

Blue Forests Annual Review 2022

Title: Blue Forests Initiative		
Programme Value £ (full life): £10.3m	Review date: Dec 2023	
Programme Code: ICF-PO001-BV	Start date: Jan 2017	End date: Dec 2024

Summary of Programme Performance

Year	2017	2018	2019	2020	2021	2022		
Overall Output Score	A	A	A	A	A	A		
Risk Rating	Mode rate / Major	Mode rate / Major	Mode rate / Major	Mode rate / Major	Mode rate	Mod erate /Major r		

DevTracker Link to Business Case:	Blue-Ventures-Business-Case-Final-20190927040900.pdf (azure.com)
DevTracker Link to results framework:	

A. SUMMARY AND OVERVIEW

A1. Description of programme

Blue Forests (BF) is a £10.3 million ICF programme that seeks to protect and sustainably manage mangrove forests while reducing the poverty of the coastal communities that rely on them. The programme delivers community-led initiatives that support the improved management and sustainability of small-scale fisheries, provides healthcare assistance, and develops sustainable livelihoods in coastal communities in Madagascar and Indonesia. The programme is delivered and managed by UK non-government organisation (NGO) Blue Ventures (BV). BV aim is to develop transformative human-rights based approaches for sustainable locally led marine conservation, building towards a replicable model for the sustainable management of mangrove habitats that is driven directly by communities and their needs.

The Blue Forests programme works with local communities, the private sector, and national governments at five sites, three in Madagascar and two in Indonesia. The three sites in Madagascar are Ambanja Bay (Site 1); Velondriake (Site 2); and Mahajamba Bay (Site 3) and the two in Indonesia are Indragri Hilir (Site 4); and Kubu Raya (Site 5). Throughout this review the sites are generally referred to by number rather than name.

The programme delivers outcomes across four key pillars:

1. Blue carbon sequestration and forestry management.
2. Small-scale fisheries management and improvement.
3. Livelihood diversification.
4. Community health and women's empowerment.

In 2022 the project was moved from Defra's terrestrial nature ODA programme portfolio to the Blue Planet Fund. This has had minimal impact on the efficiency or effectiveness of the programme's management but was changed due to the programme's close alignment with the aims of the Blue Planet Fund. This is explored further in section E. Due to resourcing issues, the process for writing this annual review was delayed. As a result, it was completed in final months of 2023. It has been informed by regular discussions between BV and Defra over the course of the last year.

The project evaluation, led by NIRAS (LTS International Ltd, trading as NIRAS-LTS International), began at the end of 2021 and the inception report was finalised in 2022. In the intermediary period between the inception period and the final summative evaluation, workshops are planned on areas of focus including the project theory of change. A change in NIRAS personnel has led to a delay in this but work will continue in 2023. In the interim, the revised health indicators (outcome 1.6, and outputs 4.1A, 4.2, 4.3) now better reflect the work at all sites.

Blue Ventures submitted a request to amend the logframe in December 2022, as advised by independent evaluator in the programme's final evaluation inception report. This was subsequently agreed by the Defra programme team in September 2023, as summarised in Annex A. The delay in resolving this was due to lack of capacity in the Defra programme team. This Annual Review evaluates BV's performance based on the revised logframe as submitted in 2023, so the changes are detailed in this review even though they were finalised in 2023. This annual review recommends a follow workshop to assess the logframe changes and request further updates where necessary.

A2. Summary supporting narrative for the overall score in this review

The Blue Forests programme has continued to deliver effectively against its overall objectives outlined above and has scored its sixth consecutive A. This has been tracked principally through the logframe, in which the majority of outputs are on track across all indicators. Six targets have been met, four exceeded and five are under target. Particular successes for the review period were continued strong performance against ICF KPI 15, delivering transformational change (outcome 2.1). At Output level, the programme exceeded two targets for health services demonstrating continued strong delivery linked to changes to programming in response to COVID-19 detailed in previous Annual Reviews.

Some prominent challenges remain – these are explored in further detail throughout the annual review. These include challenges to the success of alternative livelihoods, and lack of progress in establishing carbon credit models as the longer-term sustainable financing mechanism to support BV's 20-year impact vision. Overall, the programme continues to make a positive contribution to the lives of the communities it works with despite these challenges.

Site 1, Ambanja in Madagascar, continues to show growth in its capacity to govern its own resources, including through the Miaramientagna Federation which brings together 12 management associations that are delegated authority to manage local areas of forest and natural resources under forestry legislation in Madagascar. They collectively manage 6,163 ha of mangroves and have 4 fisher unions, joining 32 fisher associations, managing 557 km² of sea. These community structures are heavily reliant on the willingness of the communities to engage with the project and so represent a significant level of engagement and trust. Following the decision in 2021 to abandon plans to open a sea cucumber hatchery, due to a requirement for the land for any development to be Government owned, work at the site has expanded to include sea cucumber fattening as a value-chain addition, alongside work on community savings groups, which are progressing well.

Site 2, Velondriake in Madagascar, is the best-established programme site. Advancements in the community's knowledge regarding alternative livelihoods, carbon projects and savings groups, have informed the work in other sites and organisational learning. This learning was exemplified by members of the Miaramientagna Federation in Site 1, participated in an exchange visit to the Velondriake MPA. Conversely, it also means that issues highlighted later in this report (see key lesson 3) on underperforming alternative livelihoods are most strongly felt here as Blue Ventures would like to evolve support to be less hands on.

Site 3, Mahajamba in Madagascar, is the youngest site in Madagascar with scope for expansion. This site has experienced delays this year due to issues in getting the Dina (local law) approved, to enable governance development and implementation. However, this did not prevent two management associations being officialised. In addition, with important events such as the "World AIDS Day Celebration", Site 3 has managed to exceed targets for the number of people attending community health sessions/activities and the percentage of health service delivery points that met community needs.

Site 4, Indragiri Hilir (Inhil) in Indonesia, was added to the project in 2021 and also saw strong results in their health work. Communities were enthusiastic as health activities had not taken place at this site for some time. As it is at the early stages of progression, baseline data analysis, the first fisheries closures, the recruitment of data collectors, mangrove rehabilitation and the development of fisheries management plans are priorities at this time. This highlights the fact that the delayed start will lead to limited impact in the final two years and a likely funding gap to maintain/progress work after the project. A documentary showcasing fisheries management in mangrove ecosystems in the site was created and shared.

Site 5, Kubu Raya in Indonesia, has seen tens of thousands of mangrove propagules planted over the last year, with good survival rates. In conjunction, an environmental education curriculum on peat and mangroves was developed and legalised by the regional government. Government interaction has continued with a Memorandum of Understanding being signed between project partner Yayasan Planet Indonesia and the Marine and Fisheries Department, to introduce co-management agreements into the Kubu Raya MPA management plans.

Summary

Where the programme has not met or narrowly missed targets, BV has continued to proactively adapt the programme and the logframe in response to learnings and recommendations, which has led to its continual strong delivery. Learnings from 2021 have resulted in adjustments to the logframe, while lessons learned in this review period have been incorporated into the recommendations for the coming year, as discussed in the next sub-section.

BV has faced significant challenges faced this year developing carbon credit sales. When it became clear that the sale of credits in both Madagascar and Indonesia was going to be difficult to achieve during Defra's funding period in both countries, the relevant output was removed from the logframe. Given the potential importance of voluntary carbon credits for coastal communities' income and the

20-year life of the programme, BV has continued to work with the Government in Madagascar to unblock carbon credit sales throughout 2022. Recommendations below include a follow-up review of the logframe changes agreed in 2022 (summarised in annex A), and an updating the Theory of Change in line with these changes.

Overall, Defra is satisfied that the programme is delivering at the standard required for an A and on track to meet longer-term impacts outlined in the Theory of Change. The overall risk rating for the programme has been increased from moderate to moderate/major because of the challenges with establishing carbon credit sales and alternative livelihood models. This is expanded on throughout section C.

A3. Major lessons and recommendations for the year ahead

Key lessons and corresponding recommendations are summarised below. Unless otherwise stated Defra expect these to be progressed over the course of the next programme year.

Key Lesson 1:

The sale of carbon credits is heavily reliant on Government processes, and whilst diplomatic levers are helpful to unblock some issues, the issues are often insurmountable by programming alone.

This issue has been referred to above and will be elaborated on throughout this annual review. However, given the programme's initial focus on the sale of voluntary carbon credits to support the long-term financing of the programme, the challenges of Government processes which underpin/are necessary to programming should not be underestimated and is a lesson learned. Going forward, Defra will endeavour to use its diplomatic support to Madagascar to assist the government in progressing their legislative processes for carbon credits. Once carbon credits legislation has been finalised, this will enable BV to continue with the carbon credits financing mechanism. Other BPF programmes should consider the lesson learned that finance models which rely on other Government's carbon market policies is likely to be a high-risk dependency.

Corresponding Recommendation (1):

Using knowledge and steers provided by BV, Defra use diplomatic levers to support Madagascar to implement the relevant financial and policy infrastructure necessary to allow the sale of carbon credits where appropriate. Future programming should take care to consider the political and financial risks of depending on carbon credits during programme design stage, and where possible ensure buy-in from partner governments as early as possible.

Key Lesson 2:

The success of alternative livelihoods interventions can be very variable; improving the value of existing sustainable livelihoods can be more effective.

In some areas, especially the more remote locations, there may not be many – if any - viable economic alternatives to fishing. Those that do exist may not provide enough of an incentive to reduce reliance on fishing. Where there are successful, high value alternatives e.g., sea cucumber farming, there can be unintended consequences and risks for communities in them becoming guardians of a high value resource. This can result in thefts and private sector collectors providing variable and unfair prices for products due to the limited selling options of the community. However, there are significant opportunities to focus deliverables on improving the value of these existing fishing livelihoods, including supply chain interventions such as cold storage, drying, smoking, and fattening. Whilst this does not negate the issue of limited selling options in some cases, the focus on fishing income can be particularly important in those communities where options for alternative livelihoods are limited and/or lower value.

Corresponding Recommendation (2):

BV should incorporate their learnings regarding the relevance and impact of value chain addition and savings groups work into the programme. This should be prioritised during the review of the Theory of Change review (recommendation 3) and considered in future logframe updates.

This AR recommends two further programme-level recommendations:

Recommendation 3:

The Theory of Change should be updated in line with the recommendations made in the inception report for the programme's evaluation, and to account for the logframe changes summarised in annex a. Defra should also review the logframe changes again to ensure the changes now accurately reflect programming, particularly regarding how it improves livelihoods, and in light of recommendation 4.

The inception report details that the ToC could be improved by reassessing and formulating the ToC at both country and global levels to consider context- and site-specific issues. This includes considering the different geographical, ecological, political, and cultural contexts. Furthermore, the inception report advises that the adoption and replication of the Blue Forests model should feature more prominently in the ToC. The revised Theory of Change should account for challenges encountered on alternative livelihood outcomes and developing carbon credit models (see recommendations 1 and 2).

Recommendation 4:

Action is being taken to strengthen GESI across Defra's Blue Planet Fund portfolio. Defra and BV should align with this work and consider how to formally illustrate relevant monitoring data by sex, age or other characteristics where relevant, in the evaluation and Logframe.

Defra recommends that monitoring data, evidence and learning should consider the 'leave no one behind' agenda, and as far as possible disaggregate information by age, sex, disability, geography, and other relevant variables. Information is disaggregated by geography in the logframe but not by sex or age. While it is too late in the project lifecycle to overhaul how this data is recorded and to establish meaningful baselines, BV should look at what GESI information they already gather and identify gaps to inform future programming. BV should also seek to collect disaggregated data for any results monitored and reported for the final years of the programme. BV should consider how the programme's closing evaluation considers key GESI questions. Defra and BV should monitor progress against this through quarterly steering group meetings.

Recommendations from the 2021 annual review have progressed as follows:

2021 Recommendation:

BV should continue to monitor, reflect upon, and inform Defra of the impacts of the COVID-19 pandemic on the Blue Forests programme and its beneficiaries to ensure risk and further delays can be managed appropriately.

Progress: BV continues to monitor the impacts of the pandemic and to share and publish its lessons learned with regards to COVID-19, for example via [this](#) paper. Whilst work on the ground is continuing with little direct impact on activities, World Health Organisation data indicates that less than 10% of Madagascar is fully vaccinated, compared to 65% in Indonesia and 76% in the UK.

2021 Recommendation:

BV and Defra should explore together re-baselining the log frame where targets have been exceeded, equally lowering targets where context changes out of the control of the programme may have caused targets to be set too high.

Progress: this has been addressed in the logframe amendment request submitted in December 2022. Many targets have been raised, both in response to them being exceeded and due to the addition of the last programme site – Indragiri Hilir (hereafter Inhil or site 4). Full details of the logframe review and amendments are in Annex A.

2021 Recommendation:

BV should aim to share knowledge with other coastal communities. This can be done through sharing best practices with other programmes in the Blue Planet Fund.

Progress: Whilst this was not possible in 2022 due to limited Blue Planet Fund programmes delivering in Madagascar and Indonesia, the recommendation has been rolled over to 2023 where significant opportunities are present to share learnings across programmes, especially in Madagascar.

B: THEORY OF CHANGE AND PROGRESS TOWARDS OUTCOMES

[1-2 pages]

B1. [theory of change](#),

A summary of the Theory of Change (ToC) is pictured in Figure A. The ToC was first developed in 2017 alongside the business case, in close collaboration with Defra. It was last reviewed and revised in 2019 to better reflect the situation on the ground. The ToC is due a review to bring it up to date. This was also advised by the evaluation Inception Report published by NIRAS in 2022, and as recommended by this annual review. This should be taken forward as a priority (recommendation 3). This process should focus on the following key areas:

1. Ensure the ToC accurately reflects programme outcomes and impacts following changes to the logframe.
2. A reassessment of the ToC at both a country and global level to address site context-specific assumptions.
3. Identifying those elements of the programme that can be replicated in different geographical, ecological, political, and cultural context to illustrate how the programme will meet its aim of creating a replicable model for mangrove conservation.
4. Reassessing the alternative livelihoods elements of the ToC to address the learnings gathered by the programme.
5. As the programme has delivered, it has produced learnings that have informed adaptations, especially on the limitations of applying approaches from Madagascar to sites in Indonesia, and the profitability of alternative livelihoods.
6. Identifying how to incorporate GESI and poverty reduction considerations more explicitly.
7. Reflecting on the increased prevalence of healthcare services in BV's programming, and whether the ToC accurately reflects this.

Logframe review

Following the project evaluation (points 1 and 2) and an internal programmatic review (points 3 to 5), a proposed logframe change was submitted in 2022 and approved by Defra in August 2023. A follow up review of the logframe changes is recommended along with the ToC update. The main changes were as follows:

1. Changed the health indicators to make them applicable across countries, in response to a divergence in community-identified needs between the Madagascan and Indonesian contexts.
2. Changed the structure of the logframe, moving indicators between impact and outcome level to better reflect the sequence of the theory of change and the level of the activities.
3. Updated the remaining indicators at impact and outcome level following the change of site 4 from Sembilang to Inhil.
4. Targets were updated across the logframe to reflect the addition of the final site, Inhil, and to reflect new indicators.
5. Removed the indicator on carbon credits.

A complete summary of the logframe changes can be found in Annex A, and specific changes are discussed in greater detail as relevant to each output in section C.

The budget and timeframe of the project have remained the same in 2022.

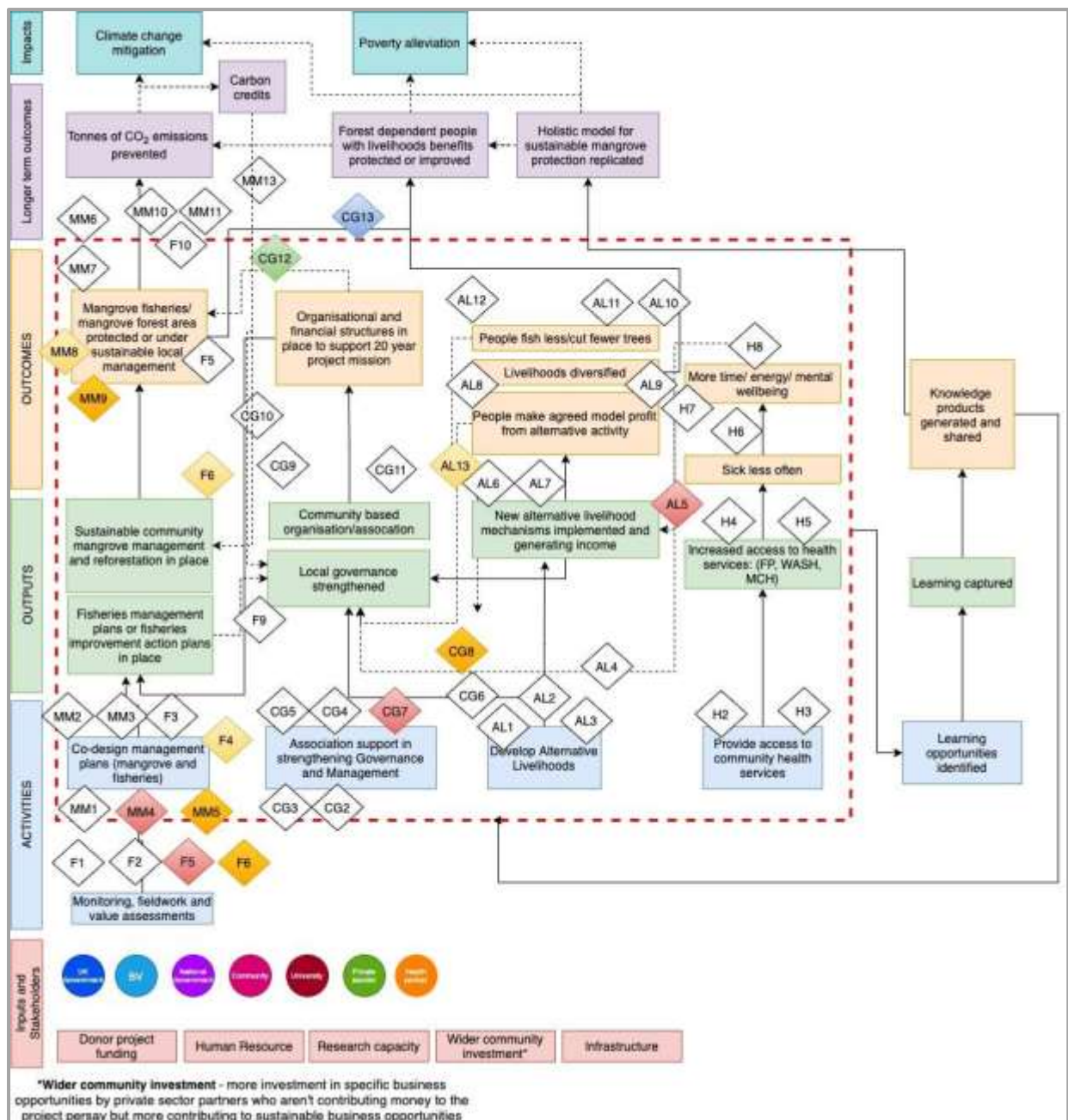


Figure 1 – Short form Theory of Change

B2. Describe where the programme is on/off track to contribute to the expected outcomes and impact. What action is planned in the year ahead?

The mangrove forestry work has continued well and is on track, apart from progress on carbon-related work, as noted in Sections A2 and A3. In Madagascar, the relevant policy and financial infrastructure necessary to fully enact the national REDD+ strategy are still a work in progress. In Indonesia there are no current options due to the government’s moratorium on the development of projects destined for the voluntary carbon market. BV is continuing to explore alternative options outside of standard verified credit. While these policy level challenges remain, Blue Ventures has been focusing on addressing the other barriers that stand between communities and climate finance. One area of focus over the last year has been the technical barriers, with excellent progress being made on an accessible, app-based tool that enables resource managers to map and monitor changes in

mangrove extent within their management areas. This app is now in the late stages of development and testing, with full rollout expected in 2024.

At the beginning of the programme, alternative livelihoods were considered the best way to boost community income, particularly where there is a short-term loss of income during the implementation of marine management measures, such as fishery closures. As the programme has progressed, and as detailed in the previous (2021) annual report, it has become apparent that the strengthening of existing livelihoods, for example the value chain addition of the fisheries market, is a better way to ensure sustainability. Blue Ventures have also had success in establishing community savings groups to ensure greater stability in incomes across the different seasons and management measures.

While the project has exceeded this year’s targets for the number of alternative livelihoods and the number of people involved, the income and percentage of people making the predicted level of profit have reduced. Alternative livelihoods are only possible in some areas and are heavily dependent on market access; therefore, it has proven better to focus on fisheries products for which there is already a market and focus on ensuring that communities receive the best price for their products. Where there are alternative livelihood options, it is important to deliver these through specialised partners to ensure longevity. Despite the challenges faced regarding alternative livelihoods, the broader support the programme provides to communities through improving sustainable fisheries management, providing healthcare support, and improving the sustainability and profitability of existing livelihoods, mean the programme continues to deliver effectively to reduce the poverty of poor communities in Madagascar and Indonesia.

Future logframe and theory of change revisions (recommendation 3) should consider how to reflect Blue Ventures poverty alleviation work more accurately.

Below are summary tables for impact and outcome indicators indicating progress in 2022, and reflecting the changes to the logframe detailed in Annex A. Three impact indicators have been changed to outcome indicators, and an additional outcome indicator has been added on health access.

Impact Indicator Summary

Mangrove forests and ecosystem services (fisheries etc) protected and restored, preventing carbon emissions and supporting security of livelihoods in coastal communities.

Impact Indicator	2022 Milestone	Progress	
1. Tonnes of CO2 emissions prevented or removed (KPI 6) (MtCO2)	668,173	668,173	On target, estimate to be verified in 2024
2. Total number of hectares where deforestation has been avoided (KPI 8)	775	775	On target, estimate to verified in 2024

Table 1 – Impact Results

These indicators have been reported as modelled figures for 2022 as they are calculated using area of mangrove cover, which is determined using community data collection and the GEMMM tool. This analysis was completed last in 2020 and is due to be updated in 2024.

Impact indicator 1 is calculated using the area of mangrove where deforestation has been avoided along with knowledge of how much carbon is stored per hectare of mangrove forest and how much of this is emitted as CO2 when mangroves are lost (determined by fieldwork and published literature) as well as volume of carbon stored by growing, reforested areas.

For impact indicator 2, the difference between the current area of mangrove (measured through community data and GEMMM) and what would have been the area of mangroves left without the project (determined by the historical deforestation rate) is calculated.

Outcome 1 Indicator Summary

Improved sustainable mangrove forestry and fisheries management implemented by coastal communities at Blue Forests sites in Madagascar and Indonesia where coastal communities are supported by alternative livelihoods and improved access to health care.

Outcome 1 Indicator	2022 Milestone	Progress	
1. Hectares of mangrove area protected or under sustainable local management (ha)	58,177	58,402	Exceeded target
2. Ecosystem services (KPI 10): Difference in mangrove forest ecosystem services income (shoreline protection; pollution abatement; protection from sedimentation) provided by standing mangroves compared to without project scenario. (\$/yr.)	659,107	659,107	On target, estimate to be verified in 2024
3. Number of sites implicated in Fisheries management including but not limited to Fisheries Improvement Projects (registered or actions plans being implemented)	5	4	Below target
4. Number of forest dependent people with livelihoods benefits protected or improved (KPI 3) <i>the programme assumes all communities it works with are forest-dependent</i>	66,884	69,742	Exceeded target
5. % of active producers making agreed model profit from alternative activity	23	14	Below target
6. % of health service delivery points that provide support and /or referral appropriate to meet the needs of Blue Forest programme communities	59	62	Exceeded target

Table 2 – Outcome Indicator 1

The health work under the project have performed particularly well this year, and this is now adequately represented following the indicator changes agreed in September 2023. Sites 1 and 3 have achieved particularly high results this year, which is partly due to Blue Ventures' work in Madagascar with the Health-Environment network being well established. The delay in Site 3 for indicator 3 is hopefully a short-term delay, while the results for indicator 5 reflect a wider learning on the opportunities and implementation issues surrounding alternative livelihoods. These factors will continue to affect the project targets as they stand and the resultant organisational learning has led to a wider focus on value chain additions and financial inclusion, which was not captured in the 2022 logframe changes, and should be prioritised during the recommendation 3 logframe changes review,

Outcome 2 Indicator Summary

Validated implementation models for replication provided to coastal communities in other geographic locations

Outcome 2 Indicator	2022 Milestone	Progress	
1. Extent to which ICF intervention is likely to have a transformational impact (KPI 15): Number of additional sites adopting models tested and proved within this project (outside of 5 sites)	78	120	Exceeded

Table 3 – Outcome Indicator 2

The significant achievement this year is in relation to the number of sites in Madagascar and Indonesia that are implementing fishery closures. This is a validation of the management measure that has been the basis of Blue Ventures' incentivising wider fisheries and mangrove management since its establishment. It is countered by the lower replication of Plan Vivo/VCS and homestay,

beekeeping & sea cucumber models that speak to the issues encountered by the project in relation to progressing carbon projects and alternative livelihoods addressed elsewhere in this review.

B3. Justify whether the programme should continue, based on its own merits and in the context of the wider portfolio

The evidence provided in the logframe and summarised below demonstrates that the programme continues to deliver against the theory of change, and continues to provide good value for money, as detailed in Sections C and E. As the inception of Blue Forests was before the inception of the Blue Planet fund, its outcomes do not align to portfolio level split in outcomes between Defra (MPAs) and the FCDO (small scale fisheries management; critical marine habitats). It is clear that the programme continues to effectively deliver against these three priority outcomes for Blue Planet Fund despite the challenges faced.

C. DETAILED OUTPUT SCORING

Output Title	Sustainable community owned mangrove forestry management plans in place		
Output number:	1	Output Score:	A
Impact weighting (%):	30	Weighting revised since last AR?	No

Indicator(s)	Milestone(s) for this review	Progress
1.1	Number of sites with community-led mangrove management plans	Target: 5 Actual: 5 Progress: Met
1.2	Number of sites with an estimated carbon baseline scenario	Target: 3 Actual: 3 Progress: Met

C1. Briefly describe the output's activities, and provide supporting narrative for the score.

Annual mangrove management plans continue to be produced and followed in all 5 sites.

Progress at Site 1: Madagascar

The progression of mangrove management plans have led to the renewal and increased tenure of management rights being transferred to the community from the government. 11 management groups received a renewal of their Transfer of Natural Resources Management (TGRN) contract from the government, eight groups received a 10-year TGRN, and two received a three-year TGRN. The standard length of a TGRN is three years, thus the 10-year renewal in some cases attests to the good management by communities and the government's trust in them.

Along with management, 4,447,849 mangrove seedlings were planted with 1,167 participants, 786 hectares (ha) were reforested. To reduce the demand for mangrove wood, 681 bags of bio-charcoal were produced along with 447 energy-efficient stoves.

Progress at Site 2: Madagascar

Mangrove monitoring campaigns continued each quarter as part of the management measures, monitoring the number of cuts to mangroves. In addition, mangrove propagules were planted over a total area of 15 ha of degraded mangrove land. A study of mangrove survival rates in Velondriake over five years (2015 - 2020) was completed; results show a 68% survival rate in the 10 villages. Survival rates generally start high as soon as the mangroves are planted, and then reduce and

plateau over time. The results of mangrove survival and carbon monitoring from 2014 - 2022 were shared with the 10 villages. Regarding terrestrial trees, 196 women's association members planted 2,219 seedlings in the terrestrial nursery and the Women's Association in Andavadoaka planted 170 terrestrial tree seedlings. The consultant hired to work on the terrestrial tree nursery planted 5,116 seedlings in 2022.

Progress at Site 3: Madagascar

BV is continuing to scope new villages at the site. Two new TGRNs were formalised, followed by delineation of the mangrove forest. Awareness raising on mangrove management took place across 83 communities in three new villages. Management of existing areas continues, two people being caught cutting mangrove wood: the Dina was applied and a fine paid. 46 mangrove reforestation sessions were led by the community, and a total of 33 ha of mangroves were reforested by 416 participants. 80 community members planted 7,855 mangrove seeds over two ha in celebration of World AIDs Day.

Progress at Site 4: Indonesia

As the newest site, work at Inhil focused on assessment, education and training. A workshop was held on the Rehabilitation Opportunity Assessment Method (ROAM) for the mangroves of Inhil, resulting in a diagnostic analysis of the key success factors for mangrove rehabilitation, a cost-benefit analysis, and a carbon analysis contributing to recommendations for the techniques used for mangrove rehabilitation. Baseline mangrove monitoring has been completed in six villages, where mangrove rehabilitation work has progressed, including in ex-coconut plantations. The data will be analysed to understand the structure and composition of mangroves, and to inform management planning. Meanwhile, 5,400 seedlings were planted in a restoration pilot in Pulau Cawan, where the community and village government held discussions to integrate sustainable mangrove-fisheries programmes into their village development plans.

Progress at Site 5: Indonesia

The Kubu Raya Annual Work Plan was sent for approval to the Centre for Social Forestry and Environmental Partnerships, the technical advisory group within the Ministry of Environment and Forestry. The Medan Mas 'Forest Management Learning Group' was established to increase sustainable mangrove management and investigate the potential for ecotourism. 12 meetings took place and survey results show an increase in the capacity of the group. In terms of monitoring, the very first integrated SMART patrol took place in Kubu Raya, including all relevant stakeholders (forest rangers, water police forces, Military Advisor for Public Security and Order and Sub-district Sector Police). The curriculum for Local Peat and Mangrove Education was created for middle and high school students. It was delivered to students and covered in the local news.

C2. Describe any changes to this output during the past year, and any planned changes as a result of this review.

A proposed logframe amendment submitted to Defra in December suggested the removal of Output Indicator 1.3 ('Number of carbon credits produced (with a minimum of 50% revenue shared with community') to reflect the ongoing blocks to selling voluntary carbon credits in both Madagascar and Indonesia. This change is reflected in this annual review, and Output Indicator 1.3 has not been scored and has been removed.

C3. Progress on recommendations from the previous AR (if completed), lessons learned this year and recommendations for the year ahead

In the 2021 annual review the following recommendations were made related to this output:

- a) *BV and DEFRA should discuss better integrating the importance of land tenure into their monitoring processes by adding "Number of tenure rights have been secured" as part of the programme logframe. This will give a long-term indication of how Mangrove deforestation has been avoided, as tenure rights encourage local communities to invest in sustainable long-term use of fisheries and/or alternative livelihoods supported by mangroves.*

Following an assessment of this recommendation, the decision has been made not to add such an indicator to the logframe. Although supporting communities to obtain tenure rights and the legal

recognition of their right to manage their natural resources is an important part of BV's work, we have chosen not to include this indicator. This is because the legal and bureaucratic processes that must be undertaken to secure tenure rights are complex and frequently outside of the control of communities, supporting partners or Blue Ventures. For example, in Indonesia, 'all coastal mangroves are legally classified as protection zones, [and] severe restrictions on rights apply [...] the operational laws are overwhelmingly protectionist, restricting local communities' rights and concentrating ownership and authority in government agencies (Banjade et al., 2017, pp. 30). As such, it can be politically sensitive for NGOs to advocate the formal transferring of tenure rights from the state to communities. Defra and BV are recommended to review this decision during the follow-up assessment of the logframe changes (recommendation 3).

- b) *Given the issues regarding the sale of carbon credits in Indonesia, BV should look to amend Output Indicator 1.3 and look at carbon emission reductions or removals linked to community-focused financial incentive schemes.*

Following an independent review of the Logframe by NIRAS, Output Indicator 1.3 has been removed as opposed to edited. As per this recommendation, BV had intended to broaden the scope of the intervention to include other community-focused financial incentive schemes. They proposed piloting an alternative climate finance option for mangrove management – effectively a new payment-for-impact model designed specifically around the needs of community-led mangrove conservation and restoration projects and planned to pilot this initially in Site 1.

The research & development phase of this intervention included building a financial model and an impact model, market research and both internal and external consultation. However, this demonstrated that pursuing this alternative climate finance option could expose BV to significant financial and reputational risk, due to the possibility of being perceived as operating outside the traditional standards of the voluntary carbon market and challenges to having visibility of and carrying out due diligence on potential investors.

At this time, the programme cannot predict with certainty when the sale of carbon credits will be possible. As it is therefore very unlikely that the original indicator target be reached before the end of the project, we have decided to remove it. However, the sale of carbon credits remains central to BV's strategy to fund the programme for its full 20-year duration following Defra's exit.

Output Title	Mangrove fisheries improvement projects in place		
Output number:	2	Output Score:	A
Impact weighting (%):	25	Weighting revised since last AR?	No

Indicator(s)	Milestone(s) for this review	Progress
2.1	Number of fisheries being monitored	Target: 10 Actual: 10 Progress: Met
2.2	Number of sites trialling/pilot locally relevant fisheries management (e.g. periodic closures, gear restrictions)	Target: 5 Actual: 4 Progress: Under Target
2.3	Number of local fisheries management plans developed (e.g. Agreed harvest rules concerning a fishery or wider management contracts)	Target: 4 Actual: 4 Progress: Met

C1. Briefly describe the output's activities and provide supporting narrative for the score.

Progress at Site 1: Madagascar

Fish, crab, and sea cucumber are being monitored at this site, with a management plan in place that continues to be enforced and monitored, whilst training on fishery laws continues. 215 community patrollers (26 women and 189 men) were trained on how to conduct patrols. During patrols, the main infractions found were the use of non-authorized fishing gear, for which fines were paid. 34 data collectors were trained to gather data for finfish, crab and sea cucumber using mobile devices, 32 of which are now using mobile monitoring across three permanent reserves: in total in 2022, three crab no-take zones (NTZs) were in place and one fishery closure took place for mackerel. Six sites of key habitats (seagrass and reef) were identified for ecological monitoring.

Progress at Site 2: Madagascar

Fish and octopus are being monitored at this site, with a management plan in place that continues to be enforced and monitored. Ten octopus closures were carried out between June and August (11 in total throughout the year): fishers caught 6,688kg of octopus, though some caught octopus below commercial size, which has led to awareness raising. To ensure consistent monitoring, more data collectors have been recruited and trained in the use of mobile monitoring. 70 fishers were also trained on basic marine biology to identify key species for the health of coral reef habitats. These monitoring efforts led to six beach seine nets and other illegal fishing gear being seized by patrollers, after which local laws were applied and fines paid. An external three-year Fisheries Improvement Project assessment was completed in October - overall the evaluator was very impressed with the work. The assessment has been helpful to refocus the work, bring in more stakeholders and write a new workplan.

Progress at Site 3: Madagascar

Fish, crab and shrimp are being monitored at this site, with 20 data collectors using Kobo Toolbox mobile monitoring software. Management measures and a management plan were due to be in place this year, however, as mentioned in the last report, there were issues in finalising the Dina, and the site is awaiting the results of a fisheries census for the whole bay to inform the management plan. In the meantime, a socio-economic study was completed for the whole bay and two non-officially recognised crab closures were implemented with one infraction where 100 crabs were stolen, but re-released.

Progress at Site 4: Indonesia

Four village forest agreements were put in place with village community organisations to support local mangrove and fisheries management, and a management plan is in place. Seven data collectors were recruited, and mud crab fishery monitoring began with the use of mobile monitoring technology, with data collected for 51,573 mud crabs. Data collectors carried out regular evaluation and training sessions to improve the monitoring methodology, efficacy, and accuracy. One closure was carried out during the year for a period of three months, which was the first temporary fisheries closure held in Sapat village, covering 22 ha of the river, and the opening of which was covered by the local news.

Progress at Site 5: Indonesia

The mud crab fishery is also being monitored at this site, and two temporary fisheries closures were implemented in 2022. Six village community organisations in charge of managing the village forest were put in place to support local mangrove and fisheries management - they signed a joint village regulation. Training was delivered on the use of a mobile monitoring tool to collect data, and catch data recorded at landing sites in four villages was fed back to the fishers, village governments and Conservation Community Business Services. The total catch weight of all species landed at this site was 100 tons. A Capture Fisheries Coastal Field School (CFS) was set up in Batu Ampar, the largest of the project villages in the site, to teach the group about the concept of sustainable fisheries management and value chain improvement. A field school booklet was produced as a guide for the CFS activities.

C2. Describe any changes to this output during the past year, and any planned changes as a result of this review.

There have been no changes to this output during the past year, and none are planned for next year.

C3. Progress on recommendations from the previous AR (if completed), lessons learned this year and recommendations for the year ahead

There were no specific recommendations from the previous AR, nor lessons learned, or recommendations for the year ahead for output 2.

Output Title	Implementation of viable new livelihood mechanisms		
Output number:	3	Output Score:	B
Impact weighting (%):	25	Weighting revised since last AR?	No

Indicator(s)	Milestone(s) for this review	Progress
3.1	Number of people engaged in alternative livelihoods	Target: 1,156 Actual: 1,015 Progress: Under Target
3.2	Total income generated	Target: \$94,459 Actual: \$74,094 Progress: Under Target
3.3	Number of new alternative livelihoods developed by site (cumulative)	Target: 7 Actual: 10 Progress: Exceeded

C1. Briefly describe the output’s activities, and provide supporting narrative for the score.

Whilst the project continues to trial alternative livelihoods and there is interest in the communities, the profitability of these alternative livelihoods is limited. This is due to a range of factors including disease, theft, and access to markets. Collectors and private sector actors can create a barrier to communities receiving a fair price for their product. In remote locations, collectors can hold a monopoly on the pricing structure while thefts can reduce productivity and demotivate communities.

Progress at Site 1: Madagascar

This site is involved in beekeeping and bio charcoal production (carbon briquettes made from a ubiquitous palm species found in secondary forests). The percentage of producers making the agreed profit model was lower than planned in this site (outcome indicator 1.5) due to the slow traction of some alternative livelihoods being in their early stages. Sponge and seaweed farming was piloted, but the oyster farming pilot was not being taken forward. There are now 13 savings groups with 236 members (119 women and 117 men) to help support these activities.

Progress at Site 2: Madagascar

There are four alternative livelihoods operating at this site, with seaweed and sea cucumber farming suffering significant reductions in income this year. On the seaweed side, this is due to disease (Epiphytic Filamentous Algae), which is spreading, while on the sea cucumber side, the reductions are due to various complexities in the relationship with the private partner combined with a series of thefts. Efforts are being made to manage the dynamic with the private sector during this period of handover, including the risk of uneven power dynamics on pricing, particularly in remote locations. 38,776 sea cucumbers and 187 tonnes of seaweed were still sold, and alternative security arrangements are being trialled. There are also 28 savings groups with 443 members (75% women, 25% men).

Progress at Site 3: Madagascar

Following a consultant’s report on the feasibility of alternative livelihoods, the options of beekeeping, poultry farming and vegetable growing are being considered. Tilapia fish farming was also considered but the cost-benefit ratio and environmental impact require further consideration. Due to a change of staff working on alternative livelihoods, this area has been delayed. However, out of the explored options for alternative livelihoods, poultry farming was taken forward and training was delivered to 120 households in 13 villages (93% of the trainees are fisher association members). Additionally, six savings groups were established in four villages for 89 members (74% women, 26% men).

Progress at Site 4: Indonesia

Coconut coir farming is being trailed and a home garden pilot is being considered. During a discussion on sustainable agriculture facilitated by a member of the BRGM (peat and mangrove restoration agency), the Farmers Women's Group shared the challenges faced when developing 'home gardens' (allotments), particularly around soil conditions and seeds not growing well - peat can be a difficult growing medium due to its low nutrient content. Training was delivered on the use of organic fertiliser to improve soil health, and on constructing nurseries to seed vegetables and herbs.

Progress at Site 5: Indonesia

As well as the tea from mangrove leaves (*Acanthus ilicifolius*) and sugar harvested from nipah palm (*Nypa fruticans*), honey from stingless bees (*Madu kalulut*) is being considered. Distribution permits, which include earning a Food Safety Certificate, have been received, making the livelihoods formally legalised as home-based businesses.

C2. Describe any changes to this output during the past year, and any planned changes as a result of this review.

A proposed logframe amendment submitted to Defra in December proposed the readjustment of targets for Output Indicator 3. This was proposed following programmatic and learnings reviews that showed the importance of the value chain addition and financial inclusion work that is currently delivered by the Blue Forests programme but not measured in the logframe. Given the additional learnings gathered in 2022, this annual review recommends that both the value chain additional and financial inclusion learning is incorporated into the programme for 2023. BV to provide disaggregation for indicator 3.1.

C3. Progress on recommendations from the previous AR (if completed), lessons learned this year and recommendations for the year ahead

There were no specific recommendations from the previous AR. Key lesson 3 and logged for 2022 relates to the success of alternative livelihoods interventions can be very variable; improving the value of existing livelihoods can be more effective. See Section A3 for recommendation details.

Output Title	Increased access to health services		
Output number:	4	Output Score:	A
Impact weighting (%):	10%	Weighting revised since last AR?	No

Indicator(s)	Milestone(s) for this review	Progress
4.1	A - Number of women accessing sexual and reproductive health and rights services (Madagascar only) B - Number of outpatient consultations (Indonesia only)	Target: 10,786 Actual: 14,039 Progress: Exceeded
4.2	Number of people attending community health sessions or health promotion activities	Target: 10,218 Actual: 12,030 Progress: Exceeded
4.3	Number of healthcare workers or community health ambassadors who report improved skills and knowledge in health delivery	Target: 211 Actual: 207 Progress: Under Target

C1. Briefly describe the output's activities, and provide supporting narrative for the score.

These are new health indicators following the project evaluation inception phase. It was recognised that the health indicators did not reflect the situation and needs in both countries.

Progress at Site 1: Madagascar

Training and awareness raising have been provided on HIV (with the setting up of five Test-Treatment-Retaining Health Centres), the use of mosquito nets to protect against malaria (carried out by the local federation/association in 10 villages), COVID-19 (with 748 people vaccinated), and maternal and child health. In addition, Community Health Workers and Marie Stopes Madagascar provided four long-acting reversible contraception field visits. Several big events such as the "polio vaccination and awareness campaign" in October and the "Celebration of World AIDS Day" in December meant that this site well exceeded its targets.

Progress at Site 2: Madagascar

30 awareness raising sessions were held on maternal health and the Health-Environment approach with 280 mothers from the mothers' groups, and 16 youth group sessions took place on health and the Health-Environment approach with 178 youths. Vaccinations carried out this year included: 1,981 polio vaccines and 904 vitamin A vaccines given to children under the age of 5; Tetanus vaccinations to 57 women; the COVID-19 vaccine to 76 people; and diphtheria vaccines to 28 pregnant women. In addition, Community Health Workers and Marie Stopes Madagascar provided long-acting reversible contraception field visits to 30 villages. An event with the USAID ACCESS project enabled this site to exceed its targets for indicator 4.1a.

Progress at Site 3: Madagascar

Awareness raising sessions were carried out on using mosquito nets against malaria (with 104 men, 98 women and 70 children); sexually transmitted infections and HIV/AIDS (carried out by the youth group); and water, sanitation, and hygiene (WASH) for 43 mothers' group members. During World AIDS day, 61 people were tested and 318 condoms were distributed. Awareness raising was led by one Community Health Centre member, eight Community Health Workers and 21 youth group members. In addition, Community Health Workers and Marie Stopes Madagascar provided three long-acting reversible contraception field visits.

Progress at Site 4: Indonesia

A Memorandum of Understanding was signed to begin activities promoting health in Sapat and Igal villages with their community health centres. The 'Healthy Family' campaign started in Igal village, and a training on community-based health services, with speakers from the Inhil District Health Office, was delivered. 256 people attended community health consultations, a large increase on the initial target as this activity had not been carried out for several years and the community were very enthusiastic to attend.

Progress at Site 5: Indonesia

964 outpatient consultations were held and 472 people attended community health sessions. A total of 62 Health Ambassadors were recruited and trained including on emergency first aid, national vaccination programmes, non-communicable diseases, and counselling for drug use and maternal and child mortality. A community health needs assessment was conducted in two villages and two new health working groups were set up. A learning exchange also took place between 19 Health Ambassadors across three villages. Results from surveys across 50 households in Batu Ampar and Medan Mas villages show an increased understanding of the importance of health centres and an increased use of family planning services.

C2. Describe any changes to this output during the past year, and any planned changes as a result of this review.

A proposed logframe amendment submitted to Defra in December 2022 proposed a change to Output Indicators 4.1, 4.2, and 4.3 to reflect the health needs in both countries of operation as the original family planning focus of the three indicators did not represent the Indonesian sites. These have been changed in accordance with the advice from NIRAS. BV to prioritise disaggregation for indicators 4.1-4.3 as part of logframe review.

C3. Progress on recommendations from the previous AR (if completed), lessons learned this year and recommendations for the year ahead

Initial conversations highlighting the need to review and update the logframe health indicators began in 2021 when community consultations for health needs in Indonesia, including family planning, did not align with the needs identified in Madagascar. In response to this, the 2021 AR recommended that BV and Defra should discuss implementing a health output indicator focussing on delivering against community needs. The NIRAS team was tasked to support BV to review these indicators and identify appropriate replacements. The following changes have been made to the output indicators within the updated logframe and targets for 2022, 2023, and 2024:

Original indicator	Revised indicator
Output 4 statement: Increased access to family planning services	Output 4 statement: Increased access to health services
Output indicator 4.1: Needs assessments completed at each site	Output indicator 4.1A: Number of women accessing sexual and reproductive health and rights services (Madagascar only) Output indicator 4.1B: Number of outpatient consultations (Indonesia only)
Output indicator 4.2: Number of villages served by community-based health services	Output indicator 4.2: Number of people attending community health sessions or health promotion activities
Output indicator 4.3: Number of outreach missions conducted by reproductive health partner	Output indicator 4.3: Number of healthcare workers or community health ambassadors who report improved skills and knowledge in health delivery

Table 4 – Output 4 changes

Output Title	Organisational and financial structures in place to support 20-year project vision		
Output number:	5	Output Score:	A
Impact weighting (%):	10%	Weighting revised since last AR?	No

Indicator(s)	Milestone(s) for this review	Progress
5.1	Organisational capacity - number of relevant community structures (organisational/financial/administrative) in place to support local mangrove and fisheries management	Target: 23 Actual: 27 Progress: Exceeded
5.2	Monitoring capacity - number of sites where community resource monitoring protocol is in place	Target: 5 Actual: 5 Progress: Met
5.3	Enforcement capacity	Target: 5 Actual: 5 Progress: Met

	- number of sites where a community-led coastal management law enforcement protocol is in place	
5.4	Conservation agreements - number of sites with functioning, transparent community conservation agreements	Target: 5 Actual: 4 Progress: Under Target

C1. Briefly describe the output's activities and provide supporting narrative for the score.

Progress at Site 1: Madagascar

Site 1 exceeded its target for organisational capacity, having expanded from one Federation (gathering the 12 management associations, managing 6,163 ha of mangroves) to include four fisher unions (gathering the 35 fisher associations). Learning exchanges have been important to share learning between communities, with eight community members visiting three villages in Ambaro Bay, supported by the Worldwide Fund for Nature, to share best practices on transferring natural resource management from government to communities, including processes and challenges. Eight community members from the Miaramientagna Federation also participated in an exchange visit to site 2, to share best practices for financial management, livelihoods, women's association activities and patrols.

Progress at Site 2: Madagascar

A platform led by the Befandefa community, Velondriake association and Blue Ventures was created to discuss marine protected area (MPA) governance with all stakeholders in the area. Meanwhile community leaders participated in the MIHARI South Congress in Toliara, where they were trained on Locally Managed Marine Area (LMMA) performance, and best practices, and had the opportunity to share their challenges in marine management with LMMA leaders and stakeholders.

Progress at Site 3: Madagascar

Delays in getting the Dina ratified at the regional level has impacted this output, including delaying enforcement work. The Dina was developed at the local level, but the government wanted it to be added to the regional mangrove and fisheries Dina. Targeted advocacy work was carried out at different levels. Whilst the Dina for mangroves and fisheries is still not ratified at the regional level, the local Dina for mangroves is now legally binding and so enforcement activities have started. The two management associations of Andranoboka and Antafiamirango were made official, bringing the total number of fisher associations managing the seas to seven, and the community-based organisations managing mangroves to two in total.

Progress at Site 4: Indonesia

Capacity building and awareness raising has been undertaken for mangrove management, including on the use of digital tools and spatial knowledge to conduct SMART monitoring patrols. The Directorate of Conservation and Marine Biodiversity of the Ministry of Maritime Affairs and Fisheries held a technical consultation for the establishment of the Inhil MPA. Improvements to the Inhil MPA document were made, including suggestions to form Management Organisational Units and technical inputs for the maps. The Inhil MPA technical team finalised the MPA document, which is now ready for submission to the Minister of Maritime Affairs and Fisheries.

Progress at Site 5: Indonesia

There are now eight Village Forest Management Institutions (LPHDs) at this site, an increase from five last year, with governance training delivered to 20 people from two villages, including on the development, planning and joint management of the Village Sustainable Development Plans and budgets.

C2. Describe any changes to this output during the past year, and any planned changes as a result of this review.

There have been no changes to this output during the past year, and none are planned to go forward.

C3. Progress on recommendations from the previous AR (if completed), lessons learned this year and recommendations for the year ahead

There were no specific recommendations from the previous AR, nor lessons learned, or recommendations for the year ahead for output 5.

Output Title	Increased evidence base for conservation models		
Output number:	6	Output Score:	A
Impact weighting (%):	0%	Weighting revised since last AR?	No

Indicator(s)	Milestone(s) for this review	Progress
6.1	Number of new pieces of evidence (per year) for individual conservation models (e.g. crab fishery closure model, Plan Vivo model)	Target: 5 Actual: 5 Progress: Met

C1. Briefly describe the output's activities, and provide supporting narrative for the score.

New pieces of evidence were provided on:

- *Octopus fisheries in Indonesia*
- *Community-based aquaculture*
- *Payment for ecosystem services in Madagascar*
- *Blue Forest Financing*
- *Improving conservation efforts through health*

C2. Describe any changes to this output during the past year, and any planned changes as a result of this review.

Output 6 “*increased evidence base for conservation models*” is a new output following the proposed Logframe amendment that was submitted in December. NIRAS recommended that Outcome Indicator 5 “*Number of new pieces of evidence (per year) for individual conservation models*” was not an outcome indicator. Defra agrees with this recommendation and so this outcome indicator was changed to an output indicator and is now Output Indicator 6.1.

C3. Progress on recommendations from the previous AR (if completed), lessons learned this year and recommendations for the year ahead

Output 6 is a new output for 2022 and so there were no specific recommendations from last year and there are none planned for the year ahead.

C4. Value for Money Assessment

Value for money has been assessed across all programme outputs in section E2.

D: RISK

Overview of risk management

BV and DEFRA are in discussions about reviewing the format of the project risk register, due to format and process changes within both organisations. BV continue to report on risk quarterly and Defra will look to align this with Defra's ongoing work to refine its own RAID template to be more consistent across BPF programmes.

Programmes and activity-associated risks are assessed at the beginning of each financial year. Reviews are conducted every six months, or when needed if prompted by incidents and lessons learnt. In 2022, no major events took place associated with health and safety risks.

The most significant risk change in-year relates to Safeguarding. The Blue Forests programme recorded three concerns raised with the Safeguarding and Reporting Committee in 2022. These incidents were investigated in accordance with BV's safeguarding protocols. From the investigations of all three concerns, two resulted in the allegations not being upheld. The third safeguarding concern was upheld and identified as a Human Resources matter, not related to any concerns for safeguarding against sexual exploitation and abuse and harassment (SEAH).

BV have established a Safeguarding and Reporting Committee (SRC), with dedicated Safeguarding Risk Assessment for each country. The SRC has a mixed membership among Staff and Trustees, meets quarterly and holds the authority for safeguarding and reporting as well as reviewing safeguarding policies and procedures and developing new initiatives to strengthen organisational safeguarding practice.

In addition, all colleagues in BV receive mandatory safeguarding training on how to recognise and report a safeguarding concern (details of which are published on our intranet). BV also present a safeguarding report at each trustee board meeting. Defra are confident that BV manage this risk effectively and will monitor reviews to BV's safeguarding policy and discuss changes to this risk through quarterly steering boards going forward.

Risk Register

Probability (or likelihood) is based on a scale of very unlikely > unlikely > possible > likely > almost certain.

Impact is based on the scale of insignificant > minor > moderate > major > severe.

Risk Rating is based on the Red Amber Green (RAG) system.

Risk	Probability	Severity of Impact	Risk Rating	Mitigation
COVID-19 disrupts BV's delivery of programmes and expeditions, BV's finances, and the environment in which BV operates	possible	major		Though the longer-term impacts of COVID are still prevalent and may still affect baselines in relation to pre-COVID levels, the impact on programme delivery is minimal. This is subject to any future variants or resurgence
Over reliance and potential loss of key staff, resulting in undue pressure, deteriorating performance and/or resignations. Loss of institutional knowledge or	possible	moderate		- Formal annual appraisal process in place - Annual objective settings for staff performance and

BV's ability to deliver at such a scale				<ul style="list-style-type: none"> professional development with monthly 1:1 catch ups, - Talent identification & retention measures including further study, new role within BV, along with the new Director of People and Culture
<p>Value For Money for project expenditure</p> <p>BV Financial management policies and procedures are not fully effective or followed.</p>	unlikely	moderate		<ul style="list-style-type: none"> - Financial authority levels are documented, and reviewed on an annual basis - Procurement Policies in place, and policies and procedures are reviewed on an annual basis for new staff, new processes and to manage larger amounts of funding. It also ensures anti-corruption and anti-money laundering policies are in place and effective - Internal staff training for local offices with timely escalation of issues to Director level/Trustees as appropriate and continued CPD of Finance Team - Regular review and monthly reconciliations of site funds undertaken by Global Finance team with spot checks
Foreign exchange risk - forex fluctuations result in higher costs or depleted reserves	unlikely	minor		<ul style="list-style-type: none"> - Almost all of BV's income is in hard currencies, providing some protection against forex turbulence - BV seeks to minimise currency purchase and sale, and does not hold soft currencies in reserve - BV holds GBP, USD and EUR accounts in the UK, and matches receipts and payments in the same currency where possible - BV uses Western Union, Corpay and FC Stone as needed to execute foreign currency payments

				<ul style="list-style-type: none"> - GBP to MGA exchange rate is monitored closely each week. As Madagascan Ariary is an exotic currency it cannot be traded so we cannot mitigate this risk through financial markets.
Business continuity and disaster planning are inadequate, including in response to a natural disaster in countries of operation	unlikely	severe		<ul style="list-style-type: none"> - Crisis management insurance in place, with a Disaster Recovery Plan in place and tested - Business continuity cover included under general insurance cover - Offsite working current norm for UK staff and cloud-based server established - Regular security updates to Director team and sharing of information and risk assessments with local teams. Regular review and withdrawal / pausing of activities if required
Performance and service delivery affected by inadequate pool of skills within BV, low staff morale or high staff turnover	possible	major		<ul style="list-style-type: none"> - FY24 operating plan is in place with a heavy focus on people, learning and development. - Reports on staff turnover and other KPIs provided to Board quarterly
Safeguarding environment	likely	major		<p>Significant work carried out to develop and improve policies and procedures in 2019 and are still ongoing. All related policies reviewed and updated. Reporting framework reviewed and improved. Safeguarding and Reporting committee created to oversee these elements of BV's work. Key staff trained in 2018 and 2019 with more training planned for all countries as annual refreshers. Dedicated staff in place to create and then support a culture of Safeguarding as a priority.</p>
Organisational structure does not meet compliance requirements in	possible	major		<ul style="list-style-type: none"> - BV takes legal advice in all countries of

overseas operations resulting operational and legal problems, and finds difficulty in registering in overseas countries, including Indonesia. BV are therefore unable to function effectively to deliver the project and therefore employ the right team.				operation to work to regulations - Partnerships will be developed with key partners, governments, and the British Embassy to support our efforts.
Natural Disaster for example, Cyclones, pandemics, earthquakes, flooding etc.	unlikely	major		- BV has well evolved and practiced emergency protocols to deal with tropical storms, cyclones, and emergencies. - COVID-19 experience and response that BV has taken so far is still current but will help form a plan for future disease/virus outbreaks.
Support for sustainable forestry and fisheries displaces unsustainable activities into other locations through “leakage”	possible	moderate		Leakage will be partially managed through working to directly address the drivers of deforestation, providing alternative livelihoods and introducing management regimes where currently they do not exist or are inadequate. The model is designed to be replicable across jurisdictions.
Projects fail to create interventions that are sustainable in the long term	possible	moderate		Project designed so that all sites start with Stage 1 (the pilot/scoping stage) to assess most suitable interventions. Sites and/or activities do not progress if likelihood or feasibility not deemed sufficient for long-term. Challenges to establishing carbon credits in both countries also present considerable risk to long term sustainable financing of activities. The programme indicators have been updated to remove carbon credits and work is progressing to establish alternative sustainable financing mechanisms.

Poor delivery performance damages BV's reputation amongst funders	possible	moderate		<ul style="list-style-type: none"> - Programme Status Report presented at each Board meeting - This a key responsibility for the dedicated FO manager
Failure to identify private sector buyer for carbon credits, or price of carbon falls below level required to motivate behaviour change. Difficulty securing private sector support for livelihood interventions, for instance fisheries improvement projects. Don't develop sellable carbon propositions. Only one now. Lots of BC directed work elsewhere (Ambanja), however unless you have a verified credit or alternative saleable prop, you don't have anything to sell.	very unlikely	moderate		<ul style="list-style-type: none"> - Maintaining strong interactions with potential buyers of carbon credits on the voluntary carbon market. - Continue to work in close collaboration with private sector organisations involved in natural resource exploitation in target countries, including seafood collection and export businesses. - Pollen street capital - Review resourcing of BC team
Delays in carbon credits being passed to BV by Govt of Madagascar. In this situation onus falls on BV to front cash to communities to keep programme going	very likely	minor		<ul style="list-style-type: none"> - Sustained engagement and advocacy at the ministerial level in Madagascar, leveraging HMA support where necessary - Seeking understanding carbon off-setters who are willing to make payments with no guarantee of receiving credits
The capacity to interact with, and the power dynamic with the private sector (individual collectors, private companies, international market fluctuations) limits the ability of work with the community to be secured by sustainable financial solutions	possible	moderate		<ul style="list-style-type: none"> - Communities are supported to develop tenure rights and enforcement activities to protect their resources - Scoping will be done for suitable private partners (where possible/existing) - Financial inclusion will be considered as a mechanism for communities to withstand market fluctuations - Communities will be supported to form associations or other suitable bodies, to help enable power to ensure reasonable prices from buyers
Reputational damage to BV and Defra/HMG through partner conduct	possible	moderate		<ul style="list-style-type: none"> - Due diligence is carried out on partners receiving subgrants and their

				<p>progress is monitored on a quarterly basis</p> <ul style="list-style-type: none"> - Private partners are monitored and communities provide a feedback loop for any issues encountered
<p>Insufficient capacity for M&E compromises effective measurement of project outcomes against logframe</p>	<p>unlikely</p>	<p>moderate</p>		<p>For ICF: M&E framework and logframe developed in close consultation with Defra including developing a reporting framework and schedule.</p> <p>The project evaluators (NIRAS) are reviewing BV data and systems and the project logframe as part of the evaluation and providing recommendations. They will work closely with the BV teams, including M&E, to conduct the evaluation.</p>

Table 5 – Risk Register

E: PROGRAMME MANAGEMENT: DELIVERY, COMMERCIAL & FINANCIAL PERFORMANCE [1 - 1 ½ pages]

E1. Summarise the performance of partners and Defra, notably on commercial and financial issues, and including consideration of VfM measures of economy and efficiency.

Blue Ventures and Defra

Defra and BV continue to work effectively in partnership, principally through quarterly steering group meetings. BV has been proactive in data collection and reactive to procedural requests. They are a high-quality delivery partner and are transparent with risks and issues and willing to contribute to documentation to fulfil HMG obligations even when it is not in line with their normal processes, as evidenced this year through ongoing discussions of risk tracking. They are also adaptive to HMG and ODA requirements and processes, and cooperated well with NIRAS during the independent scoping review ahead of final project evaluation, including amending the MEL frame in response to NIRAS' feedback.

Both organisations feel the change in management from Defra's International Biodiversity and Climate Directorate to the Blue Planet Fund, in Defra's Marine and Fisheries directorate, and staff turnover on both sides, have been managed effectively. While this has not had an impact on programme delivery overall, the transfer of ownership provides an opportunity for a re-evaluation of this relationship to ensure it continues to function effectively for both parties. One challenge faced in 2022 was Defra changing and cancelling travel plans for site visits with little notice. While the factors that caused this were out of Defra's control, the programme team will continue to communicate travel plans as promptly as possible. Another area BV highlighted for Defra to continue exploring is providing political/diplomatic weight to support where appropriate, particularly on carbon credits. This has been captured in recommendation 1. Defra should also look to ensure guidance and feedback on programme monitoring and reviews is provided promptly and consistently as far as possible within resourcing constraints.

All annual reports from BV have been submitted on time with financial updates provided as part of quarterly Steering Group meetings. Monthly finance meetings are also held internally in BV. BV's financial year runs from July to June and a project-specific audit is budgeted for the end of the programme, as required.

In February 2022 Defra and BV agreed to a Change Control Notice to reallocate underspend from year 5 (2021) to year 8 (2024). This underspend was the result of restrictions to activities due to COVID-19, and followed the same approach to COVID-19 underspend in year 4 (2020). BV identified and communicated the risk of this underspend clearly and in good time, and Defra is confident that all remaining planned activities can still take place between 2022 and 2024 and the reallocation of Y5 underspend to Y8 will help activities to be completed and targets to be met.

Blue Ventures relationship with other partners

Blue Ventures continues to work via the following partners in Indonesia, who receive annual subgrants. Financial instalments to partners are based on reporting milestones (narrative and financial):

- Yayasan Hutan Biru (YHB, also known as Blue Forests);
- Yayasan Planet Indonesia (YPI);
- Yayasan Pesisir Lestari (YPL);
- Yayasan Mitri Insani (YMI).

Since its creation by BV, YPL has continued to grow in independence, and increase its work in governance, advocacy, and policy.

Following the project's addition of Inhil as Site 4 in July 2021, work with partner YMI has continued well, reducing the risk of this new site. Whilst the partner is still heavily dependent on the funding from BV due the size of the project in relation to their previous grant income, they are growing and adapting well.

BV has developed an improved due diligence process as it works with more partners and less via direct implementation, to enable more impact at scale, while continuing to address the core five areas risk is broken down into by the charity commission - Operational, Financial, Regulatory, External and Governance. The revised due diligence and contracting framework aims to simplify documentation and burden on the partner and allow for rapid scaling which allows us to reach community level organisations, while managing risk in a way that is both appropriate and fair for partners, particularly for our smallest partnerships (though this is not relevant to the partners in this project). Through conducting due diligence we will set tolerance levels which help us to manage risk in a way which is appropriate to the level and capacity of the types of partners we expect to work with and the level of funding which we will disburse. Through this tiered approach the programme hopes to reach partners who embody its mission and have the potential to deliver critical work at the community level. The diligence requirements and contractual agreements will be split into two broad categories; Small and Medium/Large.

At the point of inception of a partnership, relevant key management personnel are checked against sanctions and watchlists, adverse news articles, litigation and politically exposed persons records using the Lexis Nexis diligence platform. BV also request a copy of the organisation's safeguarding policy to ensure it is appropriate to the scale and nature of their work and organisation.

Renewal of granting and release of funds is dependent on demonstrating results. This entails a combination of formal checks during the selection and onboarding processes, and multiple touchpoints throughout the partner journey for identifying and addressing concerns through careful monitoring, reporting and use of community feedback on partner organisations.

E2. Value for Money Assessment

Overview

The Blue Forests programme is meeting or exceeding most impact, outcome and output indicators for Year 6 (c.72%). Where modelling data exists it supports the revised 2020 Benefit Cost Ratio (BCR) of 8.3:1. Particularly due to the good progress against mangrove area under protection or sustainable local management. It is recommended that an updated BCR analysis is conducted in 2024 when verified impact data is available. In year 6 Blue Ventures has continued to demonstrate its track record in delivering project activities. To ensure this leads to desired impact, Blue Ventures should incorporate early learnings in delivery and monitoring, particularly with respect to: alternative livelihoods, sale of carbon credits and disaggregation of data by social groups.

Economy

Economy considers whether the inputs required for a project are being procured at the best price. Similarly to 2021 (Year 5), the main cost drivers in Year 6 relate to high inflation experienced in 2022, this has resulted in an increase in the total cost of the Blue Forest programme. UK inflation is currently sitting at around 6%, Madagascar inflation sits at 8% and Indonesia at 2%. Blue Ventures has made salary adjustments in line with inflation in the relevant countries. In the UK this was in the form of a cost of living pay adjustment, in Madagascar and Indonesia salaries were adjusted as a result of a benchmarking exercise. The other cost driver to impact the project in Year 6 is the cost of travel, with items such as fuel, domestic and international travel tickets all rising and contributing to increased costs for the organisation. As resourcing costs represent a significant proportion of the overall cost of the programme and expected outputs and outcomes remain unchanged, there is a risk that the real value of funding for projects has diminished (i.e. on a per £ basis you can now afford

less). It should be noted that the rise in resource costs for Blue Ventures have not been passed on to Defra and Defra's contribution remains the same.

Procurement processes remain unchanged from the previous year, and Blue Ventures continues to demonstrate best practices when it comes to acquiring at the best price whilst ensuring quality. Blue Ventures should continue to monitor these in the context of the overall project goals and remains focused on maximising efficiency to ensure that it is able to deliver VfM in an inflationary environment.

Efficiency

Efficiency relates to how well inputs are converted into outputs, i.e. 'spending well'. Six outputs have been measured in this Annual Review, of which two are on target (output 1 and 6), and three are on or exceeding target, except for an only slight under target sub indicator (output 2, 4 and 5). Crucially delivery against output 1 has resulted in all five Blue Forest sites renewing their annual mangrove management plans. This is significant as achievement of intended impacts, including avoided deforestation and carbon sequestration, is dependent on the implementation of management plans.

Only output 3, *implementation of viable new livelihood mechanisms*, is under target according to two of three indicators collected (3.1 number of people engaged in alternative livelihoods, 3.2 total income generated). Early learnings are showing that whilst a variety of economic activities have been trialled (including beekeeping, alternative farming products and bio charcoal production), in some areas there may not be many viable alternatives to fishing. Due to lack of profitability, access to markets and unintended consequences. This suggests that delivery against this output should focus on strengthening existing livelihoods in a sustainable way, whilst taking a sensible approach to trialling alternative livelihoods.

Effectiveness

Effectiveness relates to how well the outputs are achieving the desired outcomes and impacts. The original Business Case identifies three overarching benefits (positive impacts), depending on the site and the time period over which we would expect the benefit to be realised, it is possible to refer to LogFrame data to provide an assessment of effectiveness.

In terms of ecosystem services, including carbon saving, biodiversity and adaptive benefits, output 1 indicators show positive progress towards the achievement of these benefits. On the ground evidence is also reassuring, for instance all sites have reported planting of mangrove seedlings, and in site 1 there has been an increase in tenure of management rights being transferred to the community from the government, likely indicating the effectiveness of management by communities. Whilst this activity level is encouraging, early learnings have identified factors which are important to effective delivery:

- Mangrove survival rate. In this Annual Review period a study in site 2 shows a survival rate of 68% was achieved over the course of 5 years. Where possible this should be assessed to determine the effectiveness of the intervention.
- Sale of carbon credits. The original Business Case assumed carbon savings resulting from a reduction in deforestation are expected through two main mechanisms: (1) management frameworks (2) certification of payment of carbon credits to further increase the incentive to conserve mangroves. As set out in *Key lesson 1* and *output 1 section C3.b*. there have been challenges associated with the sale of carbon credits. If unaddressed, this will likely have implications for the longevity of benefits realised by Blue Forest projects, ultimately impacting the VfM. For this reason, it's important that Defra work with Blue Ventures to support the implementation of carbon credits where appropriate.

Secondly, Blue Forests is expected to result in poverty and income benefits owing to improved fisheries management and alternative/sustainable livelihoods. Outcome 1 indicator 4 finds that the number of forest dependent people with livelihood benefits protected or improved is above target at 69,742. However, the profitability of alternative livelihoods has been found to be limited, as set out above for output 3. Outcome 1 indicator 5 also finds that the % of active producers making agreed model profit from alternative activity is below the yearly target. Over time, under delivery against this benefit is likely to reduce the Value for Money of the programme and potentially lead to significant disbenefits if lost livelihoods are not replaced. However, by taking an adaptive approach and incorporating learning into the programme (*Recommendation 3*) Blue Ventures can ensure that

livelihoods are supported in a way that is appropriate for each context (i.e., based on market access, reducing risk to individuals) which will lead to a more effective solution long term.

The final expected benefit is improved health to the local community resulting from health services provided by the programme. In Year 6 the programme exceeded most output 4 indicators for the health services. Additionally, as set out in the above output section, on the ground activities have been delivered across all 5 sites, including: training on diseases, vaccination, testing and prevention measures. Outcome 1 indicator 6 finds that 62% of health service delivery points provide the support and/or referral appropriate to meet the needs of Blue Forest programme communities. Suggesting it's on track to delivering health service improvements which are applicable to local context.

The final consideration for effectiveness is the extent to which impacts are transformational and long lasting. Aside from challenges noted above with respect to securing climate financing, Blue Forests has demonstrated good progress against output 5 and outcome 2 indicator 1, suggesting the programme has the organizational and financial structures to support a long term vision, and is facilitating transformational impact by disseminating adoption of models beyond the 5 sites.

Equity

Equity assesses the degree to which the results of the intervention – both positive and negative – are equitably distributed, with consideration of different vulnerable groups in the population such as women and girls, those whose livelihoods are most at risk, and the young and elderly. As highlighted in the previous Annual Review 2021, the Blue Forests programme takes a grassroots approach to conservation and sustainable use of natural resources in communities that depend on these, and with a high degree of vulnerability to resource overexploitation. By embedding this across the delivery and taking a community led approach (i.e. health services delivered are appropriate to recipients, *community* owned management plans) the programme is designed to deliver benefits across the local community. This can be seen in Year 6 evidence, for instance, in sites 1-3 50-75% of the membership to savings groups were women. The programme also works towards improving gender outcomes directly through its reproductive health services, as measured by output 4 indicators the programme is broadly on target.

However, as set out in *recommendation 5* Blue Ventures should consider whether monitoring data for the final years of the programme can be disaggregated by sex and age, and effectively baselined, to ensure that any gaps in the current approach are identified and improved upon.

Date of last narrative financial report	24th May 2023	Date of last audited annual statement	20th February 2023
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Blue Forests Programme - ICF August 2023 Logframe Review

Introduction

Our review focuses on the following areas:

1. Updating logframe structure in line with approved NIRAS (project evaluation contractor) recommendations;
2. Inclusion of new health indicators, relevant to both countries and setting of targets;
3. Updating impact indicators and outcome indicator 1 to include the Inhil site rather than Sembilang (Site 4);
4. Updating targets for livelihoods indicators based on programmatic review;
5. Removing the indicator on carbon credits based on programmatic review.

This report provides detailed documentation of all changes made and the associated rationale. Table 1 below provides a short summary of changes.

Indicator	Change	Notes
Structural & Wording Changes <i>(please note: numbering of indicators relates to 2021 structure)</i>		
Impact Indicator 1 Tonnes of CO ² emissions prevented (KPI 6)	Reworded to: <i>Tonnes of CO² emissions prevented or removed</i>	There are two types of emissions associated with conservation activities - avoided/prevented and emissions removal. Our programme includes some restoration which is a removal. The original wording referred to emissions prevented only.
Impact Indicator 2 Number of forest dependent people (ASSUMPTION: all people we work with are forest dependent) with livelihoods benefits (INCOME GENERATION AND FOOD SECURITY) protected or improved (KPI 3)	Moved to outcome level - now Outcome indicator 1.3	Not an impact indicator
Impact Indicator 3 Extent to which ICF intervention is likely to have a transformational impact (KPI 15): Number of additional sites adopting models tested and proved within this project (outside of 6 sites)	Moved to outcome level - now Outcome indicator 2.1 Changed wording from '6 sites' to '5 sites'	Not an impact indicator There are only 5 sites
Impact Indicator 5 Ecosystem services (KPI 10): Difference in mangrove forest ecosystem services income	Moved to outcome level - now Outcome indicator 1.2	Not an impact indicator and doesn't feed into actual programming

(shoreline protection; pollution abatement; protection from sedimentation) provided by standing mangroves compared to without project scenario. (\$/yr.)		
Outcome Statement "Sustainable mangrove forestry and fisheries management activities implemented at six sites where coastal communities are supported by alternative livelihoods and improved access to healthcare, and therefore models for replication are validated."	Split into two statements: 1. Focusing on implementation of sustainable mangrove forestry and fisheries management supported by improved access to healthcare and alternative livelihoods 2. Validation of a replication model	It is best practice not to measure two different things in one outcome
Outcome Indicator 4 Unintended pregnancies avoided	Now Outcome Indicator 1.6 and reworded to: <i>% of health service delivery points that provide support and /or referral appropriate to meet the needs of Blue Forest programme communities</i>	The original health indicators were not appropriate to the Indonesian context
Outcome Indicator 5 Number of new pieces of evidence (per year) for individual conservation models	Moved to output level - now Output indicator 2.1	Not an outcome indicator
Output Indicator 1.3 Number of carbon credits produced (with a minimum of 50% revenue shared with community)	Remove indicator	Removed to reflect the current governmental structures available to allow carbon projects to proceed to the sale of credits
Output Indicator 4.1 Needs assessments completed at each site	Indicator and targets revised to: <i>4.1A: Number of women accessing sexual and reproductive health and rights services (Madagascar only)</i> <i>4.1B: Number of outpatient consultations (Indonesia only)</i>	The original health indicators were not appropriate to the Indonesian context
Output Indicator 4.2 Number of villages served by community-based health services	Indicator and targets revised to: <i>Number of people attending community health sessions or health promotion activities</i>	The original health indicators were not appropriate to the Indonesian context
Output Indicator 4.3 Number of outreach missions completed by reproductive health partner	Indicator and targets revised to: <i>Number of healthcare workers or community health ambassadors</i>	The original health indicators were not appropriate to the Indonesian context

	<i>who report improved skills and knowledge in health delivery</i>	
Target Changes (please note: numbering of indicators relates to 2022 structure from here onwards)		
Impact indicator 1	2022-2024 targets increased to include data for Inhil	
Impact indicator 2	2022-2024 targets increased to include data for Inhil	
Outcome indicator 1.1	2022-2024 targets increased to include Inhil and adjustments made to Kuba Raya targets	
Outcome indicator 1.2	2022-2024 targets increased to include data for Inhil 2022-2024 targets adjusted for Mahajamba based on a new deforestation rate	
Outcome indicator 1.4	2022-2024 targets increased to include data for Inhil	
Outcome indicator 1.5	2022-2024 targets adjusted based on programmatic review	
Outcome indicator 1.6	2022-2024 targets adjusted to reflect changes to indicator	
Output indicator 1.3	2022-2024 targets adjusted to reflect changes to indicator	
Output indicator 3.1	2022-2024 targets adjusted based on programmatic review	
Output indicator 3.2	2022-2024 targets adjusted based on programmatic review	
Output indicator 3.3	2022-2024 targets adjusted based on programmatic review	
Output indicator 5.1	2022-2024 targets adjusted based on programmatic review	

Table 1. Summary for changes made

1. Updating logframe structure in line with approved NIRAS changes

The ICF Blue Forests programme evaluation team (from NIRAS) were recruited in 2021 to evaluate the Blue Forests programme in 2024 and support our team to learn and improve our work throughout the remaining years of the programme.

As part of their work, the evaluation team has conducted a review of our programme logframe to determine whether the data they require for the final evaluation is being collected and advise on any improvements we can make prior to 2024. Changes proposed by the team and approved by DEFRA can be seen in Annex A. Many of these changes were structural. Figures 1 and 2 detail the structure

of the logframe before and after the changes have been made and table 2 details changes in indicator level / number for clarity.

Figure 1: Original logframe structure

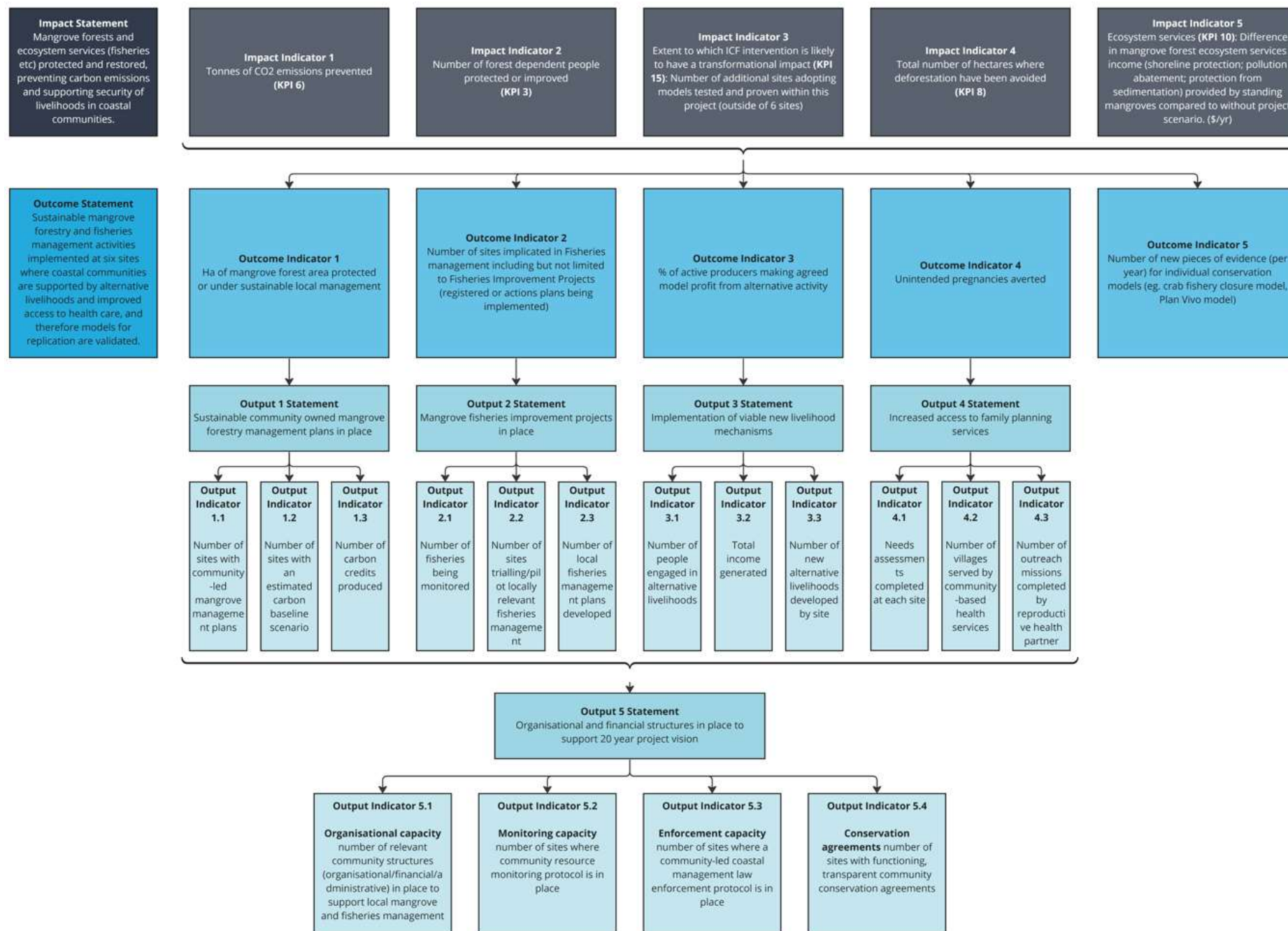
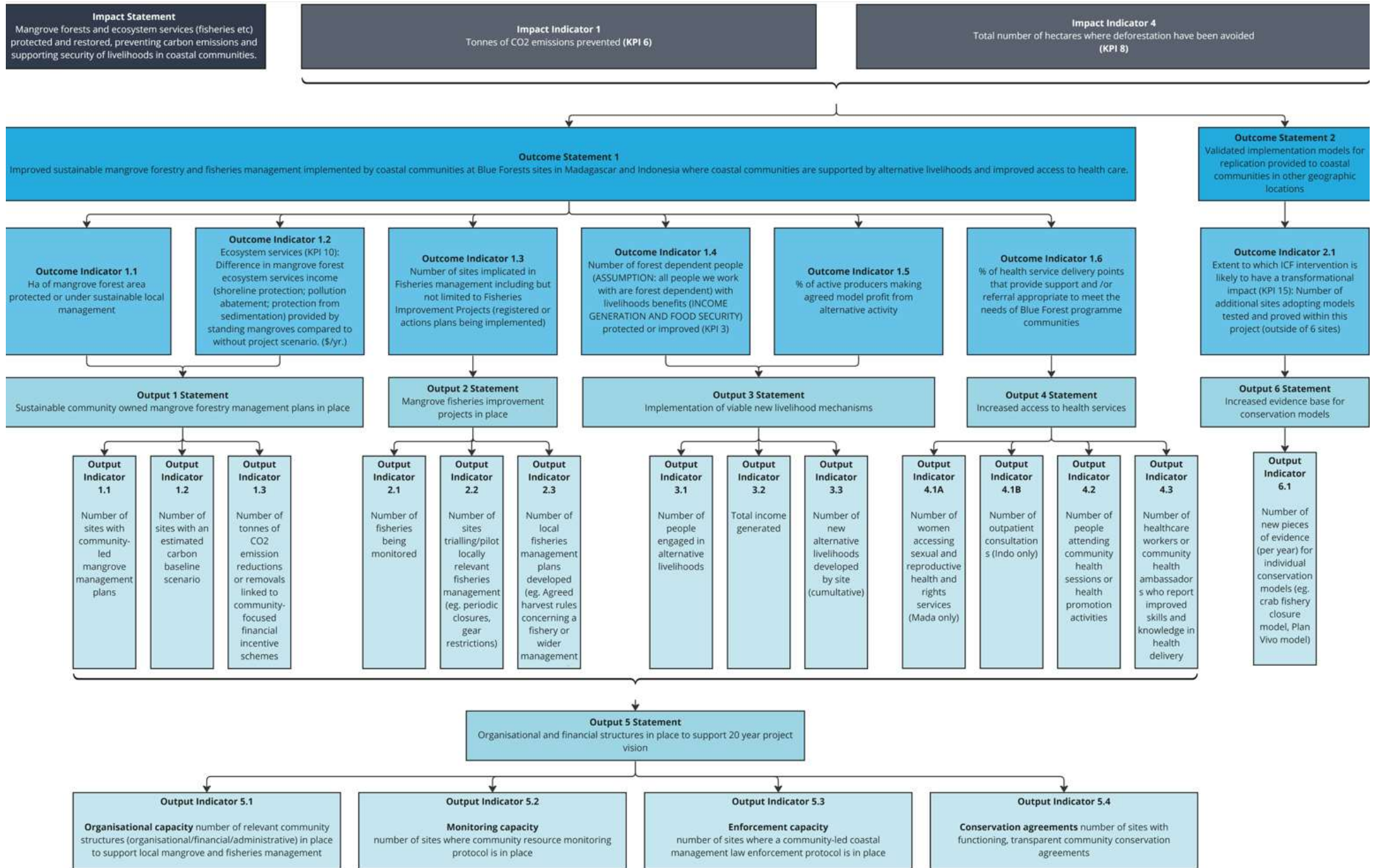


Figure 2: 2022 updated logframe structure



Indicator	Pre 2022 Number	Updated number
Number of forest dependent people (ASSUMPTION: all people we work with are forest dependent) with livelihoods benefits (INCOME GENERATION AND FOOD SECURITY) protected or improved (KPI 3)	Impact indicator 2	Outcome indicator 1.3
Extent to which ICF intervention is likely to have a transformational impact (KPI 15): Number of additional sites adopting models tested and proved within this project (outside of 6 sites)	Impact indicator 3	Outcome indicator 2.1
Total number of hectares where deforestation has been avoided (KPI 8) [Note: we have removed degradation from this KPI as it is not possible to measure simply]	Impact indicator 4	Impact indicator 2
Ecosystem services (KPI 10): Difference in mangrove forest ecosystem services income (shoreline protection; pollution abatement; protection from sedimentation) provided by standing mangroves compared to without project scenario. (\$/yr.)	Impact indicator 5	Outcome indicator 1.2
Number of new pieces of evidence (per year) for individual conservation models (e.g. crab fishery closure model, Plan Vivo model)	Outcome indicator 5	Output indicator 2.1

Table 2. Mapping indicator number changes

2. Inclusion of new health indicators, relevant to both countries and setting of targets

Initial conversations highlighting the need to review and update logframe health indicators began in 2020 when it was identified that the family planning focus of the original indicators did not represent the Indonesian context. As a result, the NIRAS evaluation team was tasked with supporting Blue Ventures (BV) staff to review these indicators and identify appropriate replacements.

The following changes have been made within the updated logframe and targets for 2022, 2023 and 2024 set for these indicators.

Original indicator	Revised indicator
Outcome indicator 4: Unintended pregnancies averted	Outcome indicator 1.6: % of health service delivery points that provide support and /or referral appropriate to meet the needs of Blue Forest programme communities
Output 4 statement: Increased access to family planning services	Output 4 statement: Increased access to health services
Output indicator 4.1: Needs assessments completed at each site	Output indicator 4.1A: Number of women accessing sexual and reproductive health and rights services (Madagascar only) Output indicator 4.1B: Number of outpatient consultations (Indonesia only)
Output indicator 4.2: Number of villages served by community-based health services	Output indicator 4.2: Number of people attending community health sessions or health promotion activities
Output indicator 4.3: Number of outreach missions conducted by reproductive	Output indicator 4.3: Number of healthcare workers or community health ambassadors who report improved skills

health partner	and knowledge in health delivery
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3. Inclusion of Inhil data in impact and outcome 1 indicator targets

As outlined in our last logframe review (July 2021), all output and outcome targets (apart from outcome 1) were updated to include data for our new site, Inhil, rather than Sembilang. In this 2022 update, we are revising all impact and outcome 1 (now 1.1) indicator targets to include numbers for Inhil. We have also taken the opportunity to adjust some targets for the other sites at the same time, mainly increasing the impact in Madagascar and reducing targets for site 5 (Kuba Raya) to capture only areas where partners are confident that mangroves will be protected.

As a number of different metrics are used in the description of our mangrove work and the calculation of impact indicators, it is useful to clarify the definitions and differences.

Area of mangrove under protection: Hectares of mangrove forest under protection (locally managed): mangrove forest that is directly managed by the community governance body, i.e LPHD. For Inhil, targets for this indicator (outcome 1.1) have been set as 7,664 ha under protection in 2022 - 2024. In total (across all sites), this represents a reduction from the original targets set based on Sembilang parameters, where (as a National Park), a much larger area of mangrove would have been under protection.

Area of influence: Hectares of mangrove forest that is managed by the government, communities, or private sectors, where the project has the power to influence the effectiveness of its mangrove forest management both through direct or indirect contribution. Following consultation with partners, the area of influence for Inhil has been calculated to be 87,038 ha.

The area of influence is important as it underpins the calculation of a number of other indicators including tonnes of CO² emissions prevented or removed (impact indicator 1), hectares of mangroves where deforestation has been avoided (impact indicator 2) and ecosystem services provided (outcome indicator 1.2). In sites such as Ambanja (Site 1), where BV has been operational for some time, we are confident in the effectiveness of our programming work in influencing mangrove forests in the surrounding areas (representing, notionally, 100% effectiveness). Pragmatically, as our work in Inhil is at a relatively early stage of maturity, we have based our impact calculations on 80% effectiveness in the area of influence. We believe that this approach represents a balanced and transparent view of the effectiveness of our work.

Updating targets for the impact and outcome 1 (now 1.1) indicators using Inhil data ultimately results in an increased impact by the end of the project. The outcome indicator only is reduced overall due to the geography of the site. We have also made a slight revision to impact indicator 1 due to a previous error in our underlying assumptions where an incorrect rate of with-project deforestation was used (figures originally calculated using a rate of 0.1%, now updated to 0.2% for Mahajamba).

4. Updating targets for livelihoods indicators based on programmatic review

In the following section we will detail proposed changes to outcome and output indicators focused on the livelihoods stream of our work.

A significant factor underlying results and changes in our livelihoods work concerns BV's own strategy and approach as an organisation, and how this has shifted through the course of the project. For the first four years of the Blue Forests project, BV prioritised a holistic approach to community-based marine conservation. In practical terms this entailed a relatively broad thematic range of interventions, comprising natural resource management, governance, community health and livelihoods. The Blue Forests project has been instrumental in funding and helping to develop and sustain activities across these thematic areas in BV's work.

Over the years of BV's evolution, we have achieved success with this holistic approach. However, as BV has grown and its work has expanded across first Madagascar and now a dozen other countries, we have also identified that as a marine conservation organisation we are not able to deliver that broad-based approach everywhere we work - otherwise we would have risked becoming a jack of all trades and master of none. To respond to this challenge, we have needed to focus on our core specialism, which is community-led fisheries management for marine conservation, while bringing in

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AL expert partners (private and/or non-profit) to take forward other areas such as health and alternative livelihoods. In some sites, like Site 2, this has already started in terms of handing over sea cucumber and seaweed farming to private partners.

Another significant factor underlying these changes is that we have learnt that the success of alternative livelihood interventions can be very variable. In some areas (particularly some of the more barren, remote locations) there may not be as many viable economic alternatives to fishing. Those that do exist may not provide enough of an incentive to reduce reliance on fishing, particularly amongst partly nomadic populations and areas experiencing higher levels of migration. Where there are successful, high value alternatives e.g. sea cucumber farming, there can be unintended consequences and risks for communities in them becoming guardians of a high value resource. This can result in thefts and private sector collectors providing variable and unfair prices for products due to the limited selling options of the community. To address this we place emphasis on thorough assessment of the options available for handover, and on partnering with specialists who have the right expertise and long-term investment for success.

Livelihoods remain a central preoccupation for BV in this refined approach, since fishing remains the principal livelihood in most of the communities we serve. And there are significant opportunities to focus our work on improving the value of these existing fishing livelihoods, including interventions such as cold storage, drying, smoking and fattening. Whilst this does not negate the issue of limited selling options in some cases, this focus on fishing income can be particularly important in those communities where options for alternative livelihoods are limited and/or lower value.

BV therefore looks to focus on increasing the value of existing livelihoods and help develop mechanisms to capture and retain the income from those livelihoods, for example via village saving & loan groups. As concerns the Blue Forests project, we will continue to support selected alternative livelihood options, but with a strong focus on identifying suitable partners to sustain this work longer-term. We will therefore look to include work on value chains and financial inclusion, which are already initiated within the Blue Forests project, in the ICF logframe from 2023-2024. We propose developing this with the project evaluators (NIRAS) to provide a fuller picture of the project's and BV's work in increasing and stabilising community income.

Outcome indicator 1.5, previously outcome indicator 3: % of active producers making agreed model profit from alternative activity.

There has been a reduction in the percentage of active producers making the agreed profit (7% by the end of the project) reflecting a change in the mix of alternative livelihoods being implemented (see output indicator 3.3), particularly from the Madagascar sites. As the teams transition from livelihood options where agreed model profits were relatively low (such as beekeeping) to higher profit models but with potentially longer lag times (for example seaweed farming), the expected time taken for businesses to reach their full potential has impacted on this indicator.

BV has built in projections for this emerging area of work in our Indonesian sites, focussing on strengthening existing, non-timber related livelihoods options in the sites. The discussions around the options in Indonesia have led to a delay in achieving the previous targets.

Output indicator 3.1: Number of people engaged in alternative livelihoods.

There has been a reduction in the targets, totalling 1,223 at the end of the project compared to 1,481. This is partly because we are now developing wild sea cucumber fattening (as distinct from sea cucumber aquaculture), which - at the time of setting the original logframe targets - sites considered an alternative livelihood as opposed to a value chain addition. This is therefore an intervention that we would like to bring back into the logframe if value addition interventions and financial inclusion are added to the logframe as suggested above.

Output indicator 3.2: Total income generated.

Income targets have been updated based on projections for current and new alternative livelihood options. Early delays and challenges with the implementation of more profitable livelihood options, along with lag time required between piloting and reaching full profit potential for many livelihood options, have resulted in a significant reduction in the projected income by the end of the project.

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AL There has been a reduction in the estimated total income generated due to the resource constraints limiting the implementation of the originally planned suite of alternative livelihood activities. For more details please see Output 3.3.

This has been compounded by removal of sea cucumber fattening (again, as distinct from sea cucumber aquaculture) from the Site 1 targets, and - at Site 2 - seaweed disease, and changes in the sea cucumber delivery schedule by the private sector partner.

Output indicator 3.3: Number of new alternative livelihoods

There has been a reduction in the number of active alternative livelihood options in (15 to 11) as teams have needed to adapt their approach where livelihoods have been unsustainable. In Ambanja (Site 1) charcoal production is no longer a viable option due to a lack of timber, partly due to time needed for regeneration and a lack of land available to communities for plantation. The 2021 pilots in vegetable growing and oyster farming have yielded mixed results, with low returns on the former and some marketing challenges on the latter. The team is therefore revisiting ocean-based income generating activities such as seaweed farming and sea cucumber growing. However, as mentioned above, and in contrast with the sea cucumber aquaculture at Site 2, it should be noted that the sea cucumber fattening at Site 1 is a value addition intervention, not an alternative livelihood, since here the sea cucumbers are still fished, not farmed. This also stems from the inability to create a hatchery in Site 1, as per the previous logframe amendment. In Mahajamba (Site 3) beekeeping activities have been paused due to limited uptake and low profitability. New livelihood options are being investigated (for rolling out with specialist partners in due course), such as poultry farming. In Kubu Raya (Site 5) we have been developing jeruju tea, kelulut (stingless bee) honey and nipah sugar. These livelihood activities are planned to start generating income in 2023.

5. Updating indicator on carbon credits based on programmatic review

The original programme design involved selling carbon credits linked to the protected areas thereby enabling climate finance to flow into each site. However, as mentioned in previous reports, there have been ongoing legislative difficulties in developing and securing carbon credits in both Madagascar and Indonesia.

Recent months have seen encouraging political progress, particularly in some of our key geographies, in overcoming some of the regulatory bottlenecks impeding the development of community-led carbon projects. In Madagascar, the decree setting the regulations to access the forest carbon market, Decree 2021-1113 was officially enacted in October 2021. In addition, the Decree regulating the Compte d’Affectation Special au Tresor (CAST) which relates to the specific regulations for the management of the infrastructure for receiving and ensuring the traceability of the carbon revenue in Madagascar was adopted during the Conseil de Gouvernement on 4 July 2023, and signed in the week of 24 July 2023. The adoption and signature of these decrees are major steps forward bringing us closer to the sale of carbon credits from Site 2, Tahiry Honko.

BV had intended to broaden the scope of the intervention to include other community-focused financial incentive schemes. We proposed piloting an alternative climate finance option for mangrove management – effectively a new payment-for-impact model designed specifically around the needs of community-led mangrove conservation and restoration projects and planned to pilot this initially in Site 1.

The research & development phase of this intervention included building a financial model and an impact model, market research and both internal and external consultation. However, this demonstrated that pursuing this alternative climate finance option could expose BV to significant financial and reputational risk, due to the possibility of being perceived as operating outside the traditional standards of the voluntary carbon market and challenges to having visibility of and carrying out due diligence on potential investors.

At this time, we cannot predict with certainty when the sale of carbon credits will be possible as we do not know how long it will take the Government of Madagascar to set up the necessary infrastructure as detailed in the CAST decree. We therefore feel it is unlikely that we could reach the intended indicator target before the end of the project. Therefore, we feel this indicator should be removed.

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