

**GLOBAL OCEAN ACCOUNTS PARTNERSHIP**

A Blue Planet Fund Business Case

Department of Environment, Food and Rural Affairs

Investing in the creation and use of ocean accounts

# COVER SHEET

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| **PROGRAMME SUMMARY** | *This project seeks to support ODA-eligible countries to develop ocean accounts for their use in ocean resource decision and policy making so that countries can ensure that investments are sustainable and equitable. The project will fund the Global Ocean Accounts Partnership to deliver the creation of National Pilot Ocean Accounts and Development Roadmaps in five ODA-eligible countries, alongside a range of capacity building activities including the publication of technical guidance on developing ocean accounts.* |
| **COUNTRY / REGION** | *Global, with a focus on Sub-Saharan Africa and the Indo-Pacific* |
| **PROGRAMME VALUE** | *£1million* |
| **START DATE** | *April 2021* |
| **END DATE** | *March 2022* |
| **OVERALL RISK RATING** | *Minor* |

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# GLOSSARY

|  |  |
| --- | --- |
| BPF: Blue Planet Fund |  |
| CDEL: Capital Department Expenditure Limit |  |
| Cefas: Centre for Environment, Fisheries and Aquaculture Science |  |
| Defra: Department of Environment, Food, and Rural Affairs |  |
| DfID: Department for International Development |  |
| EEZ: Exclusive Economic Zone |  |
| FCDO: Foreign, Commonwealth, and Development Office |  |
| FTE: Full-time Equivalent |  |
| GDP: Gross Domestic Product |  |
| GOAP: Global Ocean Accounts Partnership |  |
| HAC: High Ambition Coalition |  |
| IATI: International Aid Transparency Initiative |  |
| ICF: International Climate Finance |  |
| JMB: Joint Management Board |  |
| KPIs: Key Performance Indicators |  |
| MEL: Monitoring, Evaluation, and Learning |  |
| NbS: Nature-based Solutions |  |
| ODA: Official Development Assistance |  |
| RDEL: Resource Department Expenditure Limit |  |
| SDGs: Sustainable Development Goals |  |
| SNA: System of National Accounts |  |
| SRO: Senior Responsible Owner |  |
| ToC: Theory of Change |  |
| UN: United Nations |  |
| UNESCAP: United Nations Statistical Commission for Asia and the Pacific |  |
| UNSC: United Nations Statistical Commission |  |
| UNSW: University of South Wales |  |
| VfM: Value for Money |  |

# 1. INTERVENTION SUMMARY

## 1.1 Strategic Summary

### 1.1.1 Programme Abstract

The Department of Environment, Food, and Rural Affairs (Defra) is seeking approval to invest £1m of Official Development Assistance (ODA) into the Global Ocean Accounts Partnership (GOAP) by issuing a direct grant. The project will run for 1 year from April 2021 – March 2022. Five pilot ocean accounts will be delivered in year one to test practicability, complemented by capacity building activities. Further investments over subsequent years of the Blue Planet Fund (BPF) will be considered but will be dependent on both performance in year one and the identified need for additional investment. Future investments could be up to an additional £1m per year for years 2022-2026. GOAP was identified as being the best investment option to deliver optimum results and impact in the Appraisal Case. The overall risk rating for this project has been calculated as Minor. This is based on a scale of Minor > Moderate > Major > Severe.

### 1.1.2 Need for intervention

All countries maintain systems of national accounts that are based on the international standard System of National Accounts 2008 (SNA). They are used to produce and report the headline indicator: Gross Domestic Product (GDP). However, GDP is a production indicator, not a sustainability indicator or a measure of benefits to people from economic activity[[1]](#footnote-2). Natural capital, the stock of renewable and non-renewable resources (e.g. plants, animals, air, water)[[2]](#footnote-3), is the principal asset available to most poor people, apart from their own labour[[3]](#footnote-4). In order to safeguard this capital, relevant information on its stocks and flows, on who is using it, how it is being used, and on the values realised, is needed.

Ocean accounts are integrated records of economic activity (e.g. the sale of fish), social conditions (e.g. coastal employment and poverty), and environmental conditions (e.g. extent and condition of mangroves) that are compiled annually and are compatible with international statistical standards[[4]](#footnote-5).

Without understanding trends in the condition of marine and coastal habitats and the benefits derived from these assets, it will be difficult to understand how changes in the states of these assets will affect economic growth and wellbeing in the future. The full value of services provided by the marine environment, and how this value can change over time if make resources are not properly managed, is not recognised. This knowledge gap limits our ability to effective, inclusive, and sustainable policy decisions about the ocean.

### 1.1.3 GOAP

GOAP has responded to the need for and challenges of ocean accounts by establishing itself as a coordination and communication structure for diverse member institutions committed to ensuring that the values and benefits of oceans are recognised and accounted for. It was founded in 2019.

As a decentralised partnership each member manages its own funding, but some invest in the Secretariat’s contributions to the broader partnership. The UK will invest in the broader partnership, tasking the Secretariat to deliver activities on our behalf.

Demand for ocean accounts is increasing, as illustrated by the growing membership of GOAP. The Partnership has a wide range of members including the Governments of the Maldives and Thailand, and the Vietnam Ministry of Natural Resources and Environment. Several of these members, such as Fiji, want funding to compile ocean accounts. Delivery of ocean accounts pilots will therefore be demand-led. Furthermore, GOAP will use the UK investment to leverage investments from other countries, substantially increasing impact.

### 1.1.4 Existing successes on ocean accounting

Some developing countries are already using ocean accounting pilots to inform sustainable use of their marine environments. For example, to support objectives set out in Thailand’s 20-year National Strategy (2019–2039) and the 12th National Economic and Social Development Plan (2017–2021) concerning balanced growth in economic, environmental and social domains, the Thai Government piloted ocean accounts in 2019. It used the main tourist destinations in southern Thailand (Phuket, Krabi, Phang Nga, Trang, and Satun) as pilot sites. The pilot accounts revealed that although only one in nine persons in the five provinces were tourists, tourism-related activities used 21% of the water, 57% of the energy and were responsible for 26% of the waste and 28% of the greenhouse gas emissions. The high-risk areas and proposed sites for conservation were also identified. Methodologies developed in the pilot are now being replicated nationwide. Thailand has also established in 2021 a new accounting exercise focused on generating aggregate sustainable development indicators and supporting the implementation of marine spatial planning through creation of an integrated decision support system to inform policies and programmes concerning sustainable management of coastal and marine resources.

For a further case study on Vietnam, please see section 2.2.8.

### 1.1.5 Why is the uk best placed to invest?

The UK Government committed to the delivery of the £500 million BPF in December 2019. The fund will support ODA-eligible countries to protect the marine environment and reduce poverty. The creation of ocean accounts indirectly supports all the Blue Planet Fund KPIs by providing the data to assist investors, policy- and decision-makers to make informed, inclusive, and sustainable marine interventions. The UK is an international leader in ocean accounts and their use in policy decision-making. Defra is actively developing Marine Natural Capital Accounts for the UK, has established marine pioneer projects focused on testing natural capital management approaches, and contributes to the ongoing development of SEEA in relation to the ocean. In 2019 to highlight its commitment to ocean accounting, the UK joined GOAP. Membership of GOAP is free and gives the UK the opportunity to share our experience of ocean accounting. Investing in GOAP elevates this commitment by allowing the UK to fund specific strands of work in line with our strategic priorities, provides steers to countries, expertise and solidifies the UK’s place as an international leader in ocean accounting. This was recently highlighted at the UN Statistical Commission side event; the UK attended and was represented on the panel.

### 1.1.6 What are the main project activities and where will they be delivered?

The project seeks to support ODA-eligible countries to develop ocean accounts[[5]](#footnote-6) for their use in ocean resource decision and policy making so that countries can ensure that investments are building ocean wealth[[6]](#footnote-7) for future generations. Planned activity for year one includes:

* Publication of revised guidance on ocean accounting for sustainable development
* Creation of a ‘global ocean asset data package’ for ocean accounts that will provide global access to existing datasets along with guidance on how to use them
* Delivery of global dialogues that will result in bespoke training materials relating to ocean accounting
* Pilot ocean accounts and development roadmaps completed in 5 ODA-eligible countries
* Provision of introductory training on ocean accounts to relevant parties
* Leveraging the global expert community to address technical issues in ocean accounting and, in response, publication of a challenge statement that identifies those technical issues that impede efforts to implement ocean accounts globally, and publication of associated technical papers addressing these issues

Most of these activities will be delivered virtually and will be publicly available globally. The experimental ocean accounts and development roadmaps will be delivered in 5 ODA-eligible countries across Sub-Saharan Africa and the Indo-Pacific. These are likely to include Fiji, Indonesia, Vietnam, Mozambique and Kenya.

### 1.1.7 What are the expected results?

Ocean accounts are a key enabler of protecting marine and coastal habitats; providing an important information source for decision-makers and policymakers, and infrastructure investors so that marine resources can be used sustainably and equitably.

The project activities set out in section 1.2 will result in three key outputs:

* The creation of National Pilot Ocean Accounts and Development Roadmaps enabling sustainable development of the ocean economy in 5 ODA-eligible countries
* The delivery of convening and capacity building activities that will build a global community of practice for ocean accounting
* The publication of international analysis and reporting to develop state of the art ocean accounting

These outputs will result in improved knowledge of the importance of ocean accounting in the countries GOAP works in, meaning that the compilation and use of ocean accounts will be integrated as routine. This will enable:

* The implementation of policies that consider the impact of activities on the marine environment, and support sustainable ocean use
* The protection of coastal peoples’ livelihoods and homes due to reduced environmental degradation as a result of sustainable decision making

The expected impact of the project is that biodiversity is valued and integrated into decision making, policy making and infrastructure investments relating to the inclusive, sustainable use and management of the ocean.

### 1.1.8 Extending the investment – future years scoping

If GOAP perform satisfactorily in year one, further investment is expected through the BPF which will:

* In years 2-5 GOAP will continue working on the five country pilots delivered in year one, moving from pilots to developing fully fledged ocean accounting systems, to realise the vision of marine resources being fully recognised in decision making.
* Using the five countries delivered in in year one, GOAP will look to branch out regionally and begin delivering ocean accounts across additional countries.
* Using the ocean accounts being delivered as experience to inform guidance, GOAP will endeavour to move from draft statistical guidance as will be published in year one, to fully approved UN statistical standards on ocean accounting.
* GOAP will develop the global community of practice that will be established and nurtured in year one to a mature and embedded partnership.
* In year one GOAP will develop ocean accounting guidelines for Blue Planet Fund investments, additional funding in years 2 onwards will be invested in working with projects to embed ocean accounts in delivery.

Additional activities are possible and will depend on the development and spread of ocean accounts as an embedded global practice.

### 1.1.9 Strategic alignment

The project is fully aligned with the BPF’s impact statement to protect and enhance marine ecosystems through the sustainable management of ocean resources, to reduce poverty in developing countries.Compiling ocean accounts will provide invaluable data to underpin countries’ sustainable policies. In its 25 Year Plan for the Environment, Defra committed to “provide international leadership and lead by example in tackling climate change and protecting and improving international biodiversity”[[7]](#footnote-8). Ocean accounts will provide the data to protect and improve ocean biodiversity. Investing in GOAP also illustrates the UK’s commitment to the recommendations in the Dasgupta Review and the Sustainable Development Goals (SDGs).

## 1.2 Appraisal summary

GOAP was identified as being the best investment option to deliver optimum results and impact in the Appraisal Case. Following an appraisal of seven options for this investment, plus a ‘do nothing’ option, GOAP was found to provide an excellent fit with the BPF investment criteria and the strategic criteria.

## 1.3 Management summary

The GOAP Secretariat will be responsible for the day to day running of the project with Defra having full oversight. To scrutinise progress, quarterly milestones will be agreed. Defra will convene a Local Project Board that will occur quarterly, and GOAP will need to report adequate progress towards milestones, and financial propriety, to trigger the release of each grant instalment. In addition to the Local Project Board, Defra and GOAP will meet monthly in a more informal manner to iron out delivery issues, and discuss risk and expenditure, to ensure the project remains on track.

# 2. STRATEGIC CASE

## 2.1 Global context

The ocean drives global systems that make the earth habitable for humankind; it is an essential global resource[[8]](#footnote-9). The ocean regulates the global climate system and is the world’s largest ecosystem, playing host to nearly a million known species containing vast untapped potential for scientific discovery. The ocean and fisheries support the global population’s economic, social, and environmental needs, with over three billion people depending on marine and coastal biodiversity for their livelihoods[[9]](#footnote-10). Careful management of the ocean is therefore a key feature of a sustainable future[[10]](#footnote-11).

However, many of the benefits and opportunities that depend on the ocean are being missed or lost. Marine and coastal ecosystems are being rapidly degraded as a result of pollution, overfishing, climate change, and habitat destruction.[[11]](#footnote-12)

The global ocean economy has entered a historic period of structural transition, where the importance of established sectors such as oil, gas, and fisheries, are declining relative to emerging sectors such as aquaculture, offshore renewable energy, and biotechnology[[12]](#footnote-13). Sustained growth of the ocean economy is expected until 2030, with growth prospects beyond then severely limited if current environmental trends continue[[13]](#footnote-14).

That is why when the SDGs adopted by all United Nations (UN) Member States in 2015, they included Goal 14: ‘Life Below Water’ (SDG 14). SDG 14 aims to sustainably manage and protect marine and coastal ecosystems from pollution, as well as enhance conservation and the sustainable use of ocean-based resources. It exists alongside ambitious plans across global regions[[14]](#footnote-15) to develop ocean economies and capitalise on marine opportunities. However, for such global goals to be met, many context-specific relationships between economic prosperity, social wellbeing, and the ocean, and how these change over time, will need to be adequately documented and understood.

## 2.2 Need for intervention

### 2.2.1 environmental economic accounting

All countries maintain systems of national accounts that are based on the international standard System of National Accounts 2008 (SNA). They are used to produce and report the headline indicator: Gross Domestic Product (GDP). However, GDP is a production indicator, not a sustainability indicator or a measure of benefits to people from economic activity[[15]](#footnote-16). Natural capital, the stock of renewable and non-renewable resources (e.g. plants, animals, air, water)[[16]](#footnote-17), is the principal asset available to most poor people, apart from their own labour[[17]](#footnote-18). In order to safeguard this capital, relevant information on its stocks and flows, on who is using it, how it is being used, and on the values realised, is needed. Environmental Economic Accounts are integrated statistics that illuminate the relationship between the environment and the economy, both the impacts of the economy on the environment and the contribution of the environment to the economy[[18]](#footnote-19).

### 2.2.2 benefits of environmental economic accounting for developing countries

The social value of natural capital and its role in fighting poverty cannot be overstated. Biodiversity is declining faster than at any time in human history, and such declines are undermining nature’s productivity, resilience and adaptability and fuelling extreme risk and uncertainty for economies and well-being[[19]](#footnote-20). Developing countries are more reliant than developed countries on natural capital and stand to lose the most; it is costly and difficult to coax an ecosystem back to health. It is now widely acknowledged that natural resource use is inefficient and unsustainable, but measurement and valuation of this use is still at early stages[[20]](#footnote-21).

The collapse of certain ecosystems disproportionately affecting developing countries was illustrated in the Dasgupta Review[[21]](#footnote-22). By modelling a collapse in tropical forests, wild pollinators, and marine fisheries, one study found that the fall in global real GDP would be a little over 2%, but low and low-middle income countries would experience disproportionately large GDP contractions (-10% and -7%) compared to high income countries (-0.8%). Sub-Saharan Africa and South Asia are disproportionately affected, with hits of 20% or more to the level of GDP in countries such as Bangladesh, Democratic Republic of the Congo, Indonesia, Madagascar, Pakistan, and Ethiopia[[22]](#footnote-23).

To prevent such ecosystem collapse and the subsequent economic collapse, the Dasgupta review demands a change of measures of economic progress from GDP to inclusive wealth; the sum of the accounting values of produced capital, human capital, and natural capital. Environmental economic accounting serves as a necessary step towards the creation of inclusive wealth accounts, allowing the tracking of natural capital over time, and enabling us to estimate the impact of policies on natural capital[[23]](#footnote-24). This will protect against the loss of livelihoods and displacement that will face some of the world’s poorest people if resources continue to be used unsustainably and environments continue to degrade.

### 2.2.3 UN system of environmental economic accounting

The UN System of Environmental Economic Accounting (SEEA) sets out internationally agreed standard concepts, definitions, classifications, accounting rules and tables. It is designed to facilitate the integration and international comparability of environmental and economic statistics[[24]](#footnote-25). SEEA is now being implemented in 50+ countries, however its application to ocean environments has been limited[[25]](#footnote-26).

This is due to a range of conceptual and technical challenges that fall beyond the core scope of the SEEA framework[[26]](#footnote-27):

1. **Classifying ocean ecosystems and associated benefits across large and dynamic spatial scales**

The ocean’s size and complexity mean it is difficult to define boundaries for two main reasons:

* There is no accounting system for areas of the ocean outside of nations’ Exclusive Economic Zones (EEZs), and even within EEZs many countries are not accounting appropriately, or at all, for their ocean assets[[27]](#footnote-28).
* It is difficult to define what the boundaries of the marine economy are, and which sectors should be included in ocean accounts. From shipbuilding to biotechnology to clean energy, the ocean spurs innovation. Ideally, ocean accounting initiatives should be integrated with broader sections of the economy[[28]](#footnote-29).

1. **The practical importance of interlinking environmental and socioeconomic statistics**

It is now widely acknowledged – most recently in the Dasgupta review – that measures of social and economic progress are incomplete without consideration of environmental assets and environmental sustainability. To achieve the inclusion of measures of progress towards sustainable development that complement GDP, environmental and economic statistics need to be interlinked into frameworks such as SEEA. For example, an ocean account will need to show Gross Value Added from the fisheries sector relative to the status of environmental assets (fish stocks) and underlying ecosystem assets (mangroves or coral reefs).

1. **Structured information about the condition of the ocean**

Scientists monitor the condition of the ocean and associated ecosystems using a complex, diverse range of different measurement variables. Some of these provide answers to policy-relevant questions, such as “is this ecosystem functioning in a way that continues to support fish stocks or continues to provide coastal storm protection?”, and some do not. Identification and organisation of policy-relevant variables into a coherent structure is critical for building systems that account for the status of the ocean in a manner relevant to decision-makers. This coherent structure is also important for guiding the work of scientists who seek to inform decision-making, and the cost-effective allocation of public resources to ocean research.

### 2.2.4 what are ocean accounts?

Ocean accounts are integrated records of economic activity (e.g. the sale of fish), social conditions (e.g. coastal employment and poverty), and environmental conditions (e.g. extent and condition of mangroves) that are compiled annually and are compatible with international statistical standards[[29]](#footnote-30).

### 2.2.5 why are they not being used?

Ocean data is disconnected, unstandardized, and only partially represented in national accounts. National accounting systems in many countries do not yet clearly distinguish ocean-based from land-based economic activity. Nor do they record changes in the extent or condition of marine environments, and how these affect the economy. Ocean data – especially social and environmental data – is recorded in many ways by many different institutions and is often not shared with governments in standardised and accessible formats that can be easily incorporated into national accounts. Furthermore, the rapidly growing range of high-volume and high-detail global datasets concerning the ocean are not generally maintained in accessible and well-documented formats. This means that government officials and researchers – especially those in developing countries – cannot use them for decision making, creating pronounced data inequalities.

### 2.2.6 why are they important?

Without understanding trends in the condition of marine and coastal habitats and the benefits derived from these assets, it will be difficult to understand how changes in the states of these assets will affect economic growth and wellbeing in the future. The full value of services provided by the marine environment, and how this value can change over time if resources are not properly managed, is not recognised. This knowledge gap limits our ability to make effective, inclusive, and sustainable policy decisions about the ocean.

The development of ocean accounts enables decision makers to track whether investments are building ocean wealth[[30]](#footnote-31) for future generations. With enough data, an ocean account enables governments to monitor three critical trends with respect to their ocean economy:

1. Changes in ocean wealth, including produced assets such as ports and offshore energy, and non-produced assets such as mangroves and coral reefs
2. How ocean-related income is dispersed among different groups of people, such as income from fisheries or tourism for local communities
3. The contribution to national production from ocean-based economic activities

### 2.2.7 GOAP

GOAP has responded to the need for and challenges of ocean accounts by establishing itself as a coordination and communication structure for diverse member institutions committed to ensuring that the values and benefits of oceans are recognised and accounted for. It was founded in 2019.

As a decentralised partnership each member manages its own funding, but some invest in the Secretariat’s contributions to the broader partnership. The UK will invest in the broader partnership, tasking the Secretariat to deliver activities on our behalf.

The Partnership has a wide range of members including the Governments of the Maldives and Thailand, and the Vietnam Ministry of Natural Resources and Environment.

The goal of the Partnership is to ensure that livelihoods that depend on the ocean will be safeguarded. Using this proposed investment of £1m GOAP will develop a shared technical framework for ocean accounting that is compatible with the SNA, SEEA, and draft supplementary standards for SEEA Ecosystem Accounting. It will also deliver collaborative capacity-building activities, such as Global Dialogues, that support not just the development of ocean accounts, but also their maintenance and ongoing use in decision making. In year one, it will deliver 5 National Pilot Ocean Accounts and Development Roadmaps in five ODA-eligible countries. By 2025, GOAP aims to have full ocean accounts developed in 25 countries.

By supporting countries to comprise and use ocean accounts, and supporting the coordination of international ocean accounting expertise through national and international working groups, investing in GOAP will ensure that using the ocean inclusively and sustainably is valued and integrated into decision making, policy making and infrastructure investments. GOAP will use the UK investment to leverage investments from other countries, substantially increasing impact.

### 2.2.8 Examples of ocean accounts

Some developing countries are already using ocean accounting pilots to inform sustainable use of their marine environments. For example, to support objectives set out in Thailand’s 20-year National Strategy (2019–2039) and the 12th National Economic and Social Development Plan (2017–2021) concerning balanced growth in economic, environmental and social domains, the Thai Government piloted ocean accounts in 2019. It used the main tourist destinations in southern Thailand (Phuket, Krabi, Phang Nga, Trang, and Satun) as pilot sites. The pilot accounts revealed that although only one in nine persons in the five provinces were tourists, tourism-related activities used 21% of the water, 57% of the energy and was responsible for 26% of the waste and 28% of the greenhouse gas emissions. The high-risk areas and proposed sites for conservation were also identified. Methodologies developed in the pilot are now being replicated nationwide. Thailand has also established in 2021 a new accounting exercise focused on generating aggregate sustainable development indicators and supporting the implementation of marine spatial planning through creation of an integrated decision support system to inform policies and programmes concerning sustainable management of coastal and marine resources.

In Vietnam in 2019 the Ministry of Natural Resources and Environment coordinated an Inter-Ministry Working Group to conduct an ocean accounts pilot study to comprehensively track marine pollution from economic activities and their impacts on key ocean ecosystems in Quang Ninh province (one of the major economic hubs of Vietnam and also home to the Ha Long Bay World Heritage area). The catalyst for this project undertaken in collaboration with UN–ESCAP was a desire to improve sustainable management outcomes for the MPAs in the province and coherent management of coastal economic development and local biodiversity. The accounts revealed strong spatial associations between a sharp decline in the areas of mangroves, sea grasses and coral reefs and human-induced factors such as land conversion, aquaculture practices, land-based pollution from tourism and marine-based pollution. Based on the initial accounting pilot (which focused on biophysical accounting), Viet Nam is conducting a phase two economic valuation of coastal and marine ecosystem services in Quang Ninh to support the incorporation of ocean assets and services into mainstream economic development planning and policy.

## The UK’s investment

### why is the uk best placed to invest?

The UK Government committed to the delivery of the £500 million BPF in December 2019. The fund will support ODA-eligible countries to protect the marine environment and reduce poverty. It makes strategic sense for the UK to make an initial BPF investment of £1 million into GOAP. The UK is an international leader in ocean accounts and their use in policy decision-making. Defra is actively developing Marine Natural Capital Accounts for the UK, has established marine pioneer projects focused on testing natural capital management approaches, and contributes to the ongoing development of SEEA in relation to the ocean. UK research institutions such as the National Oceanography Centre, Plymouth Marine Laboratory, and the Centre for Environment, Fisheries and Aquaculture Science (Cefas) are globally leading centres of interdisciplinary assessment and measurement expertise that provide the foundation for ocean accounting.

In 2019 to highlight its commitment to ocean accounting, the UK joined GOAP. Membership of GOAP is free and gives the UK the opportunity to share our experience of ocean accounting. Investing in GOAP elevates this commitment by allowing the UK to fund specific strands of work in line with our strategic priorities, provides steers to countries, expertise and solidifies the UK’s place as an international leader in ocean accounting. This was recently highlighted at the UN Statistical Commission side event; the UK attended and was represented on the panel.

### 2.3.2 WHAT SUPPORT WILL THE UK PROVIDE?

It is proposed that the BPF invests £1m for one year (2021/22).  GOAP was established in 2019 so is a relatively new initiative and a new investment for the UK. To mitigate against this risk, this one-year investment will involve the delivery of pilot ocean accounts alongside capacity building activities to test the speed and success of delivery. Furthermore, investments over subsequent years of the BPF will be considered but will be dependent on both performance in year one and the identified need for additional investment. Future investments could be up to an additional £1m per year for years 2022-2026. The potential funding for years 2 to 5 are not considered in this business case. The University of South Wales (UNSW) hosts the GOAP Secretariat supported by the World Bank Blue Economy Program. A direct grant will be paid to GOAP via UNSW in Sterling.

Table 1: GOAP potential spend profile

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **2021/2** | 2022/3 | 2023/4 | 2024/5 | 2025/6 | Total |
| **GOAP** | **£1m** | £1m\* | £1m\* | £1m\* | £1m\* | £5m |

\*All investments from year 2 (2022/3) onwards would be subject to good performance of GOAP in year 1 and sign-off of a separate business case.

In addition to funding, Defra’s involvement with GOAP and the expertise we hold in marine natural capital accounting will also allow Defra to provide some in-kind expertise to GOAP.

## Impact, outcomes, and activities

### impact

Through supporting the creation and use of ocean accounts, the project aims to ensure that biodiversity is valued and integrated into policy making, decision making, and infrastructure investments, resulting in the inclusive and sustainable use and management of the ocean.

### outcomes and activities

Investment of £1m by the UK into GOAP will secure three key outcomes by March 2022:

1. The creation of National Pilot Ocean Accounts and Development Roadmaps enabling sustainable development of the ocean economy in 5 ODA-eligible countries
2. The delivery of convening and capacity building activities that will build a global community of practice for ocean accounting, including

* Publication of revised guidance on ocean accounting for sustainable development
* Creation of a global ocean asset data package for ocean accounts which will provide access to global datasets relevant to the ocean environment and economy, along with guidance on how to use them
* The creation of Blue Planet Fund guidelines[[31]](#footnote-32) for ocean data and reporting which will support the integration of project outputs into ocean accounts
* Delivery of at least 5 Global Dialogues that will result in bespoke training and briefing materials

1. International analysis and reporting to develop state of the art ocean accounting. This outcome will leverage the global expert community to address technical issues through the publication of a challenge statement that identifies those technical issues that impede efforts to implement ocean accounts globally, and through the publication of associated Technical Papers.

Please see Annex 1 for an indicative full and detailed Indicator and Outcome Framework.

### 2.4.3 Extending the investment – future years scoping

If GOAP perform satisfactorily in year one, investment in future years of the BPF which will:

* In years 2-5 GOAP will continue working on the five country pilots delivered in year one, moving from pilots to developing fully fledged ocean accounting systems, to realise the vision of marine resources being fully recognised in decision making.
* Using the five countries delivered in in year one, GOAP will look to branch out regionally and begin delivering ocean accounts across additional countries.
* Using the ocean accounts being delivered as experience to inform guidance, GOAP will endeavour to move from draft statistical guidance as will be published in year one, to fully approved UN statistical standards on ocean accounting.
* GOAP will develop the global community of practice that will be developed and nurtured in year one to a mature and embedded partnership.
* In year one GOAP will develop ocean accounting guidelines for Blue Planet Fund investments, additional funding in years 2 onwards will be invested in working with projects to embed ocean accounts in delivery.

Additional activities are possible and will depend on the development and spread of ocean accounts as an embedded global practice.

### alignment with the blue planet fund

#### Blue Planet Fund Key Performance Indicators (KPIs)

The creation of ocean accounts indirectly supports all the Blue Planet Fund KPIs by providing the data to assist investors, policy- and decision-makers to make informed, inclusive, and sustainable marine interventions. Investing in GOAP also directly supports meeting two of the KPIs as set out in table 2.

*Table 2: How GOAP will meet BPF KPIs*

|  |  |
| --- | --- |
| **BPF KPI** | **How GOAP will meet it** |
| **Number of marine-related evidence, knowledge dissemination and education activities or products developed as a result of BPF finance** | GOAP will publish technical guidance on creating ocean accounts; deliver at least 5 global dialogues on ocean accounting; publish technical papers on a demand-led basis; and ensure the global accessibility of ocean data through its ocean asset data package. |
| **Number of new or strengthened policies, strategies or regulations related to improving or managing the marine environment** | The outcomes of this project will strengthen ocean accounting strategy by providing extensive technical guidance and global support in the creation and use of ocean accounts. |

#### Blue Planet Fund Themes

Investing in GOAP and therefore supporting the development of ocean accounts helps achieve outcomes detailed in the Theory of Change (ToC) of all four BPF themes as set out in table 3.

*Table 3: How GOAP will meet BPF theme outcomes*

|  |  |  |
| --- | --- | --- |
| **Theme** | **Theme outcomes GOAP investment will help to meet** | **How** |
| Theme 1: Biodiversity | * The state of biodiverse resources is better known and increasingly valued at local, national and international levels * Countries’ biodiverse marine ecosystems better support local livelihoods, health and wellbeing | The creation of ocean accounts will provide the necessary data on the state of a country’s biodiverse resources. This, along with the provision of training and briefing on creating and using ocean accounts, will enable leaders at the local, national, and international level to value these resources, and make sustainable and inclusive policy decisions that support local livelihoods, health and wellbeing. |
| Themes 2 and 3: Climate Change and Marine Pollution | * New or strengthened policies, strategies and regulations *(both themes)* * Inclusive decisions (both themes) * Improved data, knowledge dissemination, and understanding *(both themes)* * Improved waste management infrastructure and organisation structures *(marine pollution only)* | The data made accessible by ocean accounts will be used to underpin the creation of inclusive policies, strategies, and regulations that enable the sustainable use of marine resources in a manner that does not cause, or mitigates against, climate change. The delivery of online technical and policy dialogues will strengthen knowledge and understanding of ocean accounts, encouraging their use.  Data from ocean accounts will enable the development of improved waste management infrastructures. |
| Theme 4: Seafood | * Science and data are locally relevant and available and used within policy decisions * Fishers have diversified sources of income from the marine environment and are robust to shocks | The data made accessible by ocean accounts will be relevant and available to use to underpin the creation of inclusive policies, strategies, and regulations that enable the production of sustainable seafood. These policies, regulations and strategies will enable fishers, coastal people and communities to diversify their sources of income and will enable experts to better predict and mitigate against shocks leaving them better protected and supported. |

## Strategic fit

Investment in GOAP is strategically aligned with Defra’s departmental priorities and the UK’s international commitments. By supporting the creation of ocean accounts to inform countries on the state of their biodiverse resources through pilot projects, technical guidance, international partnering through global dialogues, and the creation of a global asset data package, investing into GOAP supports the following strategic priorities:

* **The Dasgupta Review**

In 2019 the Government announced a comprehensive review of the link between biodiversity and economic growth to be led by Professor Sir Partha Dasgupta. The Dasgupta Review was published in February 2021, detailing that the world’s unsustainable engagement with nature is endangering the prosperity of current and future generations. It presents the solution as starting with the understanding that the economy is embedded within nature, not external to it, and emphasises the importance of ensuring that our demands on nature do not exceed its supply. To do this, the Review demands a change to our measures of economic success to measure wealth in terms of all assets, including natural assets. It implores governments and businesses to support natural capital accounting frameworks and invest in the standardisation of data and modelling approaches, and technical support[[32]](#footnote-33). By investing in GOAP, the UK Government is directly actioning this recommendation.

* **25 Year Environment Plan**

In 2018 the UK Government published it’s ‘25 Year Plan to Improve the Environment’. Within this, it committed to “provide international leadership and lead by example in tackling climate change and protecting and improving international biodiversity”[[33]](#footnote-34). Ocean accounts will provide the data to protect and improve ocean biodiversity, and through being one of GOAP’s biggest donors, the UK will solidify itself as a leader in environmental economic accounting.

* **Scientific superpower**

On 1 July 2020, the UK committed to becoming the world’s leading research and science superpower with the publication of its Research and Development Roadmap. The Roadmap sets out that the UK’s ODA investments should “bring together UK and international partner country research expertise to alleviate poverty, create jobs, and secure more sustainable economic growth and stability.”[[34]](#footnote-35) Ocean accounts are practically useful for ocean sciences, national statistical systems and evidence-based governance of oceans. Ocean accounts, and an accompanying framework, can provide a useful means to integrate scientific data across disciplines, providing a more holistic understanding of complex systems, and allowing communication of science to decision makers. Investment in GOAP will illustrate the Government’s commitment to partnering with countries to share expertise with the view to alleviating poverty and securing sustainable blue economic growth.

* **The** **High Ambition Coalition (HAC), 30by30, and Nature-based Solutions (NbS)**

The UK recognises the crucial role of NbS for climate change mitigation and adaptation. The HAC for Nature and People is an intergovernmental group of more than 45 countries of which the UK is Ocean Co-Chair. Its goal is to achieve at least 30% of protection of the land and ocean by 2030 (30by30).Coastal habitats, such as saltmarsh, seagrass meadows and mangroves, can sequester significantly more carbon dioxide per unit area than terrestrial forests[[35]](#footnote-36). The protection and restoration of these habitats therefore provide a NbS. That is why the UK announced the new Global Ocean Alliance in 2019 made up of countries dedicated to pushing forward the 30by30 initiative.

However, countries need credible and dependable data on the ecological and economical value of MPAs in order to support local managers and policy makers to sustainable develop them. Supporting the creation and use of ocean accounts will help provide the data needed to countries to help them develop robust and valuable MPAs.

* **SDGs**

The UK was at the forefront of negotiating the SDGs and is committed to being at the forefront of delivering them. Investment in the GOAP directly supports this commitment by helping to meet the following goals:

1. SDG 14: Life Below Water which calls for the oceans, seas and marine resources to be conserved and sustainably used for development
2. SDG 15.9 which calls for the integration of ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts
3. SDG 17.19 which called for efforts building on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product and support statistical capacity building in developing countries.

# 3. APPRAISAL CASE

The appraisal case evaluates the options for investment and where appropriate the expected results of these options. This case considers seven options[[36]](#footnote-37) for investment which address the issues laid out in the strategic case as well as meeting the Blue Planet Fund investment criteria. Where it was difficult to evaluate project impacts and effectiveness quantitatively, a qualitative evaluation has taken place.

The assessment is multistage; first we consider whether the proposed option can focus on delivering ocean accounts as described in the strategic case. All options considered viable in this regard are assessed against the BPF investment criteria and finally the four strategic criteria.

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 value for money. The investment criteria draw upon HMG’s Strategic Framework for ODA and aim help embed its priorities within the BPF’s delivery. The economic case first assesses these options for investment against the stage one BPF investment criteria. Stage one criteria are:

* Poverty reduction potential
* Environmental benefit potential
* Do no harm (i.e. the project will not create direct or indirect harm or consequences to people or the environment)
* UK Government priorities (Does the investment fit UK priorities, including HMG’s Strategic ODA framework and BPF priority geographies)
* In-country alignment (Alignment with UK country development plan and existing projects, fit with host country and/or local community priorities or interests)

Those options that meet the minimum criteria as stage one are carried forward to stage two assessment. The BPF investment criteria in stage two are:

* Maximising synergies across BPF outcomes
* Financial soundness
* Delivery and implementation potential
* Additionality
* Mobilising potential – finance
* Mobilising potential – stakeholders

Value for money (VfM) considerations are central to any appraisal and therefore embedded across all investment criteria and is about maximising the impact of each pound spent. 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

*Table 4: How VfM criteria relate to the BPF investment criteria.*

|  |  |
| --- | --- |
| **VfM principle** | **Key BPF Investment Criteria** |
| **Economy** (are we buying at the right price?) | Financial Soundness |
| **Efficiency** (‘spending well’) | Delivery and implementation potential; UK government priorities; Additionality |
| **Effectiveness** (‘spending wisely’): | Environmental benefit potential; In-country engagement and fit; Maximising synergies; Mobilising potential – finance; Mobilising potential – stakeholder action |
| **Equity** (‘spending fairly’): | Poverty reduction; Do no harm |

Finally, if the options pass the minimum requirements of the BPF investment criteria they are scored relative to each other and against the below strategic objectives:

* Integrated into UNSC and SEEA processes
  + *To mainstream the use of ocean accounts, the delivery body will need to be well connected and integrated with the UN accounting processes and able to submit draft guidance to these organisations for international approval and adoption in 2023 (the next relevant UNSC).*
* Country led and ownership
  + *In order to integrate ocean accounts into normal decision-making processes (see ToC) the organisation will need to have country ownership and be led by the countries in which it works. Countries working in and with the organisation must own the process of developing the accounts and implementing the recommendations from them.*
* Flexibility/agility
  + *To provide confidence, support and momentum, the funded organisation must be agile and flexible to meet country requests and needs in a timely manner.*
* Ability to meet the timeframes of funding
  + *Given the period of available funding is initially only one year, the funded organisation must be able to deliver the agreed outputs and ensure all money is spent within the agreed timeframe.*

We then assess the option in the round and how they meet the BPF investment criteria (IC) and strategic case criteria. Only those options which are considered adequate across the investment criteria and strategic goals are then considered for quantitative analysis.

The longlist options which we consider against the above criteria are:

1. Do nothing / business as usual
2. Bilateral funding
3. Natural Capital Programme (NCP) (successor to WAVES)
4. World Bank’s ProBlue
5. United Nations Statistical Commission for Asia and the Pacific (UNESCAP)
6. United Nations Statistical Division (UNSD)
7. Global Ocean Accounts Partnership (GOAP)
8. UK-led partnership for marine accounts

All options, apart from option 1, consider the same quantum of finance to be invested. This longlist was assessed against the BPF investment criteria and options 5, 6 and 7 were taken forward to a shortlist assessment against the strategic objectives. This allowed a preferred option to be identified and quantitatively appraised.

## 3.1 Investment Options

### Option 1: Do nothing / Business as usual

Under this option, the UK would make no investment into ocean accounting. This scores poorly across all investment and strategic criteria and therefore is **not recommended**. This is not taken forward and assessed against the BPF investment criteria or business case strategic criteria.

Under this option the GOAP and other initiatives such as the NCP will continue to exist, with countries and organisations joining the Partnership for support in developing ocean accounts. The Partnership will also continue building communities of practice. However, this work will happen on an ad-hoc basis and will be reliant on the good will of partners and multilateral organisations such as the World Bank, UNSD and UNESCAP; in-kind contributions; and some small financing from various sources. Whilst there has been some progress in ocean accounting achieved by the GOAP under this model, it has been slower than the pace required to solve the marine issues that face these countries. To plug the significant knowledge and capacity gaps relating to ocean accounts, the GOAP needs reliable source of funding tied with strategic outcomes that lead towards the embedment and use of ocean accounts as a globally routine marine conservation strategy.

### Option 2: Bilateral funding

This option involves direct bilateral investments in individual countries, exporting UK (Defra Group) experience and knowledge gained through developing our own marine accounts. The BPF could provide funding directly to ODA-eligible countries to support them in developing ocean accounts and mobilise UK experts to assist. Bilateral funding scores well against the stage one investment criteria due to the ability for us to design the programme, however it is weaker against stage two because of the time that is required to set up such a programme, and the limited ability to mobilise both additional finance and stakeholders. Furthermore, this option would require a lot of work to identify countries, and significant administration and management costs in delivering projects in individual countries. It would link poorly with UN and global processes required to mainstream ocean accounts and therefore likely have limited influence beyond the countries where it operated. This is eliminated at the stage two investment criteria assessment. **It is not recommended.**

### Option 3: Natural Capital Programme (successor to WAVES)

The BPF could invest in the Natural Capital Programme (successor to WAVES) which FCDO have already made an investment of £10m in. However, the Natural Capital Programme does not have a marine focus and the UK or/and Defra would not have significant influence to steer the programme to consider marine environments or the approach of the programme more broadly. Therefore, contributing the **NCP is ruled out due to the lack of focus on the marine environment** **(a gateway investment criteria) and a limited ability to delivery on UK marine priorities**. It is therefore eliminated as a viable option during stage one investment criteria.

### Option 4: ProBLue

An alternative option would be to expand the planned BPF investment into ProBlue by £1m. ProBlue covers a wide variety of areas and the UK would not be able to specify geography nor which pillar our money was allocated to. We would also be unable to specify spending on ocean accounts. Further this funding could risk the strategic alignment of the rest of the prospective investment into ProBlue for non-accounting related purposes. Furthermore, previous experience suggests that it is likely that any investment into ocean accounting with ProBlue would be channelled into supporting the GOAP. Given the lack of ability to earmark UK funding to the key tenet of this business case funding - ocean accounting techniques, **ProBlue was eliminated** before preceding to the BPF investment criteria.

### Option 5: United Nations Economic and social Commission for Asia and the Pacific (UNESCAP)

The strategic fit of funding UNESCAP is strong, being a UN body the statistical division it is extremely well integrated into the UN processes, although being a regional commission there could be a more convoluted processes to move outside the regional focus. However, being a UN agency limits its ability to be flexible in funding or approaches and it can be expected to take some time to move from planning to delivery phases of the project. It is also likely that GOAP will deliver some, or all, of any ocean accounts programme run by UNESCAP given their co-chair role of the body. It is therefore it is **not recommended** for investment but is recommended as an alternative.

### Option 6: United nations statistical division (UNSD)

Providing funding to the UNSD would prove the UK’s commitment to SEEA frameworks and ensure our influence within the body. UNSD will be critical in guiding the ocean accounting frameworks through UNSC processes for it to become official guidance. UNESCAP founded the creation of GOAP, reflective of its belief in a need for a focused global initiative on ocean accounting and move beyond the UN system to be flexible to country needs. UNSD scored acceptably against the investment criteria but given the scores for other options this was not considered a viable option for delivery of the UK’s ambitions in this area.

### Option 7: Global Ocean Accounts ParTNERship

Funding the GOAP to deliver work on supporting the development of ocean accounting strategy alongside capacity building activities to ensure its embedment at a local and global level would provide an excellent fit with the BPF investment criteria and the strategic criteria for this business case. Funding the GOAP directly would allow us to focus our influence on the Partnership, which the UK is already a member of. The GOAP is a unique international body which focuses exclusively on understanding the state of our ocean in a coherent framework. The creation of this partnership from UNESCAP and the key links with the SEEA framework practitioners means that it is in a unique position to implement global action at the national level towards comprehensively accounting for the ocean. Therefore, funding GOAP is the **preferred option**.

### Option 8: Set up a UK-led partnership for ocean and marine accounts

Setting up a UK-led partnership to promote marine accounts scores well against the stage one investment criteria but would place significant administrative and financial burden on UK Government departments and executive bodies. It therefore scores poorly on stage two investment criteria. Furthermore, a new UK-led initiative would create a twin track global initiative and be likely to cause confusion and diffusion of standards. It would be highly unlikely to achieve greater visibility than a GOAP, UNSD or an investment into the World Bank. As it also adds limited strategic value too, it is **not recommended**.

## 3.2 Options assessment conclusions

The options to do nothing (option 1) and an additional investment in ProBlue (option 4) were eliminated prior to assessment against the BPF investment criteria due to not supporting the development, roll out, and uptake of ocean accounts; because of a lack of focus of the programme on ocean accounts; and due to the inability of the UK to earmark money invested to the development and uptake of accounting practices respectively. All other options were assessed against the BPF stage one investment criteria, which can be seen in table 5. At this stage options 2 and 5 to 8 seemed promising, with an investment in GOAP (option 7) and a bilateral programme (option 2) scoring the highest, closely followed by the UK-led partnership (option 8). An investment in the NCP was ruled out due to its failure to meet the environmental criteria. Stage 2 investment criteria eliminated bilateral programming (option 2) due to limited time for delivery and inability to set up the project within the timeframes of the funding. Also eliminated at stage 2 was a new UK led partnership (option 8) which was recognised as not being additional and unlikely to mobilise action from other stakeholders. Options 5 to 6 were taken forward to the strategic assessment.

*Table 5: Investment criteria scores summary*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Stage 1 weighted score (/34) | Stage 2 weighted score (/18) | **Stage 1 and 2 total score (/52)** |
| **Option 1**: Do nothing | **Eliminated** pre investment criteria due to not meeting the central tenant of this business case; supporting ocean accounts development, rollout and uptake. | | |
| **Option 2**: Bilateral programming | Score = 31 | Score = 4 | **Eliminated** due to lack of delivery potential within the necessary timeframe. |
| **Option 3**: World Bank Natural Capital Programme | **Eliminated** in stage one due to failure to meet minimum score on marine environmental benefits | Not scored | Not scored due to being eliminated in stage one |
| **Option 4:** PROBLUE | **Eliminated** pre investment criteria in the initial assessment due to a lack of focus of the programme on ocean accounts and inability of UK to earmark money invested to the development and uptake of accounting practices | | |
| **Option 5**: UNESCAP | Score =24 | Score =13 | **Take forward to strategic assessment**  Score = 37 |
| **Option 6**: UNSD | Score =20 | Score =11 | **Take forward to strategic assessment**  Score = 31 |
| **Option 7**: Global Ocean Accounts Partnership | Score =31 | Score =15 | **Take forward to strategic assessment**  Score = 47 |
| **Option 8**: UK- led partnership for marine accounts | Score =29 | Score = 5 | **Eliminated** due to lack of ability to mobilise other and potential to conflict with other initiatives limiting additionality. |

The assessment of options 5, 6 and 7 against the strategic considerations (table 6) in the business case showed that the Global Ocean Accounts Partnership best met the strategic considerations, it also scored the highest against the BPF investment criteria.

*Table 6: Assessment of options against strategic considerations*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | BPF Investment Criteria Score | Integrated into UNSC and SEEA processes | Country led and ownership | Flexibility/agility | Ability to meet the timeframes of funding | **Decision** |
| **Option 5**: UNESCAP | 37 | Well positioned within the UN family to influence the central processes but would need to ensure by in from other regional commissions. | UNESCAP is well connected with their member countries, but less connected outside their regional mandate. They do have enduring relationships with countries and therefore can be expected to provide wider implementation support. | The constraints of UN process on this organisation means that it can be less flexible and agile in responses. | There is some concern that distribution of funding might be slower due to process issues and this could risk delivery and ODA underspend. | Alternative option, noting the limited geographical scope |
| **Option 6**: UNSD | 31 | Well positioned as the leading agency on SEEA and gatekeeper of the processes and guidance. | Focusing primarily on national accounts and the implementation of these UNSD is well placed to provide guidance here but are limited in the wider impact and advice they may be able to provide. | The constraints of UN process on this organisation means that it can be less flexible and agile in responses. | As with UNESCAP, the constraints of UN process on this organisation means that it can be less flexible and agile in responses. It is likely that UNSD will be more constrained than a regional commission. | Not viable due to low scores on IC and assessment here |
| **Option 7**: Global Ocean Accounts Partnership | 47 | Outside of UN agency process but well connected to the UNSD processes for SEEA. | As a membership led country partnership GOAP is well placed to support countries through developing their accounts and implementing decisions from these accounts. | GOAP is unconstrained by UN processes but still passes the fiduciary requirements of the UK. This gives it flexibility to respond to demands and changing circumstances | GOAP is ready to absorb funding and has potential partners and interested countries in their pipeline. This means they should be able to deliver within our timeframes. | **Preferred option** |

## 3.3 Preferred Option: Global Ocean Accounts Partnership

Directly funding the Global Ocean Accounts Partnership is shown as the preferred option and it scores well against all the Blue Planet Fund investment criteria. It has also shown to score well against the set of strategic criteria laid out in this business case. It is well connected with the UN processes (e.g. co-chaired by UNESCAP and contributor to the UNSD/SC) and therefore can leverage the conveying power of these UN bodies, but it is also agile and able to flexibly meet country requests and changing circumstances because the organisation sits within the UNSW governance processes. These governance processes meet all the necessary UK requirements. This allows the partnership to draw on the administrative board members’ expertise; country partners; and the UN bodies. This agility means that GOAP can absorb and spend the proposed £1m in the first year[[37]](#footnote-38). This level of funding showcases the UK’s commitment to GOAP and marine natural capital accounting, but also minimises delivery risks as it is only a small proportion of the overall spend of the BPF (less than 4% of the first year spend).

The GOAP already has several developing countries engaged in the partnership, so it is more cost-effective and less time consuming to fund the GOAP rather than setup separate UK partnerships or bilateral funding. Furthermore, the UK can cap the administration costs at 10% of the research grant and flow through funds will not attract this charge.

However, GOAP are less established than other bodies and the UK has not provided funds to the partnership before, although has funded other programmes in UNSW. We are therefore taking a iterative approach to this intervention, as set out above. They have set out a clear plan for delivery and draft logical framework of indicators which will be used to assess performance. The targeted five pilot countries is a good balance; it matches UK ambition for the rollout of ocean accounting approaches without compromising the ability of GOAP to deliver.

### Cost and Benefits of preferred option

The GOAP is a technical assistance programme that relies on many other factors to move the direct capacity building and analysis into policy and then actionable change on the ground. The UK will provide £1m of funding in the first year to GOAP to fund five pilot studies and other activities. The programme is routed in the main problem driver in the BPF ToC; the lack of recognition of the importance of and therefore under valuation of marine environment and its biodiversity. The TA is not bedded within a capital project or a direct enabler of a capital project, therefore the ability to direct value outputs and outcomes is challenging, if not misleading.

In line with technical assistance and research analysis guidance (UKRI) we first outline the causal chain (theory of change) and then proceed to undertake a high-level assessment of value for money assuming that GOAP contributes to developing and delivering on policies to improve the sustainable use of the marine environment or avoid losses.

#### Drivers of degradation

The ToC identified several drivers of degradation of marine ecosystems. These include data gaps in both the quality and quantity of data; lack of capacity; poor uptake of current knowledge; inadequate governance; inequitable resource access; and the full value of ecosystems not being reflected in the market price of goods and services which they provide.

#### GOAP activities

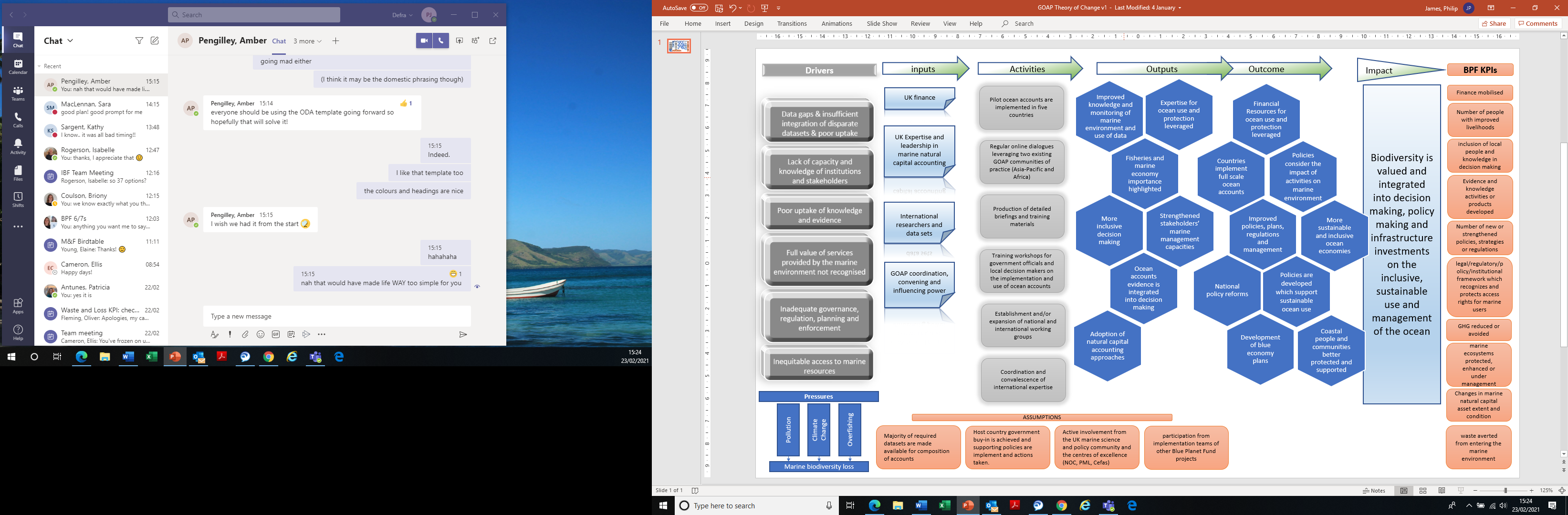
GOAP will undertake ocean account pilots in five countries; host regular online dialogues in Asia, Pacific and Africa; produce detailed training materials for use internationally; provide workshops on using ocean accounts for decision makers; establish national and international working groups; and act as a coordinating body for international knowledge and expertise.

#### GOAP outputs and outcomes

These activities are expected to lead to several outputs, such as improved knowledge, better decision making, and ocean accounting being integrated into decision making. These outputs are expected to contribute to a range of outcomes. Outcomes as a result of the GOAP outputs, and supporting enabling conditions, include policies considering the impact on the marine environment, policies supporting sustainable use of the marine environment and coastal people are better protected and supported.

The end impact being ‘marine biodiversity is value and integrated into decision making, policy making and infrastructure investments on the inclusive, sustainable use and management of the ocean’. The quantitative assessment of value for money assumes that the causal chain as laid out in the ToC (figure 1) occurs as expected. Further, ocean accounts provide a key enabler and are an important information source for decisions, policy and action to sustainably use, protected and enhance the marine environment.

*Figure 1: GOAP ToC*



## 3.4 Detailed Analysis

A monetizable impact of GOAP is difficult because the partnership is an enabler and technical assistance body. It does not have a direct role in marine planning, protected areas, habitat restoration, or pollution reduction, but instead provides a framework to help decision makers better consider the ocean in a holistic manner when making relevant decisions. It is not certain that any ocean accounts framework will directly or indirectly result in changes given the wide range of further enabling factors being required. The following assessment should be viewed within this context.

Based on GOAP theory of change we have concluded that GOAP, along with other enablers, could reduce the amount of waste flowing into the marine environment, safeguard the revenue of small and large scale fisheries and provide marine biodiversity benefits by contributing to avoiding the destruction of these habitats. We attempt to be conservative in our analysis because the causal chain relies on many elements to occur, only one of which is GOAP assisting in understanding the value of marine biodiversity and enabling better marine spatial planning. We therefore make a set of assumptions about the amount of losses avoided contributable to GOAP, these are detailed in Annex 3 and summarised in table 7. These are sensitivity tested to assess the robustness of these assumptions (see Annex 3). The analysis is shown to be robust to the assumptions that have been made.

*Table 7: Assumed percentage of value of losses avoided attributable to the production of ocean accounts per year by valuation area*

|  |  |
| --- | --- |
|  | Percentage of value of losses avoided attributable to the production of ocean accounts (per year) |
| Pollution | 0.005% |
| Fisheries revenue | 0.002% |
| Reef | 0.00013% |
| Mangrove | 0.00012% |
| Seagrass[[38]](#footnote-39) | 0.00013% |
| Open Ocean | 0.00010% |

The pilot countries where GOAP will work as a result of UK funding are not yet certain. Countries such as Fiji, Viet Nam, Thailand, Indonesia and Malaysia are possible candidates for the partnership, but these are not yet finalised. We therefore use these as an example set of countries to value the impact of GOAP, the choice of country is sensitivity tested. We assume that the other activities that the GOAP will undertake (working groups, training workshops, briefings, dialogues) will all contribute to the success of the pilots but are also likely to contribute to benefits to those countries outside the pilot countries. This impact causal chain is determined to be too uncertain to be valued in the value for money assessment.

The value for money assessment considers three outcomes; waste, fisheries and biodiversity (including NbS) – crossing all themes of the BPF. Within waste we consider mismanaged plastic waste reaching the ocean; fisheries, the value of small- and large-scale fishing and associated economic multiplier effects; and key habitats of mangroves, reefs, seagrass and the open ocean. Valuation of these areas are based on production value and where relevant the ecosystems services such as supporting, regulating and cultural services. Values per hectare are taken from the ecosystem service valuation database (ESVD) for each country. If a value does not exist, the country is assigned a zero value as assigning a global value would likely overestimate the impact of the project.

The assessment considers tourism and non-fish products (e.g. firewood in mangroves) as production values of these ecosystems, further valued are the benefits associated with coastal protection, moderation of extreme events and erosion prevention. Cultural services are also valued including social development, intrinsic, aesthetic and bequest values.

### Results

The estimated net present value based on the assumptions outline in Annex 3, is £3.5m with a BCR of 4.48 (see table 8); 74% of this value is as a result of the biodiversity valuations[[39]](#footnote-40), 25% contributed to by the avoided lost fisheries revenue and less than 1% to avoided pollution. We further estimate that up to 7,800 people living near the coast and depending on the coastal habitats for protection and/or income could be assisted by better managed ecosystems (see table 9).

Extensive sensitivity testing of all the assumptions and country selection has been undertaken and is presented in Annex 3. We have also modelled increasing the funding to £1.5m in the first year, although this is not considered a viable option. This testing showed that the conclusion that an investment in GOAP[[40]](#footnote-41) is value for money is reasonably robust. The breakeven point is where additionality of GOAP is reduced from the conservative 25% to only 6%. The testing also showed that reducing GOAPs contribution to avoided waste, avoided lost revenue and protection of marine ecosystems to less than a quarter of that assumed in the central case modelling still provided value for money for the investment.

*Table 8: Modelled results from value for money analysis*

|  |  |
| --- | --- |
| Modelled value for money (discounted values) | |
| Pollution | £ 13,000 |
| Fisheries | £ 1,130,000 |
| Biodiversity | £ 3,330,000 |
| Present value | £ 4,480,000 |
| **NPV** | **£ 3,480,000** |
| **BCR** | **4.48** |

*Table 9: Speculative estimates of the number of people who could be assisted as a result of better managed ecosystems –* ***not to be treated as GOAP targets or results***

|  |  |
| --- | --- |
| Speculative estimates of number of people impacted | |
| Population protected by coral reefs (GOAP) | **7,800** |
| Number of fishers involved in coral reef ﬁsheries (GOAP) | **1,000** |
| Rural coastal population (10km from coast, GOAP) | **26,900** |

# 4. COMMERCIAL CASE

The Appraisal Case provides a high-level justification for investing in GOAP. The following Financial and Commercial sections provide further information on the financing method and procurement.

### 4.1 commercial approach

The preferred funding route is through a direct award grant. Due consideration has been made to the different funding options as set out in the Government Grants and Alternative Funding Options guidance document. As advised by Defra Commercial, given the outputs and outcomes of the programme are not of direct benefit to the department, but instead help Defra to meet departmental and international objectives, a commercial procurement was not considered a feasible route. A commercial contract was also discounted since Defra does not wish to purchase goods or services. A grant was therefore determined to be the most appropriate route.

Second, the project has considered the different grant funding options. A competed grant was discounted. This is because there are a very limited number of possible delivery partners and, as detailed in the Appraisal Case, funding a body other than GOAP would likely result in the funding being channelled to GOAP in a more inefficient manner than a direct award grant.

Our rationale for a direct award grant can be summarised below:

* Through stakeholder engagement, our understanding is that the Global Ocean Accounts Partnership is the only possible delivery organisation for this work. Funding a body other than GOAP would likely result in the funding being channelled to GOAP anyway.
* No specific services or goods are being purchased by Defra. Instead, Defra seeks to provide funding to GOAP to carry out activities that align with Defra’s departmental and international objectives.
* Defra will not gain direct benefit as a result of this project (for example Defra owning intellectual property rights as a result of this project). Instead, the project outcomes and impacts are related to our international objectives and global public goods. However, there will be robust KPIs and performance milestones to measure performance.
* It is in line with HMT and FCDO official guidance of Value for Money in ODA that ‘value for money must be the key driver for all public procurement and this will normally be achieved through competition’. On this occasion competition is likely to result in an inefficient use of funds as awarding the grant to a body other than GOAP would likely result in the funding being channelled to GOAP anyway.

### 4.2 ensuring value for money through procurement

As this will be a direct award grant, there will not be a procurement process. However, in line with ODA guidance Defra has assessed investment in GOAP for VfM in the Appraisal Case.

### 4.3 financial management and ability of partners to deliver

#### University of New South Wales

GOAP will be recipient of the grant via the UNSW. The University of New South Wales hosts the Partnership Secretariat supported by the World Bank Blue Economy Program. The UNSW is an Australian public university and gained its statutory status through the enactment of the New South Wales University of Technology Act 1949 (NSW) by the Parliament of New South Wales in Sydney in 1949. UNSW is one of the founding members of the Group of Eight, a coalition of Australian research-intensive universities, and of Universitas 21, a global network of research universities. It has international exchange and research partnerships with over 200 universities around the world.

The UNSW is a public research university established by an Act of New South Wales Parliament. Its total income for 2019 was AUD 2.4 billion (GBP 1.3 billion) including AUD 120 million (GBP 66 million) of external consultancy and contracts income from diverse sources including multilateral development banks such as the World Bank, bilateral development funders such as DfID (now FCDO), and the private sector. The University’s Risk Management Framework meets the requirements of ISO 31000:2018 Risk Management Guidelines.

### 4.4 safeguarding and equality

This project seeks to do no harm; the overall aim is to support the creation and use of ocean accounts so that policy and decision makers can make inclusive and sustainable decisions about the use of ocean resources that protect the livelihoods that depend on them. The project does not involve any activities that could bring about adverse impacts on local communities.

### 4.5 compliance with gender sections of 2002 international development act

Under the 2002 International Development Act development assistance must be likely to “contribute to reducing inequality between persons of different gender”[[41]](#footnote-42). Women face the risks of ocean degradation with fewer assets and alternatives for income, and less resilience against mounting losses[[42]](#footnote-43). The creation and embedded use of ocean accounts is fundamental to enabling policy and decision makers to make sustainable decisions about the use of marine resources that reduce gender inequality and increase resilience to economic shocks.

### 4.6 world trade organisation subsidy commitments

This investment is not expected to have the potential to cause distortion in, or harm to, competition, trade, or investment and is therefore not deemed to amount to a WTO actionable subsidy.

### 4.7 commercial risks

We expect the commercial risks to be low. Those foreseen and any mitigation strategies in place are summarised in the risk table in section 6.2.

# 5. FINANCIAL CASE

The following Financial case establishes that the preferred option outlined previous is affordable, is the best use of Defra ODA funds, and that the principles of sound financial management for public funds are followed in line with the Accounting Officer Tests.

### accounting officer tests

* Affordability (and financial sustainability): the first year of this investment has an allocated budget, 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.
* 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.
* 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 realistically be implemented accurately, sustainably and to the intended timescale. Defra and GOAP have worked together to develop a monitoring framework with corresponding delivery milestones to ensure that the desired outcomes can be feasibly met.

### 5.2 expected project costs

This grant commits Defra to £1m to be paid over 1 year. The £1m was included as part of Defra’s SR20 ODA bid and approved in January 2021. The project will run from April 2021-March 2022. Future investments could be up to an additional £1m per year for years 2022-2026 but the potential funding for years 2 to 5 are not considered in this business case. Management and administration costs will be included in the £1m and will not exceed 10%.

### 5.3 Proposed payments

An indicative payment schedule is shown in table 10.

*Table 10: Indicative payment schedule*

|  |  |
| --- | --- |
| **Month and Year** | **Grant Instalment** |
| April 2021 | £125,000 |
| July 2021 | £250,000 |
| October 2021 | £250,000 |
| January 2022 | £250,000 |
| March 2022 | £125,000 |

To assist with set-up costs, an upfront payment of £125,000 will be made in April 2021. In line with ODA best practice, and to avoid payment in advance of need, payments will then be spread quarterly as detailed in table 10. Payments will be made following financial and progress reports and quarterly Local Project Boards (LPBs) that demonstrate expenditure is in line with the approved activities.

The final payment schedule will be agreed between GOAP and Defra as part of the grant award process. The amounts and timescales may be subject to variation depending on the development of the project.

### 5.4 International Climate Finance proportion

This project is not accountable as ICF. GOAP does not list climate as one of its stated objectives.

### 5.5 staffing costs

The allocation of full-time equivalent (FTE) is an expected average across the lifetime of the project, with peak staff time at the beginning whilst the project is set up. FTE capacity of different posts is as follows: HEO (0.3), G7 Policy (0.1), and G7 Economist (0.1). Frontline resources will be covered by the BPF team budget.

*Table 11: Costs of front-line resources*

|  |  |
| --- | --- |
| **Resource** | **Cost** |
| **HEO (0.3)** | £13,384.50 |
| **G7 Policy Lead (0.1)** | £7,127.90 |
| **G7 Economist (0.1)** | £7,127.90 |
| **Total** | £27,640.30 |

### 5.6 reporting, monitoring and accounting for funds

Grant payments will be linked to performance against agreed costs and deliverables set out in the final grant agreement. The delivery partner therefore bears the risk of poor performance. The delivery partner is expected to provide quarterly reports on the spend progress against budget. Overall performance will also be measured yearly through an annual review which is scored and can be used to take remedial action against poor performance.

### 5.7 avoiding payment in advance of need

In line with HMT’s guide on Managing Public Money, we will ensure that Defra is not paying in advance of need. The project lead will monitor the payment schedule agreed with the delivery partner to assess if they are ahead of behind schedule and will revise the payment schedule if necessary. Any changes to the payment schedule will be discussed and agreed with Defra finance.

### 5.8 Financial accounting considerations

Consolidated Budget Guidance (CBG) states that the spend is to be deemed Capital (CDEL) expenditure if the following description and conditions apply:

Capital grants are unrequited transfer payments, which the recipient must use to either:

* Buy capital assets (land, building, machinery etc.)
* Buy stocks
* Repay debt
* Acquire long-term financial assets, or financial assets used to generate a long-term return

The grant is resource RDEL because the activities set out do not meet the CBG definition of Capital Expenditure.

### 5.9 transparency

Defra requires all its partners to meet the International Aid Transparency Initiative (IATI) standard that aims to ensure that organisations publish information to ‘improve the coordination, accountability and effectiveness to maximise their impact on the world's poorest and most vulnerable people’. This includes information on the organisation, funds, and planned activities. This project will generate outputs including a log frame, annual review, and technical reports which will be of interest to other countries and stakeholders. All outputs should be published on IATI and free to users whenever possible. Most agencies are now following this standard.

### 5.10 avoiding fraud and corruption

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.

### 5.11 provision for defra to withdraw funding

Defra will ensure that there are several clauses in the grant agreement to ensure that funding can be withheld. In the event the Contribution has not been used for the defined purposes, Defra will send a written notice requesting that the delivery partner:

1. Provide specific information regarding the use of the Contribution;
2. Implement appropriate measures to ensure the Contribution is used in accordance with the purposes stated in the grant agreement.

If the measures agreed by Defra and the UNSW stated above are not or cannot be carried within 30 days (or any other period agreed), then Defra or the delivery partner may, on one month’s written notice, terminate this grant agreement. Any remaining balance of the Contribution, which was not committed for the purpose of the Project prior to the receipt of such notice, shall be returned to Defra within sixty (60) days of the date of the notice. Upon completion of the Project or closure of, the delivery partner shall return any remaining uncommitted balance of the Contribution to Defra within thirty (30) days, if applicable.

*Table 12: Provision for the return of any uncommitted funds to Defra from the delivery*

|  |  |
| --- | --- |
| **Scenario** | **Timing and reporting trigger (if relevant)** |
| Occurrence of any illegal or corrupt practice | Annual Reviews (by Defra), Quarterly updates (from the UNSW) |
| “Extraordinary circumstances that seriously jeopardise the implementation, operation or purpose of the programme”  This is primarily designed to cover instances of force majeure. We assess this may also provide some cover in extreme cases of under-delivery. | Quarterly updates, Annual Reviews, independent evaluations at mid-term |
| “If [name of delivery partner] does not fulfil its commitments according to the cooperation contract” | At the time if/when this happens or if identified as part of quarterly updates and Annual Reviews |

# 6. MANAGEMENT CASE

## 6.1 Management and governance arrangements

The GOAP Secretariat will be responsible for the day to day running of the project with Defra having full oversight. This will include scrutinising GOAP’s progress on a quarterly basis by evaluating its progress towards KPIs and its expenditure, in addition to chairing more informal monthly meetings to iron out delivery issues. More detail in section 6.1.4 below.

### 6.1.1. Project lead and sro

Defra’s designated BPF Project Lead for GOAP is responsible for routine oversight of the project. Overall responsibility is with the Senior Responsible Owner (SRO).

### 6.1.2 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.

### 6.1.3 joint management board

The Joint Management Board (JMB) will provide strategic oversight of the BPF by Defra and FCDO to ensure it delivers on its aims and aligns with wider HMG objectives. All investments by Defra and FCDO will be reviewed by the JMB against the BPF ToC and Investment Criteria.

### 6.1.4 how will progress and results be monitored, measured and evaluated?

An indicative Indicator and Outcome Framework has been developed with GOAP that sets out year one outcomes and corresponding indicators that will be used to measure progress, and how these relate to BPF KPIs. This can be viewed in Annex 1.

To scrutinise progress, quarterly milestones will be agreed. Defra will convene a Local Project Board that will occur quarterly, and GOAP will need to report adequate progress towards milestones, and financial propriety, to trigger the release of each grant instalment. In addition to the Local Project Board, Defra and GOAP will meet monthly in a more informal manner to iron out delivery issues, and discuss risk and expenditure, to ensure the project remains on track.

Overall performance will also be measured yearly through an annual review which is scored and can be used to take remedial action against poor performance.

### 6.1.5 resourcing and recruitment

Resourcing and staff needed to manage the project has been identified and outlined in Section 5.4.

## 6.2 What are the key risks to the programme?

The following risks have been identified in the risk register below. The project lead is responsible for updating the risk register, ensuring the mitigating actions are carried out and escalating risks to the SRO/ODA board. The SRO has overall responsibility for all the risks identified in the risk register.

The overall risk rating for this project is Minor. This is based on a scale of Minor > Moderate > Major > Severe. There are some general risks associated with successfully managing programme delivery outlined in the table below. The risk rating has been decided taking likelihood and impact into account.

Table 13: Indicative risk register

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Risk description** | **Risk category** | **Owner** | **Risk rating** | **Comments/Mitigating Actions** |
| As GOAP is a relatively new initiative founded in 2019, there is a risk that it will be unable to meet KPIs due to relative inexperience or lack of capacity and coordination. | Delivery | SRO | Moderate | Defra recognises this risk. As mitigation, investment into GOAP is one year initially. To test the success of delivery, the project will deliver pilots in year one. Any further investments over subsequent years of the BPF are not confirmed and are dependent on performance in year one. |
| COVID-19 causes delays to project, as activities cannot go ahead as planned. The project misses log frame targets, underspends, and is unable to deliver expected results over the lifetime of the project. | Context | SRO | Moderate | The activities for 2021/22 have been put together specifically with COVID-19 in mind. Limited travel will be required as many of the activities can be delivered virtually or locally. The creation of national pilot ocean accounts and development roadmaps will be sub-contracted out to delivery partners in the five countries selected to limit the need for international travel as far as possible. The remaining COVID-19 risk is lockdowns in pilot countries. This would impede delivery, but some work would still be able to proceed virtually. Defra BPF team will work with GOAP to monitor spend and continually review progress against log frame milestones to ensure that impacts are achieved. |
| Political instability prevents Defra’s project from being delivered (or delays parts of the project, or introduces inefficiencies) | Context | SRO | Moderate | Two of the three intended outcomes are to be delivered virtually and political instability is unlikely to impact them. Whilst the creation of five national pilot ocean accounts and development roadmaps would be impacted, it is unlikely that there would be political instability in all five. Furthermore, when selecting those countries to deliver in, political stability will be considered. We will be taking an agile approach to delivery and will be able to shift countries if absolutely necessary. We will work closely with GOAP and with HMG ambassadors to monitor any associated risks. |
| Due to a lack of capacity, GOAP does not adhere to agreed reporting requirements set out in grant agreement which results in Defra not being able to assess performance against the deliverables | Delivery | SRO | Moderate | GOAP has provided a log frame, concept note, and has fed into Defra’s Theory of Change. The disbursement schedule, set out in the grant agreement, will ensure that payments are given subject to satisfactory progress. Furthermore, GOAP receiving funding for years 2-5 are dependent on its performance in year 1. This decision was made specifically to mitigate against the risk of funding a relatively new partnership. |
| Corruption either by government, NGOs or third parties contracted by GOAP which would result in a misuse of funds. | Fiduciary | SRO | Minor | Two of the three intended outcomes are to be delivered virtually by GOAP and corruption is highly unlikely. The creation of national pilot ocean accounts and development roadmaps will be sub-contracted out to trusted delivery partners in five selected ODA eligible countries. The countries’ ranking in Transparency International’s Corruption Perceptions Index will be considered during selection, and Defra BPF team will work with GOAP to monitor spend to ensure financial propriety. |
| Low resources and capacity in Defra’s BPF team results in governance delays and hinders ability of GOAP to deliver | Operational | SRO | Moderate | Once FLD resources for 2021/22 are finalised the likelihood and impact of this risk will be clearer. Currently, we are not able to recruit for an economist or M&E specialist. |
| Several outcomes rely on the capabilities and efficiencies of delivery partners such as UN-ESCAP, UNSEEA, and UNSC to hit deadlines. Low capacity, bureaucracy and other delays could result in an inability for GOAP to deliver on some outcomes. | Delivery | SRO | Moderate | We have deliberately selected a delivery partner that is well-integrated into UN systems. These existing professional relationships will save time and ensure these UN bodies are accountable to GOAP. |

# 7. ANNEXES

## Annex 1: Indicative Indicator and Outcome Framework

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Outcome #** | **Outcome Description** | **Proposed Indicators** | **Notes** | **Relevant Blue Planet Fund KPI** | **Summary of GOAP contribution to Blue Planet Fund KPI** |
| 1 | National Pilot Ocean Accounts and Development Roadmaps enabling sustainable development of the ocean economy | **Headline indicator:** **1.0.1** Number of supported countries implementing ocean accounts as part of sustainable ocean development planning or management of the marine environment **1.0.2** Number of people (and countries) trained in ocean accounting | This outcome focuses on the development, and mainstreaming into decision-making, of ocean accounts at a national level including associated capacity building | Number of marine-related evidence, knowledge dissemination and education activities or products developed as a result of BPF finance.  Number of new or strengthened policies, strategies or regulations related to improving or managing the marine environment  Volume of finance mobilised for purposes which match BPF objectives. | –GOAP enables development and dissemination of ocean accounts which are marine-related evidence/knowledge products. –GOAP provides education activities concerning ocean accounts  —Development of ocean accounts is directly a strengthened strategy related to improving or managing the marine environment: see SDG 15.9, 17.19, CBD Biodiversity Targets. Such accounts also underpin progress monitoring of all relevant policies, strategies or regulations.   —GOAP mobilises finance concerning ocean accounts |
| 1.1 | Country 1 pilot and development roadmap | **1.1.1** One draft (experimental) account completed **1.1.2** One draft account development roadmap completed **1.1.3** Government endorsement or approval of draft account and roadmap with links to marine environment decision-making identified **1.1.4** Number of people provided with introductory training concerning ocean accounts | Key milestones for (experimental account):  6-months: detailed technical account implementation plan completed (including implementation issues identified) plus input data identified; 12-months: implementation issues solved, and experimental accounts completed. | As above | As above |
| 1.2 | Country 2 pilot and development roadmap | **1.2.1** One draft (experimental) account completed **1.2.2** One draft account development roadmap completed **1.2.3** Government endorsement or approval of draft account and roadmap with links to marine environment decision-making identified **1.2.4** Number of people provided with introductory training concerning ocean accounts | As above | As above | As above |
| 1.3 | Country 3 pilot and development roadmap | **1.3.1** One draft (experimental) account completed **1.3.2** One draft account development roadmap completed **1.3.3** Government endorsement or approval of draft account and roadmap with links to marine environment decision-making identified **1.3.4** Number of people provided with introductory training concerning ocean accounts | As above | As above | As above |
| 1.4 | Country 4 pilot and development roadmap | **1.4.1** One draft (experimental) account completed **1.4.2** One draft account development roadmap completed **1.4.3** Government endorsement or approval of draft account and roadmap with links to marine environment decision-making identified **1.4.4** Number of people provided with introductory training concerning ocean accounts | As above | As above | As above |
| 1.5 | Country 5 pilot and development roadmap | **1.5.1** One draft (experimental) account completed **1.5.2** One draft account development roadmap completed **1.5.3** Government endorsement or approval of draft account and roadmap with links to marine environment decision-making identified **1.5.4** Number of people provided with introductory training concerning ocean accounts | As above | As above | As above |
| 2 | Convening and capacity building to build a multi-level global community of practice for ocean accounting | **Headline indicator:** **2.0.1** Number of people (and countries) trained in ocean accounting **2.0.2** Number of countries making use of account data packages produced | This outcome focuses on building global collaborative links, capacity and awareness of ocean accounting, laying the foundation for a resilient long-term community of practice and multiple levels (national, regional, global) | Number of marine-related evidence, knowledge dissemination and education activities or products developed as a result of BPF finance. | –GOAP enables development and dissemination of ocean accounts which are marine-related evidence/knowledge products. –GOAP provides education activities concerning ocean accounts |
| 2.1 | Publication of revised guidance publications on ocean accounting for sustainable development (including consultation draft statistical standard) | **2.1.1** Three (3) new editions of GOAP publications completed by March 2022: (1) Technical Guidance on Ocean Accounting functioning as an input to the formative SEEA Ocean development process coordinated by UN Statistics Division, (2) Guidance for Decision-Makers, (3) Global Progress Assessment of Ocean Accounting. **2.2.2** Global consultation completed to inform revised Technical Guidance **2.2.3** Number of authors and countries involved in production of GOAP publications | This outcome represents a continuation of one of GOAP's principal activities—namely the production of clear and accessible globally-relevant documentation concerning compilation, use and implementation of ocean accounts. | As above | As above |
| 2.2 | Global ocean asset data package for ocean accounts | **2.2.1** Number of datasets integrated and/or organised (in terms of the ocean accounts framework) by the data package. **2.2.2** Number of datasets that have associated user guidance (concerning their use to compile ocean accounts) **2.2.3** Number of downloads / unique views (and number of associated countries) for the data package **2.2.4** Proportion of ocean accounts globally making use of the data package | This outcome is designed to enhance the capacity of governments and other institutions to compile ocean accounts by providing access to and clear guidance concerning the complex range of global datasets relevant to the ocean environment and economy. It addresses pronounced data accessibility challenges faced by many countries, in particular low- and middle-income countries. | As above | As above |
| 2.3 | Blue Planet Fund Guidelines for ocean data and reporting— supporting integration of project outputs into ocean accounts and mainstreaming of project data into decision-making | **2.3.1** At least one (1x) meeting convened of relevant BPF stakeholders **2.3.2** Consultation draft completed of BPF guidelines on ocean data and reporting **2.3.3** Proportion of relevant active BPF projects (and other relevant projects supported by international institutions) generating data inputs into ocean accounts. | This outcome focuses on awareness raising and mainstreaming of ocean accounts across other Blue Planet Fund projects, creating added value where data produced by other projects is incorporated into existing national accounting processes to inform government decision-making about the environment and economy in a cross-cutting manner. The outcome also focuses on supporting BPF projects to compile headline indicators for their project that are compatible with ocean accounting standards | As above | As above |
| 2.4 | Capacity building and training dialogues, and associated training and briefing materials | **2.4.1** Following dialogues (5x total) convened: 2x Global Dialogue on Ocean Accounting, 1x Dialogue focused on use of global datasets to support ocean accounting, 2x Dialogues between all country pilots (and other interested country pilots) | This outcome focuses on enabling discussion between all relevant stakeholders, with 2.1–2.3 and bespoke training and briefing materials functioning as inputs and reference materials. | As above | As above |
| 3 | International analysis and reporting to develop the state of the art of ocean accounting | **Headline indicator:** **3.0.1** Proportion of unresolved and globally relevant technical challenges for ocean accounting (identified by countries and global expert community) solved by international expert group | This outcome focuses on improving the "state of the art" of ocean accounting—leveraging the global expert community to address outstanding technical issues, for example concerning: condition indicators for ecosystem assets, robust and policy-relevant methods for monetary valuation of environmental assets, policy relevant and robust headline indicators for ocean natural capital, relevance of ocean accounts to marine spatial planning, appropriate data structures for ocean accounting data. | As above | As above |
| 3.1 | Technical papers, services and advice from international expert group, as inputs to Outcomes 1 and 2 | **3.1.1** Completion of challenge statement (and associated consultation process) identifying technical issues of broad global resonance that impede efforts to implement ocean accounts **3.1.2** Completion of 6–8 Technical Papers that address challenges identified in 3.1.1. **3.1.3** Number of ocean accounting projects globally that are utilising the solutions proposed in Technical Papers. | The challenge statement in 3.1.1 will be incorporated into the GOAP Technical Guidance on Ocean Accounting (2.1.1). The Technical Papers will be published in an accessible and open access style and format (i.e. not an academic paper). | As above | As above |

## Annex 3: Economic Analysis

### Assumptions

#### Discount rate

Discount rate applied as per guidance of 10% per annum.

#### Years of analysis

We assume at timeline of 20 years of benefits with benefit accrual delayed to 2024.

#### GOAP contribution

In the three valuation areas, we estimate first the expected reduction in waste, fisheries revenue and losses of habitat per year. The GOAP contribution to this reduction is then estimated, by multiplying one by the other we estimate the total reduction or losses avoided as a result of GOAP activities. This calculation often means that the contribution of GOAP is minimal. There is no evidence on exactly what GOAP’s contribution to these areas could be and therefore we base it on three categories;

1. High influence: GOAP contribution 0.5%, this is where the influence of GOAP could be significant and focused on the economic output areas due to data availability (i.e. fisheries)
2. Medium influence: GOAP contribution of 0.1%, where the causal chain is a bit longer (open ocean), data availability might be lower or larger monetary investments might be needed (waste management).
3. Low influence: GOAP contribution of 0.05%, areas which face multiple different pressures at the local and national scale and/or significant coordination is required to reduce pressures with a long and multiple pathways causal chain. These may also be areas which are vital in supporting immediate and short-term livelihoods and therefore local or demonstration projects might be needed. GOAP will primarily work at the national or seascape level and therefore the influence on very local issues might be expected to be lower.

*Table 1: GOAP contribution to plastic waste avoided*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Assumed reduction in plastic waste per year | GOAP contribution to reducing the mismanaged waste | Reduction of mismanaged waste attributable to GOAP |
| Mismanaged waste | 5% | 0.1% | 0.005% |

*Table 2: GOAP contribution to reduction in fisheries losses avoided*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Assumed reduction in fisheries revenue due to poor management | GOAP contribution to avoiding reduction in fisheries revenue due to poor management | Avoided revenue losses attributable to GOAP |
| Fisheries revenue | 0.35% | 0.5% | 0.002% |

*Table 3: GOAP contribution to habitat degradation avoided*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Estimated yearly losses in area of habitat | Estimated contribution of GOAP to avoided yearly losses | Percentage of value of losses avoided attributable to GOAP |
| Reef | 0.25% | 0.05% | 0.00013% |
| Mangrove | 0.23%[[43]](#footnote-44) | 0.05% | 0.00012% |
| Seagrass[[44]](#footnote-45) | 0.25% | 0.05% | 0.00013% |
| Open Ocean | 0.1% | 0.1% | 0.00010% |

### Input data; Benefits

#### Pollution

Valuation of the amount of mismanaged plastic waste avoided from entering the marine environment as a result of GOAP, and other policy, intervention have been made.

#### Fisheries Revenue

Forgone fisheries revenue was based on the SeaAroundUs valuation of small scale, industrial, artisanal and subsistence catches. The country specific fisheries national output multiplier was used to estimate the total economic impact of each dollar of fisheries revenue (table 5).

*Table 5: Value of fisheries catch and national fisheries output multiplier by country*

|  |  |  |
| --- | --- | --- |
| **Country** | **Value of fisheries (2010 USD)** | **National Output Multiplier** |
| Thailand | $ 12,330,225,189 | 2.12 |
| Fiji | $ 14,088,746,221 | 3.34 |
| Indonesia | $ 3,227,570,000 | 1.66 |
| Viet Nam | $ 3,255,114,565 | 3.47 |
| Malaysia | $ 19,438,267,211 | 2.58 |
| Kenya | $ 2,216,632,781 | 2.95 |
| Tanzania | $ 6,411,460,133 | 2.72 |
| India | $ 2,723,876,639 | 1.36 |
| Samoa | $ 13,506,327,652 | 3.34 |
| Mozambique | $ 4,901,648,397 | 1.83 |

#### Biodiversity

The areas of the four relevant habitats (reef, mangrove, seagrass and open ocean) was sourced from existing publication and compiled for the 10 countries in this analysis (table 6). Where multiple areas values were available (e.g. estimates of global seagrass spatial distribution differ greatly ranging from 177,000 to 600,000 km2 and higher) the minimum area was used. These were then converted to hectares for valuation purposes.

*Table 6: Area of four habitats valued*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Country** | **Reef Area (km²)** | **Mangrove Area (km²)** | **Min seagrass area (km²)** | **Open Ocean EEZ (km²)** |
| Thailand | 2130 | 2641 | 2717.980448 | 305778 |
| Fiji | 10020 | 385 | 1745.636351 | 1281703 |
| Indonesia | 51020 | 42550 | 19014.22091 | 6024450 |
| Viet Nam | 1270 | 2525 | 234.963631 | 1395096 |
| Malaysia | 3600 | 6424 | 644.9829848 | 449477 |
| Kenya | 630 | 530 | 113.2222146 | 162794 |
| Tanzania | 3580 | 1155 | 46.07041075 | 241129 |
| India | 700 | 207 | 4170.144789 | 2289197 |
| Samoa | 490 | 7 | 372.9 | 131535 |
| Mozambique | 1860 | 925 | 728.4341609 | 571452 |

Comparable valuation data is held in the Ecosystem Services Valuation Database (ESVD), four services were valued for each habitat, tourism[[45]](#footnote-46), intrinsic/bequests/aesthetic, social and cultural development and coastal protection/moderation of extreme events/erosion prevention (see tables 7 to 10). Where multiple values were available a simple average was used. Where no values were available, we valued the service as zero. Whilst data gaps could have been filled from alternative sources in some cases for consistency only comparable data held in the ESVD was used. Tables 7 to 10 show the values use for each habitat and service, they also demonstrate the large number of data gaps in valuations of ecosystems, especially non-productive services.

*Table 7: Ecosystem service valuation of coral reefs (£/ha/yr)*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Reef Value (£/ha/yr)** | | | |
| **Country** | **Tourism** | **Intrinsic/ Bequest** | **Social development** | **Coastal Protection** |
| Thailand | £ 8,705.45 | £ | £ - | £ |
| Fiji | £ 230.89 | £ 4,073.03 | £ - | £ - |
| Indonesia | £ 2,543.26 | £ - | £ 1.75 | £ 10,454.34 |
| Viet Nam | £ 48,077.77 | £ 0.54 | £ - | £ - |
| Malaysia | £ 642.75 | £ - | £ 0.92 | £ 811.53 |
| Kenya | £ 7,120.38 | £ 8,263.14 | £ - | £ - |
| Tanzania | £ 2,949.11 | £ 1,345.07 | £ - | £ - |
| India | £ - | £ - | £ - | £ - |
| Samoa | £ 675.39 | £ - | £ - | £ - |
| Mozambique | £ - | £ - | £ - | £ - |

*Table 8: Ecosystem service valuation of mangrove forests (£/ha/yr)*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Mangrove forests value (£/ha/yr)** | | | |
| **Country** | **Tourism** | **Intrinsic/ Bequest** | **Social development** | **Coastal Protection/moderation of extreme events** |
| Thailand | £ 1,438.61 | £ 2,902.63 | £ 2,267.02 | £ 3,815.90 |
| Fiji | £ 721.13 | £ 4.57 | £ - | £ - |
| Indonesia | £ 12,670.27 | £ - | £ - | £ 4,971.85 |
| Viet Nam | £ 750.11 | £ 0.79 | £ - | £ 336.52 |
| Malaysia | £ 2,850.85 | £ 13,701.84 | £ - | £ 78.25 |
| Kenya | £ 88.55 | £ - | £ - | £ 1,313.55 |
| Tanzania | £ 857.17 | £ - | £ - | £ - |
| India | £ 47,728.52 | £ - | £ 1,054.42 | £ 425.80 |
| Samoa | £ - | £ - | £ - | £ - |
| Mozambique | £ - | £ - | £ - | £ - |

*Table 9: Ecosystem service valuation of seagrass beds (£/ha/yr)*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Seagrass Value (£/ha/yr)** | | | |
| **Country** | **Tourism** | **Intrinsic/ Bequest** | **Social development** | **Coastal Protection/moderation of extreme events** |
| Thailand | £ - | £ - | £ - | £ - |
| Fiji | £ - | £ - | £ - | £ - |
| Indonesia | 925,851.17 | £ - | £ 21,014.60 | £ - |
| Viet Nam | £ - | £ - | £ - | £ - |
| Malaysia | £ - | £ - | £ - | £ - |
| Kenya | £ - | £ - | £ - | £ - |
| Tanzania | £ - | £ - | £ - | £ - |
| India | £ - | £ - | £ - | £ - |
| Samoa | £ - | £ - | £ - | £ - |
| Mozambique | £ - | £ - | £ - | £ - |

*Table 10: Ecosystem service valuation of open ocean based on global values (£/ha/yr)*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Open Ocean Value (£/ha/yr)** | | | |
| **Country** | **Tourism** | **Intrinsic/ Bequest** | **Social development** | **Coastal Protection/moderation of extreme events** |
| Thailand | £ 1,845.52 | £ 1.49 | £ - | £ - |
| Fiji | £ 1,845.52 | £ 1.49 | £ - | £ - |
| Indonesia | £ 1,845.52 | £ 1.49 | £ - | £ - |
| Viet Nam | £ 1,845.52 | £ 1.49 | £ - | £ - |
| Malaysia | £ 1,845.52 | £ 1.49 | £ - | £ - |
| Kenya | £ 1,845.52 | £ 1.49 | £ - | £ - |
| Tanzania | £ 1,845.52 | £ 1.49 | £ - | £ - |
| India | £ 1,845.52 | £ 1.49 | £ - | £ - |
| Samoa | £ 1,845.52 | £ 1.49 | £ - | £ - |
| Mozambique | £ 1,845.52 | £ 1.49 | £ - | £ - |

Due to extreme rarity of country values the average global value of the open ocean was applied throughout the analysis.

#### People

It was extremely challenging to estimate the number of people that GOAP would indirectly assist. However, using data shown in table 11, we estimated the number of fishers and rural populations.

*Table 11: Number of people by country*

|  |  |  |  |
| --- | --- | --- | --- |
| **Country** | **Population protected by coral reefs, no. of people (2007)** | **# of Fishers involved in coral reef ﬁsheries (2005)** | **Rural coastal population (10km from coast, 2010)** |
| **Thailand** | 233,667 | 99,807 | 3,086,286 |
| **Fiji** | 383,845 | 43,475 | 307,867 |
| **Indonesia** | 12,198,508 | 1,657,757 | 36,826,796 |
| **Viet Nam** | 1,581,789 | 204,546 | 10,857,696 |
| **Malaysia** | 1,142,333 | 83,720 | 2,685,034 |
| **Kenya** | 521,948 | 12,938 | 691,136 |
| **Tanzania** | 1,612,870 | 108,789 | 1,470,726 |
| **India** | 6,555,868 | 958,530 | 22,789,302 |
| **Samoa** | - | - | 75,146 |
| **Mozambique** | 253,243 | 50,326 | 1,445,454 |

### Sensitivity analysis

The analysis presented in the appraisal case is sensitive to the assumptions that we have made about the benefits and GOAP’s contribution to these benefits. We test each of the major assumptions in turn to understand the impact of changing the assumptions from the baseline used in the main document. We find that the model is very robust to even large changes in the assumptions that we used and therefore can have some confidence in the return it has provided us.

#### Countries included

We originally selected a set of five countries that are good candidates for pilot countries in GOAP, these however are very much indicative at this stage and will be selected in the first few months of the project. Table 12 shows that Indonesia and Viet Nam contribute most towards the value of the benefits in the model, driven largely by the size of their EEZs. We tested removing each of the countries, reducing the pilot countries to four instead of five. The impact of this was minimal and did not switch the NPV negative. We then tested removing the two countries that contribute most to the results, reducing operations to only three countries. The results still suggested that the project would return a positive NPV and BCR of 1.12, providing value for money.

*Table 12: Relative contribution to the benefits of GOAP by country in the main model*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Pollution | Fisheries | Biodiversity |
| Thailand | 14.0% | 11.4% | 3.1% |
| Fiji | 0.5% | 1.0% | 12.3% |
| Indonesia | 47.5% | 40.8% | 65.7% |
| Viet Nam | 26.7% | 22.0% | 13.5% |
| Malaysia | 11.3% | 24.7% | 5.4% |

Finally, we tested with a selection of five different countries – Kenya, Tanzania, Samoa, India and Mozambique. The valuation of the benefits proved challenging due to significant data gaps, for example three of the five reported extremely limited benefits of biodiversity beyond tourism values. However, even with these poor and missing data the BCR was still 1.06 with a positive NPV.

#### GOAP Contribution to benefits

Table 12 laid out the assumed contribution of GOAP to reduction in plastic waste, protection of marine ecosystem benefits and fishing revenues. We tested halving this contribution from those shown in the table and the NPV remained positive at £1.24m and a BCR of 2.24. We found the switching value to be 22%, meaning that GOAPs contribution to avoiding lost fisheries revenue, reduction in waste in the marine environment and biodiversity protection can be more that ¼ of what is assumed in this model and still provide a positive return.

#### Excluding Benefits

In the central assumptions fisheries contributed 25% of the benefit value, pollution 1% and biodiversity 74% to the benefit valuation. We tested excluding benefits from the model. As expected, excluding pollution had little impact on the modelled result, providing an NPV of £3.47m and a BCR of 4.46 compared to the central result of £3.5m and 4.48 respectively.

Considering only lost fisheries revenue – excluding both biodiversity and pollution values – still proved value for money with an NPV of £2.35m and a BCR of 3.34. This suggests that the modelled results are relatively robust to the inclusion or exclusion of certain benefits.

#### Year of benefits accrual

The model assumed that benefits begin to accrue from 2024 onwards. If all benefits are delayed until 2030 the NPV remains positive and the BCR is 2.1. The last year for which benefits can start to be accrued and the project still provide VfM is 2034 – 12 years from now.

#### Additionality

The model assumes that additionality is just 25%, this allows for an unknown amount of activity which may have occurred without GOAP. It is a very conservative estimate for these projects especially when layered with our other assumptions. Additionality might be expected to be a lot higher than this given GOAP is the only organisation[[46]](#footnote-47) pursuing ocean accounts internationally and the primary delivery body in developing countries. We test this assumption and assess the breakeven point to be at an additionality value of just 6%.

#### Discount rates

In line with guidance we used a 10% discount rate as the central case. The impact of using the Green Book 3.5% rate was to increase the BCR from 4.48 to 8.14. The model results proved robust to increasing the discount rate with a discount rate of 36% being the switching value that turned the results from a positive NPV to a negative NPV.

#### Additional finance

In the options appraisal we considered increasing funding to GOAP and expanding the pilot countries. Whilst there are some reasonable concerns about deliverability, increasing spend to £1.5m and adding Samoa, Kenya and Tanzania as potential countries with GOAP pilots would increase the BCR to 5.49 and an NPV of £4.5m.

*Table 13: Impact of increasing GOAP spend to £1.5m*

|  |  |  |
| --- | --- | --- |
|  | £1.0m GOAP investment  (5 countries) | £1.5m GOAP investment  (8 countries) |
| Pollution | £ 13,000 | £ 13,500 |
| Fisheries | £ 1,130,000 | £ 1,390,000 |
| Biodiversity | £ 3,330,000 | £ 4,180,000 |
| Present value | £ 4,480,000 | £ 5,490,000 |
| **NPV** | **£ 3,480,000** | **£ 4,490,000** |
| **BCR** | **4.48** | **5.49** |

## Annex 4: Risk rating matrix

*Insignificant*

*Minor*

*Moderate*

*Major*

*Severe*

*Rare*

*Unlikely*

*Possible*

*Likely*

*Almost certain*

*Major*

*Severe*

*Moderate*

*Minor*

1. (National Accounting for the Ocean and Ocean Economy, n.d.) [↑](#footnote-ref-2)
2. (System of Environmental Economic Acocunting, n.d.) [↑](#footnote-ref-3)
3. (WAVES: Natural capital accounting: providing information for poverty reduction, n.d.) [↑](#footnote-ref-4)
4. (Global Ocean Accounts Partnership, n.d.) [↑](#footnote-ref-5)
5. Ocean accounts are integrated records of economic activity (e.g. the sale of fish), social conditions (e.g. coastal employment and poverty), and environmental conditions (e.g. extent and condition of mangroves) that are compiled annually and are compatible with international statistical standards. [↑](#footnote-ref-6)
6. Ocean wealth refers to the asset value of the global ocean. In 2015, the WWF valued the ocean at US$24tn. This takes into account direct outputs of the ocean like marine fisheries, mangroves and coral reefs, but also indirect assets such as shipping lanes and carbon absorption. [↑](#footnote-ref-7)
7. (A Green Future: Our 25 Year Plan to Improve the Environment, n.d.) [↑](#footnote-ref-8)
8. (United Nations: Sustainable Development Goal 14: Life Below Water, n.d.) [↑](#footnote-ref-9)
9. (United Nations: Sustainable Development Goal 14: Life Below Water, n.d.) [↑](#footnote-ref-10)
10. (United Nations: Sustainable Development Goal 14: Life Below Water, n.d.) [↑](#footnote-ref-11)
11. (Global Ocean Accounts Partnership, n.d.) [↑](#footnote-ref-12)
12. (Global Ocean Accounts Partnership, n.d.) [↑](#footnote-ref-13)
13. (Global Ocean Accounts Partnership, n.d.) [↑](#footnote-ref-14)
14. (The 2018 annual economic report on the EU blue economy, n.d.) [↑](#footnote-ref-15)
15. (National Accounting for the Ocean and Ocean Economy, n.d.) [↑](#footnote-ref-16)
16. (System of Environmental Economic Acocunting, n.d.) [↑](#footnote-ref-17)
17. (WAVES: Natural capital accounting: providing information for poverty reduction, n.d.) [↑](#footnote-ref-18)
18. (WAVES: Natural capital accounting: providing information for poverty reduction, n.d.) [↑](#footnote-ref-19)
19. (The Economics of Biodiversity: The Dasgupta Review, n.d.) [↑](#footnote-ref-20)
20. (Sustainable Natural Capital, n.d.) [↑](#footnote-ref-21)
21. The Economics of Biodiversity: The Dasgupta Review was announced by the Chancellor of the Exchequer in March 2019 and was led by Professor Sir Partha Dasgupta. The final report was published in February 2021. [↑](#footnote-ref-22)
22. (The Economics of Biodiversity: The Dasgupta Review, n.d.) [↑](#footnote-ref-23)
23. (The Economics of Biodiversity: The Dasgupta Review, n.d.) [↑](#footnote-ref-24)
24. (National Accounting for the Ocean and Ocean Economy, n.d.) [↑](#footnote-ref-25)
25. (Global Ocean Accounts Partnership, n.d.) [↑](#footnote-ref-26)
26. (Global Ocean Accounts Partnership, n.d.) [↑](#footnote-ref-27)
27. (Fenichel, Milligan, & Porras, 2020) [↑](#footnote-ref-28)
28. (Fenichel, Milligan, & Porras, 2020) [↑](#footnote-ref-29)
29. (Global Ocean Accounts Partnership, n.d.) [↑](#footnote-ref-30)
30. Ocean wealth refers to the asset value of the global ocean. In 2015, the WWF valued the ocean at US$24tn. This takes into account direct outputs of the ocean like marine fisheries, mangroves and coral reefs, but also indirect assets such as shipping lanes and carbon absorption. [↑](#footnote-ref-31)
31. This outcome focuses on raising awareness of ocean account and mainstreaming them across other BPF projects. This will create added value where data produced by other projects is incorporated into existing national accounts, informing Government decision-making. The outcome also focuses on supporting BPF projects to compile headline indicators that are compatible with ocean accounting standards. [↑](#footnote-ref-32)
32. (The Economics of Biodiversity: The Dasgupta Review, n.d.) [↑](#footnote-ref-33)
33. (A Green Future: Our 25 Year Plan to Improve the Environment, n.d.) [↑](#footnote-ref-34)
34. (UK Research and Development Roadmap, n.d.) [↑](#footnote-ref-35)
35. (Taillardat, Friess, & Lupascu, 2018) [↑](#footnote-ref-36)
36. Plus a ‘do nothing’ option [↑](#footnote-ref-37)
37. The VfM assessment considers alternative quantum of finance. [↑](#footnote-ref-38)
38. Seagrasses are excluding in final analysis due to data gaps and unrealistic valuations [↑](#footnote-ref-39)
39. The biodiversity valuation suggested that the open ocean contributes 90% of the value of biodiversity, largely due to the large are which EEZs cover compared to coral reefs or mangrove forests. Tourism values contribute between 27% and 99% (average of 75%) of the valuation of the habitats. [↑](#footnote-ref-40)
40. which might induce some policy change resulting in increased value of the marine environment [↑](#footnote-ref-41)
41. (International Development (Gender Equality) Act 2014, n.d.) [↑](#footnote-ref-42)
42. (Women and the Sustainable Development Goals, n.d.) [↑](#footnote-ref-43)
43. Based on an average value of country specific values [↑](#footnote-ref-44)
44. Seagrasses are excluding in final analysis due to data gaps and unrealistic valuations [↑](#footnote-ref-45)
45. Mangrove also considers raw materials such as firewood [↑](#footnote-ref-46)
46. Although it is a grouping of like-minded countries and organisations designed to pursue a single objective. [↑](#footnote-ref-47)