

Ocean Risk and Resilience Action Alliance

Annex

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

SRO:	
Project Manager:	
Organisation:	Department for Environment Food and Rural Affairs

This Business Case Annex document was completed in November 2022 and reflects the delivery priorities and required compliance standards at the time. At the time of publication (July 2024) some of these priorities and standards have changed. The Business Case Annex document has been published in the form it was approved at the time and should be considered in that context.

Cover Sheet

PROGRAMME SUMMARY	<i>A direct grant award to the Ocean Risk and Resilience Action Alliance. The grant will support a number of projects, selected in collaboration with the ORRAA Secretariat. The grant will support ORRAA's aims to leverage \$1billion USD in finance for programmes and innovative finance products by 2030, that incentivise private and blended finance into coastal natural capital and coastal resilience.</i>
COUNTRY / REGION	<i>International – ODA eligible countries</i>
PROGRAMME VALUE	<i>in total. (21/22 via a one year grant and 22/26 via this FBC) Costs are approximately RDEL over the life time of the grant.</i>
START DATE	<i>November 2022</i>
END DATE	<i>31st March 2026</i>

ACRONYMS

BAF	Blue Action Fund	KPI	Key Performance Indicator
BAU	Business as Usual	LDCs	Least Developed Countries
BCR	Benefit Cost Ratio	MEL	Monitoring, Evaluation and Learning
BPF	Blue Planet Fund	MDB	Multilateral Development Bank
BBNJ	Biodiversity Beyond National Jurisdiction	MIS	Management Information System
CAD	Canadian Dollars	MPA	Marine Protected Area
CBD	Convention on Biological Diversity	NbS	Nature-based Solutions
CBD COP 15	15th meeting of the Conference of the Parties to the Convention on Biological Diversity	NGO	Non-Governmental Organisation
		ODA	Official Development Assistance
CO2	Carbon Dioxide	ORRAA	Ocean Risk and Resilience Action Alliance
COP26	26th UN Climate Change Conference of the Parties	PNG	Papua New Guinea
CPIC	Coalition for Private Investment in Conservation	PSEAH	Prevent sexual exploitation, abuse and harassment
Defra	Department for Environment, Food and Rural Affairs	RDEL	Resource Departmental Expenditure Limit
EDI	Equality, Diversity and Inclusion	SDG	Sustainable Development Goal
FCDO	Foreign and Commonwealth Development Office	SIDS	Small Island Developing States
FLD	Front Line Delivery	SR	Spending Review
FRA	Fraud Risk Assessment	SRC	Stockholm Resilience Centre
FTE	Full Time Equivalent	SRO	Senior Responsible Officer
G7	Group of Seven (intergovernmental organisation)	SU	Stockholm University
GEF	Global Environment Facility	ToC	Theory of Change
GFCR	Global Fund for Coral Reefs	UK	United Kingdom
ORRAA	Global Ocean Accounts Partnership	UN	United Nations
GRP	Global Resilience Partnership	UNEP	United Nations Environment Programme
HMG	Her Majesty's Government	UNFCCC	United Nations Framework Convention on Climate Change
HMT	Her Majesty's Treasury	USD	United States dollars
ICF	International Climate Finance	VfM	Value for Money
ICPP	Inter-Governmental Panel of Climate Change	WTO	World Trade Organisation
IUCN	International Union for Conservation of Nature	WWF	World Wide Fund for Nature
		LDCs	Least Developed Countries

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Annex A: Illustrative portfolio of projects and analytical assumptions

The projects described in the illustrative portfolio below are all ORRAA-funded projects – some of which have previously received UK investment. A high-level qualitative description of the benefits associated with each project is included within the ‘benefit description’ – these benefits reflect the types of benefits that we could expect the UK investment to deliver. Partial benefits for each of the projects have been quantified using a combination of delivered impacts, assumptions and proxy values. The approach to calculating the benefits is set out in the ‘quantified benefit assumptions’ column and the caveats are set out in the ‘limitations of analysis’ column. The illustrative portfolio has been included to help demonstrate the types and scale of benefits that could be expected from the UK investment. The portfolio has also been used within the methodology to estimate a proxy BCR for the investment in ORRAA – see below for further details.

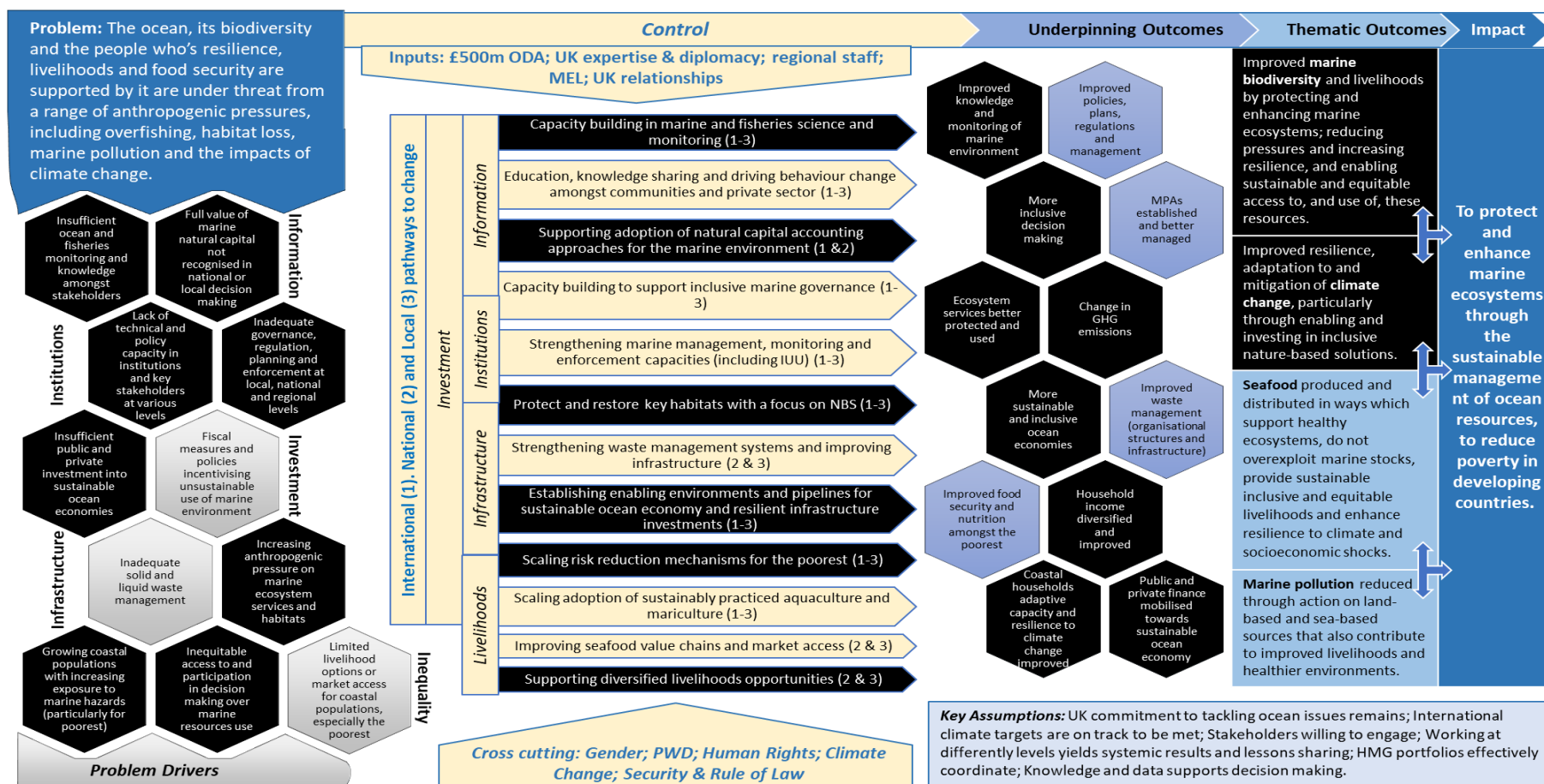
The illustrative portfolio analysis has been shared with the ORRAA team for their input and verification.

Annex B: BPF Theory of Change

BPF Theory of Change with highlights to indicate alignment with ORRAA's ToC which is currently in narrative form.

Cells shaded in black indicate the overlaps between the two ToCs.

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Annex C: Cross over and connections
The strategic gap in the Blue Planet Fund portfolio

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The Blue Planet Fund Theory of Change identifies four key desirable impacts and a number of critical pathways that the team see as the requirements/activities that underpin the delivery of the four desired impacts – see Annex B for the BPF Theory of Change. One of these critical outcomes is increased *public and private finance mobilised towards sustainable ocean economy*.

Of the current BPF portfolio, the Fiji Blue Bond is the only ongoing programme with a primary objective of mobilising finance. However, the Fiji Blue Bond only supports leveraged finance in Fiji and the programme receives only a small amount of finance. The FCDO COAST programme¹ will also have an objective of leveraging finance through the role of blue carbon ecosystem services, however this will focus on ecosystem protection and supporting country-led ambition on inclusion of blue carbon credits into national determined contributions (NDCs)². With the focused remit of this work, we have identified a need for a BPF programme with a strong focus on leveraging finance through innovative, blended finance solutions to plug this strategic gap within the BPF's portfolio.

Another critical pathway is better protection and use of marine ecosystems (also referred to as marine nature-based solutions (NbS)). This pathway ultimately mitigates risks associated with climate change (including biodiversity loss, ocean acidification and sea-level rises).

A number of the BPF programmes focus on better protection and use of marine NbS, both directly (e.g. ProBlue and GFCR³) and indirectly (e.g.,GOAP⁴). However, only GFCR has marine NbS as it's primary objective. There is therefore scope to further the BPF investment within programmes that directly support marine NbS.

A full description of the linkages between ORRAA and other BPF portfolio programmes can be found in below.

¹ Climate and Ocean Adaptation and Sustainable Transition (COAST) Programme

² The primary objective of the COAST programme is to improve restoration and management of coastal habitats, improved small scale sustainable fisheries and more sustainable aquaculture.

³ Global Fund for Coral Reefs

⁴ Global Ocean Accounts Partnership

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Annex D: Description of longlist of delivery options

It's worth noting that there are several large multi-lateral organisations that Defra invest in already that aim to attract nature positive investments, support marine NbS and achievement of high-level ocean targets. This includes World Bank's PROBLUE programme, that the UK co-chair but have limited scope to demonstrate of impact of UK funding due to the multi-lateral donor structure. Any option should therefore complement the limits and benefits of contributing to a fund with large scale environmental outcomes and limited steer on project selection. *See Annex C for detail on how ORRAA differs from other projects that have similar objectives.*

Option 1: Bilateral support to research organisations

This option would provide bilateral support to research organisations in priority countries to model risk and develop solutions.

The impact of the investment is likely to be lower when the work being invested in is not part of an existing, coordinated approach. This option would not enable us to achieve in-country alignment, without involving further actors beyond the research organisations. Supporting a higher number of individual research projects and organisations would also require a higher level of management input and resource from Defra. This option would not directly lead to equal and proportionate mobilisation of finance unless part of a wider, coordinated solution. We would also not be able to ensure that the research is applied in a meaningful way to projects on the ground. We would not be able to guarantee the ability to maintain oversight of the developments and major investments taking place across key donors.

This option would not meet the strategic aims of this investment for a step change in marine NbS and systemic change in nature positive marine investments and we have therefore discounted this option.

Option 2: Bilateral support to conservation organisations working in-country, directly on projects

This option would provide bilateral support to conservation organisations focusing on conservation and restoration of marine NbS in priority countries.

This option would achieve part of our aims: there is robust evidence showing the environmental and poverty benefits of many conservation and restoration projects. However, this would not address the underpinning barriers to finance for NbS nor lead to the step-change in support for nature-positive investments which is required. Working directly with organisations on very specific projects could result in high costs, an uncoordinated approach across donors and would not necessarily lead to sharing of learning and mobilisation of action in countries and areas beyond the specific projects. Direct work with organisations in-country will also limit opportunities to mobilise additional finance, as there is limited opportunity for third party involvement. Based on this assessment, we have discounted this option.

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Option 3: Multilateral support to a multi-stakeholder platform

This option would provide support to a multi-stakeholder platform galvanising action on sustainable blue finance – for example, the Blue Natural Capital Finance Facility or the Blue Action Fund (BAF). Given there would be multiple donors, more finance would be raised which would spread the financial risk associated with the projects across all donors. Additionally, by contributing to such organisations it can encourage other organisations to join and further increase the amount of finance raised for the Ocean and dependent communities. However, influencing the agenda of such organisations is difficult and the BPF team would need to compromise on the agenda which could result in not meeting the strategic fit CSFs. This is where ORRAA differs as ORRAA actively encourage major donors to set out which projects they would like their investment to support.

The Blue Action Fund only focuses on one intervention (MPAs) and therefore a wide range of NbS projects would be excluded from funding opportunities. The Blue Action Fund also it desires tested proposals which limits the possibility of untested innovative ideas coming forward.

This option would helpfully engage cross-sector to address barriers to sustainable blue finance access. However, it does not specifically focus on the barriers facing mobilisation of blue finance for nature or de-risking of investments in marine natural capital and is limited to a focus on the sustainable blue finance principles as opposed to delivering marine NbS. Based on this, it is unlikely to lead directly to mobilisation of finance and therefore is unlikely to achieve our strategic aims. Lastly, although the focus is on supporting sustainable blue finance, including finance for the SDGs, it is not the entire focus. It may be challenging to justify the spend in its entirety as an objective to reduce poverty. Based on this assessment, we have discounted this option.

Option 4: Support to the Coalition for Private Investment in Conservation

The Coalition for Private Investment in Conservation (CPIC) is a group of leading civil society organizations, private and public sector financial institutions and academia working to deliver a material increase in private, return-seeking investment in conservation. This organisation has similar aims in terms of addressing the underpinning barriers to investments in nature, and ultimately to increase the flows of finance to nature.

However, the coalition focuses wider than marine NbS, also focusing on forest landscape conservation and restoration, green infrastructure for watershed management and sustainable agriculture intensification. This will not address the challenges specific to mobilising finance for marine NbS, including a lack of ocean literacy and risk adjusted returns specific to the marine environment, as described in the strategic case. We are seeking a solution which addresses the under-representation of sustainable ocean investments and marine NbS. Based on this assessment, we have discounted this option.

Option 5: Support through a multilateral development bank

This option would involve support to financing NbS and innovative financial products through a multilateral development bank or foundation.

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Investments in many of the relevant multilateral development banks have a strong track record of effective action in the environment and sustainable development. There *could* be benefits in terms of reasonably low management costs.

However, we would not be able to ear-mark a certain amount of funding for specific issues or certain countries and we would not have the opportunity to directly connect with the range of diverse delivery partners with the potential for knowledge sharing. In addition, BPF funding is already being directed to an MDB via their PROBLUE programme and benefits of investing via another large scale, multi-lateral platform are not justified when the portfolio demonstrates a gap and opportunity for more granular input. Based on this assessment, we have discounted this option.

Option 6: Further support for ORRAA

Investing in ORRAA supports targeted action to mobilise public and private finance for marine NbS and coastal resilience, with a proven track record of impact.

With this investment, the UK will benefit from continued direct contact with diverse delivery partners and donors through the Funders Advisory Board, to support a joined-up approach in enabling nature positive finance for marine and coastal NbS and cross-sector and cross-country learning. With longer-term investment, the UK will inform and influence the longer-term direction and investments of the Alliance and its members, including the private sector and philanthropies.

ORRAA can act flexibly in response to changing demands and circumstances. ORRAA is based on membership-led partnerships and as a result, is well placed to ensure activities are country led and owned. ORRAA have an established partnership with Defra, which will allow them to absorb additional funding, meet timeframes and limit administration costs.

ORRAA draws together the insurance and finance sector with applied science and research for coastal resilience, bolstering gender-equality policies and modelling to support de-risking of investments in marine natural capital, along with governments and decision-makers. They are the only organisation with the necessary holistic, multi-sector approach that is required to lead to fundamental change. ORRAA are our preferred delivery partner.

Annex E: Comparison of Options with the Blue Planet Fund Investment Criteria

The Blue Planet Fund 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 value for money. The investment criteria draw upon HMG's Strategic Framework for ODA and aim to help embed its priorities within the BPF's delivery.

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Annex F: Illustrative estimate of potential finance mobilised

We assume that the UK invests for a further 4 years. We assume that, over the next 4 years, there will be other significant funders, with a total of in public and private investment in ORRAA. Given these additional contributions, the UK contributes of the total estimated finance invested in ORRAA under the preferred option. The leverage ratios were provided by ORRAA and are purely illustrative, given the uncertainties in the co-funder and the displacement of finance as well as the final amount of finance mobilised. ORRAA's estimations are based on the success of mobilising finance to date, the forecasted impact of SCIFF and the future projected growth of ORRAA.

Annex G: ORRAA Roles and Responsibilities

<u>Roles</u>	<u>Responsibilities</u>
Global Resilience Partnership	Co-host
AXA XL	Co-chair Steering Council & Chairman of the Board
ORRAA Inc.	Co-chair Steering Council Co-host
ORRAA Secretariat <i>Global Resilience Partnership, AXA XL & ORRAA Inc.</i>	Day to day management of ORRAA Permanent observer of the Steering Council Attend Steering Council meetings to take minutes Make final decisions about which projects should be supported Communicate lessons learnt and research products to improve ocean literacy and encourage increased sustainable blue finance.
ORRAA Steering Council <i>See make up in management case figure 3.</i>	To guide the Secretariat and set strategic direction Commitment to promoting ORRAA's mission and objectives. They are expected to collaborate in a spirit of trust, mutual respect, effective and transparent communication, and continuous learning. Attend and contribute to meetings and help set the Alliance's agenda; Contribute to reviews of ORRAA strategies and other outputs; Respond to consultations and calls for advice on specific topics; and,

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	<p>Help ensure the voices and views of the communities ORRAA serves are heard in Steering Council discussions.</p> <p>Assist with fundraising for the Alliance</p>
<p>ORRAA full members</p> <p>See list of all members here: https://www.oceanriskalliance.org/about/membership-and-governance/#full-members</p>	<p>Help set ORRAAs objectives and strategy and remain engaged on its progress.</p> <p>Commit to collaborate, share knowledge, coordinate and catalyse innovations.</p> <p>Identify gaps and opportunities and engage to fill them through new programmes and investments.</p> <p>Work together to communicate and highlight what effective action is and the policy and institutional changes that are needed.</p> <p>Support ORRAA, either through funding joint actions or activities, core funding, secondment of staff, project/product development and/or other in-kind contributions (e.g. coordinating and sharing information).</p>
<p>ORRAA delivery partners</p> <p>e.g. Oceana, MAR Fund, World Economic Forum, full list here: https://www.oceanriskalliance.org/about/membership-and-governance/#full-members</p>	<p>Either leading the work on the ground to make the project outcomes a reality, or key thought-leaders in the field critical to the delivery of the project objectives and outcomes.</p> <p>May be invited to Steering Council meetings for the discussion of specific agenda items.</p>
<p>ORRAA Funders Advisory Board</p>	<p>The FAB is comprised of funders to ORRAA that contribute at least USD\$100,000 annually in support of ORRAA's core functions. This currently includes the Governments of the UK and Canada, the Gordon and Betty Moore Foundation, the Builders Initiative, and Deutsche Bank. They work together to coordinate and maximise funding whilst reducing duplicative work.</p>

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Annex H: Accounting Officer Tests template

This guidance sets our standards on how and when Accounting Officer tests should be applied for departmental expenditure

Introduction

The Permanent Secretary, as the Principal Accounting Officer, is ultimately accountable for all money spent across the Defra group. Budget holders, supported by Finance Business Partners (FBPs), should consider the Managing Public Money (MPM) Accounting Officer tests for all expenditure. In approving all spending decisions it is implicit that the authorising officer is content that the relevant standards have been met. This is particularly critical for major projects and large contracts.

Detailed advice on standards is set out in the Delegated Authority Documents to Defra Directors and ALB CEOs each year. Defra Strategic Finance have produced a pro forma to support assessment and which gives further advice and guidance on what needs to be considered in evaluating these tests (see Annex A).

Where the spend either: 1. meets the criteria for a GMPP project, 2. meets Defra Investment Committee criteria (including being novel or contentious or requiring HMT approval) or 3. fails or is close to failing one of the tests, this template should be completed in accordance with the categories set out below. The completion of AO tests should be reflected in Ministerial advice, being summarised in the Finance section of the advice.

AO tests

There are 4 MPM AO tests, set out below. Defra applies a discrete fifth test of Affordability (which is embedded within the Propriety test) because of its critical importance.

These tests are:

- a) Regularity
- b) Propriety (including Affordability)
- c) Value for Money
- d) Feasibility

More details on each of those tests can be found in Managing Public Money Chapter 2 (box 2.4) and Chapter 3 (Box 3.2).

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When to apply the tests

1. Government Major Projects Portfolio business cases.

It is a requirement for all projects meeting the criteria of being inside the Government Major Projects Portfolio (GMPP) that the Outline Business Case should include an Accounting Officer Assessment which should be cleared by the Accounting Officer. These AOA's should also be published on the Defra Gov.uk website. These cases will also need Investment Committee and then Permanent Secretary approval before submission to Cabinet Office and HM Treasury.

The following is taken from section 4.3 of the functional standard required for GMPP projects.

“The Accounting Officer shall approve government major projects prior to submission to HM Treasury for approval. Accounting Officer approval shall be supported by an Accounting Officer Assessment for the outline business case and, when advised by the senior responsible owner, for any subsequent, materially changed business cases.”

Here are some examples of published Accounting Officer assessments from Ministry of Justice showing the level of detail expected.

2. Business cases requiring Defra Investment Committee approval

Any business case that breaches the delegated authority limit of an organisation, or all those over £5m in the Core department, or those deemed novel or contentious will be required provide documented evidence that it meets the AO tests.

The Delegated Authority Document says that budget holders must ensure that all expenditure is managed in accordance with the principles set out in HM Treasury's 'Managing Public Money', including affordability, value for money and the highest standards of probity.

As such all business cases for programme and projects that come to Investment Committee are required to complete the AO Assessment pro forma set out in Annex A. Business cases should include this as an appendix to their business case, referenced as part of the Financial Case.

Where a Red Team review for a business case is required they will be looking for the assessments in their review and the overall RAG status should reflect the information contained in this section.

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The Investment Committee will review the AO assessments on behalf of the AO and highlight instances where additional scrutiny from the Permanent Secretary is required e.g. if there is an issue or concern with one of the cases, where HMT approval is required or at the request of the AO. Senior Responsible Officers (SROs) are responsible for engaging the Permanent Secretary's office directly to secure approval. The relevant Finance business partner MUST be copied in on all correspondence.

3. Other exceptional business as usual (BAU) spend within delegated limits (or below £5m in the Core department)

In approving all departmental spend at this level it is implicit that consideration has been given to the AO tests and that the approver considers them to have been met.

For any spend that risks failing one of the AO tests (e.g. the risk of nugatory spend) the AO Assessment must be completed. Therefore, where the final responsibility for approval lies with the Director, or Deputy Director where a formal sub delegation has been sent, then the form at Annex A is completed to evidence compliance with Managing Public Money.

FBPs must review all forms in this category prior to sharing with the Financial Regularity Team, who will seek clearance from the Defra group Finance Director prior to submission to the AO for approval.

The level of detail in this can be very brief in most cases, as detailed in Annex A.

Knowledge management

All AO Assessments must be stored for future reference and available for scrutiny.

All AO Assessments for GMPP projects or linked to a Ministerial Direction must be published on Gov.uk (alongside the Direction).

Each organisation is required to make available, at short notice, AO Assessments for relevant spend. Within the Core department all Investment Committee submissions will be stored in the secure Investment Committee site. SROs are responsible for updating their AO Assessments and submitting them to the Permanent Secretary as necessary. Approved AO Assessments must be sent to the Investment Committee.

All AO approvals submitted to the Defra Financial Regularity Team will be stored by this team, once approved, as controlled content. This will be the source document for any future NAO or Cabinet Office enquiries.

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

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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 projects or pilot exercises that will last no more than 2 years.</p>	<p>The programme funds will be managed in accordance with HMT's Managing Public Money guidance and Official Development Assistance (ODA) guidance.</p> <p>Due to the funding limit of £12m for this full Business Case, (and £14m for whole life costs) HMT final sign off is not required.</p> <p>Spending will be under the International Development Act 2002, which provides a power for the Secretary of State to 'provide any person or body with development assistance if he is satisfied that the provision of the assistance is likely to contribute to a reduction in poverty.'</p>	Met

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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>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>	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 recommended approach has been appraised carefully against alternative options in the Appraisal Case of the Business Case, including doing nothing and alternative funding mechanisms and delivery approaches.</p> <p>To support the initial investment into Ocean Risk and Resilience Action Alliance (ORRAA), the initial Business Case Appraisal Case made the case for investing specifically in ORRAA. The Appraisal Case for this phase of the investment reconsiders other delivery organisations and assesses the progress ORRAA has made in its first year of delivery.</p> <p>The appraisal case finds that ORRAA has delivered value for money for the £2m invested in Year 1 (FY21/22) and remains the preferred delivery partner. The preferred option is to invest a further £12m over the next four years (22/23 – 25/26). This is a continuation, development, and expansion of the Year 1 programme. This option provides the best fit with the Blue Planet Fund (BPF) investment criteria and the strategic case for intervention.</p> <p>Value for money is one of the essential investment criteria governing decisions made on</p>	Met

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		Blue Planet Fund programming, and therefore this programme was required to comply.	
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 this investment has been explored fully in the strategic case of the full business case and assessed to ensure that it can be realistically implemented and delivered within the proposed timeframe.</p> <p>In addition, using the year 1 outcomes and programme reporting, we can be confident that the intended results and impacts for mobilising finance to drive resilience can be achieved, in line with Defra and UK policy. This programme will draw on the learning and experience within the BPF team and the ORRAA leadership team to ensure mechanisms are in place to deliver on time and in accordance to ODA MEL requirements.</p>	Met
Affordability	<p>This is a Defra AO Test and a sub-set of the HMT Propriety test; but given its own 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>The first phase of ORRAA has been funded (21/22) by Defra (£2m).</p> <p>This programme is expected to be 80% RDEL and 20% CDEL</p> <p>All administration costs will be properly recorded by the Defra team in conjunction with ODA Hub support and input from the ORRAA Secretariat leads for finance and reporting (hosted by the Global resilience Partnership and Stockholm University).</p>	Met
Overall Assessment	<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>The proposed fund will be managed in accordance with ODA and HMT's guidance. The funding will be allocated under the International</p>	Met

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		<p>Development Act 2002 and will be in accordance with this legislation and all ODA requirements.</p> <p>The approach has been appraised against alternative options, Defra has experience of delivering funding through similar mechanisms and the funding for the first year has been funded by HMT through the Spending Review. For these reasons, the proposal is judged to have met the AO tests.</p>	
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Annex I: Indicators

Code	Indicator	Unit	Type	Frequency
GRP 1	People supported by GRP	No.	Output	Semi-annual
GRP 2	Net dollar benefit per person	USD	Outcome	Final report
GRP 3	People more resilient	No.	Impact	Final report
GRP 4	End users satisfied with support	No.	Outcome	Final report
IP1a	Policies engaged with	No.	Outcome	Final report
IP1b	Policies proposed / adopted	No.	Outcome	Final report
IP1c	Policies implemented	No.	Outcome	Final report
IP2a	Investments mobilised by GRP grantees	USD	Outcome	Final report
IP2b	Investments directly leveraged through GRP	USD	Outcome	Final report
IP2c	Investments indirectly leveraged through GRP	USD	Outcome	Final report
IP3a	End users engaged with the project	No.	Output	Semi-annual
IP3b.i	People trained	No.	Output	Semi-annual
IP3b.ii	Uptake of financial services	No.	Output	Semi-annual
IP3b.iii	Users of EWS or climate information	No.	Output	Semi-annual
IP3b.iv	Users of other GRP innovations	No.	Output	Semi-annual
IP3c.i	Area under innovations	Ha.	Outcome	Final report

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IP3c.ii	Value of financial services provided	USD	Outcome	Final report
IP3c.iii	Jobs created	FTE	Outcome	Final report
IP4a	Knowledge products generated	No.	Output	Semi-annual
IP4b	People accessing knowledge products	No.	Outcome	Final report
IP4c	Organizations receiving assistance	No.	Output	Semi-annual
IP4d	Partnerships formed	No.	Output	Semi-annual
IP4e	Organizations increasing profit or self-sufficient	No.	Outcome	Final report

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Annex M: Pipeline of investable projects for Year 1 of the BPF grant to ORRAA

Potential projects for UK investment in Year 1 of the four year grant. These projects have been identified as ready for quickly initiating and would build on the UK's Phase 1 investment, as well as developing R&D outcomes that would support larger scale project selection in years 2 and 3 of the grant. Blue rows indicate science & research projects, grey show financial innovation projects. Barriers are described in full, in Section 1.1.4.

Project	Description	Previously funded?		Outcomes aligned with BPF ToC?*	Key barriers to mobilising blue finance that could addressed via these projects
Coastal Risk Index	Update existing climate risk assessment approaches by quantifying the fiscal risk of storm surge impacted by sea level rise and degradation of marine ecosystems	Yes - AXA, Canada, UK Blue Planet Fund		A, B, C, D	Ocean literacy Risk-adjusted financial returns Gaps in risk modelling and evidence base Regulatory and policy uncertainty
Gender Empowerment in Small Scale Fisheries in Southern Africa	Research specifically focused on gender empowerment in Southern Africa	No		A, B, D	Ocean literacy Lack of supply of projects Misinformed policy choices
Climate and Ocean Risk Vulnerability Index (CORVI)	Expand CORVI to identify coastal cities in greatest danger for instability and insecurity through on the ground research and use of country specific data.	Yes - UK Blue Planet Fund		A, C, D	Ocean literacy Risk-adjusted financial returns Gaps in risk modelling and evidence base
Sea Change Impact Finance Facility (SCIFF)	Large scale programme with three components, including a blue resilience hub and risk reduction facility. Initial research on developing the SCIFF has shown the need for these three areas of focus to support a new finance ecosystem for the ocean	No		A, B, C, D	All barriers could be tackled through SCIFF
Parametric insurance for financing reef resilience to extreme weather events	Expand the existing insurance programme to develop parametric insurance products to reduce the costs of repairing reef damage in the wake of hurricanes in the Caribbean and new geographies	Yes - Canada, UK Blue Planet Fund		A, B, C	Ocean literacy Risk-adjusted financial returns Gaps in risk modelling and evidence base Misinformed policy choices

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Micro-insurance for small scale fishers	Under Rare's Fish Forever program, expand micro-insurance products to new communities and geographies in Asia	Yes - Canada, UK Blue Planet Fund		A, B, C	Ocean literacy Lack of supply of projects Misinformed policy choices
Weather index-based parametric insurance for small scale fishers	Design parametric risk transfer solution for fishers in the Philippines that is indexed to wind speed, sea state, and rain conditions which prevent safe fishing	Yes - UK Blue Planet Fund		A, B, C	Ocean literacy Lack of supply of projects Gaps in risk modelling and evidence base
Development of a mangrove insurance product	Feasibility study to create an insurance product to cover the risk of loss or damage to mangrove forests, and to finance the post-storm restoration response	No		A, B, C, D	Ocean literacy Lack of supply of projects Gaps in risk modelling and evidence base
Establish a Voluntary Carbon Market to Restore Mangroves and Support Local Communities in Tanzania	Enhance the resilience of coastal communities around Dar-es-Salaam by establishing new sustainable sources of income from the rehabilitation of mangrove forests	Ocean Resilience Innovation Challenge (ORIC); UK Blue Planet Fund		A, B, C, D	Lack of supply of projects Gaps in risk modelling and evidence base Regulatory and policy uncertainty
Dedicated Call for Proposals	The call, using the template used by Canada, could support a variety of projects, including the implementation and testing of innovative finance and insurance solutions, and research to expand our knowledge of ocean risk to build coastal resilience	Yes		A, B, C, D	Potentially all barriers tackled

- *** A) improved resilience** and adaptive capacity of vulnerable populations and households to impacts of climate change (for example through improved local insurance schemes for small-scale fisheries)
- **B) improved marine biodiversity and livelihoods by protecting and enhancing marine ecosystems**
- **C) de-risking investment** into marine natural capital and leveraging increased nature-positive finance from the private sector.
- **D) the sharing of knowledge and underpinning evidence** to leverage finance for marine natural capital.

Annex N: Rationale for intervention

Coastal communities, especially in LEDCs and SIDS, rely on the ocean for their livelihoods, nutrition, economic growth, and climate resilience. The ocean's vital services are increasingly under pressure due to over-extraction, habitat destruction, biodiversity loss, pollution and climate change. Coastal communities in LEDCs and SIDS have limited access to the services that can help build a sustainable ocean economy (specifically access to knowledge and advice that can support the development of sustainable marine-related economic activity); have less resilience (such as access to effective insurance or opportunities for savings); and fewer financial resources to make the investments needed. The public and private investments into projects that de-risk and improve resilience to restore and protect the marine environment and support sustainable ocean economic activities are limited given the numerous market barriers.

- The ocean is a public good, for those seeking financial returns there is an inherent challenge as the positive externalities associated with investing in the Ocean are not represented within market values. This means the conditions are challenging to achieve private, financial, returns from these projects and thus they lack private sector interest. Public investment is therefore needed to support and encourage private financing but given the lack of local expertise and domestically available funding in LEDCs and SIDS they are unable to provide this public good.
- There is imperfect information for investments in the marine environment and this creates inherent uncertainties in yield and return. Imperfect information, and returns, discourages investment and this translates into a lower number of successful case studies/investment examples in the marine space to support the case for private investment and allow investors to understand the risk profile. Further, there is significant uncertainty in baseline environmental conditions and future impacts which compounds the risk to private investors.

The lack of ability of private investors to fully understand their risk profile and internalise the returns from their investment work against incentivising investment. Using public money to alter this risk/return profile and address the asymmetries in information should encourage private investment over time.

Annex O: Full assessment of progress during year-one grant (2021/2022)

This report will include an evidence-based narrative of progress to date, specific stories of change, and success against the Key Performance Indicators (see section 5.4) and ORRAA's ToC (Annex K). The assessment of the year 1 investment included within this business case is based on interim results provided by ORRAA and the BPF project team's expert judgement. Section 3.4 of the Commercial Case outlines how the new grant agreement will be used to govern release of payments for this FY and subsequent years, based on outcomes of annual reviews.

In Year 1 of Defra funding, Defra provided ORRAA with to invest into ORRAA's pipeline of projects, with a proportion of the investment directed to the development of the ORRAA secretariat - which supports functional management of the alliance as well as production of policy papers and communication of research. ORRAA was successful in implementing six innovation and practical projects on the ground with BPF support, as well as two research and knowledge projects. In addition, ORRAA has leveraged an estimated in private sector mobilised finance⁵ to date of which is estimated to be as a result of the UK's initial investment). This highlights ORRAA's ability to develop, create and scale up sustainable long-term ocean finance models.

It is worth noting that ORRAA was able to deliver despite delays in accessing the UK funding (received November 2021, rather than June 2021 as planned), giving only 6 months for project delivery.

Phase 1 Case Study: Financing the Mesoamerican reef's resilience to extreme climate events

Context: Reefs are high-value natural assets in the Caribbean. They are fundamental to thriving tourism businesses, providing coastal protection and underpinning fisheries productivity. According to IDB's recent economic valuation study, the Mesoamerican Reef provides USD 3.1-4.6 billion (2000) in tourism, fisheries, and coastal protection. Without this reef, flood damage could increase by 90% for 1 in 100-year events, and 141% for 1 in 25-year events (Beck et al. (2018)).

High level description/Aim: The Mesoamerican Reef Fund (MARFund) is a reef insurance programme which ensures the restoration of coral reefs across seven sites in the Caribbean, in the event of damage from hurricanes. The aim of the insurance programme is to guarantee timely funding needed to conduct post-event reef response/clean-up to speed up the recovery of reefs.

Summary

- **Value of UK investment:**
- **Finance leveraged:** in 2021/22 into insurance products
- **Financial contributions from other insurance providers:** multi-year premium finance has been provided by AXA Climate and InsuResilience Solutions Fund.
- **Number of people engaged in training or reef recovery projects:** online training 52 people (29 women and 23 men)
- **Pathway for scaling:** To expand across the Greater Caribbean region. The missing link that has been identified for deliver scaling up and replication is premium financing. This is needed to support the development and "proof of concept" phase of an integrated reef resilience program in the insular Caribbean. Leading to enhanced preparedness and response capabilities.
 - will expand training and product offerings to 50 new savings clubs in the Philippines and replicate the approach in Indonesia.

⁵ Including philanthropic funding

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ORRAA Phase 1 VfM and appraisal against agreed outcomes

Value for Money has been considered during all parts of this Business Case and financial safeguards, metrics for evaluating VfM and impact of spend, plus rationale for specific costs related to the Secretariat, R&D and MEL are described in the Commercial, Financial and Management Cases. To support the assessment of costs and benefits for the long list of funding options that could fulfil the strategic needs of this case, ORRAA Phase 1 project outcomes and VfM have been evaluated.

The method used to determine VfM is grounded in the BPF Annual Review process and has assessed the agreed outcomes of Phase 1 Business Case against a suite of indicators linked to both the ORRAA ToC and logframe (Annex K), as well as the BPF KPIs relevant to the ORRAA programme.

Recognising that the Phase 1 programme with ORRAA was designed to support financial innovation and pilot projects that will increase the number of investable projects, the agreed outcomes were in line with the short-term objectives of ORRAA. According to their ToC and logframe, these short term objectives would support delivery of longer term outcomes and outputs. The short-term outcomes agreed with ORRAA for Phase 1 were:

1. Deliver an increased pipeline of pilot projects for innovative finance products that increase coastal resilience
2. Grow the effectiveness of the Alliance to influence greater investments in coastal natural capital
3. Improve the design/implementation of gender-sensitive ocean resilience pilot projects in key vulnerable regions

The pathways for delivering these outcomes, as noted in the Strategic Case are:

1. Financial Innovation
2. Science & Research
3. Policy & Governance

Given the BPF has only invested in ORRAA for one year (with a short window for delivery), it is expected that successes associated with the Year 1 investment can only be presented at the output/outcome level rather than impact level.

To assess the outcomes of Phase 1 and identify if the investment to date has delivered VfM, we:

- Assessed the level financed leveraged by ORRAA, using financial reporting provided by the alliance (Short term outcome 2);
- Reviewed the Phase 1 reports from ORRAA describing the project outcomes and the work of the Secretariat;
- Used the indicators linked to each of the three short term outcomes to evaluate how effectively each project converted inputs into outcomes;
- Identified where projects have not been established long enough to assess outcomes, and assessed instead the degree to which projects have **potential** to be **scaled, replicated and have impact** (as per objectives cited in the Phase 1 Business Case).

The Table i) below is an example of the assessment conducted for each of the 9 projects delivered as part of Phase 1 funding to ORRAA, in addition to the deliverables of the Secretariat. The outcomes of these have been collated and a qualitative evaluation performed to deliver the assessment at the programme level of year 1 performance., Table ii).

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This VfM appraisal will be used as part of the formal Annual Review for ORRAA Phase. The AR will also create opportunity to identify and incorporate lessons learnt into the design of the MEL and the indicators selected to assess impact and VfM in Phase

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Using the above assessment at the output level, we assess that **ORRAA are on track to support BPF high level outcome of ‘investing in finance-based climate resilience and risk reduction in order to achieve thematic and underpinning outcomes.’** Due to the limited window for delivery of Phase 1 outputs and absence of specific targets for all indicators, indicators have not been weighted for this assessment. Targets have been drawn from agreed outputs at the project level (e.g. R&D products produced for influencing policy) as well as ORRAA’s longer-term outcomes (for e.g. 250m people positively impacted by 2030) and shorter term goals (e.g. USD\$10 fundraised by 2022). We have determined that of those outputs that are measurable, have either met targets or are contributing to longer term goals.

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Annex P: The strategic gap in the Blue Planet Fund portfolio

The Blue Planet Fund Theory of Change identifies four key desirable impacts and a number of critical pathways that the team see as the requirements/activities that underpin the delivery of the four desired impacts – see Annex B for the BPF Theory of Change. One of these critical outcomes is increased *public and private finance mobilised towards sustainable ocean economy*.

Of the current BPF portfolio, the Fiji Blue Bond is the only ongoing programme with a primary objective of mobilising finance. However, the Fiji Blue Bond only supports leveraged finance in Fiji and the programme receives only a small amount of finance. The FCDO COAST programme⁶ will also have an objective of leveraging finance through the role of blue carbon ecosystem services, however this will focus on ecosystem protection and supporting country-led ambition on inclusion of blue carbon credits into national determined contributions (NDCs)⁷. With the focused remit of this work, we have identified a need for a BPF programme with a strong focus on leveraging finance through innovative, blended finance solutions to plug this strategic gap within the BPF's portfolio.

Another critical pathway is better protection and use of marine ecosystems (also referred to as marine nature-based solutions (NbS)). This pathway ultimately mitigates risks associated with climate change (including biodiversity loss, ocean acidification and sea-level rises).

A number of the BPF programmes focus on better protection and use of marine NbS, both directly (e.g. ProBlue and GFCR⁸) and indirectly (e.g., GOAP⁹). However, only GFCR has marine NbS as its primary objective. There is therefore scope to further the BPF investment within programmes that directly support marine NbS.

A full description of the linkages between ORRAA and other BPF portfolio programmes can be found in Annex C.

⁶ Climate and Ocean Adaptation and Sustainable Transition (COAST) Programme

⁷ The primary objective of the COAST programme is to improve restoration and management of coastal habitats, improved small scale sustainable fisheries and more sustainable aquaculture.

⁸ Global Fund for Coral Reefs

⁹ Global Ocean Accounts Partnership

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Annex Q: Critical Success Factors

Assessment of longlist options for funding arrangements, matched against critical success factors identified for delivering BPF outcome of mobilising blue finance.

Annex R: Uncertainty and Mitigation

- There are evidence gaps in the 'Business As Usual' situation, including climate risks and action of others.
- The exact projects that the UK investment will be spent on will be confirmed via the Grant Agreement under advisement of the ORRAA Secretariat. This option creates flexibility for Defra and provision for funding both new projects as well as creating greater impact from currently funded projects through further investment and scaling up. However, it means that there is currently uncertainty regarding the specific projects that will be funded (and the impacts these projects could have). There is a risk that the appraisal below does not accurately reflect the actual impact of the UK investment. As a result, we have applied a optimism bias to the projected (partial) benefits calculated.
- There is uncertainty regarding how fluctuations in exchange rates could impact the value of the UK investment in other countries – this could reduce the impact of the work that ORRAA deliver. Similarly, inflation in the countries that handle the investment (including the UK, US, Sweden and countries where the money is spent) could also devalue the finance¹⁰. We have factored in a reduction to the benefits of 10% to account for unfavourable shifts in exchange rates and inflation devaluing the purchasing power of currency – see Annex A for details.

This means it is not possible to appraise and fully quantify with certainty the options with a whole-programme Cost-Benefit Analysis. **Finance will only be released on the basis that this review provides us with confidence that ORRAA are delivering as expected and are well placed to continue and expand on their activities with further UK funding.**

¹⁰ However, we expect that many of the benefits (including the value of the ecosystem benefits and income from selling carbon credits will increase in line with inflation).

Annex S: Costs and Benefits on the preferred option

Costs

In consultation with our Finance Business Partners and having reviewed the outputs of the Phase 1 funding to ORRAA, we recommend the following profile for the grant.

Benefits of working directly with ORRAA as opposed to other options outlined, include direct contribution to the non-monetised benefits described in Section 1.3.5.

The allocation of spend to the three pathways for impact and delivering outcomes (as identified in ORRAA's ToC) are described in the Commercial Case.

The remaining funds from the grant will be spent across ORRAA's three pathways for delivery: Financial Innovation; Science and Research and Policy and Governance. Secretariat costs will cover a combination of programming, knowledge sharing and capacity building– see section 4.1 of the Financial Case for further details on allocation per work area over the lifetime of the grant.

Costs to the private sector

One of the aims of ORRAA is to leverage private finance and private action to support investment in coastal resilience: this action will have associated costs to investment. However, the private sector will only invest where there is a positive financial return and evidence has shown that the societal benefits of marine NbS by far exceed the financial costs. Therefore, no costs to the private sector have been included within this appraisal.

Benefits

Further investment in ORRAA will ultimately lead to benefits for climate, biodiversity and people. The following section describes the expected indirect and direct benefits that are likely to arise as a result of a further UK investment into ORRAA.

Private finance leveraged through ORRAA:

The key transformative pathway through which the UK investment in ORRAA is expected to lead to benefits is through leveraging private finance. There are uncertainties in the potential, but it is possible to derive illustrative estimates.

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Specifically, ORRAA expects some of the “Innovation Challenge” projects to attract significant additional finance. This is because they are start-ups, and the most successful projects will be scaled up and hence will mobilise finance. Separately, through existing projects, ORRAA have already seen significant finance mobilised, for example the MAR Fund (which is supported by the UK investment) attracted from an initial investment of– this is an insurance policy to cover the restoration of coral reefs in four pilot sites in the MesoAmerican Reef after hurricanes¹¹.

ORRAA’s development of co-investment facilities¹² will enable impact funds to scale up to a more efficient size. At the same time, ORRAA will build the Blue Resilience Clearinghouse with additional investment opportunities and the Risk Reduction Mechanism for insurance products. The creation of this new framework for mobilizing finance creates opportunities for deployment of billions of dollars into nature positive coastal and ocean resilience over the next decade.

Similarly, a report issued by the World Economic Forum in 2012¹³ which focused on unlocking private finance for investment into green growth identified leverage ratios of between 8:1-10:1 for grants, 2:1-5:1 for non-concessional lending and 1:1-1.5:1 for highly concessional lending. This information was sourced from research undertaken by the Climate Policy Initiative, IFC and Climate Investment Funds. This research gives us confidence that a leverage ratio of times the UK investment is a plausible estimation.

The preferred option is therefore estimated to result in of private sector investment. In the shorter term (next 5 years), the UK investment is more likely to achieve private investment equal or slightly more than the investment put in. Annex F breaks down how ORRAA’s estimation for the leverage ratio fits into the ICF mobilised finance KPI methodology and sets out explicitly what assumptions have been used.

It should be noted that this estimation of leveraged finance is indicative only. The extent to which this amount of finance has been leveraged will be closely monitored through the monitoring and evaluation framework that we establish with ORRAA’s Leadership team and Secretariat and under advice from Defra’s BPF MEL lead.

Increased protection of ecosystems

¹¹ This policy is held by the MAR Fund and financed by the InsuResilience Solutions Fund, with AXA Climate selected via a competitive tender process as the risk capacity provider.

¹² The Concessional Co-investment Facility is a sub-fund of the SCIFF Umbrella Fund. Existing impact funds will be able to identify viable pipelines and de-risk investments.

¹³ <https://reports.weforum.org/green-investing-2013/leveraging-private-investment/>

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Almost all of the projects in ORRAA's pipeline concern the conservation and restoration of ecosystems¹⁴. Conservation and restoration of coastal ecosystems can provide benefits for biodiversity and fish stocks; carbon sequestration and improved coastal livelihoods (amongst other benefits). Evidence of the high value that we place on protecting ecosystems is described below.

Box 1: Generalised BCRs for nature-based solution conservation and restoration

At a worldwide level, the High-Level Panel estimates that the BCR for mangrove conservation is as high as **88-to-1**,¹⁵ with the BCR for mangrove restoration at **2-to-1**. This cannot be used as an estimate of the costs and benefits of *specific projects supported under ORRAA*, but it demonstrates that action to conserve and restore marine NbS is net positive for society, with the potential for good value for money.

At a project scale, NbS have also represented good value for money. For example, a community-led mangrove management project in Madagascar, the Blue Forest project¹⁶, (funded by Defra under the ICF programme), has been found to deliver an estimated range of benefits from for every £1 of government expenditure – a BCR of to The business case for Mikoko Pamoja, a similar Plan Vivo blue carbon project in Kenya¹⁷ indicates a BCR of

The specific conservation and restoration projects funded by ORRAA are likely to replicate these BCRs in some cases. However, the benefits go wider than this project-level scale. ORRAA aims to achieve **long term value for money** through demonstrating the success of projects and enabling private finance – creating the potential of further, knock-on benefits since projects are selected to enable learning and replication.

Improvement in community level resilience to climate shocks

We expect this to be delivered through increased access to savings clubs¹⁸ and weather index-based parametric insurance¹⁹ for some of the most vulnerable coastal populations. Studies of index insurance products indicate they support consumption smoothing i.e., individuals can

¹⁴). For example, one of the delivery partners working with ORRAA (Rare) is working with local insurance providers to enrol over 4,000 small-scale fishers in the Philippines in basic livelihood insurance.

¹⁵ Konar, M. and Ding, H. for High Level Panel (2020), *A Sustainable Ocean Economy for 2050: Approximating Its Benefits and Costs* available https://oceanpanel.org/sites/default/files/2020-07/Ocean%20Panel_Economic%20Analysis_FINAL.pdf

¹⁶ Blue Ventures, 2019: <https://blueventures.org/conservation/blue-forests/>

¹⁷ Mikoko Pamoja: A Business Case for Carbon Credit in Gazi-Kwale County, Kenya (Plan Vivo, 2017)

¹⁸ Savings Clubs are a local practice that puts the power back in the hands of the people living in poverty. As an individual, saving enough to change personal circumstances can be challenging, but as a group, saving enough to support each other is achievable.

¹⁹ Insurance triggered by a set index which proxies the aggregate number of fishing days lost each month

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continue to buy the items they need in order to maintain their standard of living. They also support asset retention as well as the purchase of assets.

Separately, the increased protection of ecosystems (described above) will offer Nature-based Solutions for mitigating damage caused by flooding and other climate-related weather shocks.

Improvement in the underlying evidence base to enable resilience investments

This will be achieved through the delivery of the coastal risk index²⁰ for NbS and the Climate and Ocean Risk Vulnerability Index²¹, as well as the development of evidence to support blue carbon investments. These products will begin to address the data and information challenges raised in the strategic case, with the ultimate aim of enabling finance for marine NbS and the resulting benefits for the marine environment and livelihoods as described above. The benefits of investing in research and knowledge and supporting the secretariat are challenging to directly assess, but these will be important enabling conditions for the effective work of ORRAA.

Expanding the global expert community

ORRAA have strong relationships with delivery partners and leading global experts in marine finance. By supporting ORRAA, Defra are able to access these organisations/experts more easily. ORRAA will increase the number of experts working in the field of ocean finance through obtaining support for pilots and interdisciplinary programmes supporting sustainable ocean investments. ORRAA will bring together individuals who are capable of developing products and tools linked to ocean finance and act as a platform for future finance mobilisation.

UK leadership and global reputation

The UK is already recognised as a leader in Ocean Finance. By further investing in ORRAA, the UK Government via the BPF re-affirms its leadership in producing, championing, and establishing ocean finance, as well as to global sustainable ocean management. This investment enhances the UK's reputation for ocean sustainability.

²⁰ The integration of protective benefits of coastal ecosystems into insurance flood risk models

²¹ CORVI produces comprehensive risk profiles for coastal cities and helps leaders make climate-smart investments to build resilience.