reefs services for all countries considered by the GFCR. We therefore used average global values, all data in the ESVD is standardised to international dollar values so this provides an acceptable comparison point.

⁷² “Unfortunately, we also predict that this considerable sink for C will be most likely of negative value in alleviating Greenhouse because of the immediate effect of CaCO₃ precipitation is to raise the PCO₂ of the surface oceans — ie, ot encourage CO₂ efflux to the atmosphere. We do not attempt to quantify this effect.”

<https://www.sciencedirect.com/science/article/abs/pii/S003101829190172N#:~:text=Thus%2C%20coral%20reefs%20at%20present,the%20present%20CO2%20output.>

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Using further data from Teh et al (2013) we can estimate the number of fishers and the number of people vulnerable to extreme weather events impacted by GFCR investments.

Assumptions and technicalities

The model assumes that for each 100 hectares of coral reef area 2 hectares of that reef area would have been lost each year as a result of unsustainable activities and pressures. We thus assume that for the full area protected 2% of that area would have been lost each area⁷³. We only value this lost area not the fully protected area to avoid making further assumptions about ecosystem service provision of degraded reefs.

We assume that GFCR finance will be distributed over the full lifecycle of the fund (10 years). It is also assumed that full benefits are not achieved by any of the projects until three years after investment. Therefore in our model full benefits from the GFCR \$500m investment will only be achieved from 2033 onwards. Our appraisal period runs to 2045, 15 years after the prospective close of the fund (2030).

Benefits are discounted at 10%pa, inline with the standard assumption, reflecting the higher social discount rates in less developed countries compared to developed countries.

We further assume that without the GFCR 50% of the benefits would either have been achieved anyway or we are being overly optimistic⁷⁴. Therefore, we assume that only 50% of the benefits are attributable and additional to the GFCR investment. Another conservative assumption given the large funding gap for coral reef ecosystems identified in the strategic case. We use an exchange rate of £1 = \$1.39.

⁷³ The counterfactual is taken from De'ath et al (2012) estimates which suggests The estimated rate of increase in coral cover in the absence of cyclones, COTS, and bleaching was 2.85% y(-1), demonstrating substantial capacity for recovery of reefs.
<https://www.pnas.org/content/109/44/17995#:~:text=Based%20on%20the%20world's%20most,50.7%25%20of%20initial%20coral%20cover>.

⁷⁴ This also allows us to account for possible optimism bias (20%) and additionality (30%) within our calculations.

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Annex G Accounting Officer Tests template

HMT *MANAGING PUBLIC MONEY*: MEETING THE ACCOUNTING OFFICER TESTS – A CHECKLIST

HMT *Managing Public Money* has 4 Accounting Officer (AO) tests which must be considered for any spending decision to proceed. Defra applies a discrete fifth test of Affordability (which is embedded within the Propriety test) because of its critical importance.

This checklist has been produced to assist decision-makers in assessing if a spending decision meets the AO tests. Depending on the degree and circumstances on any non-compliance, the need to seek a Ministerial Direction may be required. More details can be found in *Managing Public Money* Chapter 3 at this [link](#).

Decision-makers should engage with their local Finance Business Partner (FBP) and other specialised support such as legal and economists to help navigate these tests. There is also useful guidance in the HM Treasury Website on preparing Accounting Officer Assessments which can be found [here](#).

Accounting Officer Test	Explanation	Decision-Maker's Assessment	Met/Not Met/Partially Met
Regularity	<p>A proposal must be supported by clear legal powers. This is normally via two routes: (a) specific legislation; or (b) the department's common law powers. Common law powers are based around what is a reasonable expectation of what is required to deliver existing policy.</p> <p>If a proposal is dependent upon new legislation, normally expenditure cannot be permitted until after Royal Assent. However in certain circumstances, limited spend is allowed if a Bill has passed Second Reading. Anything in advance of this normally requires a Ministerial Direction.</p> <p><i>Managing Public Money</i> does allow, in limited circumstances and with HMT approval, the Supply and Appropriation Act to be used where no specific legislation is in place and none is going through Parliament. This is normally for one-off</p>	<p>Legal power is through the following legislation:</p> <p>International Development (Official Development Assistance Target) Act 2015. This project meets the ODA requirement that the activity must promote the economic development and welfare of developing countries as its main objective.</p> <p>The project will be managed in accordance with HMT's <i>Managing Public Money</i> guidance and in line with the Defra ODA guidance.</p>	Met

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	projects or pilot exercises that will last no more than 2 years.		
Propriety	<p>The use of public funds needs to be proper as well as regular (i.e. supported by law). Therefore it needs to comply with the standards set out in <i>Managing Public Money</i> which includes obtaining the necessary internal and if necessary external HMT approvals. This test is not definitive, but it basically expects the spending decision to apply all the established protocols and checks which support the premise that all public expenditure is proper and auditable.</p>	<p>Will comply with Managing Public Money. HMT does not need to approve, as investment is within normal delegations.</p> <p>ODA funding will be allocated under Section 1 of the International Development Act 2002 and expenditure will be in accordance with this legislation and all ODA requirements.</p> <p>The project will not breach any parliamentary control procedures or expectations, Defra Board governance structures will be followed which are guided by the Corporate Governance Code. Additionally, payment in advance has HMT approval for this project.</p>	Met
Value for Money	<p>The proposal must be good value for money for the Exchequer as a whole and not just the department and where possible a full evaluation should be undertaken. It may not always be possible to measure intended benefits and alternative options should include a 'do nothing' option.</p> <p>This should include an opinion from both Finance Business Partner and Directorate Economists on whether the proposal meets this test before sign off.</p>	<p>The investment is recognised as good value for money, and has passed this essential part of the Blue Planet Fund investment criteria section.</p> <p>The recommended option for funding has been appraised carefully against alternatives, including a do nothing option as well as alternative funding mechanisms and delivery approaches.</p> <p>A value for money assessment has been carried out in the appraisal case. The options appraisal demonstrated that the GFCRs is the only option which provided a good fit with the investment criteria and the strategic criteria. The fund should be efficient in delivery, minimising administration and project costs, ensuring the maximum funding reaches those who need it. We have assessed the expected results from the first investments by the GFCR following the UK committing finance. This analysis suggested that they are expected to provide good value for money.</p>	Met
Feasibility	<p>This is a fairly new criterion and overlaps with propriety and value for money. In essence it asks whether the proposed policy can be carried out effectively and credibly. In short, are we confident it can be delivered in line with policy intentions?</p> <p>This should link to evidence of this from market testing, piloting, gateway reviews etc.</p>	<p>The need for investment has been outlined in the strategic case, the investment can be realistically be implemented accurately, sustainably and to the intended timescale.</p> <p>The delivery partner is experienced and has well established processes in place to provide assurance that the programme will be delivered as intended.</p>	Met
Affordability	<p>This is a Defra AO Test and a sub-set of the HMT Propriety test; but given its own</p>	<p>The investment will be funded out of the Defra Official Development Assistance (ODA) budget for FY 2021/22. The first year of this investment has</p>	Met

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	<p>assessment because of its critical importance. Therefore we ask the explicit question as to how the proposal will be funded and has it got full budget cover?</p> <p>Consideration also needs to be given to the classification of spend and how much will be scored as Administration, Programme or Capital costs. There are separate Control Totals in Defra's budget for Administration, Resource DEL and Capital DEL. It is also important that all administration costs are properly recorded. There is some leeway to classify certain administration costs as Programme; but the default is that they score as Admin. This is something your FBP can advise on.</p>	<p>an allocated budget from financial year 2021/22, subsequent investment will be delivered subject to the agreed availability of future budgets.</p> <p>To mitigate an unaffordable longer term commitment, future funds have not been promised to the delivery partner and a single-year business case has been developed.</p>	
<p>Overall Assessment</p>	<p>Ultimately this is a personal judgment for the AO. The acid test is whether the AO can confidently defend the policy as a satisfactory use of public money. For large and complex project decisions, it would not be unusual to apply the AO tests at several stages and key decision-points.</p>	<p>All criteria met, can confidently defend the project as a satisfactory use of public money.</p>	<p>Green</p>